

# Umler®

## Data Specification Manual (Effective 6/11/2026)

Reference Version 26.2.0

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## Introduction

The Umler Equipment Management Information System, the Equipment Register for North America, contains inspection dates required by AAR Interchange Rules for various rail car components, specific details on the internal and external dimensions, carrying capacities expressed in gallons/cubic feet capacity, equipment weight, as well as special equipment on all railcars and highway trailers and containers that are used in interchange equipment or commercial service. There are over 2 million equipment registrations in the Umler System.

The Umler System is managed by the Business Services Division at Railinc. All units registered in the Umler System are subject to an annual maintenance fee that is invoiced bi-annually. The Railinc Price List for this service as well as all Railinc services is available at <https://public.railinc.com/support/railinc-price-list>.

## Responsibility for Reporting Required Information

1. Each Stenciled Mark Owner is required to report all equipment: freight cars, maintenance of way, locomotives, telemetry devices, chassis, trailers, containers, tank containers, rail compatible intermodal equipment and bogies for rail-compatible intermodal equipment. The dimensional, capacity and/or codified information reported must accurately reflect the requirements as outlined in the Umler Data Specification Manual for each applicable data element.
2. To protect an owner's Umler registration, updates to information require access through Railinc's Single Sign-On application at <https://public.railinc.com>. This precludes all unauthorized activity from being processed and updated to the file. Owners can contract to have an agent or agents report their data; however,
  - a. your company administrator grants Umler Rights to the agent(s) or,
  - b. the owner submits in writing, authorization to the Director, Umler Services, authorizing Railinc to provide access to the agent. Owners changing agents or assuming reporting responsibility should revoke Umler rights to the user or send a request on company letterhead to the Director, Umler Services, which will be provided within 24 hours to the owner or new agent.
3. It is the owner's responsibility to ensure that their mailing address, telephone and fax numbers and email address are kept up to date (see the [FindUs.Rail](https://public.railinc.com) industry contact database at <https://public.railinc.com>). In addition, owners must immediately advise the Director, Umler Services, when reporting responsibility has been assigned to a new agent with the agent's mailing address, telephone and fax numbers, and email address. All corrections must be emailed to [csc@railinc.com](mailto:csc@railinc.com).

## The Uses of the Umler System

1. The Umler System is the industry's official source for accepting freight cars in interchange service in accordance with AAR Interchange Rules 90 and 93. Cars must be accurately registered in order to be included in the Car Hire Accounting Rate Master (CHARM®).
2. The Umler System is the official source for determination of the car's load limit and lightweight, Air Brake Test dates and cars eligible and/or certified for extended service of 50 years.
3. Numerous railroad operating officers utilize the file to determine car assignments, lengths, and weights to determine train makeup and line clearances. In addition, they can determine various special characteristics of cars to fulfill the shipper's car requirements.
4. Railroad traffic departments utilize the car's tare weight and capacity information in their automated billing systems.
5. Mechanical Departments schedule rail car maintenance based on inspection dates for various car components.
6. Railroad traffic departments bill Trailers and Containers based on outside length information.

7. Railinc verifies all interchange movements reported through the TRAIN II® system by validating the initial and number being reported. Also, the file is used to control the movement of overage equipment and cars not meeting FRA requirements and Mechanical Interchange rules that would restrict the interchange of a car.
8. The Umler System is the source of information for publishing the cars dimensional and capacity information in *The Official Railway Equipment Register*.

### Purpose of the Umler Data Specification Manual:

This manual specifies data requirements for the proper reporting of locomotives, maintenance-of-way passenger cars, End of Train information Systems, rail cars and highway trailers and containers. Umler is the master file from which the CHARM® (Car Hire Accounting Rate Master) file and TRAIN II® (Tele Rail Automated Information Network Phase 2, the railroad industry's national car information system) are verified before equipment is entered into these files.

### Data Requirements

This Specification Manual, divided into sections by equipment group, plus exhibits, outlining data input requirements, is the basis for Railinc's computer edit programs. Each equipment group and data element has corresponding permissible values, ranges, and business rules associated with the data. The Data Specification provides as much information as possible to assist users in entering these data elements.

### Edits

1. Umler data will be edited. Add and change records must be valid to be submitted to the Umler system. If equipment data on file is not valid, a conflict is generated on the equipment. The submitting party will have thirty (30) days to correct the record. Records that are not corrected within thirty (30) days will have zero rates and the Rate Indicator 0, P or Q inserted into the records per Car Hire Rule 1 and Freight Tariff 6007-Series. Add and change records that do not meet the minimum edit criteria will be rejected without processing. The fields that will cause transactions to be rejected are listed as Mandatory fields in this specification manual.
2. Cars having a Rate Indicator Code 0, P or Q for 90 days having conflicts are assigned pool number 9999016 and Transportation Codes XZ. Once a zero Rate Indicator Code 0, P or Q has been inserted into a record, the appropriate indicator must be resubmitted in addition to the corrected data field.
3. Owners of unique equipment that cannot pass standard edit requirements must email [csc@railinc.com](mailto:csc@railinc.com) the information in advance of the equipment being placed into service. This equipment will be included in the Exception Control file which allows the unique information to pass the edit parameters, and the reported information is provided to the industry.

Some equipment data is mandatory in order to submit a valid equipment record. Optional fields can also be included but must contain valid data.

Notification of Errors: The notification of equipment conflicts is completed via tickler. Company administrators are responsible for updating recipient email information for tickler notifications.

### Procedures for Identifying and Removing Equipment Having Canceled Reporting Marks:

1. Upon receipt of notice from the owner, agent or the Surface Transportation Board (STB) that a company having equipment registered in the Umler System has or will cease operations, the AAR will serve notice to the owner/agent that the reporting mark will be canceled thirty (30) days after the cessation of operations and that the Transportation Code M will be inserted into the records. The owner/agent must delete all equipment from the Umler System within ninety (90) days after the cancellation of the reporting mark. When, after the ninety (90) days the owner/agent fails to delete the equipment and, there is no evidence of movement reported to the TRAIN II® system, the equipment can be deleted.

2. Upon receipt of notice from the owner/agent that their equipment has been sold and will be restenciled with a new reporting mark, Railinc will insert the Transportation Code M in the records. The owner/agent of the canceled reporting mark will be advised of the insertion of the M code. The owner/agent of the canceled reporting mark will have ninety (90) days, after the insertion of the code M, to delete the cars from the Umler System. When, after ninety (90) days, the owner/agent of the canceled reporting mark(s) has not deleted the equipment or has not requested in writing an extension or extensions having a maximum of thirty (30) days, or there is no evidence of movements reported to the TRAIN II® system, the equipment can be deleted.

## Submission of Data

**Effective Date for Rates:** For the purpose of receiving allowances, all data on newly acquired equipment and/or changes to equipment registered in the file which affects the valuation, age or Equipment Type Code (regardless of ownership), must be reported in the month prior to the first day of the month the charges are to become effective.

**Update of the Umler Master File:** Updates are processed immediately. Umler data transfers must be received by the 25th day of the month to ensure inclusion to the next month's CHARM® file.

**Method:** Data can be furnished via tele-communications as described in the [TRAIN II User Manual](#) available at Railinc.com, or by submitting your updates to the Railinc Customer Success Center at [csc@railinc.com](mailto:csc@railinc.com). Only users authorized by your company administrator may make changes to equipment records.

Umler Single Car Air Brake Test Applications can be submitted via the Umler System.

Owners Fleet Statistics, Error Reports, SCABT Manual, and Umler Contact are available on Railinc's website at: <https://public.railinc.com>.

## Requesting Changes to Umler

To request changes to Umler, use the link below to access the UMLER CHANGE REQUEST form document. Provide details for all Umler system changes, including new elements, permissible values and business rules in the UMLER CHANGE REQUEST form. Save the form and email it to [csc@railinc.com](mailto:csc@railinc.com), attach the saved form to the email and send the email: <https://public.railinc.com/sites/default/files/documents/Umler%20Change%20Request.dotx>

## Data Specification Manual

## Box Cars

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## Data Specification Manual

## General

**Status Code** *Mandatory* USCDIdentifies the current operational state ●

Does not Carry Forward.

**Permissible Values for USCD**

A ACTIVE I INACTIVE  
P PRE-REGISTERED

**NOTES:**

- For Restencil and Clone process the initial Status of a car should be Pre-Registered.
- All Add-Back processes should initially set the Status to Pre-Registered
- A Pre-registered car will automatically have its Status changed to Active for the initial change when TRAIN detects three (3) movements on the car
- If the Status changes to Active due to movement and the car was created from a Restencil, the Prior Equipment ID (PRID) or source car will have its status changed to Inactive automatically by Umler

**Equipment ID** 0001

The equipment stenciled number

**Validation Rule for 0001**

-Equipment Number must not be larger than 6 digits (i.e., 999999)

**NOTES:**

- Equipment ID includes the mark and number stenciled on the equipment. Marks can be up to 4 characters and number up to 6 digits (i.e., ABCD999999).
- Up to 500 cars can be added or updated in a transaction.
- When adding an equipment record, ensure that Prior Equipment ID (PRID) is reported, unless the equipment is new.

**Mechanical Designation** *Mandatory* UMMDEquipment description without physical dimensions ● ▲

Used in ETC Generation.

**Permissible Values for UMMD**

LC Box-Special Design with side doors and roof hatches  
LU Box-Special Design for heavy duty support of retractable overhead doors  
MWM MoW - Box cars  
MWX MoW - Boarding/Camp car  
RB Box-Refrigerator (Bunkerless)  
RBL Box-Refrigerator (Bunkerless) with loading or stowing device  
RC Box-Refrigerator using cryogen  
RP Box-Refrigerator (Mechanical)  
RPL Box-Refrigerator (Mechanical) with loading or stowing device  
XL Box- Loader Equipped, with securements and/or with permanently attached moveable bulkheads  
XLI Box-Insulated Loader Equipped, with securements and/or permanently attached moveable bulkheads  
XM Box-General Service  
XP Box-Non-Insulated, Specially Equipped for Specific Commodities  
XPI Box-Insulated, Specially Equipped for Specific Commodities

**Equipment Type Code** UMET

An alpha numeric code that describes the physical attributes of equipment

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Please Refer to Appendix I for More information Regarding ETC Generation

**Maint of Way Service Type** B403

Identifies equipment Maintenance Of Way function

Value does not carry forward for Equipment Group Change.

**Permissible Values for B403**

C2 Crane / Boom Support Car

F4 Flat-Wheel Sets  
T4 Training Car  
T8 Track Geometry Car

**Validation Rule for B403**

- Maint of Way Service Type can only be listed on records where the Equipment Group (0002) or Pseudo Equipment Group (B547) is listed as MISC

**Built Date** *Mandatory* BLDTThe date the construction of the equipment is complete ● ●

Data is Confidential. Used for Transportation Codes. Affects Rating. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for BLDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for BLDT**

- Built Date must be within the last 99 years
- Built Date must not be in the future for equipment in Active Status
- Prior and target equipment's Built Date (BLDT) must match for restenciling
- Built Date cannot be updated within 30 days of the End of Service Date (B078)

**NOTES:**

- Data is public for railroad marked equipment.
- For connected unit cars report the oldest car in the set.

**Rebuilt / ILS Date** RBDT

The date the re-construction of the equipment is complete

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for RBDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for RBDT**

- Rebuilt/Increased Life Service Date must be after the Built Date (BLDT)
- Rebuilt Date must not be more than 70 years after the Built Date (BLDT)
- Rebuilt Date is required for Extended Service Code (A096) 1, 2, or 3 for Increased Life Service
- Rebuilt Date is required for Extended Service Code (A096) R for Rebuilt, or V for 65 years of service
- If Rebuilt Date is reported then the Extended Service Code (A096) must be reported as R for Rebuilt, V, 1, 2, or 3 for Increased Life Service

**NOTES:**

- Railroad cars -- applicable only to cars meeting status as provided in both STB Accounting Rules, and the AAR Mechanical Interchange Rule 88, Office Manual.
- Private cars -- applicable to all cars meeting AAR Mechanical Interchange Rule 88, Section C, Office Manual and Sections A and B of the Field Manual.
- Private box cars -- For cars qualified under the provisions of Item 621, Note 1, Freight Tariff 6007-series for the purpose of determining cars' age for calculating the mileage rates.
- For connected unit cars report the oldest car in the set. Do not report Rebuilt Date unless car has been approved by the AAR.

**Rebuilt Flag** RBFL

Identifies the equipment is nearing its end of life cycle

Data is Confidential. System Generated Field. This element is not eligible for Input.

**Permissible Values for RBFL**

|   |    |   |     |
|---|----|---|-----|
| N | No | Y | Yes |
|---|----|---|-----|

**Owner** *Mandatory* UMOWPrimary reporting mark of the railroad or private company owning the car ●

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.



## Data Specification Manual

**NOTES:**

- Report the primary reporting mark of the railroad or private company owning the car. When car's lease or lien is held by a bank, trust holder, capital lease company, etc. not having an assigned mark, report the primary reporting mark affiliated with the stenciled reporting mark.

|                                                |             |
|------------------------------------------------|-------------|
| <b>Equipment Group</b> <i>Mandatory</i>        | <b>0002</b> |
| Identifies the various major car types         |             |
| Used for Transportation Codes. Affects Rating. |             |

|                                                                                                   |             |
|---------------------------------------------------------------------------------------------------|-------------|
| <b>Lessee</b>                                                                                     | <b>LESE</b> |
| The reporting mark of the company leasing the equipment                                           |             |
| Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil. |             |

**Validation Rule for LESE**

- Umler Owner (UMOW) and Lessee are not allowed to be equal
- Lessee cannot be a child reporting mark

**NOTES:**

- In order to assign privately marked cars to a pool, a railroad reporting mark must be reported.

|                                                                                                       |             |
|-------------------------------------------------------------------------------------------------------|-------------|
| <b>Maintenance Party</b>                                                                              | <b>MNPT</b> |
| The parent reporting mark of the company responsible for the maintenance and repairs of the equipment |             |
| Does not Carry Forward.                                                                               |             |

|                                                                                                                                                                          |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Mark Owner Category</b>                                                                                                                                               | <b>B201</b> |
| The company that owns the stenciled mark on the car                                                                                                                      |             |
| System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Restencil / Multi-Restencil / Equipment Group Change / Add Back. |             |

**Permissible Values for B201**

|   |                            |
|---|----------------------------|
| B | US Private                 |
| C | Canadian Private           |
| F | Foreign Private            |
| H | Canadian Class II          |
| I | Canadian Class I           |
| J | Mexican Class I            |
| K | Canadian Class III         |
| M | Mexican Private            |
| N | US Private Steamship       |
| O | Canadian Private Steamship |
| P | Mexican Private Steamship  |
| Q | Foreign Private Steamship  |
| R | US Class II Railroad       |
| U | US Class I Railroad        |
| V | US Class III Railroad      |
| W | Mexican Class II Railroad  |
| Y | Mexican Class III Railroad |

**NOTES:**

- This value is stored in the Umler Database for informational purposes and is retrieved from the Roadmark Registry.

|                                                         |             |
|---------------------------------------------------------|-------------|
| <b>Prior Equipment ID</b>                               | <b>PRID</b> |
| The previous reporting mark and number of the equipment |             |

Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for PRID**

- Prior and target equipment's Built Date (BLDT) must match
- The Prior Equipment ID (0001) must belong to the same or comparable Equipment Group (0002) as the current car initial and number

**NOTES:**

- Prior ID enables equipment records to share the same historical lineage.

Equipment Identification Number (EIN) is a generated id that enables these equipment records to share inspections and transaction history.

|                                       |             |
|---------------------------------------|-------------|
| <b>Last Update Date</b>               | <b>B122</b> |
| Date of the last Umler element change |             |

System Generated Field. This element is not eligible for Input.

|                                                                  |             |
|------------------------------------------------------------------|-------------|
| <b>Equipment Add Date</b>                                        | <b>B082</b> |
| Date the reporting mark and number was added to the Umler system |             |

System Generated Field. This element is not eligible for Input.

|                                                         |             |
|---------------------------------------------------------|-------------|
| <b>Status Change Reason</b>                             | <b>USCR</b> |
| Identifies the reason for the current operational state |             |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for USCR**

|   |                         |
|---|-------------------------|
| I | Initial Load            |
| M | Movement                |
| O | Status Changed Manually |
| R | Restencil               |

**NOTES:**

- If movement is detected on equipment, status is changed to Active.
- If an equipment record is changed to Active, any prior equipment record is placed in Inactive status.

|                                                                |             |
|----------------------------------------------------------------|-------------|
| <b>Status Change Date</b>                                      | <b>USCT</b> |
| Identifies the effective date of the current operational state |             |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

|                                                                    |             |
|--------------------------------------------------------------------|-------------|
| <b>Extended Service</b> <i>Mandatory</i>                           | <b>A096</b> |
| A code indicating the eligibility of an increase to the life cycle |             |

Used for Transportation Codes. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A096**

|   |                                                                                                                                           |
|---|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | 1st ILS Inspection, additional 5 years of Service                                                                                         |
| 2 | 2nd ILS Inspection, additional 5 years of service (10 years total)                                                                        |
| 3 | 3rd ILS Inspection, additional 5 years of service (15 years total)                                                                        |
| C | Built New between January 1, 1964 - June 30, 1974, Certified for 50 Years of Service, Built New Before July 1, 1974 & Received AAR Waiver |
| E | Built new from July 1, 1974, Qualified for 50 Years Service                                                                               |
| N | Built Before January 1, 1964, Qualified for 40 Years Service                                                                              |
| R | Rule 88, Rebuilt cars                                                                                                                     |
| U | Built between January 1, 1964 - June 30, 1974, Qualified for 40 Years & eligible for certification for 50 Years Service                   |
| V | Car is certified (FRA Waiver & AAR) for 65 years of service from date built new from January 1, 1964                                      |

**Validation Rule for A096**

- If Rebuilt Date (RBDT) is reported, then the Extended Service Code (A096) must be reported as R for Rebuilt, V, 1, 2, or 3 for Increased Life Service
- Extended Service Code of C cannot be reported if the car was built before January 1, 1964 or on/after July 1, 1974
- Extended Service Code of E cannot be reported if the car was built before July 1, 1974
- Extended Service Code of N cannot be reported if the car was built on/after January 1, 1964
- Extended Service Code of U cannot be reported if the car was built before January 1, 1964 or on/after July 1, 1974

**NOTES:**

- Value is used to calculate End of Service Date (B078).
- Rebuilt Date (RBDT) is required for Extended Service Code (A096) R for Rebuilt, or V for 65 years service.
- Rebuilt Date (RBDT) is required for Extended Service Code (A096) 1, 2, 3, and



## Data Specification Manual

V for Increased Life Service.

| End of Service Date                             | B078 |
|-------------------------------------------------|------|
| Indicates the date of the end of equipment life |      |

Data is Confidential. System Generated Field. This element is not eligible for Input.

**NOTES:**

- Data becomes non-confidential two years prior to End of Service Date.

| Do Not Load After                                              | B590 |
|----------------------------------------------------------------|------|
| Equipment should not be loaded after date shown in the element |      |

Data is Confidential.

**Validation Rules for B590**

- Do Not Load After (B590) cannot be updated thirty days prior to the date shown in the element.
- Do Not Load After (B590) cannot be updated within thirty days of the End of Service Date (B078).
- Do Not Load After (B590) date cannot be on or after the End of Service (B078) date.

**NOTES:**

- The element will be initially populated by End of Service (B078) minus 30 days.
- Data becomes non-confidential thirty days prior to the Do Not Load After (B590) date.

| Equipment Identification                                 | EINN |
|----------------------------------------------------------|------|
| Unique equipment identifier regardless of stenciled mark |      |

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Specify the Prior ID (PRID) on equipment records to ensure the historical lineage is preserved. Equipment with the same EIN share history and inspections.

| Info Conflict Status                                                    | B355 |
|-------------------------------------------------------------------------|------|
| Indicates that an Informational Conflict exists on the Equipment record |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

| Conflict Status                                                 | B050 |
|-----------------------------------------------------------------|------|
| Identifies the escalation level of equipment in active conflict |      |

System Generated Field. Affects Rating. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B050**

- Subject to Zero-Rating
- Subject to Restricted in Interchange
- Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

| Date of Original Conflict                                            | B063 |
|----------------------------------------------------------------------|------|
| The date the equipment was originally placed in the current conflict |      |

System Generated Field. This element is not eligible for Input.

| Next Conflict Status                                                    | B135 |
|-------------------------------------------------------------------------|------|
| Identifies the next escalation level of an equipment in active conflict |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B135**

- Subject to Zero-Rating
- Subject to Restricted in Interchange

## 3 Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

| Notice Indicator                                         | B137 |
|----------------------------------------------------------|------|
| Identifies equipment in error in Umler Notice Management |      |

System Generated Field. This element is not eligible for Input.

| Conflict Status Next Date                      | B062 |
|------------------------------------------------|------|
| The date the conflict status will be escalated |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

| Rate Indicator                                 | A070 |
|------------------------------------------------|------|
| Indicates the rate type applicable to the unit |      |

System Generated Field. Used for Transportation Codes. Affects Rating. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for A070**

- Zero-Rated Due to Conflict Errors
- Private Mileage Rate
- Private Car Owner Designated Rate
- Zero-Rated - Scrap (S,SX), AAR Overage (XA), FRA Overage (YA), Umler Conflict - CHR 1/Tariff 6007 (XZ). Zero-Rated Private Owner Election to Zero Rate [See Private Zero Rate (B150)].
- Railroad Class III Boxcar Sub19 Rate
- Railroad Market Rate
- Zero-Rated Railroad Class III Boxcar Sub19 Rate
- Zero-Rated Railroad Market Rate Due to Conflict Errors

**NOTES:**

- If unit is zero-rated, correction of conflicts will reinstate the appropriate rate indicator code.
- Rate Indicator B will be automatically reported for boxcars covered under Ex Parte No. 346 Sub 19 (A227).
- For Rate Indicator B, car must be qualified with Ex Parte 346 sub 19 (A227), reporting code 23. Can only be reported by Railinc Administrator.
- Rate Indicator B is not applicable to boxcars that were owned by Class I or affiliated Class II carriers and subsequently purchased or leased after December 30, 1983, by a non-affiliated Class II or III carrier. These cars are not excluded under the provisions of Ex Parte No 346 Sub 19.

| Private Zero Rate                                                                     | B150 |
|---------------------------------------------------------------------------------------|------|
| Indicates a private car is subject to contractual agreement, nullifying mileage rates |      |

Affects Rating.

**Permissible Values for B150**

- Y Yes

**NOTES:**

- Reporting "Y" generates Rate Indicator (A070) value 6 and a zero rate.

| TTX Hourly Rate                                   | B212 |
|---------------------------------------------------|------|
| Time Charge-The TTX hourly rate for the equipment |      |

Data is Confidential. This element is not eligible for Query.

**Range of Values for B212**

| Minimum | Maximum |
|---------|---------|
| 0       | 9       |

**Validation Rule for B212**

-TTX Hourly rate can only be set on TTX owned Equipment.

| TTX Mileage Rate                                      | B213 |
|-------------------------------------------------------|------|
| Mileage Charge-The TTX mileage rate for the equipment |      |

## Data Specification Manual

Data is Confidential. This element is not eligible for Query.

**Range of Values for B213**

| Minimum | Maximum |
|---------|---------|
| 0       | 1       |

**Validation Rule for B213**

-TTX Mileage rate can only be set on TTX owned Equipment.

**Sub 19 (Ex Parte 346)****A227**

Indicates the equipment is a Railroad Class III Sub 19 boxcar. 

System Generated Field. Affects Rating. Value does not carry forward for Equipment Group Change.

**Permissible Values for A227**

23 Railroad Class III Sub 19 Boxcars Only

**Validation Rule for A227**

-Railroad Ex Parte Sub 19 Boxcar cannot be set if the Build Date (BLDT) or Rebuilt Date (RBDT) is greater than December 30, 1983

**NOTES:**

- Car must be populated with code 23 for Sub 19 (Ex Parte 346) (A227) to have Rate Indicator B (A070) generated.

**First Movement Date****USAT**

The first movement date under the stenciled mark of the equipment

This element is not eligible for Input. Does not Carry Forward.

**Equipment Add Company****B083**

The reporting mark of the company that added the equipment

System Generated Field. This element is not eligible for Input.

**Registration Reason****B174**

The code indicating the reason this equipment is added

Does not Carry Forward.

**Permissible Values for B174**

|   |                   |   |           |
|---|-------------------|---|-----------|
| A | Add-Back          | N | New       |
| P | Pending Restencil | R | Restencil |

**Restencil Program Ind****B177**

Identifies the equipment is under a restencil program

**Permissible Values for B177**

Y Yes

**Delete Reason Code****B064**

A code that designates the reason the equipment has been deleted

Value does not carry forward for Add Back.

**Permissible Values for B064**

|   |                                              |
|---|----------------------------------------------|
| A | Restenciled                                  |
| D | Destroyed or wrecked                         |
| L | Lease terminated, removed from fleet         |
| P | Retired unserviceable beyond economic repair |
| R | Rebuilt                                      |
| S | Sold Serviceable                             |
| T | Lost                                         |
| W | Over age retired for dismantling             |
| Y | Error, reporting did not exist               |
| Z | Other                                        |

**Non-Compliant Wheelsets****B544**

Equipment record is incomplete and has a missing wheelset component ID association. Refer to AAR Field Manual Rule 44 for industry requirements 

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B544**

-A Wheelset Component ID is required for each applicable location on equipment built on or after January 1, 2016

-A Wheelset Component ID is required for each applicable location on equipment rebuilt on or after January 1, 2016 and Gross Rail Load (A266) is greater than 268,000 lbs

**NOTES:**

- A "Y" will be system generated if the equipment is active and the number of Wheelset CID's required is not equal to the Axle Count (A024) on the equipment
- Validation rule applies to equipment that has been in Active status for 60 days

**Pseudo Equipment Group****B547**

Equipment needs to be identified as a miscellaneous record while maintaining all elements linked to the original equipment group

System Generated Field.

**Permissible Values for B547**

MISC Miscellaneous

**Weight****Gross Rail Load/Weight *Mandatory*****A266**

The maximum permissible weight on rail of the equipment and the load, reported in pounds  

Affects Rating.

**Range of Values for A266**

| Minimum | Maximum |
|---------|---------|
| 117000  | 2835000 |

**Validation Rule for A266**

-Gross Rail Load must be equal to the Load Limit (LDLT) plus the Tare Weight (A259)

**NOTES:**

Use Table 1 below to determine Gross Rail Load, if Qualification for Increased Gross Rail Load (B344) does not exist.

TABLE 1 -

| Journal Size     | Load per Axle | Gross Rail Load for 4-axle Equipment |
|------------------|---------------|--------------------------------------|
| B - 4 1/2" x 8"  | 25,750 lbs.   | 103,000 lbs.                         |
| C - 5" x 9"      | 35,500 lbs.   | 142,000 lbs.                         |
| D - 5 1/2" x 10" | 44,250 lbs.   | 177,000 lbs.                         |
| E - 6" x 11"     | 55,000 lbs.   | 220,000 lbs.                         |
| F - 6 1/2" x 12" | 65,750 lbs.   | 263,000 lbs.                         |
| G - 7" x 12"     | 78,750 lbs.   | 315,000 lbs.                         |
| K - 6 1/2" x 9"  | 71,500 lbs.   | 263,000 lbs.                         |
| M - 7" x 9"      | 78,750 lbs.   | 315,000 lbs.                         |

Use Table 2 below to determine Gross Rail Load for 4-axle equipment if Qualification for Increased Gross Rail Load (B344) exists.

TABLE 2 -

| Qualification for Increased Gross Rail Load (B344) | Journal Size     | Gross Rail Load |
|----------------------------------------------------|------------------|-----------------|
| 1                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 1                                                  | G - 7" x 12"     | 286,000 lbs.    |
| 1                                                  | M - 7" x 9"      | 286,000 lbs.    |
| 2                                                  | F - 6 1/2" x 12" | 286,000 lbs.    |
| 2                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 3                                                  | F - 6 1/2" x 12" | 268,000 lbs.    |
| 3                                                  | K - 6 1/2" x 9"  | 268,000 lbs.    |

- For multi-unit equipment, report the total gross rail load for the entire set.
- Refer to Field Manual Rule 70 if additional information is required.

A Gross Rail Load less than the listed or calculated values may be entered; however:

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- Star Code (A247) must be R or S, and
- Load Limit (LDLT) must also be reduced, ensuring Tare Weight (A259) plus Load Limit (LDLT) equals the reported Gross Rail Load.

For equipment having two or more different journal sizes, see following examples:

Example for Drawbar Connected:

- A 3-unit drawbar connected car has 12 axles.
- The end units (Locations A and B) each have 4 axles with E - 6" x 11" journals.
- The intermediate unit (Locations C) has 4 axles with F - 6 1/2" x 12" journals

Using TABLE 1, the Gross Rail Load would be:

$$\begin{aligned} &4 \text{ ea. E-6" x 11" journal axles X } 55,000 \text{ lbs. per axle} = 440,000 \text{ lbs.} \\ &+ 4 \text{ ea. F-6 1/2" x 12" journal axles X } 65,750 \text{ lbs. per axle} = 263,000 \text{ lbs.} \\ &\text{Gross Rail Load} = 703,000 \text{ lbs.} \end{aligned}$$

Example for Articulated Connected:

- A 5-unit articulated intermodal car has 6 trucks (12 axles).
- The end trucks (Locations A and B) each have 2 axles with E - 6" x 11" journals.
- The intermediate trucks (Locations C, D, E, and F) each have 2 axles with G - 7" x 12" journals

Using TABLE 1, the Gross Rail Load would be:

$$\begin{aligned} &4 \text{ ea. E-6" x 11" journal axles X } 55,000 \text{ lbs. per axle} = 220,000 \text{ lbs.} \\ &+ 8 \text{ ea. G-7" x 12" journal axles X } 78,750 \text{ lbs. per axle} = 630,000 \text{ lbs.} \\ &\text{Gross Rail Load} = 850,000 \text{ lbs.} \end{aligned}$$

| Tare Weight <i>Mandatory</i>                                                                       | A259 |
|----------------------------------------------------------------------------------------------------|------|
| The equipment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds |      |

Affects Rating.

## Range of Values for A259

| Minimum | Maximum |
|---------|---------|
| 40000   | 1440000 |

## Validation Rule for A259

- Tare Weight (A259) of BOXC with a blank Connected Unit Count (A020), must contain values between 40000 lbs. and 160000 lbs.
- Tare Weight (A259) of BOXC where Connected Unit Count (A020) is 2, must contain values between 80000 lbs. and 320000 lbs.
- Tare Weight (A259) of BOXC where Connected Unit Count (A020) is 3, must contain values between 120000 lbs. and 480000 lbs.
- Tare Weight (A259) of BOXC where Connected Unit Count (A020) is 4, must contain values between 160000 lbs. and 640000 lbs.
- Tare Weight (A259) of BOXC where Connected Unit Count (A020) is 5, must contain values between 200000 lbs. and 800000 lbs.
- Tare Weight (A259) of BOXC where Connected Unit Count (A020) is 6, must contain values between 240000 lbs. and 960000 lbs.
- Tare Weight (A259) of BOXC where Connected Unit Count (A020) is 7, must contain values between 280000 lbs. and 1120000 lbs.
- Tare Weight (A259) of BOXC where Connected Unit Count (A020) is 8, must contain values between 320000 lbs. and 1280000 lbs.
- Tare Weight (A259) of BOXC where Connected Unit Count (A020) is 9, must contain values between 360000 lbs. and 1440000 lbs.
- Tare Weight (A259) value must be reported to the nearest 100 pounds

## NOTES:

- Do not report an average Tare Weight for car series, except for Pre-Registered cars
- When cars are made active, the actual Tare Weight must be recorded

Load Limit *Mandatory*

LDLT

The maximum permissible weight of the commodity that can be loaded into the equipment, reported in pounds

Affects Rating.

## Range of Values for LDLT

| Minimum | Maximum |
|---------|---------|
| 40000   | 2475000 |

## Validation Rule for LDLT

- Load Limit (LDLT) of BOXC with a blank Connected Unit Count (A020), must contain values between 40000 lbs. and 275000 lbs.
- Load Limit (LDLT) of BOXC where Connected Unit Count (A020) is 2, must contain values between 80000 lbs. and 550000 lbs.
- Load Limit (LDLT) of BOXC where Connected Unit Count (A020) is 3, must contain values between 120000 lbs. and 825000 lbs.
- Load Limit (LDLT) of BOXC where Connected Unit Count (A020) is 4, must contain values between 160000 lbs. and 1100000 lbs.
- Load Limit (LDLT) of BOXC where Connected Unit Count (A020) is 5, must contain values between 200000 lbs. and 1375000 lbs.
- Load Limit (LDLT) of BOXC where Connected Unit Count (A020) is 6, must contain values between 240000 lbs. and 1650000 lbs.
- Load Limit (LDLT) of BOXC where Connected Unit Count (A020) is 7, must contain values between 280000 lbs. and 1925000 lbs.
- Load Limit (LDLT) of BOXC where Connected Unit Count (A020) is 8, must contain values between 320000 lbs. and 2200000 lbs.
- Load Limit (LDLT) of BOXC where Connected Unit Count (A020) is 9, must contain values between 360000 lbs. and 2475000 lbs.

## NOTES:

- For connected unit cars report the sum of the load limits for all units in the set.

| Weighing Status <i>Mandatory</i>                                         | A289 |
|--------------------------------------------------------------------------|------|
| Indicates the weight information is an estimate or an actual measurement |      |

Value does not carry forward for Single Clone / Multi-Clone.

## Permissible Values for A289

- A Actual
- E Estimated
- V Verified correct Tare Weight
- X Tare Weight subject to verification (System Generated)

## Validation Rule for A289

- Equipment cannot be within a series of 10 with identical Tare Weights (A259), refer to Appendix P for further information on resolving tare weight conflicts
- When Status Code changes to Active or Inactive Weighing Status must be reported as Actual (A) or Verified (V) within 60 days of Status Code change

| Weighing Date                               | A288 |
|---------------------------------------------|------|
| The date the equipment was actually weighed |      |

Value does not carry forward for Single Clone / Multi-Clone.

## Range of Values for A288

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

## Validation Rule for A288

- If Weighing Date is reported the Tare Weight (A259) must be reported
- When Weighing Date is reported then Weighing Status (A289) must be A (Actual) or V (Verified)
- If Weighing Status (A289) is A (Actual) or V (Verified correct Tare Weight) then Weighing Date must be reported
- Weighting Date must be on or before the current date
- Weighting Date cannot be before Built / Rebuilt date

| Cubic Feet Capacity                                       | A067 |
|-----------------------------------------------------------|------|
| The maximum interior cubic feet capacity of the equipment |      |

## Range of Values for A067

| Minimum | Maximum |
|---------|---------|
| 1400    | 99999   |

## Validation Rule for A067

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- Cubic Feet Capacity (A067) of BOXC with a blank Connected Unit Count (A020), must contain values between 1400 cubic feet and 12500 cubic feet
- Cubic Feet Capacity (A067) of BOXC where Connected Unit Count (A020) is 2, must contain values between 2800 cubic feet and 25000 cubic feet
- Cubic Feet Capacity (A067) of BOXC where Connected Unit Count (A020) is 3, must contain values between 4200 cubic feet and 37500 cubic feet
- Cubic Feet Capacity (A067) of BOXC where Connected Unit Count (A020) is 4, must contain values between 5600 cubic feet and 50000 cubic feet
- Cubic Feet Capacity (A067) of BOXC where Connected Unit Count (A020) is 5, must contain values between 7000 cubic feet and 62500 cubic feet
- Cubic Feet Capacity (A067) of BOXC where Connected Unit Count (A020) is 6, must contain values between 8400 cubic feet and 75000 cubic feet
- Cubic Feet Capacity (A067) of BOXC where Connected Unit Count (A020) is 7, must contain values between 9800 cubic feet and 87500 cubic feet
- Cubic Feet Capacity (A067) of BOXC where Connected Unit Count (A020) is 8, must contain values between 11200 cubic feet and 100000 cubic feet

**NOTES:**

- For connected unit cars report the sum of all units cubic capacity.

**Star Code** **A247**

Indicates a reduction of the Load Limit (LDLT) of the equipment per AAR Rule 70

Affects Rating.

**Permissible Values for A247**

- R Body Capacity less than Truck Capacity
- S Reduced Load Limit

**NOTES:**

- For connected unit cars report the sum of the load limits for all units in the set.

**Qual for Inc GRL** **B344**

AAR qualification for increased Rail Load Code designating AAR approval for operating 4-axle equipment at a gross rail load greater than 263,000 lbs per AAR Rule 88

**Permissible Values for B344**

- Rule 88 IGRL Code 1 (> 263,000 lbs. and <= 286,000 lbs. GRL per AAR Specification S-286)
- Rule 88 IGRL Code 2 (> 263,000 lbs. and <= 286,000 lbs. GRL)
- Rule 88 IGRL Code 3 (> 263,000 lbs. and <= 268,000 lbs. GRL)

**Validation Rule for B344**

- 4-axle equipment having Qualification for Increased Gross Rail Load of 1 or 2 must have a Gross Rail Load (A266) that does not exceed 286,000 lbs.
- 4-axle equipment having Qualification for Increased Gross Rail Load of 3 must have Gross Rail Load (A266) that does not exceed 268,000 lbs.
- 4-axle equipment having Qualification for Increased Gross Rail Load of 1 must have a Journal Size (A147) of K, G, or M
- 4-axle equipment having Qualification for Increased Gross Rail Load of 2 or 3 must have a Journal Size (A147) of F or K
- 4-axle equipment having Qualification for Increased Gross Rail Load of 1, 2, or 3 must have a Wheel Diameter (A294) of 36 or 38
- Equipment having Qualification for Increased Gross Rail Load of 1 or 2, and a Gross Rail Load (A266) less than 286,000 lbs., must have Star Code (A247) of S
- Equipment having Qualification for Increased Gross Rail Load (B344) of 3, and a Gross Rail Load (A266) less than 268,000 lbs., must have Star Code of S

- 4-axle equipment with Gross Rail Load (A266) greater than 263,000 lbs. and less than 315,000 lbs., and Star Code (A247) blank, must report Qualification for Increased Gross Rail Load

**Dimension****Plate Code** **Mandatory****A046**

Indicates the extreme height and width clearance of the equipment

Affects Rating.

**Permissible Values for A046**

- |   |              |   |                  |   |              |
|---|--------------|---|------------------|---|--------------|
| B | Plate Code B | C | Plate Code C     | E | Plate Code E |
| F | Plate Code F | G | Clearance Code G | N | Plate Code N |

**NOTES:**

- For a description of Plate Codes, please see Appendix J at the back of this manual.
  - Report B: If clearance does not exceed Plate B
  - Report C: If clearance is greater than Plate B. but does not exceed Plate C
  - Report E: If clearance is greater than Plates B and C, but does not exceed Plate E.
  - Report F: If clearance is greater than Plates B, C and E, but does not exceed Plate F
  - Report G: If clearance exceeds Plates B, C, E, F, and N.
  - Report N: If clearance is greater than Plates B, C, E, and F, but does not exceed Plate N.
- There is no AAR Plate G. Clearance Code G is included in Umler to represent equipment that does not fit any existing AAR clearance plates.
- For ARTICULATED/MULTI-UNIT SET report the most restrictive clearance plate of UNIT in the set.

**Outside Length** **Mandatory****OSLG**

The outside length over pulling faces of couplers in normal position

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for OSLG**

| Minimum        | Maximum         |
|----------------|-----------------|
| 41 ft 6 inches | 855 ft 0 inches |

**Validation Rule for OSLG**

- Outside Length (OSLG) on freight cars must exceed the Inside Length (A135) by 2 feet or more
- If Axle Count (A024) is 4, then Outside Length must not exceed Inside Length (A135) by more than 24 feet
- Outside Length (OSLG) of BOXC with a blank Connected Unit Count (A020), must contain values between 41 feet 6 inches and 95 feet
- Outside Length (OSLG) of BOXC where Connected Unit Count (A020) is 2, must contain values between 83 feet and 190 feet
- Outside Length (OSLG) of BOXC where Connected Unit Count (A020) is 3, must contain values between 124 feet 6 inches and 285 feet
- Outside Length (OSLG) of BOXC where Connected Unit Count (A020) is 4, must contain values between 166 feet and 380 feet
- Outside Length (OSLG) of BOXC where Connected Unit Count (A020) is 5, must contain values between 207 feet 6 inches and 475 feet
- Outside Length (OSLG) of BOXC where Connected Unit Count (A020) is 6, must contain values between 249 feet and 570 feet
- Outside Length (OSLG) of BOXC where Connected Unit Count (A020) is 7, must contain values between 290 feet 6 inches and 665 feet
- Outside Length (OSLG) of BOXC where Connected Unit Count (A020) is 8, must contain values between 332 feet and 760 feet
- Outside Length (OSLG) of BOXC where Connected Unit Count (A020) is 9, must contain values between 373 feet 6 inches and 855 feet

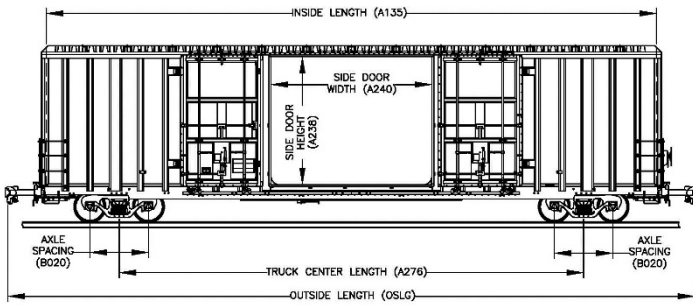
**NOTES:**

- Numeric distance over pulling faces of couplers in normal positions. For ARTICULATED/MULTI-UNIT sets report the maximum coupled length of the set. Must be between 2 and 16 feet greater than inside length and between 2 and 26 feet for R\_\_.
- For connected unit cars report the maximum coupled length of the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- This element is programmed into AEI tags for railcar identification and



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serves an important operating and train handling function.

**Outside Extreme Width Mandatory****A186**

The outside extreme width of the equipment

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A186**

| Minimum       | Maximum         |
|---------------|-----------------|
| 9 ft 2 inches | 10 ft 10 inches |

**Validation Rule for A186**

- Outside Extreme Width must not exceed 10 feet 8 inches for Plate Codes B, C, E, F, or N

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Outside Extreme Height Mandatory****A185**

Height from top of rail to extreme projecting height

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A185**

| Minimum         | Maximum        |
|-----------------|----------------|
| 11 ft 10 inches | 17 ft 4 inches |

**Validation Rule for A185**

- Outside Extreme Height for Plate Code B must be less than or equal to 15 feet 1 inch
- Outside Extreme Height for Plate Code C must be less than or equal to 15 feet 6 inches
- Outside Extreme Height for Plate Code E must be less than or equal to 15 feet 9 inches
- Outside Extreme Height for Plate Code F must be less than or equal to 17 feet 0 inch
- Outside Extreme Height for Plate Code N must be less than or equal to 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Outside Height Extr Width Mandatory****A187**

The highest point at which the extreme width of the equipment occurs

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A187**

| Minimum       | Maximum        |
|---------------|----------------|
| 2 ft 0 inches | 17 ft 4 inches |

**Validation Rule for A187**

- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 8 inches if Outside Height Extreme Width is 13 feet 10 inches or less
- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 7 inches if Outside Height Extreme Width is 13 feet 11 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 6 inches if Outside Height Extreme Width is 14 feet 0 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 4 inches if Outside Height Extreme Width is 14 feet 1 inches

- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 3 inches if Outside Height Extreme Width is 14 feet 2 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 2 inches if Outside Height Extreme Width is 14 feet 3 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 0 inches if Outside Height Extreme Width is 14 feet 4 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 9 feet 9 inches if Outside Height Extreme Width is 14 feet 5 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 9 feet 5 inches if Outside Height Extreme Width is 14 feet 6 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 9 feet 2 inches if Outside Height Extreme Width is 14 feet 7 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 8 feet 10 inches if Outside Height Extreme Width is 14 feet 8 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 8 feet 6 inches if Outside Height Extreme Width is 14 feet 9 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 8 feet 3 inches if Outside Height Extreme Width is 14 feet 10 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 7 feet 11 inches if Outside Height Extreme Width is 14 feet 11 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 7 feet 6 inches if Outside Height Extreme Width is 15 feet 0 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 7 feet 4 inches if Outside Height Extreme Width is 15 feet 1 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 8 inches if Outside Height Extreme Width is 14 feet 3 inches or less
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 7 inches if Outside Height Extreme Width is 14 feet 4 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 6 inches if Outside Height Extreme Width is 14 feet 5 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 4 inches if Outside Height Extreme Width is 14 feet 6 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 3 inches if Outside Height Extreme Width is 14 feet 7 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 2 inches if Outside Height Extreme Width is 14 feet 8 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 0 inches if Outside Height Extreme Width is 14 feet 9 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 9 feet 9 inches if Outside Height Extreme Width is 14 feet 10 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 9 feet 5 inches if Outside Height Extreme Width is 14 feet 11 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 9 feet 2 inches if Outside Height Extreme Width is 15 feet 0 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 8 feet 10 inches if Outside Height Extreme Width is 15 feet 1 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 8 feet 6 inches if Outside Height Extreme Width is 15 feet 2 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 8 feet 3 inches if Outside Height Extreme Width is 15 feet 3 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 7 feet 11 inches if Outside Height Extreme Width is 15 feet 4 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 7 feet 8 inches if Outside Height Extreme Width is 15 feet 5 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 7 feet 4 inches if Outside Height Extreme Width is 15 feet 6 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 8 inches if Outside Height Extreme Width is 15 feet 2 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 6 inches if Outside Height Extreme Width is 15 feet 3 inches or less
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 3 inches if Outside Height Extreme Width is 15 feet 4 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 9 feet 6 inches if Outside Height Extreme Width is 15 feet 5 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 8 feet 8 inches if Outside Height Extreme Width is 15 feet 6 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 7 feet 11 inches if Outside Height Extreme Width is 15 feet 7 inches

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- Outside Extreme Width (A186) for Plate Code E must not exceed 7 feet 1 inches if Outside Height Extreme Width is 15 feet 8 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 6 feet 3 inches if Outside Height Extreme Width is 15 feet 9 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 8 inches if Outside Height Extreme Width is 16 feet 3 inches or less
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 7 inches if Outside Height Extreme Width is between 16 feet 4 inches and 16 feet 6 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 6 inches if Outside Height Extreme Width is 16 feet 7 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 3 inches if Outside Height Extreme Width is 16 feet 8 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 0 inches if Outside Height Extreme Width is 16 feet 9 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 8 inches if Outside Height Extreme Width is 16 feet 10 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 5 inches if Outside Height Extreme Width is 16 feet 11 inches
- Outside Extreme Width (A186) for Plate Code G must not exceed 9 feet 2 inches if Outside Height Extreme Width is 17 feet 0 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 8 inches if Outside Height Extreme Width (A187) is 16 feet 9 inches or less
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 6 inches if Outside Height Extreme Width (A187) is 16 feet 10 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 4 inches if Outside Height Extreme Width (A187) is 16 feet 11 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 2 inches if Outside Height Extreme Width (A187) is 17 feet 0 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 9 feet 11 inches if Outside Height Extreme Width (A187) is 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Outside Upper Eaves Width****A194**

The width between the outside uppermost corners of the equipment



Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A194**

| Minimum       | Maximum        |
|---------------|----------------|
| 5 ft 0 inches | 10 ft 8 inches |

**Validation Rule for A194**

- Outside Upper Eaves Width (A194) is mandatory for boxcars built or rebuilt on or after June 1, 2015
- Outside Upper Eaves Width must be less than or equal to the Outside Extreme Width (A186)
- Outside Upper Eaves Width must be less than or equal to the Outside Lower Eaves Width (A190)
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 8 inches if Outside Upper Eaves Height (A193) is 13 feet 10 inches or less
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 7 inches if Outside Upper Eaves Height (A193) is 13 feet 11 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 6 inches if Outside Upper Eaves Height (A193) is 14 feet 0 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 4 inches if Outside Upper Eaves Height (A193) is 14 feet 1 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 3 inches if Outside Upper Eaves Height (A193) is 14 feet 2 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 2 inches if Outside Upper Eaves Height (A193) is 14 feet 3 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 0 inches if Outside Upper Eaves Height (A193) is 14 feet 4 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 9 feet 9 inches if Outside Upper Eaves Height (A193) is 14 feet 5 inches

- Outside Upper Eaves Width for Plate Code B must not exceed 9 feet 5 inches if Outside Upper Eaves Height (A193) is 14 feet 6 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 9 feet 2 inches if Outside Upper Eaves Height (A193) is 14 feet 7 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 8 feet 10 inches if Outside Upper Eaves Height (A193) is 14 feet 8 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 8 feet 6 inches if Outside Upper Eaves Height (A193) is 14 feet 9 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 8 feet 3 inches if Outside Upper Eaves Height (A193) is 14 feet 10 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 7 feet 11 inches if Outside Upper Eaves Height (A193) is 14 feet 11 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 7 feet 8 inches if Outside Upper Eaves Height (A193) is 15 feet 0 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 7 feet 4 inches if Outside Upper Eaves Height (A193) is 15 feet 1 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 8 inches if Outside Upper Eaves Height (A193) is 14 feet 3 inches or less
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 7 inches if Outside Upper Eaves Height (A193) is 14 feet 4 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 6 inches if Outside Upper Eaves Height (A193) is 14 feet 5 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 4 inches if Outside Upper Eaves Height (A193) is 14 feet 6 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 3 inches if Outside Upper Eaves Height (A193) is 14 feet 7 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 2 inches if Outside Upper Eaves Height (A193) is 14 feet 8 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 0 inches if Outside Upper Eaves Height (A193) is 14 feet 9 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 9 feet 9 inches if Outside Upper Eaves Height (A193) is 14 feet 10 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 9 feet 5 inches if Outside Upper Eaves Height (A193) is 14 feet 11 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 9 feet 2 inches if Outside Upper Eaves Height (A193) is 15 feet 0 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 8 feet 10 inches if Outside Upper Eaves Height (A193) is 15 feet 1 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 8 feet 6 inches if Outside Upper Eaves Height (A193) is 15 feet 2 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 8 feet 3 inches if Outside Upper Eaves Height (A193) is 15 feet 3 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 7 feet 11 inches if Outside Upper Eaves Height (A193) is 15 feet 4 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 7 feet 8 inches if Outside Upper Eaves Height (A193) is 15 feet 5 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 7 feet 4 inches if Outside Upper Eaves Height (A193) is 15 feet 6 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 10 feet 8 inches if Outside Upper Eaves Height (A193) is 15 feet 2 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 10 feet 6 inches if Outside Upper Eaves Height (A193) is 15 feet 3 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 10 feet 3 inches if Outside Upper Eaves Height (A193) is 15 feet 4 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 9 feet 6 inches if Outside Upper Eaves Height (A193) is 15 feet 5 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 8 feet 8 inches if Outside Upper Eaves Height (A193) is 15 feet 6 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 7 feet 11 inches if Outside Upper Eaves Height (A193) is 15 feet 7 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 7 feet 1 inches if Outside Upper Eaves Height (A193) is 15 feet 8 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 6 feet 3 inches if Outside Upper Eaves Height (A193) is 15 feet 9 inches
- Outside Upper Eaves Width for Plate Code F must not exceed 10 feet 8 inches if Outside Upper Eaves Height (A193) is 16 feet 3 inches

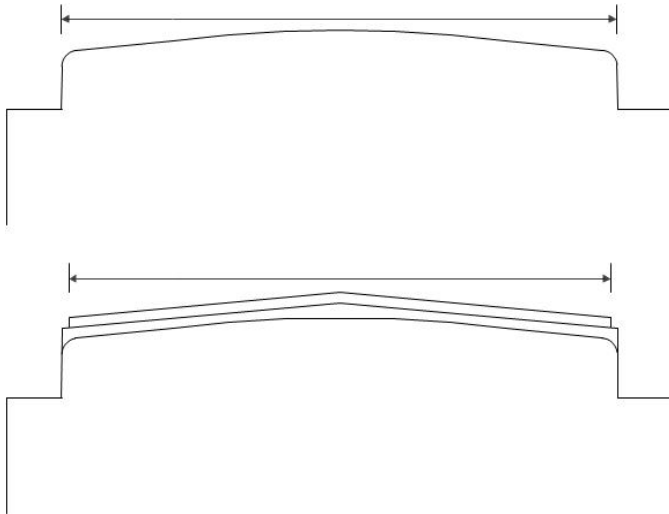


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- Outside Upper Eaves Width for Plate Code F must not exceed 10 feet 7 inches if Outside Upper Eaves Height (A193) is between 16 feet 4 inches and 16 feet 6 inches
- Outside Upper Eaves Width for Plate Code F must not exceed 10 feet 6 inches if Outside Upper Eaves Height (A193) is 16 feet 7 inches
- Outside Upper Eaves Width for Plate Code F must not exceed 10 feet 3 inches if Outside Upper Eaves Height (A193) is 16 feet 8 inches
- Outside Upper Eaves Width for Plate Code F must not exceed 10 feet 0 inches if Outside Upper Eaves Height (A193) is 16 feet 9 inches
- Outside Upper Eaves Width for Plate Code F must not exceed 9 feet 8 inches if Outside Upper Eaves Height (A193) is 16 feet 10 inches
- Outside Upper Eaves Width for Plate Code F must not exceed 9 feet 5 inches if Outside Upper Eaves Height (A193) is 16 feet 11 inches
- Outside Upper Eaves Width for Plate Code F must not exceed 9 feet 2 inches if Outside Upper Eaves Height (A193) is 17 feet 0 inches
- Outside Upper Eaves Width for Plate Code N must not exceed 10 feet 8 inches if Outside Upper Eaves Height (A193) is 16 feet 9 inches or less
- Outside Upper Eaves Width for Plate Code N must not exceed 10 feet 6 inches if Outside Upper Eaves Height (A193) is 16 feet 10 inches
- Outside Upper Eaves Width for Plate Code N must not exceed 10 feet 4 inches if Outside Upper Eaves Height (A193) is 16 feet 11 inches
- Outside Upper Eaves Width for Plate Code N must not exceed 10 feet 2 inches if Outside Upper Eaves Height (A193) is 17 feet 0 inches
- Outside Upper Eaves Width for Plate Code N must not exceed 9 feet 11 inches if Outside Upper Eaves Height (A193) is 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set

**Outside Upper Eaves Hght** *Mandatory* **A193**

Height from the top of rail to the uppermost outside corner of the equipment

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A193**

| Minimum       | Maximum        |
|---------------|----------------|
| 8 ft 0 inches | 17 ft 4 inches |

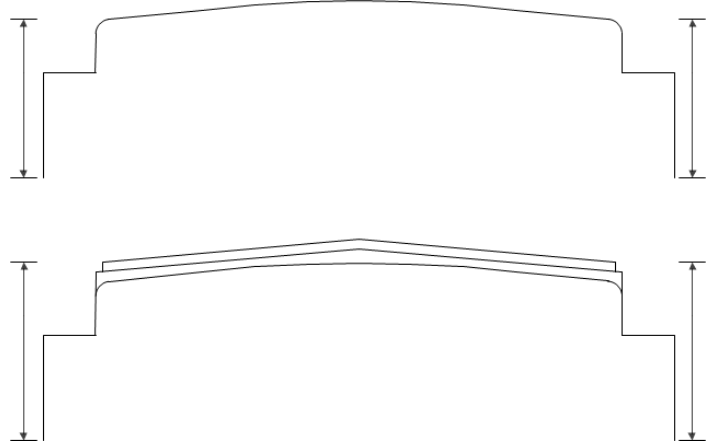
**Validation Rule for A193**

- Outside Upper Eaves Height must not exceed the Outside Extreme Height
- Outside Upper Eaves Height must be greater than or equal to the Outside Lower Eaves Height (A189)
- Outside Upper Eaves Height for Plate Code B must not exceed 15 feet 1 inch
- Outside Upper Eaves Height for Plate Code C must not exceed 15 feet 6 inches
- Outside Upper Eaves Height for Plate Code E must not exceed 15 feet 9 inches

- Outside Upper Eaves Height for Plate Code F must not exceed 17 feet 0 inches
- Outside Upper Eaves Height for Plate Code N must not exceed 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.

**Outside Lower Eaves Width****A190**

Width over lower eaves at sides of car (see diagram)

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A190**

| Minimum       | Maximum        |
|---------------|----------------|
| 8 ft 6 inches | 10 ft 8 inches |

**Validation Rule for A190**

- Outside Lower Eaves Width must not exceed the Outside Extreme Width (A186)
- Outside Lower Eaves Width must be greater than or equal to Outside Upper Eaves Width (A194)
- Outside Lower Eaves Width for Plate Code B must not exceed 10 feet 8 inches if Outside Lower Eaves Height (A189) is 13 feet 10 inches or less
- Outside Lower Eaves Width for Plate Code B must not exceed 10 feet 7 inches if Outside Lower Eaves Height (A189) is 13 feet 11 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 10 feet 6 inches if Outside Lower Eaves Height (A189) is 14 feet 0 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 10 feet 3 inches if Outside Lower Eaves Height (A189) is 14 feet 2 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 10 feet 2 inches if Outside Lower Eaves Height (A189) is 14 feet 3 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 10 feet 0 inches if Outside Lower Eaves Height (A189) is 14 feet 4 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 9 feet 9 inches if Outside Lower Eaves Height (A189) is 14 feet 5 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 9 feet 5 inches if Outside Lower Eaves Height (A189) is 14 feet 6 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 9 feet 2 inches if Outside Lower Eaves Height (A189) is 14 feet 7 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 8 feet 10 inches if Outside Lower Eaves Height (A189) is 14 feet 8 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 8 inches if Outside Lower Eaves Height (A189) is 14 feet 3 inches or less
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 7 inches if Outside Lower Eaves Height (A189) is 14 feet 4 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 6 inches if Outside Lower Eaves Height (A189) is 14 feet 5 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 4 inches if Outside Lower Eaves Height (A189) is 14 feet 6 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 3 inches if Outside Lower Eaves Height (A189) is 14 feet 7 inches

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- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 2 inches if Outside Lower Eaves Height (A189) is 14 feet 8 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 0 inches if Outside Lower Eaves Height (A189) is 14 feet 9 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 9 feet 9 inches if Outside Lower Eaves Height (A189) is 14 feet 10 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 9 feet 5 inches if Outside Lower Eaves Height (A189) is 14 feet 11 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 9 feet 2 inches if Outside Lower Eaves Height (A189) is 15 feet 0 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 8 feet 10 inches if Outside Lower Eaves Height (A189) is 15 feet 1 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 8 feet 6 inches if Outside Lower Eaves Height (A189) is 15 feet 2 inches
- Outside Lower Eaves Width for Plate Code E must not exceed 10 feet 8 inches if Outside Lower Eaves Height (A189) is 15 feet 2 inches or less
- Outside Lower Eaves Width for Plate Code E must not exceed 10 feet 6 inches if Outside Lower Eaves Height (A189) is 15 feet 3 inches
- Outside Lower Eaves Width for Plate Code E must not exceed 10 feet 3 inches if Outside Lower Eaves Height (A189) is 15 feet 4 inches
- Outside Lower Eaves Width for Plate Code E must not exceed 9 feet 6 inches if Outside Lower Eaves Height (A189) is 15 feet 5 inches
- Outside Lower Eaves Width for Plate Code E must not exceed 8 feet 8 inches if Outside Lower Eaves Height (A189) is 15 feet 6 inches
- Outside Lower Eaves Width for Plate Code F must not exceed 10 feet 8 inches if Outside Lower Eaves Height (A189) is 16 feet 3 inches or less
- Outside Lower Eaves Width for Plate Code F must not exceed 10 feet 7 inches if Outside Lower Eaves Height (A189) is between 16 feet 4 inches and 16 feet 6 inches
- Outside Lower Eaves Width for Plate Code F must not exceed 10 feet 6 inches if Outside Lower Eaves Height (A189) is 16 feet 7 inches
- Outside Lower Eaves Width for Plate Code F must not exceed 10 feet 3 inches if Outside Lower Eaves Height (A189) is 16 feet 8 inches
- Outside Lower Eaves Width for Plate Code F must not exceed 10 feet 0 inches if Outside Lower Eaves Height (A189) is 16 feet 9 inches
- Outside Lower Eaves Width for Plate Code F must not exceed 9 feet 8 inches if Outside Lower Eaves Height (A189) is 16 feet 10 inches
- Outside Lower Eaves Width for Plate Code F must not exceed 9 feet 5 inches if Outside Lower Eaves Height (A189) is 16 feet 11 inches
- Outside Lower Eaves Width for Plate Code F must not exceed 9 feet 2 inches if Outside Lower Eaves Height (A189) is 17 feet 0 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 8 inches if Outside Lower Eaves Height (A189) is 16 feet 9 inches or less
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 6 inches if Outside Lower Eaves Height (A189) is 16 feet 10 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 4 inches if Outside Lower Eaves Height (A189) is 16 feet 11 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 2 inches if Outside Lower Eaves Height (A189) is 17 feet 0 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 9 feet 11 inches if Outside Lower Eaves Height (A189) is 17 feet 1 inch

**NOTES:**

- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- For connected unit cars report the dimension of the largest unit in the set.

**Outside Lower Eaves Hght** **A189**

Height from top of rail to lower eaves at side of car (see diagrams)

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A189**

| Minimum       | Maximum        |
|---------------|----------------|
| 8 ft 0 inches | 17 ft 4 inches |

**Validation Rule for A189**

- Outside Lower Eaves Height must not exceed the Outside Extreme Height (A185)
- Outside Lower Eaves Height must not exceed Outside Upper Eaves Height (A193)

- Outside Lower Eaves Height for Plate Code B must not exceed 15 feet 1 inch
- Outside Lower Eaves Height for Plate Code C must not exceed 15 feet 6 inches
- Outside Lower Eaves Height for Plate Code E must not exceed 15 feet 9 inches
- Outside Lower Eaves Height for Plate Code F must not exceed 17 feet 0 inches
- If Outside Lower Eaves Width (A190) is reported then Outside Lower Eaves Height must be reported
- Outside Lower Eaves Height for Plate Code N must not exceed 17 feet 1 inch

**NOTES:**

- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- For connected unit cars report the dimension of the largest unit in the set.

**Inside Length** **Mandatory****A135**

The inside length of the equipment from end to end inside walls, linings, and permanent bulkheads

Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A135**

| Minimum        | Maximum        |
|----------------|----------------|
| 39 ft 0 inches | 93 ft 0 inches |

**NOTES:**

- Round fraction to the lower inch, e.g., 05 1/4" = 05"
- For connected unit cars report the shortest dimension of a unit in the set.
- Outside Length (OSLG) on freight cars must exceed the Inside Length (A135) by 2 feet or more.
- Outside Length (OSLG) on freight cars (except refrigerators) must not exceed Inside Length (A135) by more than 16 feet.
- Outside Length (OSLG) on refrigerator cars (Mechanical Designation RB, RBL, RP, RPL or RC) must not exceed Inside Length (A135) by more than 26 feet.

**Inside Width** **Mandatory****A138**

The inside width of the equipment from side walls and linings

Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A138**

| Minimum       | Maximum       |
|---------------|---------------|
| 8 ft 6 inches | 9 ft 8 inches |

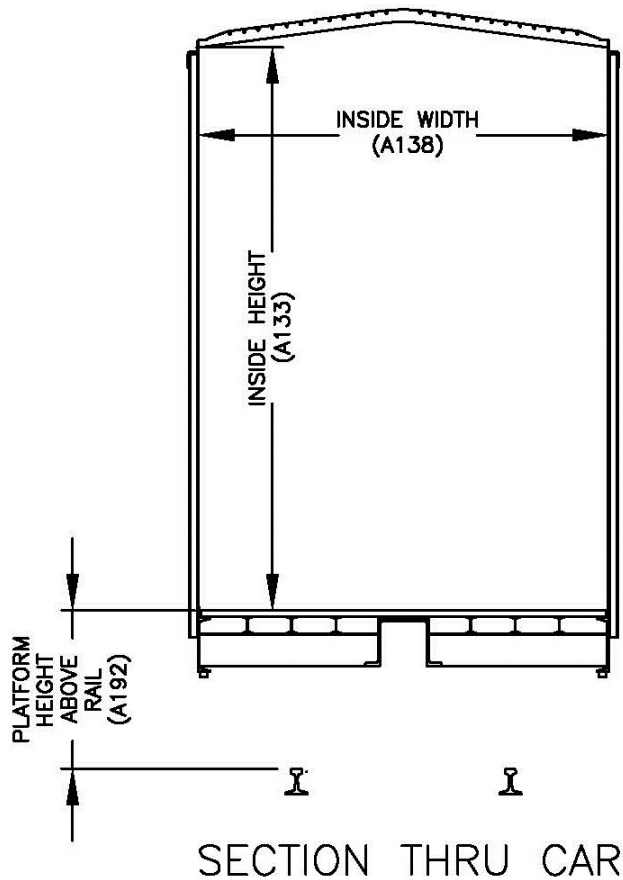
**Validation Rule for A138**

-Inside Width/Inside Platform Width must not exceed Outside Extreme Width

**NOTES:**

- For connected unit cars report the shortest dimension of a unit in the set.

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**Inside Height****A133**

The inside height of the equipment from the floor to the top of the side, or to the lowest point of the interior ceiling

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A133**

| Minimum        | Maximum        |
|----------------|----------------|
| 8 ft 10 inches | 13 ft 4 inches |

**Validation Rule for A133**

- Refrigerator Cars require an Inside Height of greater than or equal to 6 feet
- Inside Height must not exceed Outside Extreme Height (A185)
- All Box Cars with a Built Date (BLDT) or Rebuilt Date (RBDT) on or after April 1, 2016 must report Inside Height

**NOTES:**

- For connected unit cars report the shortest dimension of a unit in the set.

**Truck Center Length****A276**

The length between the centers of the two truck systems

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A276**

| Minimum        | Maximum         |
|----------------|-----------------|
| 22 ft 6 inches | 76 ft 11 inches |

**Validation Rule for A276**

- Truck Center Length is required for cars with an Outside Length of greater than 62 feet 6 inches

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.

**Platform Hgt Above Rail****A192**

Describes the platform height above the rail in inches

**Range of Values for A192**

| Minimum | Maximum |
|---------|---------|
| 30      | 60      |

**Validation Rule for A192**

- High Cube, Plate F Box Cars must report Platform Height Above Rail, if built after July 27, 2010
- Platform Height Above Rail (A192) is required for Boxcars where the Plate Code (A046) exceeds C and the Built Date (BLDT) or Rebuilt Date (RBDT) is on or after July 1, 2016

**Door****Side Door Type** *Mandatory***B193**

Indicates the description of the side door

Used in ETC Generation.

**Permissible Values for B193**

- 01 Single Sliding Doors
- 02 Single Plug Doors
- 04 Double Sliding Doors
- 06 Double Plug Doors
- 08 Combinations Sliding And Plug Doors
- 10 Split Refrigerator Door (Hinged)
- 11 More than One Opening on Same Side
- 13 Other
- 15 Permanently Closed or No Side Door
- 16 All Door Box Car(L\_4\_ Only)
- 17 Double, Double Plug Doors

**Validation Rule for B193**

- Box Cars with Mechanical Designation LU require a Box Side Door Type of 16 (All Door Box Car)
- Box Side Door Type of 16 (All Door Box Car) is only applicable to Box Cars with Mechanical Designation LU
- Box Cars that have a Side Door Type of 1, 2, 4, 6 or 8 must have a Side Door Orientation (B192) of S or C

**Box Side Door Orientation****B192**

Indicates the position of the side door on a box car

**Permissible Values for B192**

- C Centered S Staggered

**Validation Rule for B192**

- Box Side Door Orientation is not applicable to (Mechanical Designation LU) Box Cars

**Side Door Width****A240**

The width of the side door opening

Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A240**

| Minimum       | Maximum        |
|---------------|----------------|
| 6 ft 0 inches | 27 ft 0 inches |

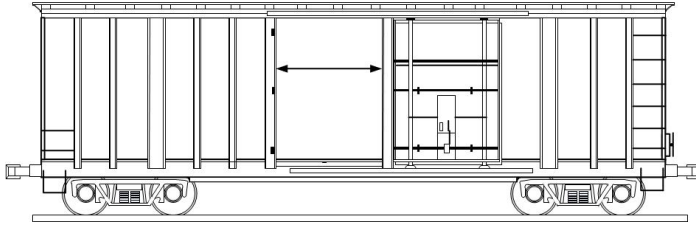
**Validation Rule for A240**

- Side Door Width of Refrigerator Cars, Mechanical Designations (RB, RBL, RC, RP, RPL) must not exceed 21 feet 11 inches
- Side Door Width of Box Cars (Mechanical Designation LU) must be greater than or equal 24 feet 8 inches
- Side Door Width requires that Side Door Height (A238) also be entered
- Side Door Height (A238) requires that Side Door Width also be entered
- Side Door Width must not be reported for Boxcars with Side Door Type (B193) of 15
- Side Door Width must be reported for Boxcars whose Side Door Type (B193) is not 15

## Data Specification Manual

**NOTES:**

- Round fraction to the lower inch, e.g., 05 1/4" = 05"
- If more than one opening on the side, report the width of the maximum continuous opening
- For connected unit cars report the dimension of the smallest side door width of a unit in the set.

**Side Door Height****A238**

The height of the side door opening

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A238**

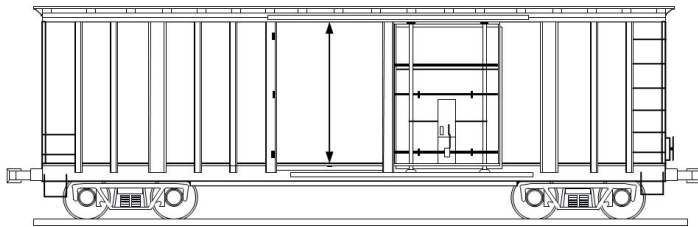
| Minimum       | Maximum         |
|---------------|-----------------|
| 8 ft 0 inches | 12 ft 11 inches |

**Validation Rule for A238**

- Side Door Height must not be reported for Boxcars with Side Door Type (B193) of 15
- Side Door Height must be reported for Boxcars whose Side Door Type (B193) is not 15

**NOTES:**

- Round fraction to the lower inch, e.g., 05 1/4" = 05"
- For connected unit cars report the dimension of the smallest unit in the set.

**End Door Width****A082**

The width of the end door opening in inches

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A082**

| Minimum       | Maximum        |
|---------------|----------------|
| 8 ft 0 inches | 10 ft 2 inches |

**Validation Rule for A082**

- End Door Width is not applicable to Refrigerator Cars, Mechanical Designations (RB, RBL, RP, RPL or RC)

**NOTES:**

- Round fraction to the lower inch, e.g., 05 1/4" = 05"
- For connected unit cars report the dimension of the smallest end door width of a unit in the set.

**End Door Height****A080**

The height of the end door opening in inches

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A080**

| Minimum       | Maximum        |
|---------------|----------------|
| 8 ft 6 inches | 10 ft 0 inches |

**Validation Rule for A080**

- End Door Height is not applicable to Refrigerator Cars, Mechanical Designations (RB, RBL, RP, RPL or RC)
- End Door Height must not be reported if End Door Width is not reported
- End Door Height must be reported if End Door Width is reported

**NOTES:**

- Round fraction to the lower inch, e.g., 05 1/4" = 05"
- For connected unit cars report the dimension of the smallest end door height of a unit in the set.

**Anti-Pilferage Locking****B016**

Indicates that an anti-pilferage locking device is available

**Permissible Values for B016**

Y Yes

**Door Assist Type****B072**

Indicates the type of door assist on the equipment

**Permissible Values for B072**

P Puller Bracket  
 H Hydraulic  
 N Not Equipped  
 U Unknown

**Validation Rule for B072**

- Door Assist is not applicable to Refrigerator Cars
- Door Assist Type must be populated if the equipment was built or rebuilt on or after Dec 1, 2015
- Equipment built on or after Dec 1, 2015 cannot have a Door Assist Type of Unknown

## Specification

**Truck Count****B256**

The total number of trucks on the equipment

System Generated Field. This element is not eligible for Input.

**Range of Values for B256**

| Minimum | Maximum |
|---------|---------|
| 2       | 18      |

**Axle Count Mandatory****A024**

The total number of axles on the equipment

Affects Rating.

**Range of Values for A024**

| Minimum | Maximum |
|---------|---------|
| 4       | 36      |

**Validation Rule for A024**

- Axle Count must be greater than or equal to 4
- Axle Count for an articulated car must be greater than or equal to ((Connected Unit Count (A020) x 2) + 2)
- Axle Count for a draw bar connected car must be greater than or equal to (Connected Unit Count (A020) x 4)
- Total Axle Count must match sum of truck axle counts

**NOTES:**

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

**Wheel Bearing Type Mandatory****B191**

Indicates the wheel bearing journal design for the equipment

Affects Rating.

**Permissible Values for B191**

P Plain R Roller

**Validation Rule for B191**

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- Cars with Plain Bearings will have a Transportation Code (TCOD) and Transportation Condition Code (TCCD) of either YA, S\_, SX, or XJ
- Equipment cannot have Plain Bearings if Built Date (BLDT) is on or after January 1, 1993

**NOTES:**

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

**Bearing Shielded From HBD** **B021**

Indicates the wheel bearings are shielded from wayside hot box detectors

**Permissible Values for B021**

Y Yes

**Brake Shoe Type** *Mandatory* **B026**

Indicates the type of brake shoe on the equipment

**Permissible Values for B026**

C Tread Conditioning  
H High Friction Composite  
L Low Friction Composite/Cast Iron

**CC Side Bearing Type** **A146**

Indicates the travel range of the constant contact side bearings installed on the equipment

**Permissible Values for A146**

LC Long Travel Constant Contact  
SC Short Travel Constant Contact

**Validation Rule for A146**

- Equipment having Qualification for Increased Gross Rail Load (B344) of 1 must have Constant Contact Side Bearing Type of LC

**Empty/Load Device Eqpd** **B075**

Indicates that the air brake system includes a device to determine if the equipment is empty or loaded, and then varies the braking forces accordingly

**Permissible Values for B075**

Y Yes

**Body Material** *Mandatory* **A030**

The material that composes the body of the equipment

Used in ETC Generation.

**Permissible Values for A030**

01 Aluminum  
04 Combination  
09 Fiberglass Reinforced Composite  
18 Stainless Steel  
19 Standard Steel  
30 Wood

**NOTES:**

- Used in ETC Generation for Mechanical Designation (UMMD) RB, RBL, RP, RPL, RC.

**Center of Gravity Empty** **A045**

When empty, indicates the height from Top of Rail to the Center of Gravity

**Range of Values for A045**

| Minimum | Maximum |
|---------|---------|
| 35      | 80      |

**Validation Rule for A045**

- All cars that exceed Plate Code (A046) C must report Center of Gravity Empty except for cars with Equipment Type Code (UMET) of J \_ \_ \_

**Remote Monitoring Device** **B176**

Indicates the equipment has a device that transmits a signal or records data

**Permissible Values for B176**

Y Yes  
N No

**NOTES:**

- Per AAR S-2045, This may be data related to ride quality, geographic location, temperature/condition of the load, load/empty status, etc.

**AEI High Temperature Tag** **B006**

Indicates the equipment is equipped with a high temperature AEI tag

**Permissible Values for B006**

Y High Temperature Tag

**Permanent Heater** **B147**

Indicates the equipment is equipped with a permanent heater to maintain commodities at a consistent temperature

**Permissible Values for B147**

Y Yes

**Validation Rule for B147**

- Permanent Heaters are only applicable to Boxcars with Mechanical Designation (UMMD) of XLI or MWM

**Connected Unit Count** **A020**

Indicates the number of units within an articulated or multi-unit equipment

Affects Rating.

**Range of Values for A020**

| Minimum | Maximum |
|---------|---------|
| 4       | 9       |

**Validation Rule for A020**

- Connected Unit Count must equal the number of Unit Segments
- Unit Segment Component elements must not be reported if the Connected Unit Count is not reported
- Unit Segment Component elements must be reported if Connected Unit Count is reported

**Intermediate Conn Style** **B115**

Indicates the method by which two or more pieces of equipment are connected

**Permissible Values for B115**

A Articulated Connector  
D Drawbar Connector

**Validation Rule for B115**

- Intermediate Connector Style is required for multi-unit equipment
- Intermediate Connector Style must not be reported for single unit equipment

**Operating Brakes** *Mandatory* **A182**

The number of air brake control valves on the equipment (excludes hand brakes). One control valve consists of a service portion, emergency portion, and pipe bracket. Example: DB-60 control valve

**Permissible Values for A182**

1 2 3 4 5  
6 7 8 9

**Validation Rule for A182**

- Operating Brakes must be reported for all equipment
- Operating Brakes (A182) must be 1 for non-articulated equipment with an Axle Count (A024) equal to 4

**NOTES:**

- Excludes empty/load device, number 8 vent valve, and proportion valve.

**ECP Brake Type** **B327**

Indicates the type of electronic controlled pneumatic brake used on the equipment

**Permissible Values for B327**

N Not Equipped



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- O Overlay - Both ECP & Air Brake  
S Stand Alone - ECP Only

**Validation Rule for B327**

- Equipment must have a value entered for ECP Brake Type if built or rebuilt after June 28, 2012

**ECP Brake Builder****B328**

The manufacturer of the electronic controlled pneumatic brake used on the equipment

**Permissible Values for B328**

- NYAB New York Air Brake  
WABT WABTEC

**Validation Rule for B328**

- If ECP Brake Type (B327) is Stand Alone or Overlay then a value must be entered for ECP Brake Builder  
-If ECP Brake Type (B327) is Not Equipped then ECP Brake Builder is not reportable

**Slack Adjuster Group****B538**

The slack adjuster group on the equipment per AAR Field Manual Rule #8

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B538**

- |   |          |   |            |   |         |   |         |
|---|----------|---|------------|---|---------|---|---------|
| A | Group A  | B | Group B    | C | Group C | D | Group D |
| E | Group E  | F | Group F    | G | Group G | H | Group H |
| J | Group J  | L | Group L    | M | Group M | N | Group N |
| O | Group O  | P | Group P    | Q | Group Q | R | Group R |
| 1 | Internal | 2 | Unequipped |   |         |   |         |

**Validation Rule for B538**

- Slack Adjuster Group is mandatory for all equipment built or rebuilt on or after January 1, 2016  
- If Slack Adjuster Group is reported as "1" then Brake Cylinder Mount Type (B540) must be reported as "T"  
- If Slack Adjuster Group is "1" or "2", then Slack Adjuster CID (B359) must not be reported.

**NOTES:**

- Permissible value of "1 – Internal" identifies special truck mounted internal slack adjuster within brake cylinder.

**Brake Cylinder Mount Type****B540**

Identifies the location of the brake cylinder

**Permissible Values for B540**

- B Body Mounted  
T Truck Mounted

**Validation Rule for B540**

- Brake Cylinder Mount Type is mandatory for all equipment built or rebuilt on or after January 1, 2016

**Equipment Builder****A035**

Identifies the original manufacturer of the equipment

**Permissible Values for A035**

- |      |                             |
|------|-----------------------------|
| ACF  | American Car & Foundry      |
| ACFX | ACF Industries              |
| ARI  | ARI Industries              |
| BERW | Berwick Forge               |
| BETH | Bethlehem Car Works         |
| BSP  | Bethlehem Steel Corporation |
| CFF  | Canadian Car & Foundry      |
| CONC | Concarrill                  |
| DIFC | Difco                       |
| EDSP | ESTRATEGIAS DUL S. DE R.L.  |
| ERSB | Ebenezer Railcar            |
| EVAN | Evans Products              |
| FCA  | Freight Car America         |
| FGRW | FRTGRW                      |
| FMC  | FMC Corporation             |

- |      |                                                  |
|------|--------------------------------------------------|
| GATX | General American Transportation Corp             |
| GMB  | Greenbrier                                       |
| GSC  | Greenville Steel Car                             |
| GTYE | Golden Tye                                       |
| GUN4 | Gunderson - Trenton Works                        |
| GUND | Gunderson Inc                                    |
| GUNM | Gunderson - Mexico                               |
| HYUN | Hyundai                                          |
| JAC  | Johnstown America Corporation                    |
| JKFO | JK-CO LLC                                        |
| KASG | Kasgro Railcar                                   |
| MULT | Multiple                                         |
| NACA | National Alabama Corporation                     |
| NACC | North American Car                               |
| NRE  | National Railway Equipment                       |
| NSC  | National Steel Car                               |
| PCF  | Pacific Car & Foundry                            |
| PS   | Pullman-Standard                                 |
| PSP  | Pullman-Standard, Division of Trinity Industries |
| SI   | SOUTH IRON                                       |
| SLRX | Saint Louis Refrigerator Car Company             |
| THRL | Thrall                                           |
| TREN | Trenton Works                                    |
| TRIN | Trinity                                          |
| UNKN | Unknown                                          |
| V    | OWNER RAILROAD                                   |

**Validation Rule for A035**

- Equipment Builder must be populated if the Built Date (BLDT) is July 1, 2010 or newer  
-Equipment built or rebuilt on or after July 1, 2010 cannot have a Equipment Builder of Unknown  
-Equipment with a Built Date (BLDT) on or after July 1, 2010 cannot have an Equipment Builder Code of OWNER RAILROAD.  
-Equipment Builder can have a value of MULT only if the equipment has multiple units.

**Builder Lot Code****B030**

A unique identifier for a group of equipment built by one manufacturer under the same contract

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B030**

- Equipment built or rebuilt on or after June 28, 2012 must have a value for Builder Lot Code

**NOTES:**

- If the value is unknown, enter six zeroes (000000).

**Built Country****B031**

The country where the equipment was constructed

Data is Confidential.

**Permissible Values for B031**

- |    |               |    |        |
|----|---------------|----|--------|
| CA | Canada        | MX | Mexico |
| US | United States |    |        |

**Rebuilt Country****B170**

The country where the equipment was re-constructed

**Permissible Values for B170**

- |    |               |    |        |
|----|---------------|----|--------|
| CA | Canada        | MX | Mexico |
| US | United States |    |        |

**FRA Reflectorization****B096**

Indicates the equipment owner assumes responsibility for applying reflectorization tape

**Permissible Values for B096**

- P Reflectorization Plan

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W ReflectORIZATION Waiver

**Validation Rule for B096**

-ReflectORIZATION is mandatory for all equipment after November 28, 2015.

**Refrig Emission Code** **B345**

California State Emission standards for refrigeration units

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B345**

N Not Qualified Q Qualified  
U Ultra-Qualified

**Air Hose Arrangement** **B524**

The type of trainline air hose arrangement

**Permissible Values for B524**

- A S-424 Angle Cock Location  
B S-425 Angle Cock Location on Cars Equipped with AAR Type F Coupler  
C S-426 Angle Cock Location on Cars with Floating Sills  
D S-427 Angle Cock and Air Brake Hose Location on Cars with Excessive Overhang Preventing Compliance with AAR Standards  
E S-428 Angle Cock Location on Cars Equipped with AAR Type F Coupler and Cushioned Underframe  
F S-4003 (Former Standard)  
G S-4003x (Former Standard Retrofitted to Meet All Dimensions Except Height)  
H S-4003-05 (Current Standard Train Line Arrangement for Cars with F-Shank Couplers)  
I S-4021 Angle Cock and Brake Hose Location on Cars with EOCC (E and F)  
J S-4021 Coupler Mounted Bracket End Arrangement  
K S-4028 Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Not Exceeding 45 in. in Length  
L S-4029 Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Exceeding 45 in. in Length  
M S-4030 Trolley Arrangement on Cars with EOCC and E-Shank Couplers  
N S-4031 Trainline Arrangement for Cars with E-Type Couplers and Draft System Buff Travel of 6 to 10 inches  
O S-4032 Trainline Arrangement for Cars with E/F-Type Couplers and Draft System Buff Travel of 6 to 10 inches

**Validation Rule for B524**

-Air Hose Arrangement must be reported for this equipment if it is Built or Rebuilt on or after April 22, 2014.

**NOTES:**

- If any of the following conditions apply, Air Hose Arrangement (B524) must be reported for cars Built or Rebuilt on or after April 22, 2014:
  - Draft Gear Type (B073) at any location is C or E.
  - Connected Unit Count (A020) is reported.
  - Outside Length (OSLG) is greater than or equal to 70 feet (840 inches).
  - The overhang is greater than 5 feet 6 inches (66 inches). Overhang is calculated as follows:
    - 0.5 \* (Outside Length, in inches, minus Truck Center Length, in inches, minus 31 inches)
      - For all other equipment, reporting Air Hose Arrangement is optional.

**4-Pressure ABT Receiver Eqpd** **B539**

Identifies if the equipment is equipped with a 4-pressure air brake test receiver

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B539**

E Equipped  
N Not Equipped

**NOTES:**

- An "E" will be system generated if a 4-Pressure ABT is reported on the equipment.

**Feature****Floor Material****A104**

Describes the type of construction material used for the equipment floor

**Permissible Values for A104**

- 01 Aluminum  
02 Aluminum (Ribbed)  
05 Composite Nailable (considered same as wood)  
06 Composite Nailable, Reinforced (considered same as wood)  
14 Other  
15 Other, Reinforced  
19 Standard Steel  
23 Steel Nailable (includes alternate wood and steel floor)  
24 Steel Nailable, Reinforced (includes alternate wood and steel floor)  
25 Standard Steel, Reinforced  
30 Wood  
31 Wood (Ribbed)  
32 Wood, Double  
33 Wood, Double, Reinforced  
34 Wood Floor with Steel Protective Plates (includes perforated steel)  
35 Wood Floor, Reinforced, with Steel Protective Plates (includes perforated steel)  
36 Wood Floor, Reinforced

**Validation Rule for A104**

-Only Refrigerated Boxcars or Boxcars with Mechanical Designation MWM can have Floor Material codes of 1, 2, or 31.

**Floor Strength Classfn** **Mandatory****A102**

Describes the maximum weight the equipment floor can support

**Permissible Values for A102**

- 01K 01K - Does not meet minimum requirements  
25K 25000 Pounds  
50K 50000 Pounds  
60K 60000 Pounds  
70K 70000 Pounds  
80K 80000 Pounds

**Validation Rule for A102**

- A Floor Strength Classification of 50K or greater must be reported for equipment with a Built Date (BLDT) on or after April 1, 2016
- Refrigerated and Insulated Box cars with Mechanical Designations (UMMD) of RB, RBL, RC, RP, RPL, XLI, XPI must report a Floor Strength Classification of 25K or greater for equipment with a Built Date (BLDT) on or after April 1, 2016

**NOTES:**

- See the Manual of Standards and Recommended Practices Design, Fabrication, and Construction of Freight Cars (MSRP), AAR Specification M-1001, Chapter 4 (Lift Truck Wheel Loads) for the floor strength requirements of boxcars.

**Floor Drain Equipped****B095**

Indicates the equipment floor has a drain

**Permissible Values for B095**

Y Yes

**Validation Rule for B095**

-Floor Drain is only applicable to Refrigerator Cars with Mechanical Designation (UMMD) of RB, RBL, RC, RP, RPL

**Wood Racks Covering Floor****B233**

Reinforcement of the equipment floor using wood racks

**Permissible Values for B233**

Y Yes

**Validation Rule for B233**

-Wood Racks Covering Floors are only applicable to Refrigerator Cars with Mechanical Designations (UMMD) of RB, RBL, RP, RPL, RC

**Pallet Equipped****B144**

Indicates if equipment is equipped with pallets

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**Permissible Values for B144**

Y Yes

**Validation Rule for B144**

-Pallets are not applicable to Mechanical Designation (UMMD) XM

**Lining Material** **A158**

Describes the type of construction material used in the lining of equipment

**Permissible Values for A158**

07 Composite Wood and Steel  
 08 Fiberglass  
 17 Sheet Metal  
 26 Synthetic  
 28 Unlined  
 29 Vinyl  
 30 Wood

**Validation Rule for A158**

-Refrigerator Cars with Mechanical Designation (UMMD) of RB, RBL, RC, RP, RPL cannot have Lining Material codes of 7 or 29

**Bulkhead Type** **B034**

Identifies the type of bulkhead attached to the equipment

**Permissible Values for B034**

F Fixed I Inflatable M Moveable

**Validation Rule for B034**

-Refrigerator Cars with Mechanical Designation (UMMD) of RB, RBL, RC, RP, RPL cannot have Lining Material codes of 7, or 29

**Column Load Dividers** **B046**

Indicates the equipment is column load divider equipped

**Permissible Values for B046**

Y Yes

**Validation Rule for B046**

-Column Load Dividers are only applicable to Box Cars with Mechanical Designation (UMMD) of XP, XPI, XF, XL, XLI, or MWM

**Interior Rack** **B114**

Indicates the equipment is interior rack equipped

**Permissible Values for B114**

Y Yes

**Validation Rule for B114**

-Interior racks are not applicable to Box Cars with Mechanical Designation (UMMD) of XM

**Side Filler Equipped** **B194**

Indicates the equipment is side filler equipped used to prevent shifting within the car during transit

**Permissible Values for B194**

Y Yes

**Validation Rule for B194**

-Side Filler is not applicable to Box Cars with Mechanical Designation (UMMD) of XM

**Lading Strap Anchor Eqpd** **B121**

Indicates the equipment has fixed devices or design features which provide connection points for straps or bands securing the lading

**Permissible Values for B121**

Y Yes

**Adj Lading Strap Equipped** **B281**

Indicates the equipment has adjustable straps or a strap system used for securing the lading

**Permissible Values for B281**

Y Yes

**Validation Rule for B281**

-If Adjustable Lading Strap Equipped is Yes, then Lading Strap Anchor Equipped (B121) must also be populated

**Belt Rail Equipped** **B024**

Indicates the equipment is belt rail equipped

**Permissible Values for B024**

Y Yes

**Rub Rail** **B183**

Indicates the equipment is rub rail anchoring equipped

**Permissible Values for B183**

Y Yes

**Validation Rule for B183**

-Rub Rails are only applicable to Box Cars with Mechanical Designation (UMMD) of XP, XPI, XL, XLI or MWM

**Retention Bar Equipped** **B269**

Indicates the equipment is retention bar equipped

**Permissible Values for B269**

Y Yes

**Validation Rule for B269**

-Retention Bars are only applicable to Box Cars with Mechanical Designation (UMMD) of XP, XPI, XL, XLI or MWM

**Roof Type** **A226**

Describes the type of roof or hatches on the equipment

**Permissible Values for A226**

7 Rectangular or square roof hatches  
 9 Rectangular or square hatches offset from center line of car

**Validation Rule for A226**

-Refrigerator Cars with Mechanical Designation (UMMD) of RB, RBL, RC, RP, RPL cannot have a Roof Type reported  
 -Rectangular or Square Roof Hatches are only applicable to Boxcars with Mechanical Designation (UMMD) LC

**Vent Openings** **B222**

Indicates the equipment has vent openings

**Permissible Values for B222**

Y Yes

**Validation Rule for B222**

-Vent Openings are only applicable to Boxcars (Mechanical Designation of XP, XPI, or MWM)

**Refrigeration Fuel Type** **A207**

Type of fuel used in the refrigeration unit

**Permissible Values for A207**

D Diesel

**Validation Rule for A207**

- Refrigeration Fuel Type is only applicable to Refrigerator cars with Mechanical Designation (UMMD) of RP and RPL

**Refrigeration Level** **B172**

Describes the level of refrigeration to be used within the equipment

**Permissible Values for B172**

F Zero Only (Frozen)  
 N Non-Frozen  
 W Wide Range (Frozen to Non-Frozen)

**Validation Rule for B172**

-Refrigeration Level is only applicable to Refrigerator Cars with Mechanical Designation (UMMD) of RP and RPL

## Data Specification Manual

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Class A Explosives Eqpd</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>B089</b>    |
| Indicates the equipment is equipped to handle class A explosives                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |
| <b>Permissible Values for B089</b><br>Y Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |
| <b>Validation Rule for B089</b><br>-Class A Explosives handling is only applicable to Box Cars with Mechanical Designation (UMMD) of RB, RBL, XL, XM, XLI, XP, XPI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |
| <b>Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |
| <b>Original Cost</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>A184</b>    |
| The original manufacturer selling price                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |
| Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |
| <b>Range of Values for A184</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |
| <b>Minimum</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Maximum</b> |
| 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 9999999        |
| <b>Validation Rule for A184</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |
| -Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |
| -Original Cost must be equal to the Ledger Value if Additions & Betterments Indicator is not reported.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |
| -Railroad marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |
| -Private marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost if Built Date (BLDT) is on or after January 1, 2015                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |
| <b>NOTES:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |
| <ul style="list-style-type: none"> <li>For railroad-marked cars, report in US dollars the original ledger value of the original owner. For cars rebuilt, report the cost prescribed in MR Interchange Rule 88 and Circular Letter OT-24</li> <li>The original cost is used in the settlement of AAR Interchange Rule 107 Office Manual.</li> <li>The reporting of Original Cost information is mandatory for all Railroad marked equipment and for Privately-marked equipment built or rebuilt after January 1, 2015.</li> <li>For connected unit cars report the total original cost for all units in the set.</li> <li>Raise all cents to the next dollar, e.g. \$5,501.02 = 0005502</li> </ul> |                |
| <b>Ledger Value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>A150</b>    |
| The sum of original cost and additions & betterments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |
| Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |
| <b>Range of Values for A150</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |
| <b>Minimum</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Maximum</b> |
| 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 9999999        |
| <b>Validation Rule for A150</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |
| -Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |
| -Ledger Value must equal the Original Cost (A184) plus the additions & betterments, if Total A&B (A003) has been reported. Otherwise Ledger Value should equal Original Cost (A184).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |
| <b>Total A&amp;B</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>A003</b>    |
| System generated sum of all reported amounts in A&B Amount (A317), in US dollars                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |
| Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |
| <b>Range of Values for A003</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |
| <b>Minimum</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Maximum</b> |
| 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 99999999       |
| <b>Ind for Pos/Neg Total A&amp;B</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>A128</b>    |

|                                                                                                                                                    |                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| A code indicating the positive or negative adjustment to the original cost of the equipment                                                        |                     |
| Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone. |                     |
| <b>Permissible Values for A128</b>                                                                                                                 |                     |
| N                                                                                                                                                  | Negative P Positive |

|                                                                                                 |                     |
|-------------------------------------------------------------------------------------------------|---------------------|
| <b>A&amp;B Pos/Neg Ind</b>                                                                      | <b>A316</b>         |
| A code indicating the positive or negative adjustment to the individual addition and betterment |                     |
| Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.              |                     |
| <b>Permissible Values for A316</b>                                                              |                     |
| N                                                                                               | Negative P Positive |
| <b>Validation Rule for A316</b>                                                                 |                     |
| -When entering an individual Addition & Betterment, you must enter a value in all 4 fields.     |                     |
| -The A&B Indicator is required when Additions & Betterments are reported.                       |                     |
| -The A&B Indicator must not be reported if Additions & Betterments are not reported.            |                     |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>A&amp;B Amount</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>A317</b>    |
| The amount of the individual addition and betterment added to or subtracted from the original cost of the equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |
| Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |
| <b>Range of Values for A317</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |
| <b>Minimum</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Maximum</b> |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 999999         |
| <b>Validation Rule for A317</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |
| -When entering an individual addition & betterment; A&B Date Done (A319), A&B Type (A318), A&B Pos/Neg Ind (A316), and A&B Amount (A317) must be reported                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |
| <b>NOTES:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |
| <ul style="list-style-type: none"><li>For railroad-marked cars, report the sum of all additions and betterments applied to the car. This value is for record keeping purposes only and will not be used to report Ledger Value.</li><li>For private Cars report the additions and betterments as qualified under AAR interchange Rule 107 for determination of settlement value.<ul style="list-style-type: none"><li>Additions are costs of all new components applied subsequent to the date the car was built or rebuilt and carried in the capital investment account.</li><li>Betterments are costs of all improvements of components of existing equipment through the substitution of superior parts for inferior parts subsequent to the date the car was built or rebuilt.</li></ul></li><li>For connected unit cars report the total Truck Location A for all units in the set</li></ul> |                |

|                                                                                             |                |
|---------------------------------------------------------------------------------------------|----------------|
| <b>A&amp;B Date Done</b>                                                                    | <b>A319</b>    |
| The date of the individual addition and betterment                                          |                |
| Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.          |                |
| <b>Range of Values for A319</b>                                                             |                |
| <b>Minimum</b>                                                                              | <b>Maximum</b> |
| 1/1/1900                                                                                    | 12/31/9999     |
| <b>Validation Rule for A319</b>                                                             |                |
| -When entering an individual Addition & Betterment, you must enter a value in all 4 fields. |                |
| -Addition and Betterment Date Done cannot be earlier than Built Date (BLDT).                |                |
| -Additions & Betterments Date Done cannot be later than today's date.                       |                |

|                                                                              |             |
|------------------------------------------------------------------------------|-------------|
| <b>A&amp;B Type</b>                                                          | <b>A318</b> |
| The type of individual addition and betterment as defined by Rule 107        |             |
| Data is Confidential. Value does not carry forward for Single Clone / Multi- |             |

## Data Specification Manual

Clone.

**Permissible Values for A318**

|      |                                                                                                                                                                                                                                                                 |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GNRL | General - Capitalized Additions and Betterments                                                                                                                                                                                                                 |
| IHTR | In-transit heater applied to car. Includes renewal in damaged car. When installed coincidental with construction of car, the amount charged to Capital Account for such installation may be estimated.                                                          |
| INIT | Initial load of historical A&B amount as of Umler 4.6 implementation date                                                                                                                                                                                       |
| REFR | Mechanical refrigerating systems or thermostatically controlled temperature device (including power equipment). When installed coincidental with construction or Rule 88 rebuild, the amount charged to Capital Account for such installation may be estimated. |

**Validation Rule for A318**

- For each equipment, only one Individual A&B Type can have a value of INIT.
- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.

**Car Management****Pool Number** P001

Unique number used to indicate the grouping of equipment for a particular purpose

Used for Transportation Codes. Affects Rating. This element is not eligible for Input. Value does not carry forward for Equipment Group Change / Add Back.

**Pool Control** TCPC**Pool Control**

System Generated Field. Used for Transportation Codes. This element is not eligible for Input, Output or Query.

**NOTES:**

- For further explanation reference Appendices C and E.

**User Routing Instructions** TCUR

The routing instruction reported by the user

Used for Transportation Codes.

**Permissible Values for TCUR**

|   |                                |
|---|--------------------------------|
| 2 | Trailer Service Rule 2         |
| G | Contaminated commodity service |
| M | Mark canceled                  |
| O | Owner requested return         |
| U | Unassigned equipment           |

**NOTES:**

- For further explanation reference Appendix E.

**Umler Transportation Code** TCOD

The type of assigned service, empty routing or restriction of the equipment

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

**Transportation Cond Code** TCCD

The AAR or FRA interchange restriction code

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

**Mechanical Restriction** TCME

User reported or system generated type of mechanical restriction

Used for Transportation Codes.

**Permissible Values for TCME**

|   |                             |
|---|-----------------------------|
| S | Scrap                       |
| X | AAR Interchange Restriction |
| Y | FRA Interchange Prohibited  |

**NOTES:**

- For further explanation reference Appendix D.1

**Mech Restriction Reason**

TCMR

The explanation of the Mechanical Restriction (TCME)

Used for Transportation Codes.

**Permissible Values for TCMR**

|   |                                                             |
|---|-------------------------------------------------------------|
| A | Restricted Due to Age (Over 40-AAR, Over 50-FRA)            |
| B | Restricted Due to Air Brakes                                |
| C | Restricted Due to Axles                                     |
| D | Restricted Due to Couplers and Couplers Parts               |
| F | Restricted Due to Couplers Yokes                            |
| G | Restricted Due to Draft Gears                               |
| J | Restricted Due to Journal Bearing and Journal Lubrication   |
| N | Restricted Due to Trucks                                    |
| P | Restricted Due to Truck Side Frames                         |
| T | Restricted Due to Trucks Bolsters                           |
| U | Restricted by AAR or Owner                                  |
| W | Restricted Due to Wheels                                    |
| X | Restricted Due to Scrap or Early Warning                    |
| Z | Restricted Due to Umler Conflict (Not Valid for User Input) |

**NOTES:**

- For further explanation reference Appendix D.2.
- The assignment of the Transportation Codes S, SX, XA, XZ and YA generate the Rate Indicator Code 6 to the CHARM file to zero (0) rate the car hire and mileage rate.

**Sys Gen Routing Inst**

TCGR

The routing instruction generated by the system

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.5.

**Loading Authority Fleet Status** B597

Identifies when a car is listed on a fleet in the Loading Authority application

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B597**

|   |           |
|---|-----------|
| Y | Yes       |
| S | Suspended |

**NOTES:**

- When equipment is on a fleet the Loading Authority (LA) application will update the flag to 'Y – Yes'. When equipment is removed from a fleet the LA application will remove the 'Y – Yes'.
- When equipment is on a LA fleet that is suspended the LA application will update the flag to 'S – Suspended'. When the equipment is on a LA fleet that is no longer suspended the LA application will update the flag to 'Y – Yes'.

**Train Service****Restricted Speed Empty**

B180

Describes the maximum restricted speed the equipment can travel when empty

**Range of Values for B180**

| Minimum | Maximum |
|---------|---------|
| 5       | 95      |

**Restricted Speed Loaded**

B181



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Describes the maximum restricted speed the equipment can travel when loaded

**Range of Values for B181**

| Minimum | Maximum |
|---------|---------|
| 5       | 95      |

**Shove Car to Rest****B189**

Identifies the car must be moved to rest by locomotive

**Permissible Values for B189**

Y Yes

**Shove Adj. Car to Rest****B188**

Identifies the adjacent car must be shoved to rest by locomotive

**Permissible Values for B188**

Y Yes

**Train Position Sensitive****B211**

Indicates there is a physical reason, limiting its position on a train

**Permissible Values for B211**

Y Yes

**End of Train Only****B277**

Indicates the equipment must be placed at the end of the train (including per AAR RP-2001)

**Permissible Values for B277**

Y Yes

**Check Trailing Tonnage****B044**

Indicates the equipment has restrictions on trailing tonnage

**Permissible Values for B044**

Y Yes

**Curve Negotiate Exception****B178**

Describes the requirement for negotiating a curve

**Permissible Values for B178**

- A Restrictive Curve Negotiability, Section 2.1.4 of M-1001
- B Does not meet all Chapter XI Curving Requirements

**Cooper Rating Exception****B273**

Describes the cooper rating (weight distribution model of the equipment), for use in movement across bridges

**Permissible Values for B273**

- A Excessive Cooper Rating
- B Cooper Rating in Excess of E66

**Clearance Exception****B275**

Describes equipment containing nonstandard dimension

**Permissible Values for B275**

- A Excessive Outside Extreme Height (A185)
- B Excessive Outside Extreme Width (A186)
- D All other unique clearance issues
- F Exceeds Plate Code (A046) F at plug door top retainer

**Validation Rule for B275**

- All Box Cars built or rebuilt on or after April 1, 2016 with a Plate Code (A046) of G must report a Clearance Exception
- Clearance Exception can only be reported when Plate Code (A046) is G

**Loaded Net Braking Ratio****B551**

Indicates calculated minimum loaded net braking ratio per AAR Specifications in place on built or rebuilt date (in percent).

System Generated Field. This element is not eligible for input.

**Permissible Values for B551**

- 11.0
- 8.5

**NOTES:**

- Loaded Net Braking Ratio is determined as follows:
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is less than 1/1/1972, then Loaded Net Braking Ratio will be set to blank.
  - If Built Date (BLDT) is greater than or equal to 1/1/1972 and less than 1/1/2004, then loaded Net Braking Ratio is 8.5%.
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is greater than or equal to 1/1/2004, then Loaded Net Braking Ratio is 11.0%.

**Owner-Provided Loaded Net Braking Ratio****B552**

Indicates an alternate minimum loaded net braking ratio provided by owner (in percent).

**Range of Values for B552**

| Minimum | Maximum |
|---------|---------|
| 8.5     | 14.0    |

**NOTES:**

- Owner may enter a documented alternative minimum loaded net braking ratio in this field that is greater than the system calculated Loaded Net Braking Ratio (B551).
- When reported, the Owner-Provided Loaded Net Braking Ratio will be used in PTC stopping distance calculations.
- A change in value for the following elements will cause the Owner-Provided Loaded Net Braking Ratio to reset to blank:
  - Rebuilt Date (RBDT)
  - Gross Rail Load/Weight (A266)
  - Equipment Type Code (UMET)
  - Empty/Load Device Eqpd (B075)

**Empty Braking Ratio****B553**

Indicates calculated empty braking ratio per AAR Specifications in place on built or rebuilt date (in percent).

System Generated Field. This element is not eligible for input.

**Range of Values for B553**

| Minimum | Maximum |
|---------|---------|
| 15.0    | 38.0    |

**NOTES:**

- Empty Braking Ratio is determined as follows:
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is less than 1/1/1972, then Empty Braking Ratio will be set to blank.

**Owner-Provided Empty Braking Ratio****B554**

Indicates an owner supplied alternate empty braking ratio (in percent).

**Range of Values for B554**

| Minimum | Maximum |
|---------|---------|
| 15.0    | 38.0    |

**NOTES:**

- Owner may enter a documented alternative minimum loaded net braking ratio in this field that is greater than the system calculated Loaded Net Braking Ratio (B551).
- When reported, the Owner-Provided Loaded Net Braking Ratio will be used in PTC stopping distance calculations.
- A change in value for the following elements will cause the Owner-Provided Loaded Net Braking Ratio to reset to blank:
  - Rebuilt Date (RBDT)
  - Gross Rail Load/Weight (A266)
  - Equipment Type Code (UMET)
  - Empty/Load Device Eqpd (B075)

**Truck Components****Axle Spacing Distance** *Mandatory***B020**

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**The distance between axle centers on the same truck**

Affects Rating.

**Permissible Values for B020**

|    |                    |
|----|--------------------|
| 53 | 53 Inches          |
| 54 | 54 Inches          |
| 55 | 55 Inches          |
| 60 | 60 Inches          |
| 61 | 61 Inches          |
| 62 | 62 Inches          |
| 63 | 63 Inches          |
| 64 | 64 Inches          |
| 65 | 65 Inches          |
| 66 | 66 Inches          |
| 68 | 68 Inches          |
| 70 | 70 Inches          |
| 71 | 71 Inches          |
| 72 | 72 Inches          |
| 73 | 73 Inches          |
| 74 | 74 Inches          |
| 76 | 76 Inches          |
| 78 | 78 Inches          |
| 99 | Axle Space Unknown |

**Validation Rule for B020**

- Equipment with a Built Date (BLDT) on or after January 1, 1980 cannot report Axle Space Unknown

**Truck Axle Count *Mandatory*****B252****The number of axles per truck****Range of Values for B252**

| Minimum | Maximum |
|---------|---------|
| 2       | 3       |

**Validation Rule for B252**

- Sum of Truck Axle Counts must equal Axle Count (A024)

**Journal Size *Mandatory*****A147****The size of the journal bearing**

Affects Rating.

**Permissible Values for A147**

|   |            |   |           |   |            |
|---|------------|---|-----------|---|------------|
| A | 3-3/4 X 7  | B | 4-1/4 X 8 | C | 5 X 9      |
| D | 5-1/2 X 10 | E | 6X11      | F | 6-1/2 X 12 |
| G | 7 X 12     | K | 6-1/ 2X 9 | M | 7 X 9      |

**Validation Rule for A147**

- 4-axle equipment with Journal Size B and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 103,000 lbs.
- 4-axle equipment with Journal Size C and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 142,000 lbs.
- 4-axle equipment with Journal Size D and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 177,000 lbs.
- 4-axle equipment with Journal Size E and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 220,000 lbs.
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) is not populated, must have Gross Rail Load (A266) of 263,000 lbs.
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 1 or 2, must have Gross Rail Load (A266) of 286,000 lbs.
- 4-axle equipment with Journal Size G or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) is not populated, must have Gross Rail Load (A266) of 315,000 lbs.
- 4-axle equipment with Journal Size G, K, or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 1, must have Gross Rail Load (A266) of 286,000 lbs.

**NOTES:**

- A, B and C Journal Classes are prohibited in Interchange per Rule 90.B.4

**Wheel Diameter *Mandatory*****A294****The diameter of the wheels**

Affects Rating.

**Permissible Values for A294**

|    |           |    |           |    |           |
|----|-----------|----|-----------|----|-----------|
| 33 | 33 Inches | 36 | 36 Inches | 38 | 38 Inches |
|----|-----------|----|-----------|----|-----------|

**Validation Rule for A294**

- UnStarred Cars with Gross Weight of 286,000 lbs. and Increased Gross Rail Load of 2 must have a Wheel Diameter of either 36 or 38 inches
- Equipment with a Qualification for Increased Gross Rail Load (B344) of 1 and Journal Size (A147) of K must have a Wheel Diameter of 36
- Cars with an Increased Gross Rail Load of 1 and Journal of G or M must have a Wheel Diameter of 38 inches
- If Connected Unit Count (A020) is not reported, different Wheel Diameters cannot be reported

**Stability Device Equipped****B199****Indicates a stability device is present on the truck**

Affects Rating.

**Permissible Values for B199**

Y Yes

**Bolster Component ID****B351****Bolster Component ID from Component Registry**

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Sideframe Component ID****B352****Side Frame Component ID from Component Registry**

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Wheelset Component ID****B350****Component ID from Component Registry**

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Draft System Components****Coupler Code****A057****Defines the equipment coupler type****Permissible Values for A057**

|         |                                     |
|---------|-------------------------------------|
| BE60AHT | Type E (Rule 16) - BE60AHT          |
| BE60BHT | Type E Obsolete (Rule 16) - BE60BHT |
| BE63AHT | Type E Obsolete (Rule 16) - BE63AHT |
| BE63HT  | Type E (Rule 16) - BE63HT           |
| BE67HT  | Type E (Rule 16) - BE67HT           |
| BE68HT  | Type E/F (Rule 17) - BE68HT         |
| E42BEX  | Type E/F (Rule 17) - E42BEX         |
| E50ARE  | Type E/F (Rule 17) - E50ARE         |
| E50BEX  | Type E/F (Rule 17) - E50BEX         |
| E60CC   | Type E (Rule 16) - E60CC            |
| E60CE   | Type E (Rule 16) - E60CE            |
| E60CEX  | Type E (Rule 16) - E60CEX           |
| E60CHT  | Type E (Rule 16) - E60CHT           |
| E60CHTE | Type E (Rule 16) - E60CHTE          |
| E60CHTQ | Type E (Rule 16) - E60CHTQ          |
| E60DC   | Type E (Rule 16) - E60DC            |
| E60DE   | Type E (Rule 16) - E60DE            |
| E60EE   | Type E (Rule 16) - E60EE            |
| E61     | Type E Obsolete (Rule 16) - E61     |
| E67AHT  | Type E (Rule 16) - E67AHT           |
| E67BC   | Type E (Rule 16) - E67BC            |
| E67BE   | Type E (Rule 16) - E67BE            |
| E67BHT  | Type E (Rule 16) - E67BHT           |
| E67BHTE | Type E (Rule 16) - E67BHTE          |

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|          |                                          |           |                                                         |
|----------|------------------------------------------|-----------|---------------------------------------------------------|
| E67CC    | Type E (Rule 16) - E67CC                 | FR206EA   | Type F (Rule 18) Rotary - FR206EA                       |
| E67CE    | Type E (Rule 16) - E67CE                 | FR207AE   | Type F (Rule 18) Rotary - FR207AE                       |
| E68AHT   | Type E/F Obsolete (Rule 17) - E68AHT     | FR207E    | Type F (Rule 18) Rotary - FR207E                        |
| E68AHTE  | Type E/F Obsolete (Rule 17) - E68AHTE    | FR208AE   | Type F (Rule 18) Rotary - FR208AE (without wear insert) |
| E68BC    | Type E/F (Rule 17) - E68BC               | FR208E    | Type F (Rule 18) Rotary - FR208E (with wear insert)     |
| E68BE    | Type E/F (Rule 17) - E68BE               | FR209E    | Type F (Rule 18) Rotary - FR209E                        |
| E68BHT   | Type E/F (Rule 17) - E68BHT              | FR301E    | Type F (Rule 18) Rotary - FR301E                        |
| E68BHTE  | Type E/F (Rule 17) - E68BHTE             | FR304E    | Type F (Rule 18) Rotary - FR304E (with wear plate)      |
| E68BHTQ  | Type E/F (Rule 17) - E68BHTQ             | FR304WE   | Type F (Rule 18) Rotary - FR304WE (without wear plate)  |
| E68CE    | Type E/F (Rule 17) - E68CE               | FROTARY   | Type E/F Rotary - FROTARY                               |
| E68DE    | Type E/F Obsolete (Rule 17) - E68DE      | FSPEC     | Type F Special - FSPEC                                  |
| E69AE    | Type E/F (Rule 17) - E69AE               | FUNK      | Type F Unknown - FUNK                                   |
| E69AHTE  | Type E/F (Rule 17) - E69AHTE             | S700AE    | Type E (Rule 16) - S700AE                               |
| E69BE    | Type E/F (Rule 17) - E69BE               | SBE60CC   | Type E (Rule 16) - SBE60CC                              |
| E69CE    | Type E/F (Rule 17) - E69CE               | SBE60CE   | Type E (Rule 16) - SBE60CE                              |
| E69CEX   | Type E/F (Rule 17) - E69CEX              | SBE60DC   | Type E (Rule 16) - SBE60DC                              |
| E69HTE   | Type E/F (Rule 17) - E69HTE              | SBE60DE   | Type E (Rule 16) - SBE60DE                              |
| E69LCE   | Type E/F (Rule 17) - E69LCE              | SBE60DREX | Type E (Rule 16) - SBE60DREX                            |
| EB7AHT   | Type E (Rule 16) - EB7AHT                | SBE60EE   | Type E (Rule 16) - SBE60EE                              |
| EF204CE  | Type E/F (Rule 17) - EF204CE             | SBE60EEX  | Type E (Rule 16) - SBE60EEX                             |
| EF306CE  | Type E/F (Rule 17) - EF306CE             | SBE67BC   | Type E (Rule 16) - SBE67BC                              |
| EF511AE  | Type E/F (Rule 17) - EF511AE             | SBE67BE   | Type E (Rule 16) - SBE67BE                              |
| EF511BE  | Type E/F (Rule 17) - EF511BE             | SBE67CC   | Type E (Rule 16) - SBE67CC                              |
| EF511CE  | Type E/F (Rule 17) - EF511CE             | SBE67CE   | Type E (Rule 16) - SBE67CE                              |
| EF511DE  | Type E/F (Rule 17) - EF511DE             | SBE67CREX | Type E (Rule 16) - SBE67CREX                            |
| EF511LCE | Type E/F (Rule 17) - EF511LCE            | SBE67DE   | Type E (Rule 16) - SBE67DE                              |
| EF511WE  | Type E/F (Rule 17) - EF511WE             | SBE68BC   | Type E/F (Rule 17) - SBE68BC                            |
| EF512CE  | Type E/F (Rule 17) - EF512CE             | SBE68BE   | Type E/F (Rule 17) - SBE68BE                            |
| EF512WE  | Type E/F (Rule 17) - EF512WE             | SBE68CE   | Type E/F (Rule 17) - SBE68CE                            |
| EF528WE  | Type E/F (Rule 17) - EF528WE             | SBE68CREX | Type E/F (Rule 17) - SBE68CREX                          |
| EF60BWE  | Type E/F (Rule 17) - EF60BWE             | SBE68DE   | Type E/F (Rule 17) - SBE68DE                            |
| EFROTARY | Type E/F Rotary - EFROTARY               | SBE68WEX  | Type E/F (Rule 17) - SBE68WEX                           |
| EFSPEC   | Type E/F Special - EFSPEC                | SBE69AE   | Type E/F (Rule 17) - SBE69AE                            |
| EFUNK    | Type E/F Unknown - EFUNK                 | SBE69BE   | Type E/F (Rule 17) - SBE69BE                            |
| EK323CE  | Type E (Rule 16) - EK323CE (Long Travel) | SBE69BREX | Type E/F (Rule 17) - SBE69BREX                          |
| EK324CE  | Type E (Rule 16) - EK324CE (Long Travel) | SBE69CE   | Type E/F (Rule 17) - SBE69CE                            |
| ESPEC    | Type E Special - ESPEC                   | SE60CC    | Type E (Rule 16) - SE60CC                               |
| EUNK     | Type E Unknown - EUNK                    | SE60CE    | Type E (Rule 16) - SE60CE                               |
| F70BHT   | Type F Obsolete (Rule 18) - F70BHT       | SE60CHT   | Type E (Rule 16) - SE60CHT                              |
| F70BHTE  | Type F Obsolete (Rule 18) - F70BHTE      | SE60CHTE  | Type E (Rule 16) - SE60CHTE                             |
| F70CC    | Type F (Rule 18) - F70CC                 | SE60DC    | Type E (Rule 16) - SE60DC                               |
| F70CE    | Type F (Rule 18) - F70CE                 | SE60DE    | Type E (Rule 16) - SE60DE                               |
| F70CHT   | Type F (Rule 18) - F70CHT                | SE60DEX   | Type E (Rule 16) - SE60DEX                              |
| F70CHTE  | Type F (Rule 18) - F70CHTE               | SE60EE    | Type E (Rule 16) - SE60EE                               |
| F70DE    | Type F (Rule 18) - F70DE                 | SE67BC    | Type E (Rule 16) - SE67BC                               |
| F70HT    | Type F Obsolete (Rule 18) - F70HT        | SE67BE    | Type E (Rule 16) - SE67BE                               |
| F71CHT   | Type F (Rule 18) - F71CHT                | SE67BHT   | Type E (Rule 16) - SE67BHT                              |
| F72HT    | Type F (Rule 18) - F72HT                 | SE67BHTE  | Type E (Rule 16) - SE67BHTE                             |
| F73AC    | Type F (Rule 18) - F73AC                 | SE67CC    | Type E (Rule 16) - SE67CC                               |
| F73AE    | Type F (Rule 18) - F73AE                 | SE67CE    | Type E (Rule 16) - SE67CE                               |
| F73AHT   | Type F (Rule 18) - F73AHT                | SE68BC    | Type E/F (Rule 17) - SE68BC                             |
| F73AHTE  | Type F (Rule 18) - F73AHTE               | SE68BE    | Type E/F (Rule 17) - SE68BE                             |
| F73BE    | Type F (Rule 18) - F73BE                 | SE68BHT   | Type E/F (Rule 17) - SE68BHT                            |
| F73HTE   | Type F Obsolete (Rule 18) - F73HTE       | SE68BHTE  | Type E/F (Rule 17) - SE68BHTE                           |
| F79BHT   | Type F Obsolete (Rule 18) - F79BHT       | SE68CE    | Type E/F (Rule 17) - SE68CE                             |
| F79BHTE  | Type F Obsolete (Rule 18) - F79BHTE      | SE69AE    | Type E/F (Rule 17) - SE69AE                             |
| F79CC    | Type F (Rule 18) - F79CC                 | SE69BE    | Type E/F (Rule 17) - SE69BE                             |
| F79CE    | Type F (Rule 18) - F79CE                 | SE69CE    | Type E/F (Rule 17) - SE69CE                             |
| F79CHT   | Type F (Rule 18) - F79CHT                | SF70CC    | Type F (Rule 18) - SF70CC                               |
| F79CHTE  | Type F (Rule 18) - F79CHTE               | SF70CE    | Type F (Rule 18) - SF70CE                               |
| F79DE    | Type F (Rule 18) - F79DE                 | SF70CHT   | Type F (Rule 18) - SF70CHT                              |
| FR201E   | Type F (Rule 18) Rotary - FR201E         | SF70CHTE  | Type F (Rule 18) - SF70CHTE                             |
| FF205E   | Type F (Rule 18) - FF205E                | SF70DE    | Type F (Rule 18) - SF70DE                               |
| FF218AE  | Type F (Rule 18) - FF218AE               | SF79CC    | Type F (Rule 18) - SF79CC                               |
| FR205AE  | Type F (Rule 18) Rotary - FR205AE        | SF79CE    | Type F (Rule 18) - SF79CE                               |
| FR205BE  | Type F (Rule 18) Rotary - FR205BE        | SF79CHT   | Type F (Rule 18) - SF79CHT                              |
| FR205E   | Type F (Rule 18) Rotary - FR205E         | SF79CHTE  | Type F (Rule 18) - SF79CHTE                             |
| FR206E   | Type F (Rule 18) Rotary - FR206E         | SF79DE    | Type F (Rule 18) - SF79DE                               |

## Data Specification Manual

**Validation Rule for A057**

- If Rotary Coupler Style is reported, then Coupler Code must be a rotary coupler.
- If Coupler Code is a rotary coupler, then Coupler Style must be R (Rotary).
- Coupler Code of Type E Obsolete (Rule 16) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of Type E/F Obsolete (Rule 17) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of Type F Obsolete (Rule 18) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of FROTARY or EFROTARY cannot be reported for cars Built or Rebuilt on or after August 12, 2014.

**NOTES:**

- Obsolete: All Type D couplers are obsolete and should report code DOBS; cars with this coupler code will be restricted in interchange as discussed below.
- Unknown: If the coupler code is unknown or if the code stamped on the coupler is illegible, the code BUNK FUNK, EFUNK, or LOCOUNK should be reported.
- Special: Codes ESPEC, FSPEC, and EFSPEC have been created to decline coupler bodies that have been manufactured specifically for the equipment owner and are not listed in the attached table.
- The codes FROTARY and EFROTARY cannot be reported for equipment Built or Rebuilt since August 12, 2014.

**Coupler Style *Mandatory*****B058**

Describes the basic coupler design of the equipment

Used in ETC Generation. Affects Rating.

**Permissible Values for B058**

|   |              |   |              |
|---|--------------|---|--------------|
| B | Bottom Shelf | D | Double Shelf |
| P | Plain        | R | Rotary       |

**Validation Rule for B058**

- If Draft System Type (B073) is H (Hydraulic) then Coupler Style (B058) cannot be reported as M (Solid Drawbar) or L (Rotary Drawbar)
- If Draft System Type (B073) is not Center Of Car or End Of Car, Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) of Center Of Car or End Of Car is reported then Inches of Travel (B061) must also be reported

**Inches of Travel****B061**

The number of inches a draft system will travel

Used in ETC Generation. Affects Rating.

**Range of Values for B061**

| Minimum | Maximum |
|---------|---------|
| 1       | 30      |

**Validation Rule for B061**

- If Draft System Type (B073) is not Center Of Car or End Of Car, Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) of Center Of Car or End Of Car is reported then Inches of Travel (B061) must also be reported
- Inches of Travel cannot be greater than 20 for equipment with a Built Date (BLDT) on or after January 1, 1974

**Draft System Type *Mandatory*****B073**

Describes the draft gear/underframe cushion type

Used in ETC Generation. Affects Rating.

**Permissible Values for B073**

|   |                                                                               |
|---|-------------------------------------------------------------------------------|
| C | Cushioning at Center of Car (COC)                                             |
| E | Cushioning at End of Car (EOC)                                                |
| S | Standard Draft Gear                                                           |
| X | Devices with less than 6 inches buff travel approved under AAR Standard S-060 |
| Y | Devices with 6 to 10 inches of buff travel approved under AAR Standard S-060  |

**Validation Rule for B073**

- If Draft System Type (B073) is Standard Draft Gear (S), Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) is reported as C, E, X, or Y then Inches of Travel (B061) must also be reported
- If Draft System Type (B073) of X, or Y is reported then Draft Gear Group/Cushion Unit Pocket (B562) cannot be reported
- If Draft System Type (B073) X is reported, the Inches of Travel (B061) value must be greater than or equal to 1 and less than 6
- If Draft System Type (B073) Y is reported, the Inches of Travel (B061) value must be greater than or equal to 6 and less than or equal to 10
- If Draft System Type (B073) is E then Coupler Style (B058) cannot be reported as R
- If Draft System Type (B073) is S then Draft Gear Group/Cushion Unit Pocket (B562) may only be A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z (AAR Rule 21)
- If Draft System Type (B073) is E then Draft Gear Group/Cushion Unit Pocket (B562) may only be EOC-1, EOC-1D, EOC-1B, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B, EOC-4, EOC-4B, EOC-5, EOC-5D, EOC-5B, EOC-6, EOC-6D, EOC-6B, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-8F, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10, EOC-10D, EOC-10B, EOC-10F, EOC-11, EOC-11D, EOC-11B, EOC-12, EOC-12D, EOC-12B, EOC-13, EOC-13B, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16, EOC-16D, EOC-16B, EOC-17, EOC-17D, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-23, EOC-23B, EOC-24, EOC-24B, EOC-25E, EOC-26B, EOC-26F, or EOC-27D, or EOC-27E (AAR Rule 59)

**Draft Gear Group/Cushion Unit Pocket****B562**

Draft Gear Group/Cushion Unit Pocket value as listed in AAR Field Manual Interchange Rule 21 and 59

Carry forward for Single Clone / Multi-Clone / Restencil / Add-Back / Equipment Group Change.

**Permissible Values for B562** EOC-1, EOC-1D, EOC-1B, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B, EOC-4, EOC-4B, EOC-5, EOC-5D, EOC-5B, EOC-6, EOC-6D, EOC-6B, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-8F, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10, EOC-10D, EOC-10B, EOC-10F, EOC-11, EOC-11D, EOC-11B, EOC-12, EOC-12D, EOC-12B, EOC-13, EOC-13B, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16, EOC-16D, EOC-16B, EOC-17, EOC-17D, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-23, EOC-23B, EOC-24, EOC-24B, EOC-25E, EOC-26B, EOC-26F, EOC-27D, EOC-27E COC-1, COC-2, COC-3, COC-4, COC-5, COC-6, COC-7, COC-8 (AAR Rule 59).

A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, Z (AAR Rule 21).

**Validation Rule(s) for B562**

- Draft Gear Group/Cushion Unit Pocket (B562) is mandatory for equipment built on or after June 13, 2019, unless Draft System Type (B073) is reported as X or Y
- If Draft Gear Group/Cushion Unit Pocket (B562) is not equal to A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z, then Cushion Unit Type (B563) must be populated
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-6, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-9, EOC-9B, EOC-9D, EOC-10, EOC-10B, EOC-10D, EOC-14, EOC-14B, EOC-18D, EOC-23, EOC-23B, EOC-24, EOC-25E, EOC-26B, or EOC-27D then the Cushion Unit Type (B563) must be 1
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-9E, EOC-26F, or EOC-27E, then the Cushion Unit Type (B563) must be 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-11, EOC-12, EOC-13, EOC-13B, EOC-15, EOC-15B, EOC-15D, EOC-17, EOC-17B, EOC-17D, EOC-18, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-24B, COC-3, COC-5, or COC-7 then the Cushion Unit Type (B563) must be 1 or 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-8F or EOC-10F then the Cushion Unit Type (B563) must be 2 or 3
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-5, EOC-5B, EOC-5D, EOC-6, EOC-6B, EOC-6D EOC-11B, EOC-11D, EOC-12B, EOC-12D, or COC-4 then the Cushion Unit Type (B563) must be 1, 2, or 3
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-16D, or COC-1 then the Cushion Unit Type (B563) must be 1, 2, or 4
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-2B, EOC-2D, EOC-3, EOC-3B, EOC-4, EOC-4B, or COC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, or 4
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1, EOC-1B, EOC-1D, or EOC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5

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- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-8 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1D, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B, EOC-5, EOC-5D, EOC-5B, EOC-6D, EOC-7, EOC-7B, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10D, EOC-11, EOC-11B, EOC-11D, EOC-12D, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16D, EOC-17D, EOC-23, EOC-23B, EOC-27D, or EOC-27E then the Inches of Travel (B061) must be 10
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-19, EOC-19B, EOC-22, EOC-22B, or EOC-25E then the inches of travel must be 12
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-20 or EOC-20B then the Inches of Travel (B061) must be 14
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1B, EOC-4, EOC-4B, EOC-6, EOC-6B, EOC-8, EOC-8B, EOC-8F, EOC-10, EOC-10B, EOC-10F, EOC-12, EOC-12B, EOC-13, EOC-13B, EOC-17, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-21, EOC-21B, EOC-24, or EOC-24B then the Inches of Travel (B061) must be 15
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-2, COC-3, COC-4, COC-5, COC-6, or COC-8 then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 1 or 2, then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 4, then the Inches of Travel (B061) must be 18
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 2, then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 1, then the Inches of Travel (B061) must be 30
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1 then the Inches of Travel (B061) must be 10, 12, or 15
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-26, then the Inches of Travel (B061) must be 18

**Note:**

Reference AAR Field Manual Interchange Rule(s) 21 and 59.

| Cushion Unit Type                                                                | B563 |
|----------------------------------------------------------------------------------|------|
| Cushion Unit Type value as listed in AAR Field Manual Interchange Rule 21 and 59 | ●    |

Carry forward for Single Clone / Multi-Clone / Restencil / Add-Back / Equipment Group Change.

**Permissible Values for B563**

- 1 – Type 1
- 2 – Type 2
- 3 – Type 3
- 4 – Type 4
- 5 – Type 5
- S – Type S

**Validation Rule(s) for B563**

- Cushion Unit Type (B563) is mandatory for equipment built on or after June 13, 2019.
- If Draft Gear Group/Cushion Unit Pocket (B562) is not equal to A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z, then Cushion Unit Type (B563) must be populated.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-6, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-9, EOC-9B, EOC-9D, EOC-10, EOC-10B, EOC-10D, EOC-14, EOC-14B, EOC-18D, EOC-23, EOC-23B, EOC-24, EOC-25E, or EOC-26B then the Cushion Unit Type (B563) must be 1.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-9E, EOC-26F, or EOC-27E, then the Cushion Unit Type (B563) must be 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-11, EOC-12, EOC-13, EOC-13B, EOC-15, EOC-15B, EOC-15D, EOC-17, EOC-17B, EOC-17D, EOC-18, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-24B, COC-3, COC-5, or COC-7 then the Cushion Unit Type (B563) must be 1 or 2.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-8F or EOC-10F then the Cushion Unit Type (B563) must be 2 or 3.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-5, EOC-5B, EOC-5D, EOC-6, EOC-6B, EOC-6D EOC-11B, EOC-11D, EOC-12B, EOC-12D, or COC-4 then the Cushion Unit Type (B563) must be 1, 2, or 3.

- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-16D, or COC-1 then the Cushion Unit Type (B563) must be 1, 2, or 4.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-2B, EOC-2D, EOC-3, EOC-3B, EOC-4, EOC-4B, or COC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, or 4.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1, EOC-1B, EOC-1D, or EOC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-8 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 1 or 2, then the Inches of Travel (B061) must be 20.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 4, then the Inches of Travel (B061) must be 18.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 2, then the Inches of Travel (B061) must be 20.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 1, then the Inches of Travel (B061) must be 30.

**Note:**

Reference AAR Field Manual Interchange Rule(s) 21 and 59.

| Coupler Component ID                         | B353 |
|----------------------------------------------|------|
| Coupler Component ID from Component Registry |      |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

| Cushioning Unit Component ID         | B361 |
|--------------------------------------|------|
| Component ID from Component Registry |      |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## Unit Segment Components

| Unit Equipment Group                         | A307 |
|----------------------------------------------|------|
| Describes the equipment type of the platform | ■    |

Affects Rating.

**Permissible Values for A307**

|      |                 |      |          |
|------|-----------------|------|----------|
| BOXC | Box Car         | FLAT | Flat Car |
| GOND | Gondola         | HOPP | Hopper   |
| IFLT | Intermodal Flat | TANK | Tank Car |
| VFLT | Vehicular Flat  |      |          |

**Validation Rule for A307**

- Unit Equipment Group cannot be reported if the Connected Unit Count (A020) is not reported
- Unit Equipment Group must be reported if Connected Unit Count (A020) is reported

| Unit Tare Weight                                                                                      | A299 |
|-------------------------------------------------------------------------------------------------------|------|
| The unit segment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds |      |

**Range of Values for A299**

| Minimum | Maximum |
|---------|---------|
| 40000   | 160000  |

**Validation Rule for A299**

- Unit Tare Weight must not be reported if the Connected Unit Count (A020) is not reported
- Unit Tare Weight must be reported if Connected Unit Count (A020) is reported
- Unit Tare Weight for Boxcars must be less than or equal 160,000 lbs.
- Unit Tare Weight for Refrigerators must be less than or equal 140,000 lbs.
- Unit Tare Weight for IFLT's must be greater than 10,000 lbs.



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- Unit Tare Weight for IFLTs must be less than 72,000 lbs.
- Unit Tare Weight for all flats other than VFlats with ETC Q\_\_\_ must be greater than 23,000 lbs.
- Unit Tare Weight for all flats other than VFlats with ETC Q\_\_\_ must be less than 500,000 lbs.
- Unit Segment Tare Weights must add up to the Total Tare Weight (A259)
- Unit Tare Weight (A299) value must be reported to the nearest 100 pounds

| Unit Load Limit                                                                                              | A300 |
|--------------------------------------------------------------------------------------------------------------|------|
| The maximum permissible weight of the commodity that can be loaded into the unit segment, reported in pounds |      |

## Range of Values for A300

| Minimum | Maximum |
|---------|---------|
| 40000   | 275000  |

## Validation Rule for A300

- Unit Load Limit must not be reported if the Connected Unit Count (A020) is not reported
- Unit Load Limit must be reported if Connected Unit Count (A020) is reported
- Unit Segment Load Limits must add up to the Load Limit (LDLT)

| Unit Cubic Feet Capacity                                             | A065 |
|----------------------------------------------------------------------|------|
| The calculated interior dimensions of the unit segment in cubic feet |      |

## Range of Values for A065

| Minimum | Maximum |
|---------|---------|
| 1400    | 12500   |

## Validation Rule for A065

- Unit Cubic Feet Capacity must not be reported if the Connected Unit Count (A020) is not reported
- Unit Cubic Feet Capacity requires Connected Unit Count (A020)
- Unit Cubic Feet Capacity for Boxcars must be greater than or equal 2000 cubic feet
- Unit Cubic Feet Capacity for Boxcars must be less than or equal 11000 cubic feet
- Unit Cubic Feet Capacity for Refrigerators must be greater than or equal 1400 cubic feet
- Unit Cubic Feet Capacity for Refrigerators must be less than or equal 6700 cubic feet
- Unit Cubic Feet Capacity must add up to the Cubic Feet Capacity (A067).

| Unit Inside Length                     | A301 |
|----------------------------------------|------|
| The inside length of each unit segment |      |

Displayed in feet and inches on the Web. Stored in inches.

## Range of Values for A301

| Minimum        | Maximum         |
|----------------|-----------------|
| 39 ft 0 inches | 93 ft 11 inches |

## Validation Rule for A301

- Unit Inside Length can only be reported if Connected Unit Count (A020) is reported
- Unit Inside Length must be reported if Connected Unit Count (A020) is reported

## Brake System Components

| Emergency Brake Valve CID            | B354 |
|--------------------------------------|------|
| Component ID from Component Registry |      |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

| Emergency Valve COTS Date                      | B567 |
|------------------------------------------------|------|
| Brake valve emergency portion recondition date |      |

System generated element. This element is not eligible for Input. Value does not

carry forward for Single Clone / Multi-Clone.

## NOTES:

- Emergency Valve COTS Date is system-generated from a Emergency Brake Valve Inspection.

| Emergency Valve OEM Warranty Date                                           | B568 |
|-----------------------------------------------------------------------------|------|
| Brake valve emergency portion Original Equipment Manufacturer warranty date |      |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## NOTES:

- Emergency Valve OEM Date is system-generated from a Emergency Brake Valve Inspection.

| Emergency Valve Part Number               | B569 |
|-------------------------------------------|------|
| Brake valve emergency portion part number |      |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## NOTES:

- Emergency Valve Part Number is system-generated from a Emergency Brake Valve Inspection.

| Service Brake Valve CID              | B357 |
|--------------------------------------|------|
| Component ID from Component Registry |      |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

| Service Valve COTS Date                      | B564 |
|----------------------------------------------|------|
| Brake valve service portion recondition date |      |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## NOTES:

- Service Valve COTS Date is system-generated from a Service Brake Valve Inspection.

| Service Valve OEM Warranty Date                                           | B565 |
|---------------------------------------------------------------------------|------|
| Brake valve service portion Original Equipment Manufacturer warranty date |      |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## NOTES:

- Service Valve OEM Date is system-generated from a Service Brake Valve Inspection.

| Service Valve Part Number               | B566 |
|-----------------------------------------|------|
| Brake valve service portion part number |      |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## NOTES:

- Service Valve Part Number is system-generated from a Service Brake Valve Inspection.

| Slack Adjuster CID                   | B359 |
|--------------------------------------|------|
| Component ID from Component Registry |      |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## Miscellaneous

| Umler Effective Date                                                                     | EFDT |
|------------------------------------------------------------------------------------------|------|
| The date the rating activity (pre-registration, modification, etc.) is expected to occur |      |

This element is not eligible for Query. Does not Carry Forward.

## Validation Rule for EFDT

- Effective Date cannot be set to more than 13 months in the future.

## Data Specification Manual

## NOTES:

- Effective Date will default to the 1st of the following month that equipment is registered

## Inspection

## ABT Due Date (Repair Track)

DU13

The due date of the air brake test per AAR Field Manual Rule 3

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

## ABT 5-8 Year Due Date

DU58

The 5-8 year due date for the air brake test (ABT) after the ABT Due Date (Repair Track)

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

## Car Grade

CG01

The grading of the interior condition of the equipment

Value does not carry forward for Single Clone / Multi-Clone / Equipment Group Change.

## Permissible Values for CG01

- A A-Grade A
- B B-Grade B
- C C-Grade C
- K K-Contaminated (system generated by waybill only)
- L L-Grade A/B with Exceptions
- M M-Restraining Device missing or defective (Shipper/Receiver)
- R R-Dirty Equipment (Shipper Only)
- T T-Car Certified Clean and Defect Free (Receiver Only)
- U U-Unfit for Lading
- X X-Grade A Contains Refuse
- Y Y-Grade B Contains Refuse
- Z Z-Grade C Contains Refuse

## Car Grade Inspection Date

CG02

The date of the grading of the interior condition of the equipment

Value does not carry forward for Single Clone / Multi-Clone / Equipment Group Change.

## Car Grade Inspection Time

CG03

The time of the grading of the interior condition of the equipment

Value does not carry forward for Single Clone / Multi-Clone / Equipment Group Change.

## Car Grade Location SPLC

CG04

The SPLC of the grading location

Value does not carry forward for Single Clone / Multi-Clone / Equipment Group

## Insp Service Valve COTS Date

B570

Brake valve service portion recondition date

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

## NOTES:

- Reports of 9999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMYYY

## Insp Service Valve OEM Warranty Date

B571

Brake valve service portion Original Equipment Manufacturer warranty date

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

Change.

## Car Grade Inspection SCAC

CG05

The shop SCAC grading location

Value does not carry forward for Single Clone / Multi-Clone / Equipment Group Change.

## Inspection Date Done

DTDN

The date the inspection was completed; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

## Validation Rule for DTDN

- The inspection date must not be 60 days before the Build Date

## Inspection Due Date

INDD

The due date of the next inspection; used for all inspection types reported on equipment

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

## Inspection Performer

PERF

The SCAC that completed the inspection; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

## Inspection Reporter

REPT

The SCAC that reported the inspection; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

## Location/SPLC

SPLC

The SPLC of the inspecting location; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

## Air Brake Test Device

B523

Indicates the type of test device used to perform the Air Brake Test

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

## Permissible Values for B523

- A Automatic (Non 4-Pressure)
- M Manual
- P Automatic (4-Pressure)

## Validation Rule for B523

- Air Brake Test Device (B523) must be reported for Air Brake Test inspection reported on or after December 10, 2020

## NOTES:

- Reports of 999999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMYYYY

## Insp Service Valve Part Number

B572

Brake valve service portion part number

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

## Insp Emergency Valve COTS Date

B573

Brake valve emergency portion recondition date

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

## Data Specification Manual

**NOTES:**

- Reports of 9999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMY

**Insp Emergency Valve OEM Warranty Date** **B574**

Brake valve emergency portion Original Equipment Manufacturer warranty date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Reports of 999999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMYYYY

**Insp Emergency Valve Part Number** **B575**

Brake valve emergency portion part number

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Insp Service Valve Location** *Mandatory* **B576**

Brake valve service portion location

. Value does not carry forward for Single Clone / Multi-Clone.

**Insp Emergency Valve Location** *Mandatory* **B577**

Brake valve emergency portion location reported on an emergency brake valve inspection

Value does not carry forward for Single Clone / Multi-Clone.

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## Gondola

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## Data Specification Manual

## General

**Status Code** *Mandatory* USCDIdentifies the current operational state ●

Does not Carry Forward.

**Permissible Values for USCD**

A ACTIVE I INACTIVE  
P PRE-REGISTERED

**NOTES:**

- For Restencil and Clone process the initial Status of a car should be Pre-Registered.
- All Add-Back processes should initially set the Status to Pre-Registered
- A Pre-registered car will automatically have its Status changed to Active for the initial change when TRAIN detects three (3) movements on the car
- If the Status changes to Active due to movement and the car was created from a Restencil, the Prior Equipment ID (PRID) or source car will have its status changed to Inactive automatically by Umler

**Equipment ID** 0001

The equipment stenciled number

**Validation Rule for 0001**

-Equipment Number must not be larger than 6 digits (i.e., 999999)

**NOTES:**

- Equipment ID includes the mark and number stenciled on the equipment. Marks can be up to 4 characters and number up to 6 digits (i.e., ABCD999999).
- Up to 500 cars can be added or updated in a transaction.
- When adding an equipment record, ensure that Prior Equipment ID (PRID) is reported, unless the equipment is new.

**Mechanical Designation** *Mandatory* UMMDEquipment description without physical dimensions ● ▲

Used in ETC Generation. Used for Transportation Codes.

**Permissible Values for UMMD**

GB Gondola-Flat Bottom  
GBR Gondola-Flat Bottom with Roof  
GBS Gondola-Flat Bottom, Specially Equipped  
GBSR Gondola-Flat Bottom with Roof, Specially Equipped  
GS Gondola-Drop Bottom  
GSS Gondola-Drop Bottom, Specially Equipped  
GT Gondola-High Sides and Ends-for Unloading in Dumping Machines Only  
GTR Gondola-High Sides and Ends, with Roof  
GTS Gondola-High Sides and Ends, Specially Equipped  
GWS Gondola-Well, Specially Equipped  
GWSR Gondola-Well with Roof, Specially Equipped  
LG Gondola-Special Design for demountable containers  
MW MoW - Miscellaneous  
MWD MoW - Side Dump Cars  
MWGN MoW - Gondola

**Equipment Type Code** UMET

An alpha numeric code that describes the physical attributes of equipment

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Please Refer to Appendix I for More information Regarding ETC Generation

**Maint of Way Service Type** B403

Identifies equipment Maintenance Of Way function

Value does not carry forward for Equipment Group Change.

**Permissible Values for B403**

C2 Crane / Boom Support Car  
F4 Flat-Wheel Sets

T4 Training Car

T8 Track Geometry Car

**Validation Rule for B403**

- Maint of Way Service Type can only be listed on records where the Equipment Group (0002) or Pseudo Equipment Group (B547) is listed as MISC

**Built Date** *Mandatory* BLDTThe date the construction of the equipment is complete ● ●

Data is Confidential. Used for Transportation Codes. Affects Rating. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for BLDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for BLDT**

- Built Date must be within the last 99 years
- Built Date must not be in the future for equipment in Active Status
- Prior and target equipment's Built Date (BLDT) must match for restenciling
- Built Date cannot be updated within 30 days of the End of Service Date (B078)

**NOTES:**

- Data is public for railroad marked equipment.
- For connected unit cars report the oldest car in the set.

**Rebuilt / ILS Date** RBDT

The date the re-construction of the equipment is complete

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for RBDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for RBDT**

- Rebuilt/Increased Life Service Date must be after the Built Date (BLDT)
- Rebuilt Date must not be more than 70 years after the Built Date (BLDT)
- Rebuilt Date is required for Extended Service Code (A096) 1, 2, or 3 for Increased Life Service
- Rebuilt Date is required for Extended Service Code (A096) R for Rebuilt, or V for 65 years of service
- If Rebuilt Date is reported then the Extended Service Code (A096) must be reported as R for Rebuilt, V, 1, 2, or 3 for Increased Life Service

**NOTES:**

- Railroad cars -- applicable only to cars meeting status as provided in both STB Accounting Rules, and the AAR Mechanical Interchange Rule 88, Office Manual.
- Private cars -- applicable to all cars meeting AAR Mechanical Interchange Rule 88, Section C, Office Manual and Sections A and B of the Field Manual.
- For connected unit cars report the oldest car in the set. Do not report Rebuilt Date unless car has been approved by the AAR.

**Rebuilt Flag** RBFL

Identifies the equipment is nearing its end of life cycle

Data is Confidential. System Generated Field. This element is not eligible for Input.

**Permissible Values for RBFL**

N No Y Yes

**Owner** *Mandatory* UMOWPrimary reporting mark of the railroad or private company owning the car ●

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

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**NOTES:**

- Report the primary reporting mark of the railroad or private company owning the car. When car's lease or lien is held by a bank, trust holder, capital lease company, etc. not having an assigned mark, report the primary reporting mark affiliated with the stenciled reporting mark.

|                                         |             |
|-----------------------------------------|-------------|
| <b>Equipment Group</b> <i>Mandatory</i> | <b>0002</b> |
| Identifies the various major car types  | ● ●         |

Used for Transportation Codes. Affects Rating.

|                                                         |             |
|---------------------------------------------------------|-------------|
| <b>Lessee</b>                                           | <b>LESE</b> |
| The reporting mark of the company leasing the equipment |             |

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**Validation Rule for LESE**

- Umler Owner (UMOW) and Lessee are not allowed to be equal
- Lessee cannot be a child reporting mark

**NOTES:**

- In order to assign privately marked cars to a pool, a railroad reporting mark must be reported.

|                                                                                                       |             |
|-------------------------------------------------------------------------------------------------------|-------------|
| <b>Maintenance Party</b>                                                                              | <b>MNPT</b> |
| The parent reporting mark of the company responsible for the maintenance and repairs of the equipment |             |

Does not Carry Forward.

|                                                     |             |
|-----------------------------------------------------|-------------|
| <b>Mark Owner Category</b>                          | <b>B201</b> |
| The company that owns the stenciled mark on the car |             |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**Permissible Values for B201**

|   |                            |
|---|----------------------------|
| B | US Private                 |
| C | Canadian Private           |
| F | Foreign Private            |
| H | Canadian Class II          |
| I | Canadian Class I           |
| J | Mexican Class I            |
| K | Canadian Class III         |
| M | Mexican Private            |
| N | US Private Steamship       |
| O | Canadian Private Steamship |
| P | Mexican Private Steamship  |
| Q | Foreign Private Steamship  |
| R | US Class II Railroad       |
| U | US Class I Railroad        |
| V | US Class III Railroad      |
| W | Mexican Class II Railroad  |
| Y | Mexican Class III Railroad |

**NOTES:**

- This value is stored in the Umler Database for informational purposes and is retrieved from the Roadmark Registry.

|                                                         |             |
|---------------------------------------------------------|-------------|
| <b>Prior Equipment ID</b>                               | <b>PRID</b> |
| The previous reporting mark and number of the equipment |             |

Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for PRID**

- Prior and target equipment's Built Date (BLDT) must match
- The Prior Equipment ID (0001) must belong to the same or comparable Equipment Group (0002) as the current car initial and number

**NOTES:**

- Prior ID enables equipment records to share the same historical lineage. Equipment Identification Number (EIN) is a generated id that enables these equipment records to share inspections and transaction history.

|                                       |             |
|---------------------------------------|-------------|
| <b>Last Update Date</b>               | <b>B122</b> |
| Date of the last Umler element change |             |

System Generated Field. This element is not eligible for Input.

|                                                                  |             |
|------------------------------------------------------------------|-------------|
| <b>Equipment Add Date</b>                                        | <b>B082</b> |
| Date the reporting mark and number was added to the Umler system |             |

System Generated Field. This element is not eligible for Input.

|                                                         |             |
|---------------------------------------------------------|-------------|
| <b>Status Change Reason</b>                             | <b>USCR</b> |
| Identifies the reason for the current operational state |             |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for USCR**

|   |                         |
|---|-------------------------|
| I | Initial Load            |
| M | Movement                |
| O | Status Changed Manually |
| R | Restencil               |

**NOTES:**

- If movement is detected on equipment, status is changed to Active.
- If an equipment record is changed to Active, any prior equipment record is placed in Inactive status.

|                                                                |             |
|----------------------------------------------------------------|-------------|
| <b>Status Change Date</b>                                      | <b>USCT</b> |
| Identifies the effective date of the current operational state |             |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

|                                                                    |             |
|--------------------------------------------------------------------|-------------|
| <b>Extended Service</b> <i>Mandatory</i>                           | <b>A096</b> |
| A code indicating the eligibility of an increase to the life cycle | ●           |

Used for Transportation Codes. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A096**

|   |                                                                                                                                           |
|---|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | 1st ILS Inspection, additional 5 years of Service                                                                                         |
| 2 | 2nd ILS Inspection, additional 5 years of service (10 years total)                                                                        |
| 3 | 3rd ILS Inspection, additional 5 years of service (15 years total)                                                                        |
| C | Built New between January 1, 1964 - June 30, 1974, Certified for 50 Years of Service, Built New Before July 1, 1974 & Received AAR Waiver |
| E | Built new from July 1, 1974, Qualified for 50 Years Service                                                                               |
| N | Built Before January 1, 1964, Qualified for 40 Years Service                                                                              |
| R | Rule 88, Rebuilt cars                                                                                                                     |
| U | Built between January 1, 1964 - June 30, 1974, Qualified for 40 Years & eligible for certification for 50 Years Service                   |
| V | Car is certified (FRA Waiver & AAR) for 65 years of service from date built new from January 1, 1964                                      |

**Validation Rule for A096**

- If Rebuilt Date (RBDT) is reported, then the Extended Service Code (A096) must be reported as R for Rebuilt, V, 1, 2, or 3 for Increased Life Service
- Extended Service Code of C cannot be reported if the car was built before January 1, 1964 or on/after July 1, 1974
- Extended Service Code of E cannot be reported if the car was built before July 1, 1974
- Extended Service Code of N cannot be reported if the car was built on/after January 1, 1964
- Extended Service Code of U cannot be reported if the car was built before January 1, 1964 or on/after July 1, 1974

**NOTES:**

- Value is used to calculate End of Service Date (B078).
- Rebuilt Date (RBDT) is required for Extended Service Code (A096) R for Rebuilt, or V for 65 years service.
- Rebuilt Date (RBDT) is required for Extended Service Code (A096) 1, 2, 3, and V for Increased Life Service.

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|                                                                                                                                                                                                                                                                                                                                                            |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>End of Service Date</b>                                                                                                                                                                                                                                                                                                                                 | <b>B078</b> |
| Indicates the date of the end of equipment life                                                                                                                                                                                                                                                                                                            |             |
| Data is Confidential. System Generated Field. This element is not eligible for Input.                                                                                                                                                                                                                                                                      |             |
| <b>NOTES:</b>                                                                                                                                                                                                                                                                                                                                              |             |
| <ul style="list-style-type: none"> <li>Data becomes non-confidential two years prior to End of Service Date.</li> </ul>                                                                                                                                                                                                                                    |             |
| <b>Do Not Load After</b>                                                                                                                                                                                                                                                                                                                                   | <b>B590</b> |
| Equipment should not be loaded after date shown in the element                                                                                                                                                                                                                                                                                             |             |
| Data is Confidential.                                                                                                                                                                                                                                                                                                                                      |             |
| <b>Validation Rules for B590</b>                                                                                                                                                                                                                                                                                                                           |             |
| <ul style="list-style-type: none"> <li>-Do Not Load After (B590) cannot be updated thirty days prior to the date shown in the element.</li> <li>-Do Not Load After (B590) cannot be updated within thirty days of the End of Service Date (B078).</li> <li>-Do Not Load After (B590) date cannot be on or after the End of Service (B078) date.</li> </ul> |             |
| <b>NOTES:</b>                                                                                                                                                                                                                                                                                                                                              |             |
| <ul style="list-style-type: none"> <li>The element will be initially populated by End of Service (B078) minus 30 days.</li> <li>Data becomes non-confidential thirty days prior to the Do Not Load After (B590) date.</li> </ul>                                                                                                                           |             |
| <b>Equipment Identification</b>                                                                                                                                                                                                                                                                                                                            | <b>EINN</b> |
| Unique equipment identifier regardless of stenciled mark                                                                                                                                                                                                                                                                                                   |             |
| System Generated Field. This element is not eligible for Input.                                                                                                                                                                                                                                                                                            |             |
| <b>NOTES:</b>                                                                                                                                                                                                                                                                                                                                              |             |
| <ul style="list-style-type: none"> <li>Specify the Prior ID (PRID) on equipment records to ensure the historical lineage is preserved. Equipment with the same EIN share history and inspections.</li> </ul>                                                                                                                                               |             |
| <b>Info Conflict Status</b>                                                                                                                                                                                                                                                                                                                                | <b>B355</b> |
| Indicates that an Informational Conflict exists on the Equipment record                                                                                                                                                                                                                                                                                    |             |
| System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.                                                                                                                                                                                                                               |             |
| <b>Conflict Status</b>                                                                                                                                                                                                                                                                                                                                     | <b>B050</b> |
| Identifies the escalation level of equipment in active conflict                                                                                                                                                                                                                                                                                            |             |
| System Generated Field. Affects Rating. This element is not eligible for Input. Value does not carry forward for Add Back.                                                                                                                                                                                                                                 |             |
| <b>Permissible Values for B050</b>                                                                                                                                                                                                                                                                                                                         |             |
| <ul style="list-style-type: none"> <li>1 Subject to Zero-Rating</li> <li>2 Subject to Restricted in Interchange</li> <li>3 Subject to Deletion</li> </ul>                                                                                                                                                                                                  |             |
| <b>NOTES:</b>                                                                                                                                                                                                                                                                                                                                              |             |
| <ul style="list-style-type: none"> <li>Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs</li> <li>Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs</li> <li>Subject to Deletion, goes into effect 365 days after Conflict Status occurs</li> </ul>                                  |             |
| <b>Date of Original Conflict</b>                                                                                                                                                                                                                                                                                                                           | <b>B063</b> |
| The date the equipment was originally placed in the current conflict                                                                                                                                                                                                                                                                                       |             |
| System Generated Field. This element is not eligible for Input.                                                                                                                                                                                                                                                                                            |             |
| <b>Next Conflict Status</b>                                                                                                                                                                                                                                                                                                                                | <b>B135</b> |
| Identifies the next escalation level of an equipment in active conflict                                                                                                                                                                                                                                                                                    |             |
| System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.                                                                                                                                                                                                                                                 |             |
| <b>Permissible Values for B135</b>                                                                                                                                                                                                                                                                                                                         |             |
| <ul style="list-style-type: none"> <li>1 Subject to Zero-Rating</li> <li>2 Subject to Restricted in Interchange</li> <li>3 Subject to Deletion</li> </ul>                                                                                                                                                                                                  |             |

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Notice Indicator</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>B137</b>    |
| Identifies equipment in error in Umler Notice Management                                                                                                                                                                                                                                                                                                                                                                                                                |                |
| System Generated Field. This element is not eligible for Input.                                                                                                                                                                                                                                                                                                                                                                                                         |                |
| <b>Conflict Status Next Date</b>                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>B062</b>    |
| The date the conflict status will be escalated                                                                                                                                                                                                                                                                                                                                                                                                                          |                |
| System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.                                                                                                                                                                                                                                                                                                                                                              |                |
| <b>Rate Indicator</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>A070</b>    |
| Indicates the rate type applicable to the unit                                                                                                                                                                                                                                                                                                                                                                                                                          |                |
| System Generated Field. Used for Transportation Codes. Affects Rating. This element is not eligible for Input. Does not Carry Forward.                                                                                                                                                                                                                                                                                                                                  |                |
| <b>Permissible Values for A070</b>                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |
| <ul style="list-style-type: none"> <li>0 Zero-Rated Due to Conflict Errors</li> <li>2 Private Mileage Rate</li> <li>4 Private Car Owner Designated Rate</li> <li>6 Zero-Rated - Scrap (S_,SX), AAR Overage (XA), FRA Overage (YA), Umler Conflict - CHR 1/Tariff 6007 (XZ). Zero-Rated Private Owner Election to Zero Rate [See Private Zero Rate (B150)].</li> <li>M Railroad Market Rate</li> <li>Q Zero-Rated Railroad Market Rate Due to Conflict Errors</li> </ul> |                |
| <b>NOTES:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |
| <ul style="list-style-type: none"> <li>If unit is zero-rated, correction of conflicts will reinstate the appropriate rate indicator code.</li> </ul>                                                                                                                                                                                                                                                                                                                    |                |
| <b>Private Zero Rate</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>B150</b>    |
| Indicates a private car is subject to contractual agreement, nullifying mileage rates                                                                                                                                                                                                                                                                                                                                                                                   |                |
| Affects Rating.                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |
| <b>Permissible Values for B150</b>                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |
| Y Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |
| <b>NOTES:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |
| <ul style="list-style-type: none"> <li>Reporting "Y" generates Rate Indicator (A070) value 6 and a zero rate.</li> </ul>                                                                                                                                                                                                                                                                                                                                                |                |
| <b>TTX Hourly Rate</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>B212</b>    |
| Time Charge-The TTX hourly rate for the equipment                                                                                                                                                                                                                                                                                                                                                                                                                       |                |
| Data is Confidential. This element is not eligible for Query.                                                                                                                                                                                                                                                                                                                                                                                                           |                |
| <b>Range of Values for B212</b>                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |
| <b>Minimum</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Maximum</b> |
| 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 9              |
| <b>Validation Rule for B212</b>                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |
| -TTX Hourly rate can only be set on TTX owned Equipment.                                                                                                                                                                                                                                                                                                                                                                                                                |                |
| <b>TTX Mileage Rate</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>B213</b>    |
| Mileage Charge-The TTX mileage rate for the equipment                                                                                                                                                                                                                                                                                                                                                                                                                   |                |
| Data is Confidential. This element is not eligible for Query.                                                                                                                                                                                                                                                                                                                                                                                                           |                |
| <b>Range of Values for B213</b>                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |
| <b>Minimum</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Maximum</b> |
| 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1              |
| <b>Validation Rule for B213</b>                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |
| -TTX Mileage rate can only be set on TTX owned Equipment.                                                                                                                                                                                                                                                                                                                                                                                                               |                |
| <b>First Movement Date</b>                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>USAT</b>    |
| The first movement date under the stenciled mark of the equipment                                                                                                                                                                                                                                                                                                                                                                                                       |                |
| This element is not eligible for Input. Does not Carry Forward.                                                                                                                                                                                                                                                                                                                                                                                                         |                |

## Data Specification Manual

|                                                                                                                                                                                                                                                                                                       |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Equipment Add Company</b>                                                                                                                                                                                                                                                                          | <b>B083</b> |
| The reporting mark of the company that added the equipment                                                                                                                                                                                                                                            |             |
| System Generated Field. This element is not eligible for Input.                                                                                                                                                                                                                                       |             |
| <b>Registration Reason</b>                                                                                                                                                                                                                                                                            | <b>B174</b> |
| The code indicating the reason this equipment is added                                                                                                                                                                                                                                                |             |
| Does not Carry Forward.                                                                                                                                                                                                                                                                               |             |
| <b>Permissible Values for B174</b>                                                                                                                                                                                                                                                                    |             |
| A Add-Back                                                                                                                                                                                                                                                                                            | N New       |
| P Pending Restencil                                                                                                                                                                                                                                                                                   | R Restencil |
| <b>Restencil Program Ind</b>                                                                                                                                                                                                                                                                          | <b>B177</b> |
| Identifies the equipment is under a restencil program                                                                                                                                                                                                                                                 |             |
| <b>Permissible Values for B177</b>                                                                                                                                                                                                                                                                    |             |
| Y Yes                                                                                                                                                                                                                                                                                                 |             |
| <b>Delete Reason Code</b>                                                                                                                                                                                                                                                                             | <b>B064</b> |
| A code that designates the reason the equipment has been deleted                                                                                                                                                                                                                                      |             |
| Value does not carry forward for Add Back.                                                                                                                                                                                                                                                            |             |
| <b>Permissible Values for B064</b>                                                                                                                                                                                                                                                                    |             |
| A Restenciled                                                                                                                                                                                                                                                                                         |             |
| D Destroyed or wrecked                                                                                                                                                                                                                                                                                |             |
| L Lease terminated, removed from fleet                                                                                                                                                                                                                                                                |             |
| P Retired unserviceable beyond economic repair                                                                                                                                                                                                                                                        |             |
| R Rebuilt                                                                                                                                                                                                                                                                                             |             |
| S Sold Serviceable                                                                                                                                                                                                                                                                                    |             |
| T Lost                                                                                                                                                                                                                                                                                                |             |
| W Over age retired for dismantling                                                                                                                                                                                                                                                                    |             |
| Y Error, reporting did not exist                                                                                                                                                                                                                                                                      |             |
| Z Other                                                                                                                                                                                                                                                                                               |             |
| <b>Non-Compliant Wheelsets</b>                                                                                                                                                                                                                                                                        | <b>B544</b> |
| Equipment record is incomplete and has a missing wheelset component ID association. Refer to AAR Field Manual Rule 44 for industry requirements                                                                                                                                                       |             |
| System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.                                                                                                                                                                          |             |
| <b>Validation Rule for B544</b>                                                                                                                                                                                                                                                                       |             |
| -A Wheelset Component ID is required for each applicable location on equipment built on or after January 1, 2016                                                                                                                                                                                      |             |
| -A Wheelset Component ID is required for each applicable location on equipment rebuilt on or after January 1, 2016 and Gross Rail Load (A266) is greater than 268,000 lbs                                                                                                                             |             |
| <b>NOTES:</b>                                                                                                                                                                                                                                                                                         |             |
| <ul style="list-style-type: none"> <li>A "Y" will be system generated if the equipment is active and the number of Wheelset CID's required is not equal to the Axle Count (A024) on the equipment</li> <li>Validation rule applies to equipment that has been in Active status for 60 days</li> </ul> |             |
| <b>Pseudo Equipment Group</b>                                                                                                                                                                                                                                                                         | <b>B547</b> |
| Equipment needs to be identified as a miscellaneous record while maintaining all elements linked to the original equipment group                                                                                                                                                                      |             |
| System Generated Field.                                                                                                                                                                                                                                                                               |             |
| <b>Permissible Values for B547</b>                                                                                                                                                                                                                                                                    |             |
| MISC Miscellaneous                                                                                                                                                                                                                                                                                    |             |
| <b>Weight</b>                                                                                                                                                                                                                                                                                         |             |
| <b>Gross Rail Load/Weight</b>                                                                                                                                                                                                                                                                         | <b>A266</b> |
| The maximum permissible weight on rail of the equipment and the load, reported in pounds                                                                                                                                                                                                              |             |
| Affects Rating.                                                                                                                                                                                                                                                                                       |             |
| <b>Range of Values for A266</b>                                                                                                                                                                                                                                                                       |             |

| Minimum | Maximum |
|---------|---------|
| 160000  | 2835000 |

**Validation Rule for A266**

-Gross Rail Load must be equal to the Load Limit (LDLT) plus the Tare Weight (A259)

**NOTES:**

Use Table 1 below to determine Gross Rail Load, if Qualification for Increased Gross Rail Load (B344) does not exist.

| TABLE 1 -<br>Journal Size | Load per Axle | Gross Rail Load for 4-<br>axle Equipment |
|---------------------------|---------------|------------------------------------------|
| B - 4 1/2" x 8"           | 25,750 lbs.   | 103,000 lbs.                             |
| C - 5" x 9"               | 35,500 lbs.   | 142,000 lbs.                             |
| D - 5 1/2" x 10"          | 44,250 lbs.   | 177,000 lbs.                             |
| E - 6" x 11"              | 55,000 lbs.   | 220,000 lbs.                             |
| F - 6 1/2" x 12"          | 65,750 lbs.   | 263,000 lbs.                             |
| G - 7" x 12"              | 78,750 lbs.   | 315,000 lbs.                             |
| K - 6 1/2" x 9"           | 71,500 lbs.   | 263,000 lbs.                             |
| M - 7" x 9"               | 78,750 lbs.   | 315,000 lbs.                             |

Use Table 2 below to determine Gross Rail Load for 4-axle equipment if Qualification for Increased Gross Rail Load (B344) exists.

| TABLE 2 -<br>Qualification for<br>Increased Gross Rail<br>Load (B344) | Journal Size     | Gross Rail Load |
|-----------------------------------------------------------------------|------------------|-----------------|
| 1                                                                     | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 1                                                                     | G - 7" x 12"     | 286,000 lbs.    |
| 1                                                                     | M - 7" x 9"      | 286,000 lbs.    |
| 2                                                                     | F - 6 1/2" x 12" | 286,000 lbs.    |
| 2                                                                     | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 3                                                                     | F - 6 1/2" x 12" | 268,000 lbs.    |
| 3                                                                     | K - 6 1/2" x 9"  | 268,000 lbs.    |

- For multi-unit equipment, report the total gross rail load for the entire set.
- Refer to Field Manual Rule 70 if additional information is required.

A Gross Rail Load less than the listed or calculated values may be entered; however:

- Star Code (A247) must be R or S, and
- Load Limit (LDLT) must also be reduced, ensuring Tare Weight (A259) plus Load Limit (LDLT) equals the reported Gross Rail Load.

For equipment having two or more different journal sizes, see following examples:

**Example for Drawbar Connected:**

- A 3-unit drawbar connected car has 12 axles.
- The end units (Locations A and B) each have 4 axles with E - 6" x 11" journals.
- The intermediate unit (Locations C) has 4 axles with F - 6 1/2" x 12" journals

Using TABLE 1, the Gross Rail Load would be:

$$\begin{aligned}
 &8 \text{ ea. E-6" x 11" journal axles X } 55,000 \text{ lbs. per axle} = 440,000 \text{ lbs.} \\
 &+ 4 \text{ ea. F-6 1/2" x 12" journal axles X } 65,750 \text{ lbs. per axle} = 263,000 \text{ lbs.} \\
 &\text{Gross Rail Load} = 703,000 \text{ lbs.}
 \end{aligned}$$

**Example for Articulated Connected:**

- A 5-unit articulated intermodal car has 6 trucks (12 axles).
- The end trucks (Locations A and B) each have 2 axles with E - 6" x 11" journals.
- The intermediate trucks (Locations C, D, E, and F) each have 2 axles with G - 7" x 12" journals

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Using TABLE 1, the Gross Rail Load would be:

4 ea. E-6" x 11" journal axles X 55,000 lbs. per axle = 220,000 lbs.  
 + 8 ea. G-7" x 12" journal axles X 78,750 lbs. per axle = 630,000 lbs.  
 Gross Rail Load = 850,000 lbs.

#### Tare Weight *Mandatory* A259

The equipment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds ●●

Affects Rating.

##### Range of Values for A259

| Minimum | Maximum |
|---------|---------|
| 30000   | 1350000 |

##### Validation Rule for A259

- Tare Weight (A259) of GOND with a blank Connected Unit Count (A020), must contain values between 30,000 lbs. and 150,000 lbs.
- Tare Weight (A259) of GOND where Connected Unit Count (A020) is 2, must contain values between 60,000 lbs. and 300,000 lbs.
- Tare Weight (A259) of GOND where Connected Unit Count (A020) is 3, must contain values between 90,000 lbs. and 450,000 lbs.
- Tare Weight (A259) of GOND where Connected Unit Count (A020) is 4, must contain values between 120,000 lbs. and 600,000 lbs.
- Tare Weight (A259) of GOND where Connected Unit Count (A020) is 5, must contain values between 150,000 lbs. and 750,000 lbs.
- Tare Weight (A259) of GOND where Connected Unit Count (A020) is 6, must contain values between 180,000 lbs. and 900,000 lbs.
- Tare Weight (A259) of GOND where Connected Unit Count (A020) is 7, must contain values between 210,000 lbs. and 1,050,000 lbs.
- Tare Weight (A259) of GOND where Connected Unit Count (A020) is 8, must contain values between 240,000 lbs. and 1,200,000 lbs.
- Tare Weight (A259) of GOND where Connected Unit Count (A020) is 9, must contain values between 270,000 lbs. and 1,350,000 lbs.
- Tare Weight (A259) value must be reported to the nearest 100 pounds

##### NOTES:

- Do not report an average Tare Weight for car series, except for Pre-Registered cars
- When cars are made active, the actual Tare Weight must be recorded

#### Load Limit *Mandatory* LDLT

The maximum permissible weight of the commodity that can be loaded into the equipment, reported in pounds ●●▲

Used in ETC Generation. Affects Rating.

##### Range of Values for LDLT

| Minimum | Maximum |
|---------|---------|
| 70000   | 2565000 |

##### Validation Rule for LDLT

- Load Limit (LDLT) of GOND with a blank Connected Unit Count (A020), must contain values between 70,000 lbs. and 285,000 lbs.
- Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 2, must contain values between 140,000 lbs. and 570,000 lbs.
- Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 3, must contain values between 210,000 lbs. and 855,000 lbs.
- Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 4, must contain values between 280,000 lbs. and 1,140,000 lbs.
- Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 5, must contain values between 350,000 lbs. and 1,425,000 lbs.
- Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 6, must contain values between 420,000 lbs. and 1,710,000 lbs.
- Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 7, must contain values between 490,000 lbs. and 1,995,000 lbs.
- Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 8, must contain values between 560,000 lbs. and 2,280,000 lbs.
- Load Limit (LDLT) of GOND where Connected Unit Count (A020) is 9, must contain values between 630,000 lbs. and 2,565,000 lbs.

##### NOTES:

- For connected unit cars report the sum of the load limits for all units in the set.

#### Weighing Status *Mandatory* A289

Indicates the weight information is an estimate or an actual measurement ●

Value does not carry forward for Single Clone / Multi-Clone.

##### Permissible Values for A289

- A Actual
- E Estimated
- V Verified correct Tare Weight
- X Tare Weight subject to verification (System Generated)

##### Validation Rule for A289

- Equipment cannot be within a series of 10 with identical Tare Weights (A259), refer to Appendix P for further information on resolving tare weight conflicts
- When Status Code changes to Active or Inactive Weighing Status must be reported as Actual (A) or Verified (V) within 60 days of Status Code change

#### Weighing Date A288

The date the equipment was actually weighed

Value does not carry forward for Single Clone / Multi-Clone.

##### Range of Values for A288

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

##### Validation Rule for A288

- If Weighing Date is reported the Tare Weight (A259) must be reported
- When Weighing Date is reported then Weighing Status (A289) must be A (Actual) or V (Verified)
- If Weighing Status (A289) is A (Actual) or V (Verified correct Tare Weight) then Weighing Date must be reported
- Weighing Date must be on or before the current date
- Weighing Date cannot be before Built / Rebuilt date

#### Cubic Feet Capacity *Mandatory* A067

The maximum interior cubic feet capacity of the equipment ●▲

Used in ETC Generation.

##### Range of Values for A067

| Minimum | Maximum |
|---------|---------|
| 400     | 79200   |

##### NOTES:

- For connected unit cars report the sum of all units cubic capacity.
- Plate Codes A, B, C, E, F, G are applicable to Gondolas

#### Star Code A247

Indicates a reduction of the Load Limit (LDLT) of the equipment per AAR Rule 70 ●

Affects Rating.

##### Permissible Values for A247

- R Body Capacity less than Truck Capacity
- S Reduced Load Limit

##### Validation Rule for A247

- 4-axle Cars with Star Codes of S or R must not exceed Gross Weight of 263,000 lbs. when Journal Size is A, B, C, D, or E
- Journal Sizes having Star Code of S must have a Gross Weight that is less than the calculated Gross Weight with rounding applied
- UnStarred 4 Axle Cars reporting Increased Gross Rail Load (IGRL) of 2 or 3 must have a Gross Weight greater than or equal to 264,000 lbs.
- Starred 4 axle cars with IGRL of 1 must have a Wheel Size of 36 inches when Gross Weight is less than 286,000 lbs.
- Starred 4 Axle Cars with Increased Gross Rail Load (IGRL) reported must have a Journal Size of K, G, or M

#### Qual for Inc GRL B344

AAR qualification for increased Rail Load Code designating AAR approval for operating 4-axle equipment at a gross rail load greater than 263,000 lbs per



## Data Specification Manual

## AAR Rule 88

## Permissible Values for B344

- 1 Rule 88 IGRL Code 1 (> 263,000 lbs. and <= 286,000 lbs. GRL per AAR Specification S-286)
- 2 Rule 88 IGRL Code 2 (> 263,000 lbs. and <= 286,000 lbs. GRL)
- 3 Rule 88 IGRL Code 3 (> 263,000 lbs. and <= 268,000 lbs. GRL)

## Validation Rule for B344

- Equipment having Qualification for Increased Gross Rail Load of 3, and a Gross Rail Load (A266) less than 268,000 lbs, must have Star Code (A247) of S.
- Equipment having Qualification for Increased Gross Rail Load of 1 or 2, and a Gross Rail Load (A266) less than 286,000 lbs, must have Star Code (A247) of S.
- 4-axle equipment with Gross Rail Load (A266) greater than 263,000 lbs. and less than 315,000 lbs., and Star Code (A247) blank, must report Qualification for Increased Gross Rail Load.
- 4-axle equipment having Qualification for Increased Gross Rail Load of 1, 2, or 3 must have a Wheel Diameter (A294) of 36 or 38
- 4-axle equipment having Qualification for Increased Gross Rail Load of 2 or 3 must have a Journal Size (A147) of F or K
- 4-axle equipment having Qualification for Increased Gross Rail Load of 1 must have a Journal Size (A147) of K, G, or M
- 4-axle equipment having Qualification for Increased Gross Rail Load of 3 must have Gross Rail Load (A266) that does not exceed 268,000 lbs
- 4-axle equipment having Qualification for Increased Gross Rail Load of 1 or 2 must have Gross Rail Load (A266) that does not exceed 286,000 lbs

## Dimension

Plate Code *Mandatory*

A046

Indicates the extreme height and width clearance of the equipment

Affects Rating.

## Permissible Values for A046

- B Plate Code B
- C Plate Code C
- E Plate Code E
- F Plate Code F
- G Clearance Code G
- N Plate Code N

## NOTES:

- For a description of Plate Codes, please see Appendix J at the back of this manual.
  - Report B: If clearance does not exceed Plate B
  - Report C: If clearance is greater than Plate B, but does not exceed Plate C
  - Report E: If clearance is greater than Plates B and C, but does not exceed Plate E.
  - Report F: If clearance is greater than Plates B, C and E, but does not exceed Plate F
  - Report G: If clearance exceeds Plates B, C, E, F, and N.
  - Report N: If clearance is greater than Plates B, C, E, and F, but does not exceed Plate N.
- There is no AAR Plate G. Clearance Code G is included in Umler to represent equipment that does not fit any existing AAR clearance plates.
- For ARTICULATED/MULTI-UNIT SET report the most restrictive clearance plate of UNIT in the set.

Outside Length *Mandatory*

OSLG

The outside length over pulling faces of couplers in normal position

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

## Range of Values for OSLG

| Minimum        | Maximum         |
|----------------|-----------------|
| 28 ft 0 inches | 792 ft 0 inches |

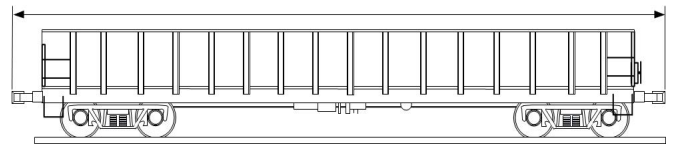
## Validation Rule for OSLG

- Outside Length on a GT ore jenny (Mechanical Designation - GT, Flat Bottom, Inside Length less than 36 feet) cannot be less than 24 feet
- Outside Length (OSLG) on freight cars must exceed the Inside Length (A135) by 2 feet or more
- If Axle Count (A024) is 4, then Outside Length must not exceed Inside Length (A135) by more than 24 feet
- Outside Length (OSLG) of GOND with a blank Connected Unit Count (A020), must contain values between 24 feet and 88 feet
- Outside Length (OSLG) of GOND where Connected Unit Count (A020) is 2, must contain values between 48 feet and 176 feet
- Outside Length (OSLG) of GOND where Connected Unit Count (A020) is 3, must contain values between 72 feet and 264 feet
- Outside Length (OSLG) of GOND where Connected Unit Count (A020) is 4, must contain values between 96 feet and 352 feet
- Outside Length (OSLG) of GOND where Connected Unit Count (A020) is 5, must contain values between 120 feet and 440 feet
- Outside Length (OSLG) of GOND where Connected Unit Count (A020) is 6, must contain values between 144 feet and 528 feet
- Outside Length (OSLG) of GOND where Connected Unit Count (A020) is 7, must contain values between 168 feet and 616 feet
- Outside Length (OSLG) of GOND where Connected Unit Count (A020) is 8, must contain values between 192 feet and 704 feet
- Outside Length (OSLG) of GOND where Connected Unit Count (A020) is 9, must contain values between 216 feet and 792 feet

## NOTES:

For connected unit cars report the maximum coupled length of the set.

- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

Outside Extreme Width *Mandatory*

A186

The outside extreme width of the equipment

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

## Range of Values for A186

| Minimum       | Maximum        |
|---------------|----------------|
| 8 ft 5 inches | 11 ft 6 inches |

## Validation Rule for A186

- Outside Extreme Width must not exceed 10 feet 8 inches for Plate Codes B, C, E, F, or N

## NOTES:

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- If equipment operates with removable cover Roof Type (A226) code 2, report dimension with cover installed.

Outside Extreme Height *Mandatory*

A185

Height from top of rail to extreme projecting height

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

## Range of Values for A185

| Minimum       | Maximum        |
|---------------|----------------|
| 4 ft 0 inches | 18 ft 0 inches |

## Validation Rule for A185

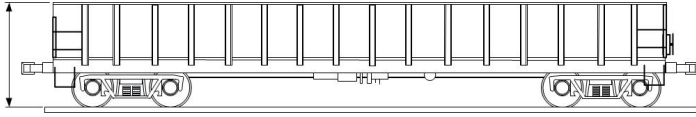
- Outside Extreme Height for Plate Codes B must be less than or equal to 15 feet 1 inch
- Outside Extreme Height for Plate Codes C or I must be less than or equal to 15 feet 6 inches

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- Outside Extreme Height for Plate Code E must be less than or equal to 15 feet 9 inches
- Outside Extreme Height for Plate Code F must be less than or equal to 17 feet 0 inch
- Outside Extreme Height for Plate Code N must be less than or equal to 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Outside Height Extr Width Mandatory****A187**

The highest point at which the extreme width of the equipment occurs

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A187**

| Minimum       | Maximum        |
|---------------|----------------|
| 1 ft 0 inches | 18 ft 0 inches |

**Validation Rule for A187**

- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 8 inches if Outside Height Extreme Width is 13 feet 10 inches or less
- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 7 inches if Outside Height Extreme Width is 13 feet 11 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 6 inches if Outside Height Extreme Width is 14 feet 0 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 4 inches if Outside Height Extreme Width is 14 feet 1 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 3 inches if Outside Height Extreme Width is 14 feet 2 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 2 inches if Outside Height Extreme Width is 14 feet 3 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 0 inches if Outside Height Extreme Width is 14 feet 4 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 9 feet 9 inches if Outside Height Extreme Width is 14 feet 5 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 9 feet 5 inches if Outside Height Extreme Width is 14 feet 6 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 9 feet 2 inches if Outside Height Extreme Width is 14 feet 7 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 8 feet 10 inches if Outside Height Extreme Width is 14 feet 8 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 8 feet 6 inches if Outside Height Extreme Width is 14 feet 9 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 8 feet 3 inches if Outside Height Extreme Width is 14 feet 10 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 7 feet 11 inches if Outside Height Extreme Width is 14 feet 11 inches

- Outside Extreme Width (A186) for Plate Code B must not exceed 7 feet 6 inches if Outside Height Extreme Width is 15 feet 0 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 7 feet 4 inches if Outside Height Extreme Width is 15 feet 1 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 8 inches if Outside Height Extreme Width is 14 feet 3 inches or less
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 7 inches if Outside Height Extreme Width is 14 feet 4 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 6 inches if Outside Height Extreme Width is 14 feet 5 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 4 inches if Outside Height Extreme Width is 14 feet 6 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 3 inches if Outside Height Extreme Width is 14 feet 7 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 2 inches if Outside Height Extreme Width is 14 feet 8 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 0 inches if Outside Height Extreme Width is 14 feet 9 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 9 feet 9 inches if Outside Height Extreme Width is 14 feet 10 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 9 feet 5 inches if Outside Height Extreme Width is 14 feet 11 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 9 feet 2 inches if Outside Height Extreme Width is 15 feet 0 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 8 feet 10 inches if Outside Height Extreme Width is 15 feet 1 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 8 feet 6 inches if Outside Height Extreme Width is 15 feet 2 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 8 feet 3 inches if Outside Height Extreme Width is 15 feet 3 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 7 feet 11 inches if Outside Height Extreme Width is 15 feet 4 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 7 feet 8 inches if Outside Height Extreme Width is 15 feet 5 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 7 feet 4 inches if Outside Height Extreme Width is 15 feet 6 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 8 inches if Outside Height Extreme Width is 15 feet 2 inches or less
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 6 inches if Outside Height Extreme Width is 15 feet 3 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 3 inches if Outside Height Extreme Width is 15 feet 4 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 9 feet 6 inches if Outside Height Extreme Width is 15 feet 5 inches

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- Outside Extreme Width (A186) for Plate Code E must not exceed 8 feet 8 inches if Outside Height Extreme Width is 15 feet 6 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 7 feet 11 inches if Outside Height Extreme Width is 15 feet 7 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 7 feet 1 inches if Outside Height Extreme Width is 15 feet 8 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 6 feet 3 inches if Outside Height Extreme Width is 15 feet 9 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 8 inches if Outside Height Extreme Width is 16 feet 3 inches or less
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 7 inches if Outside Height Extreme Width is between 16 feet 4 inches and 16 feet 6 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 6 inches if Outside Height Extreme Width is 16 feet 7 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 3 inches if Outside Height Extreme Width is 16 feet 8 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 0 inches if Outside Height Extreme Width is 16 feet 9 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 8 inches if Outside Height Extreme Width is 16 feet 10 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 5 inches if Outside Height Extreme Width is 16 feet 11 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 2 inches if Outside Height Extreme Width is 17 feet 0 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 8 feet 3 inches if Outside Height Extreme Width is 14 feet 10 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 8 feet 3 inches if Outside Height Extreme Width is 15 feet 3 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 8 inches if Outside Height Extreme Width (A187) is 16 feet 9 inches or less
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 6 inches if Outside Height Extreme Width (A187) is 16 feet 10 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 4 inches if Outside Height Extreme Width (A187) is 16 feet 11 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 2 inches if Outside Height Extreme Width (A187) is 17 feet 0 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 9 feet 11 inches if Outside Height Extreme Width (A187) is 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Outside Upper Eaves Width****A194**

The width between the outside uppermost corners of the equipment

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A194**

| Minimum       | Maximum         |
|---------------|-----------------|
| 4 ft 0 inches | 10 ft 10 inches |

**Validation Rule for A194**

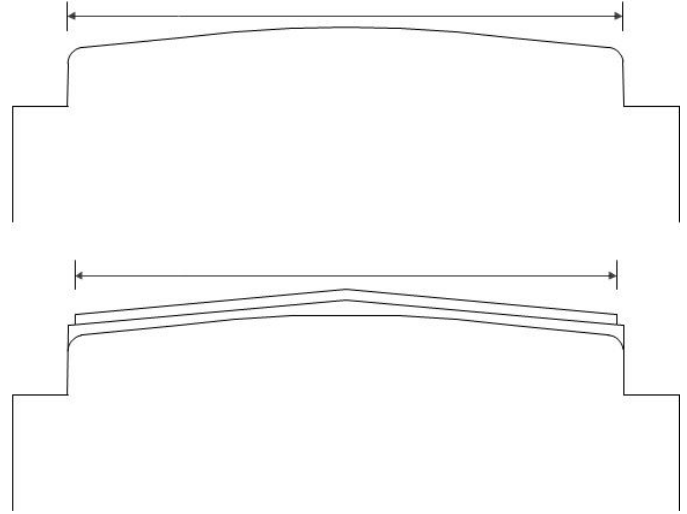
- Outside Upper Eaves Width (A194) is mandatory for Gondolas built or rebuilt on or after June 18, 2020
- Outside Upper Eaves Width must be less than or equal to the Outside Extreme Width (A186)
- Outside Upper Eaves Width must be less than or equal to the Outside Lower Eaves Width (A190)
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 8 inches if Outside Upper Eaves Height (A193) is 13 feet 10 inches or less
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 8 inches if Outside Upper Eaves Height (A193) is 13 feet 10 inches or less
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 7 inches if Outside Upper Eaves Height (A193) is 13 feet 11 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 6 inches if Outside Upper Eaves Height (A193) is 14 feet 0 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 4 inches if Outside Upper Eaves Height (A193) is 14 feet 1 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 3 inches if Outside Upper Eaves Height (A193) is 14 feet 2 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 2 inches if Outside Upper Eaves Height (A193) is 14 feet 3 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 0 inches if Outside Upper Eaves Height (A193) is 14 feet 4 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 9 feet 9 inches if Outside Upper Eaves Height (A193) is 14 feet 5 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 9 feet 5 inches if Outside Upper Eaves Height (A193) is 14 feet 6 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 9 feet 2 inches if Outside Upper Eaves Height (A193) is 14 feet 7 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 8 feet 10 inches if Outside Upper Eaves Height (A193) is 14 feet 8 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 8 feet 6 inches if Outside Upper Eaves Height (A193) is 14 feet 9 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 8 feet 3 inches if Outside Upper Eaves Height (A193) is 14 feet 10 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 7 feet 11 inches if Outside Upper Eaves Height (A193) is 14 feet 11 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 7 feet 8 inches if Outside Upper Eaves Height (A193) is 15 feet 0 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 7 feet 4 inches if Outside Upper Eaves Height (A193) is 15 feet 1 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 8 inches if Outside Upper Eaves Height (A193) is 14 feet 3 inches or less
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 7 inches if Outside Upper Eaves Height (A193) is 14 feet 4 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 6 inches if Outside Upper Eaves Height (A193) is 14 feet 5 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 4 inches if Outside Upper Eaves Height (A193) is 14 feet 6 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 3 inches if Outside Upper Eaves Height (A193) is 14 feet 7 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 2 inches if Outside Upper Eaves Height (A193) is 14 feet 8 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 0 inches if Outside Upper Eaves Height (A193) is 14 feet 9 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 9 feet 9 inches if Outside Upper Eaves Height (A193) is 14 feet 10 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 9 feet 5 inches if Outside Upper Eaves Height (A193) is 14 feet 11 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 9 feet 2 inches if Outside Upper Eaves Height (A193) is 15 feet 0 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 8 feet 10 inches if Outside Upper Eaves Height (A193) is 15 feet 1 inches

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- Outside Upper Eaves Width for Plate Code C must not exceed 8 feet 6 inches if Outside Upper Eaves Height (A193) is 15 feet 2 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 8 feet 3 inches if Outside Upper Eaves Height (A193) is 15 feet 3 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 7 feet 11 inches if Outside Upper Eaves Height (A193) is 15 feet 4 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 7 feet 8 inches if Outside Upper Eaves Height (A193) is 15 feet 5 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 7 feet 4 inches if Outside Upper Eaves Height (A193) is 15 feet 6 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 10 feet 8 inches if Outside Upper Eaves Height (A193) is 15 feet 2 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 10 feet 6 inches if Outside Upper Eaves Height (A193) is 15 feet 3 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 10 feet 3 inches if Outside Upper Eaves Height (A193) is 15 feet 4 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 9 feet 6 inches if Outside Upper Eaves Height (A193) is 15 feet 5 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 8 feet 8 inches if Outside Upper Eaves Height (A193) is 15 feet 6 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 7 feet 11 inches if Outside Upper Eaves Height (A193) is 15 feet 7 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 7 feet 1 inches if Outside Upper Eaves Height (A193) is 15 feet 8 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 6 feet 3 inches if Outside Upper Eaves Height (A193) is 15 feet 9 inches
- Outside Upper Eaves Width for Plate Code F must not exceed 10 feet 8 inches if Outside Upper Eaves Height (A193) is 16 feet 3 inches
- Outside Upper Eaves Width for Plate Code F must not exceed 10 feet 7 inches if Outside Upper Eaves Height (A193) is between 16 feet 4 inches and 16 feet 6 inches
- Outside Upper Eaves Width for Plate Code F must not exceed 10 feet 6 inches if Outside Upper Eaves Height (A193) is 16 feet 7 inches
- Outside Upper Eaves Width for Plate Code F must not exceed 10 feet 3 inches if Outside Upper Eaves Height (A193) is 16 feet 8 inches
- Outside Upper Eaves Width for Plate Code F must not exceed 10 feet 0 inches if Outside Upper Eaves Height (A193) is 16 feet 9 inches
- Outside Upper Eaves Width for Plate Code F must not exceed 9 feet 8 inches if Outside Upper Eaves Height (A193) is 16 feet 10 inches
- Outside Upper Eaves Width for Plate Code F must not exceed 9 feet 5 inches if Outside Upper Eaves Height (A193) is 16 feet 11 inches
- Outside Upper Eaves Width for Plate Code F must not exceed 9 feet 2 inches if Outside Upper Eaves Height (A193) is 17 feet 0 inches
- Outside Upper Eaves Width for Plate Code N must not exceed 10 feet 8 inches if Outside Upper Eaves Height (A193) is 16 feet 9 inches or less
- Outside Upper Eaves Width for Plate Code N must not exceed 10 feet 6 inches if Outside Upper Eaves Height (A193) is 16 feet 10 inches
- Outside Upper Eaves Width for Plate Code N must not exceed 10 feet 4 inches if Outside Upper Eaves Height (A193) is 16 feet 11 inches
- Outside Upper Eaves Width for Plate Code N must not exceed 10 feet 2 inches if Outside Upper Eaves Height (A193) is 17 feet 0 inches
- Outside Upper Eaves Width for Plate Code N must not exceed 9 feet 11 inches if Outside Upper Eaves Height (A193) is 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set
- Round fraction to the higher inch, eg., 05 1/4" = 06"

**Outside Upper Eaves Hght****A193**

Height from the top of rail to the uppermost outside corner of the equipment

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A193**

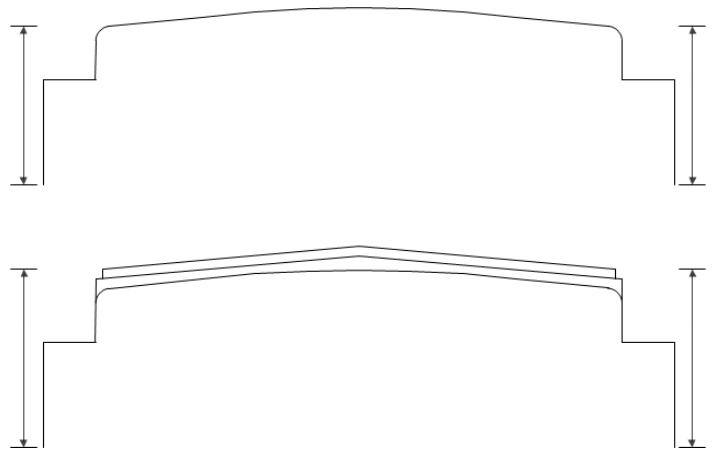
| Minimum       | Maximum         |
|---------------|-----------------|
| 2 ft 0 inches | 17 ft 11 inches |

**Validation Rule for A193**

- Outside Upper Eaves Height must not exceed the Outside Extreme Height (A185)
- Outside Upper Eaves Height must be greater than or equal to the Outside Lower Eaves Height (A189)
- Outside Upper Eaves Height for Plate Code B must not exceed 15 feet 1 inch
- Outside Upper Eaves Height for Plate Code C must not exceed 15 feet 6 inches
- Outside Upper Eaves Height for Plate Code E must not exceed 15 feet 9 inches
- Outside Upper Eaves Height for Plate Code F must not exceed 17 feet 0 inches
- Outside Upper Eaves Height for Plate Code N must not exceed 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- If equipment operates with removable cover Roof Type (A226) code 2, report dimension with cover installed.

**Outside Lower Eaves Width****A190**



## Data Specification Manual

**Width over lower eaves at sides of car (see diagram)**

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A190**

| Minimum       | Maximum         |
|---------------|-----------------|
| 7 ft 0 inches | 10 ft 10 inches |

**Validation Rule for A190**

- Outside Lower Eaves Width must not exceed the Outside Extreme Width (A186)
- Outside Lower Eaves Width must be greater than or equal to Outside Upper Eaves Width (A194)
- Outside Lower Eaves Width must be reported if Outside Lower Eaves Height (A189) is reported
- Outside Lower Eaves Width must not exceed the Outside Extreme Width (A186)
- Outside Lower Eaves Width must be greater than or equal to Outside Upper Eaves Width (A194)
- Outside Lower Eaves Width must be reported if Outside Lower Eaves Height (A189) is reported
- Outside Lower Eaves Width for Plate Code B must not exceed 10 feet 8 inches if Outside Lower Eaves Height (A189) is 13 feet 10 inches or less
- Outside Lower Eaves Width for Plate Code B must not exceed 10 feet 7 inches if Outside Lower Eaves Height (A189) is 13 feet 11 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 10 feet 6 inches if Outside Lower Eaves Height (A189) is 14 feet 0 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 10 feet 3 inches if Outside Lower Eaves Height (A189) is 14 feet 2 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 10 feet 2 inches if Outside Lower Eaves Height (A189) is 14 feet 3 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 10 feet 0 inches if Outside Lower Eaves Height (A189) is 14 feet 4 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 9 feet 9 inches if Outside Lower Eaves Height (A189) is 14 feet 5 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 9 feet 5 inches if Outside Lower Eaves Height (A189) is 14 feet 6 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 9 feet 2 inches if Outside Lower Eaves Height (A189) is 14 feet 7 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 8 feet 10 inches if Outside Lower Eaves Height (A189) is 14 feet 8 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 8 feet 3 inches if Outside Lower Eaves Height (A189) is 14 feet 10 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 7 feet 11 inches if Outside Lower Eaves Height (A189) is 14 feet 11 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 7 feet 8 inches if Outside Lower Eaves Height (A189) is 15 feet 0 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 7 feet 4 inches if Outside Lower Eaves Height (A189) is 15 feet 1 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 8 inches if Outside Lower Eaves Height (A189) is 14 feet 3 inches or less
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 7 inches if Outside Lower Eaves Height (A189) is 14 feet 4 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 6 inches if Outside Lower Eaves Height (A189) is 14 feet 5 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 4 inches if Outside Lower Eaves Height (A189) is 14 feet 6 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 3 inches if Outside Lower Eaves Height (A189) is 14 feet 7 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 2 inches if Outside Lower Eaves Height (A189) is 14 feet 8 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 0 inches if Outside Lower Eaves Height (A189) is 14 feet 9 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 9 feet 9 inches if Outside Lower Eaves Height (A189) is 14 feet 10 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 9 feet 5 inches if Outside Lower Eaves Height (A189) is 14 feet 11 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 9 feet 2 inches if Outside Lower Eaves Height (A189) is 15 feet 0 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 8 feet 10 inches if Outside Lower Eaves Height (A189) is 15 feet 1 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 8 feet 6 inches if Outside Lower Eaves Height (A189) is 15 feet 2 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 8 feet 3 inches if Outside Lower Eaves Height (A189) is 15 feet 3 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 7 feet 11 inches if Outside Lower Eaves Height (A189) is 15 feet 4 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 7 feet 8 inches if Outside Lower Eaves Height (A189) is 15 feet 5 inches

- Outside Lower Eaves Width for Plate Code C must not exceed 7 feet 4 inches if Outside Lower Eaves Height (A189) is 15 feet 6 inches
- Outside Lower Eaves Width for Plate Code E must not exceed 10 feet 8 inches if Outside Lower Eaves Height (A189) is 15 feet 2 inches or less
- Outside Lower Eaves Width for Plate Code E must not exceed 10 feet 6 inches if Outside Lower Eaves Height (A189) is 15 feet 3 inches
- Outside Lower Eaves Width for Plate Code E must not exceed 10 feet 3 inches if Outside Lower Eaves Height (A189) is 15 feet 4 inches
- Outside Lower Eaves Width for Plate Code E must not exceed 9 feet 6 inches if Outside Lower Eaves Height (A189) is 15 feet 5 inches
- Outside Lower Eaves Width for Plate Code E must not exceed 8 feet 8 inches if Outside Lower Eaves Height (A189) is 15 feet 6 inches
- Outside Lower Eaves Width for Plate Code E must not exceed 7 feet 11 inches if Outside Lower Eaves Height (A189) is 15 feet 7 inches
- Outside Lower Eaves Width for Plate Code E must not exceed 7 feet 1 inches if Outside Lower Eaves Height (A189) is 15 feet 8 inches
- Outside Lower Eaves Width for Plate Code F must not exceed 10 feet 8 inches if Outside Lower Eaves Height (A189) is 16 feet 3 inches or less
- Outside Lower Eaves Width for Plate Code F must not exceed 10 feet 7 inches if Outside Lower Eaves Height (A189) is between 16 feet 4 inches and 16 feet 6 inches
- Outside Lower Eaves Width for Plate Code F must not exceed 10 feet 6 inches if Outside Lower Eaves Height (A189) is 16 feet 7 inches
- Outside Lower Eaves Width for Plate Code F must not exceed 10 feet 3 inches if Outside Lower Eaves Height (A189) is 16 feet 8 inches
- Outside Lower Eaves Width for Plate Code F must not exceed 10 feet 0 inches if Outside Lower Eaves Height (A189) is 16 feet 9 inches
- Outside Lower Eaves Width for Plate Code F must not exceed 9 feet 8 inches if Outside Lower Eaves Height (A189) is 16 feet 10 inches
- Outside Lower Eaves Width for Plate Code F must not exceed 9 feet 5 inches if Outside Lower Eaves Height (A189) is 16 feet 11 inches
- Outside Lower Eaves Width for Plate Code F must not exceed 9 feet 2 inches if Outside Lower Eaves Height (A189) is 17 feet 0 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 8 inches if Outside Lower Eaves Height (A189) is 16 feet 9 inches or less
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 6 inches if Outside Lower Eaves Height (A189) is 16 feet 10 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 4 inches if Outside Lower Eaves Height (A189) is 16 feet 11 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 2 inches if Outside Lower Eaves Height (A189) is 17 feet 0 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 9 feet 11 inches if Outside Lower Eaves Height (A189) is 17 feet 1 inch

**NOTES:**

- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- For connected unit cars report the dimension of the largest unit in the set.

**Outside Lower Eaves Hght****A189**

Height from top of rail to lower eaves at side of car (see diagrams)

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A189**

| Minimum       | Maximum        |
|---------------|----------------|
| 8 ft 0 inches | 17 ft 0 inches |

**Validation Rule for A189**

- Outside Lower Eaves Height must not exceed the Outside Extreme Height (A185)
- Outside Lower Eaves Height for Plate Codes A, B or H must not exceed 15 feet 1 inch
- Outside Lower Eaves Height for Plate Codes C or I must not exceed 15 feet 6 inches
- Outside Lower Eaves Height for Plate Code E must not exceed 15 feet 9 inches
- Outside Lower Eaves Height for Plate Code F must not exceed 17 feet 0 inches
- Outside Lower Eaves Height for Plate Code N must not exceed 17 feet 1 inch

**NOTES:**

- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- For connected unit cars report the dimension of the largest unit in the set.

**Inside Length Mandatory****A135**



## Data Specification Manual

The inside length of the equipment from end to end inside walls, linings, and permanent bulkheads ●▲

Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A135**

| Minimum        | Maximum        |
|----------------|----------------|
| 21 ft 0 inches | 77 ft 0 inches |

**Validation Rule for A135**

- Inside Length on an Ore Jenny (Mechanical Description GT) must be less than or equal to 35 feet 11 inches
- Inside Length/Inside Platform Length must be less than or equal to Outside Length (OSLG)

**NOTES:**

- Round fraction to the lower inch, e.g., 05 1/4" = 05"
- For connected unit cars report the shortest dimension of a unit in the set.

**Inside Width Mandatory A138**

The inside width of the equipment from side walls and linings ●▲

Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A138**

| Minimum       | Maximum         |
|---------------|-----------------|
| 6 ft 0 inches | 10 ft 10 inches |

**Validation Rule for A138**

- Inside Width/Inside Platform Width must not exceed Outside Extreme Width

**NOTES:**

- For connected unit cars report the shortest dimension of a unit in the set.

**Inside Height Mandatory A133**

The inside height of the equipment from the floor to the top of the side, or to the lowest point of the interior ceiling ●▲

Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A133**

| Minimum       | Maximum        |
|---------------|----------------|
| 1 ft 0 inches | 15 ft 6 inches |

**Validation Rule for A133-**Inside Height must not exceed Outside Extreme Height (A185)

**NOTES:**

- For connected unit cars report the shortest dimension of a unit in the set.
- Round fraction to the lower inch, e.g., 05 1/4" = 05

**Truck Center Length A276**

The length between the centers of the two truck systems ●

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A276**

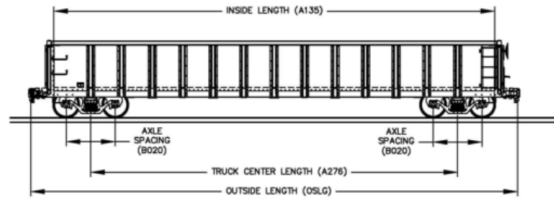
| Minimum        | Maximum        |
|----------------|----------------|
| 17 ft 0 inches | 67 ft 0 inches |

**Validation Rule for A276**

- Truck Center Length is required if the equipment has a Built Date (BLDT) or Rebuilt Date (RBDT) that is on or after June 18, 2020
- Truck Center Length is required for cars with an Outside Length (OSLG) of greater than 62 feet 6 inches

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Bulkhead Top Width B038**

Describes the width of the bulkhead

Value does not carry forward for Equipment Group Change. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for B038**

| Minimum       | Maximum        |
|---------------|----------------|
| 8 ft 0 inches | 11 ft 7 inches |

**Bulkhd Height Abv Pltfrm B035**

Describes the height of the bulkhead

Value does not carry forward for Equipment Group Change. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for B035**

| Minimum       | Maximum        |
|---------------|----------------|
| 8 ft 0 inches | 11 ft 8 inches |

**Door****End Door Width A082**

The width of the end door opening in inches

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A082**

| Minimum       | Maximum        |
|---------------|----------------|
| 1 ft 0 inches | 10 ft 6 inches |

**Validation Rule for A082**

- End Door Width must be reported for Drop-End Gondolas (Mechanical Designation of GB; Gondola End Door must be Drop End)

**NOTES:**

- Round fraction to the lower inch, e.g., 05 1/4" = 05"
- For connected unit cars report the dimension of the smallest end door width of a unit in the set.

**End Door Height A080**

The height of the end door opening in inches

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A080**

| Minimum       | Maximum         |
|---------------|-----------------|
| 1 ft 0 inches | 10 ft 11 inches |

**Validation Rule for A080**

- End Door Height must be reported when Gondola With Drop Ends (B103) is Y
- End Door Height must not be reported if End Door Width (A082) is not reported
- End Door Height must be reported if End Door Width (A082) is reported

**NOTES:**

- Round fraction to the lower inch, e.g., 05 1/4" = 05"
- For connected unit cars report the dimension of the smallest end door height of a unit in the set.

**Gondola With Drop Ends B103**

Indicates the equipment has drop end doors ▲

Used in ETC Generation.

**Permissible Values for B103**

Y Yes

## Specification

### Truck Count

B256

The total number of trucks on the equipment

System Generated Field. This element is not eligible for Input.

#### Range of Values for B256

| Minimum | Maximum |
|---------|---------|
| 2       | 6       |

### Axle Count *Mandatory*

A024

The total number of axles on the equipment

Affects Rating.

#### Range of Values for A024

| Minimum | Maximum |
|---------|---------|
| 4       | 36      |

#### Validation Rule for A024

- Axle Count must be greater than or equal to 4
- Axle Count for an articulated car must be greater than or equal to  $((\text{Connected Unit Count (A020)} \times 2) + 2)$
- Axle Count for a draw bar connected car must be greater than or equal to  $(\text{Connected Unit Count (A020)} \times 4)$
- Total Axle Count must match sum of truck axle counts

#### NOTES:

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

### Wheel Bearing Type *Mandatory*

B191

Indicates the wheel bearing journal design for the equipment

Affects Rating.

#### Permissible Values for B191

P Plain R Roller

#### Validation Rule for B191

- Cars with Plain Bearings will have a Transportation Code (TCOD) and Transportation Condition Code (TCCD) of either YA, S\_, SX, or XJ
- Equipment cannot have Plain Bearings if Built Date (BLDT) is on or after January 1, 1993

#### NOTES:

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

### Bearing Shielded From HBD

B021

Indicates the wheel bearings are shielded from wayside hot box detectors

#### Permissible Values for B021

Y Yes

### Brake Shoe Type *Mandatory*

B026

Indicates the type of brake shoe on the equipment

#### Permissible Values for B026

C Tread Conditioning  
H High Friction Composite  
L Low Friction Composite/Cast Iron

### CC Side Bearing Type

A146

Indicates the travel range of the constant contact side bearings installed on the equipment

#### Permissible Values for A146

LC Long Travel Constant Contact  
SC Short Travel Constant Contact

#### Validation Rule for A146

- Equipment having Qualification for Increased Gross Rail Load (B344) of 1 must have Constant Contact Side Bearing Type of LC

### Empty/Load Device Eqpd

B075

Indicates that the air brake system includes a device to determine if the equipment is empty or loaded, and then varies the braking forces accordingly

#### Permissible Values for B075

Y Yes

### Body Material

A030

The material that composes the body of the equipment

#### Permissible Values for A030

00 High Strength Steel (Over 100ksi Yield Strength)  
01 Aluminum  
04 Combination  
18 Stainless Steel  
19 Standard Steel  
30 Wood

### Center Of Gravity Empty

A045

When empty, indicates the height from Top of Rail to the Center of Gravity

Affects Rating.

#### Range of Values for A045

| Minimum | Maximum |
|---------|---------|
| 31      | 70      |

#### Validation Rule for A045

- All cars that exceed Plate Code (A046) C must report Center of Gravity Empty except for cars with Equipment Type Code (UMET) of J\_ \_ \_
- All Gondolas with an Equipment Type Code (UMET) of E\_ \_ \_ or G\_ \_ \_ must report Center of Gravity Empty
- Center of Gravity Empty must be reported with the Mechanical Designation (UMMD) of LG, MWD, or MW

### Remote Monitoring Device

B176

Indicates the equipment has a device that transmits a signal or records data

#### Permissible Values for B176

Y Yes  
N No

#### NOTES:

- Per AAR S-2045, This may be data related to ride quality, geographic location, temperature/condition of the load, load/empty status, etc.

### AEI High Temperature Tag

B006

Indicates the equipment is equipped with a high temperature AEI tag

#### Permissible Values for B006

Y High Temperature Tag

### Floor Cradle/Trough Eqpd

A103

Indicates the equipment has a floor cradle or trough

#### Permissible Values for A103

Y Yes

#### Validation Rule for A103

- Steel Coil Aluminum Loading must not be reported, if the Floor Cradle/Trough Orientation and Floor Cradle/Trough Equipped are not reported
- Floor Cradle/Trough Orientation (B093) must be reported, if the Floor Cradle/Trough Equipped (A103) is reported

### Floor Cradle/Trough Orien

B093

Indicates the direction of the floor cradle or trough in relationship to the equipment body

Used in ETC Generation.

## Data Specification Manual

**Permissible Values for B093**

L Longitudinal T Transverse

**Validation Rule for B093**

- Floor Cradle/Trough Orientation (B093) must be reported, if the Floor Cradle/Trough Equipped (A103) is reported
- Floor Cradle/Trough Orientation used for Mechanical Designation (UMMD) of GBS or GBSR

**Coil Steel/Alum. Loading****B132**

Indicates the equipment is designed to carry coils of steel or aluminum ▲

Used in ETC Generation.

**Permissible Values for B132**

Y Yes

**Light Density****B124**

Indicates the equipment is designed to carry low density commodities such as wood chips and similar products ▲

Used in ETC Generation.

**Permissible Values for B124**

Y Yes

**Validation Rule for B124**

- Gondolas with Light Density applies only to Mechanical Designations (UMMD) of GTS, GTR, GBR, GBS, GBSR, GSS, GWS, GWSR, MWD, LG, or MW

**Connected Unit Count****A020**

Indicates the number of units within an articulated or multi-unit equipment ■

Affects Rating.

**Range of Values for A020**

| Minimum | Maximum |
|---------|---------|
| 2       | 9       |

**Validation Rule for A020**

- Connected Unit Count must equal the number of Unit Segments
- Unit Segment Component elements must not be reported if the Connected Unit Count is not reported
- Unit Segment Component elements must be reported if Connected Unit Count is reported

**Intermediate Conn Style****B115**

Indicates the method by which two or more pieces of equipment are connected

**Permissible Values for B115**A Articulated Connector  
D Drawbar Connector**Validation Rule for B115**

- Intermediate Connector Style is required for multi-unit equipment
- Intermediate Connector Style must not be reported for single unit equipment

**Operating Brakes** *Mandatory***A182**

The number of air brake control valves on the equipment (excludes hand brakes). One control valve consists of a service portion, emergency portion, and pipe bracket. Example: DB-60 control valve ●

**Permissible Values for A182**

|   |   |   |   |   |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 |   |

**Validation Rule for A182**

- Operating Brakes must be reported for all equipment
- Operating Brakes (A182) must be 1 for non-articulated equipment with an Axle Count (A024) equal to 4

**NOTES:**

- Excludes empty/load device, number 8 vent valve, and proportion valve.

**ECP Brake Type****B327**

Indicates the type of electronic controlled pneumatic brake used on the equipment ●

**Permissible Values for B327**N Not Equipped  
O Overlay - Both ECP & Air Brake  
S Stand Alone - ECP Only**Validation Rule for B327**

- Equipment must have a value entered for ECP Brake Type if built or rebuilt after June 28, 2012

**ECP Brake Builder****B328**

The manufacturer of the electronic controlled pneumatic brake used on the equipment

**Permissible Values for B328**NYAB New York Air Brake  
WABT WABTEC**Validation Rule for B328**

- If ECP Brake Type (B327) is Stand Alone or Overlay then a value must be entered for ECP Brake Builder
- If ECP Brake Type (B327) is Not Equipped then ECP Brake Builder is not reportable

**Slack Adjuster Group****B538**

The slack adjuster group on the equipment per AAR Field Manual Rule #8 ●

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B538**

|   |          |   |            |   |         |   |         |
|---|----------|---|------------|---|---------|---|---------|
| A | Group A  | B | Group B    | C | Group C | D | Group D |
| E | Group E  | F | Group F    | G | Group G | H | Group H |
| J | Group J  | L | Group L    | M | Group M | N | Group N |
| O | Group O  | P | Group P    | Q | Group Q | R | Group R |
| 1 | Internal | 2 | Unequipped |   |         |   |         |

**Validation Rule for B538**

- Slack Adjuster Group is mandatory for all equipment built or rebuilt on or after January 1, 2016
- If Slack Adjuster Group is reported as "1" then Brake Cylinder Mount Type (B540) must be reported as "T"
- If Slack Adjuster Group is "1" or "2", then Slack Adjuster CID (B359) must not be reported.

**NOTES:**

- Permissible value of "1 – Internal" identifies special truck mounted internal slack adjuster within brake cylinder.

**Brake Cylinder Mount Type****B540**

Identifies the location of the brake cylinder ●

**Permissible Values for B540**B Body Mounted  
T Truck Mounted**Validation Rule for B540**

- Brake Cylinder Mount Type is mandatory for all equipment built or rebuilt on or after January 1, 2016

**Equipment Builder****A035**

Identifies the original manufacturer of the equipment ●

**Permissible Values for A035**

|      |                             |
|------|-----------------------------|
| ACFX | ACF Industries              |
| ALST | Alstom                      |
| ARI  | ARI Industries              |
| BERW | Berwick Forge               |
| BETH | Bethlehem Car Works         |
| BSP  | Bethlehem Steel Corporation |
| CFF  | Canadian Car & Foundry      |
| CNCF | Carros De Ferrocarril, SA   |
| CONC | Concarrill                  |
| CURR | Curry Rail Service          |
| DARB | Darby                       |
| DIFC | Difco                       |
| EDSP | ESTRATEGIAS DUL S. DE R.L.  |

## Data Specification Manual

|      |                                                  |
|------|--------------------------------------------------|
| ERSB | Ebenezer Railcar                                 |
| EVAN | Evans Products                                   |
| FCA  | Freight Car America                              |
| FMC  | FMC Corporation                                  |
| FREU | Freuhauf Corporation                             |
| GMB  | Greenbrier                                       |
| GSC  | Greenville Steel Car                             |
| GUN4 | Gunderson - Trenton Works                        |
| GUND | Gunderson Inc                                    |
| HST  | Hawker Siddeley                                  |
| HYUN | Hyundai                                          |
| JAC  | Johnstown America Corporation                    |
| JKFO | JK-CO LLC                                        |
| KASG | Kasgro Railcar                                   |
| KRCX | Kimball Railcar Services                         |
| MRNE | Marine Industries                                |
| MULT | Multiple                                         |
| NACA | National Alabama Corporation                     |
| NSC  | National Steel Car                               |
| NYC  | New York Central Railroad                        |
| ORTN | Ortner                                           |
| PCF  | Pacific Car & Foundry                            |
| PORW | Thrall-Winder                                    |
| PS   | Pullman-Standard                                 |
| PSP  | Pullman-Standard, Division of Trinity Industries |
| THRL | Thrall                                           |
| TRAN | Tranzrail                                        |
| TREN | Trenton Works                                    |
| TRIN | Trinity                                          |
| UNKN | Unknown                                          |
| V    | OWNER RAILROAD                                   |
| VERM | Vertex                                           |

**Validation Rule for A035**

- Equipment Builder must be populated if the Built Date (BLDT) is July 1, 2010 or newer
- Equipment built or rebuilt on or after July 1, 2010 cannot have a Equipment Builder of Unknown
- Equipment with a Built Date (BLDT) on or after July 1, 2010 cannot have an Equipment Builder Code of OWNER RAILROAD.
- Equipment Builder can have a value of MULT only if the equipment has multiple units.

**Builder Lot Code** **B030**

A unique identifier for a group of equipment built by one manufacturer under the same builder specification

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B030**

- Equipment built or rebuilt on or after June 28, 2012 must have a value for Builder Lot Code

**NOTES:**

- If the value is unknown, enter six zeroes (000000).

**Built Country** **B031**

The country where the equipment was constructed

Data is Confidential.

**Permissible Values for B031**

|    |               |    |        |
|----|---------------|----|--------|
| CA | Canada        | MX | Mexico |
| US | United States |    |        |

**Rebuilt Country** **B170**

The country where the equipment was re-constructed

**Permissible Values for B170**

|    |               |    |        |
|----|---------------|----|--------|
| CA | Canada        | MX | Mexico |
| US | United States |    |        |

**FRA Reflectorization** **B096**

Indicates the equipment owner assumes responsibility for applying reflectorization tape

**Permissible Values for B096**

- P Reflectorization Plan
- W Reflectorization Waiver

**Validation Rule for B096**

- Reflectorization is mandatory for all equipment after November 28, 2015.

**Bottom Outlet Count** **B142**

The number of bottom outlets or washouts on the equipment

**Range of Values for B142**

| Minimum | Maximum |
|---------|---------|
| 0       | 9       |

**Air Hose Arrangement** **B524**

The type of trainline air hose arrangement

**Permissible Values for B524**

- A S-424 Angle Cock Location
- B S-425 Angle Cock Location on Cars Equipped with AAR Type F Coupler
- C S-426 Angle Cock Location on Cars with Floating Sills
- D S-427 Angle Cock and Air Brake Hose Location on Cars with Excessive Overhang Preventing Compliance with AAR Standards
- E S-428 Angle Cock Location on Cars Equipped with AAR Type F Coupler and Cushioned Underframe
- F S-4003 (Former Standard)
- G S-4003x (Former Standard Retrofitted to Meet All Dimensions Except Height)
- H S-4003-05 (Current Standard Train Line Arrangement for Cars with F-Shank Couplers)
- I S-4021 Angle Cock and Brake Hose Location on Cars with EOCC (E and F)
- J S-4021 Coupler Mounted Bracket End Arrangement
- K S-4028 Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Not Exceeding 45 in. in Length
- L S-4029 Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Exceeding 45 in. in Length
- M S-4030 Trolley Arrangement on Cars with EOCC and E-Shank Couplers
- N S-4031 Trainline Arrangement for Cars with E-Type Couplers and Draft System Buff Travel of 6 to 10 inches
- O S-4032 Trainline Arrangement for Cars with E/F-Type Couplers and Draft System Buff Travel of 6 to 10 inches

**Validation Rule for B524**

- Air Hose Arrangement must be reported for this equipment if it is Built or Rebuilt on or after April 22, 2014.

**NOTES:**

- If any of the following conditions apply, Air Hose Arrangement (B524) must be reported for cars Built or Rebuilt on or after April 22, 2014:
  - Draft Gear Type (B073) at any location is C or E.
  - Connected Unit Count (A020) is reported.
  - Outside Length (OSLG) is greater than or equal to 70 feet (840 inches).
  - The overhang is greater than 5 feet 6 inches (66 inches). Overhang is calculated as follows:
    - 0.5 \* (Outside Length, in inches, minus Truck Center Length, in inches, minus 31 inches)
    - For all other equipment, reporting Air Hose Arrangement is optional.

**4-Pressure ABT Receiver Eqpd** **B539**

Identifies if the equipment is equipped with a 4-pressure air brake test receiver

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B539**

- E Equipped
- N Not Equipped

**NOTES:**

- An "E" will be system generated if a 4-Pressure ABT is reported on the equipment.

## Data Specification Manual

| Feature                                                                                                                                                     |                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Floor Material</b> A104                                                                                                                                  |                |
| Describes the type of construction material used for the equipment floor ▲                                                                                  |                |
| Used in ETC Generation.                                                                                                                                     |                |
| <b>Permissible Values for A104</b>                                                                                                                          |                |
| 00 High Strength Steel (Over 100ksi Yield Strength)                                                                                                         |                |
| 01 Aluminum                                                                                                                                                 |                |
| 05 Composite Nailable (considered same as wood)                                                                                                             |                |
| 14 Other                                                                                                                                                    |                |
| 15 Other, Reinforced                                                                                                                                        |                |
| 19 Standard Steel                                                                                                                                           |                |
| 23 Steel Nailable (includes alternate wood and steel floor)                                                                                                 |                |
| 24 Steel Nailable, Reinforced (includes alternate wood and steel floor)                                                                                     |                |
| 25 Standard Steel, Reinforced                                                                                                                               |                |
| 30 Wood                                                                                                                                                     |                |
| 33 Wood, Double, Reinforced                                                                                                                                 |                |
| 34 Wood Floor with Steel Protective Plates (includes perforated steel)                                                                                      |                |
| 35 Wood Floor, Reinforced, with Steel Protective Plates (includes perforated steel)                                                                         |                |
| 36 Wood Floor, Reinforced                                                                                                                                   |                |
| <b>Validation Rule for A104</b>                                                                                                                             |                |
| - Equipment Built or Rebuilt on or after January 1, 2000 cannot have a value of Other, or Other, Reinforced                                                 |                |
| <b>Gondola Floor Design</b> B094                                                                                                                            |                |
| Describes the equipment floor design ▲                                                                                                                      |                |
| Used in ETC Generation.                                                                                                                                     |                |
| <b>Permissible Values for B094</b>                                                                                                                          |                |
| D Depressed Bottom F Flat Bottom                                                                                                                            |                |
| <b>NOTES:</b>                                                                                                                                               |                |
| • Gondola Floor Design must be reported if Mechanical Designation (UMMD) is GT                                                                              |                |
| <b>Wood Racks Covering Floor</b> B233                                                                                                                       |                |
| Reinforcement of the equipment floor using wood racks                                                                                                       |                |
| <b>Permissible Values for B233</b>                                                                                                                          |                |
| Y Yes                                                                                                                                                       |                |
| <b>Lining Material</b> A158                                                                                                                                 |                |
| Describes the type of construction material used in the lining of equipment                                                                                 |                |
| <b>Permissible Values for A158</b>                                                                                                                          |                |
| 17 Sheet Metal                                                                                                                                              |                |
| 26 Synthetic                                                                                                                                                |                |
| 28 Unlined                                                                                                                                                  |                |
| 30 Wood                                                                                                                                                     |                |
| <b>Bulkhead Type</b> B034                                                                                                                                   |                |
| Identifies the type of bulkhead attached to the equipment                                                                                                   |                |
| Value does not carry forward for Equipment Group Change.                                                                                                    |                |
| <b>Permissible Values for B034</b>                                                                                                                          |                |
| F Fixed                                                                                                                                                     |                |
| <b>Validation Rule for B034</b>                                                                                                                             |                |
| -Gondola Bulkhead Types are only applicable for Mechanical Designation (UMMD) of GTS, GTR, GBR, GBS, GBSR, GSS, GWS, GWSR, LG, MWD, or MW                   |                |
| <b>Removable Cover Equipped</b> B060                                                                                                                        |                |
| Indicates the equipment is equipped with a removable cover                                                                                                  |                |
| <b>Permissible Values for B060</b>                                                                                                                          |                |
| Y Yes                                                                                                                                                       |                |
| <b>Validation Rule for B060</b>                                                                                                                             |                |
| -Removable Cover Equipped is not applicable to Gondolas with Mechanical Designation (UMMD) of GB or GS                                                      |                |
| <b>Lading Strap Anchor Eqpd</b> B121                                                                                                                        |                |
| Indicates the equipment has fixed devices or design features which provide connection points for straps or bands securing the lading                        |                |
| <b>Permissible Values for B121</b>                                                                                                                          |                |
| Y Yes                                                                                                                                                       |                |
| <b>Validation Rule for B121</b>                                                                                                                             |                |
| -Lading Strap Anchor Locations are not applicable to Gondolas with the Mechanical Designation (UMMD) of GT                                                  |                |
| <b>Tie Down Assembly Non-FA</b> B271                                                                                                                        |                |
| Identifies equipment having a tie down assembly, for a non flat car                                                                                         |                |
| <b>Permissible Values for B271</b>                                                                                                                          |                |
| Y Yes                                                                                                                                                       |                |
| <b>Validation Rule for B271</b>                                                                                                                             |                |
| -Tie Down Assembly Non-FA Equipped is not applicable to Gondolas with Mechanical Designations (UMMD) of GB, GS, or GT                                       |                |
| <b>Cross Bar Equipped</b> B268                                                                                                                              |                |
| Identifies the equipment has a cross bar for securing the load                                                                                              |                |
| <b>Permissible Values for B268</b>                                                                                                                          |                |
| Y Yes                                                                                                                                                       |                |
| <b>Validation Rule for B268</b>                                                                                                                             |                |
| -Cross Bar Equipped (B268) only applies to Mechanical Designation (UMMD) of GBS or GBSR                                                                     |                |
| <b>Cross Bar Count</b> B592                                                                                                                                 |                |
| The number of coil load divider bars (cross bars) that is standard to a specially equipped gondola                                                          |                |
| <b>Range of Values for B592</b>                                                                                                                             |                |
| <b>Minimum</b>                                                                                                                                              | <b>Maximum</b> |
| 1                                                                                                                                                           | 9              |
| <b>Validation Rule for B592</b>                                                                                                                             |                |
| -Cross Bar Count (B592) must be reported, if Cross Bar Equipped (B268) is Y-Yes                                                                             |                |
| -Cross Bar Count only applies to Mechanical Designation (UMMD) of GBS or GBSR                                                                               |                |
| <b>Roof Type</b> A226                                                                                                                                       |                |
| Describes the type of roof or hatches on the equipment                                                                                                      |                |
| <b>Permissible Values for A226</b>                                                                                                                          |                |
| 1 Trough hatch in roof                                                                                                                                      |                |
| 2 Removable roof                                                                                                                                            |                |
| 5 Other types of roof openings                                                                                                                              |                |
| <b>Validation Rule for A226</b>                                                                                                                             |                |
| -Trough Hatch Roofs are only applicable to Gondolas and Hoppers with Mechanical Designation (UMMD) of GBR, GBSR, GWSR, HKR, HMSR, HTR, or LO                |                |
| -Removable Roofs are only applicable to Gondolas with Mechanical Designation (UMMD) of GBR, GBSR, GWSR, or GTR                                              |                |
| -Round Roof Hatches at centerline of cars are only applicable to Boxcars, Gondolas, or Covered Hoppers with Mechanical Designation (UMMD) of XP, GTR, or LO |                |
| -Other types of Roofs are only applicable to Hoppers, or Specialized Gondolas with Roofs with Mechanical Designation (UMMD) of LO, HTR, or GTR              |                |
| -Mechanical Designations (UMMD) of GBR, GBSR, GWSR, GTR, HKR, HMSR, HTR, or LO require that Roof Type be set                                                |                |
| <b>Clean Out Door Equipped</b> B600                                                                                                                         |                |
| Indicates the equipment is equipped with a clean out door                                                                                                   |                |
| <b>Permissible Values for B600</b>                                                                                                                          |                |
| Y Yes                                                                                                                                                       |                |



## Data Specification Manual

| Number of Troughs                            | B601 |
|----------------------------------------------|------|
| The total number of troughs on the equipment |      |

Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for B601**

| Minimum | Maximum |
|---------|---------|
| 2       | 10      |

**Validation Rule for B601**

- Number of Troughs can only be reported if Floor Cradle/Trough Orientation (B093) is T

## Cost

| Original Cost                           | A184 |
|-----------------------------------------|------|
| The original manufacturer selling price |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A184**

| Minimum | Maximum |
|---------|---------|
| 0       | 9999999 |

**Validation Rule for A184**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Original Cost must be equal to the Ledger Value if Additions & Betterments Indicator is not reported.
- Railroad marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost
- Private marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost if Built Date (BLDT) is on or after January 1, 2015

**NOTES:**

- Original Cost is never altered. It is the cost of the equipment to the original owner.
- For railroad-marked cars, report in US dollars the original ledger value of the original owner For cars rebuilt, report the cost prescribed in MR Interchange Rule 88 and Circular Letter OT-24
- The original cost is used in the settlement of AAR Interchange Rule 107 Office Manual.
- For connected unit cars report the total original cost for all units in the set.
- Numeric, applicable to all railroad-marked cars Also, applicable to privately marked covered hopper (LO) cars.
- Raise all cents to the next dollar, e.g. \$5,501.02 = 0005502

| Ledger Value                                         | A150 |
|------------------------------------------------------|------|
| The sum of original cost and additions & betterments |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A150**

| Minimum | Maximum |
|---------|---------|
| 0       | 9999999 |

**Validation Rule for A150**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Ledger Value must equal the Original Cost (A184) plus the additions & betterments, if Total A&B (A003) has been reported. Otherwise Ledger Value should equal Original Cost (A184).

| Total A&B                                                                        | A003 |
|----------------------------------------------------------------------------------|------|
| System generated sum of all reported amounts in A&B Amount (A317), in US dollars |      |

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A003**

| Minimum | Maximum   |
|---------|-----------|
| 0       | 999999999 |

**NOTES:**

**For railroad-marked cars, report** the sum of all additions and betterments applied to the car. This value is for record keeping purposes only and will not be used to report Ledger Value.

- For private Cars report the additions and betterments as qualified under AAR interchange Rule 107 for determination of settlement value.
  - Additions are costs of all new components applied subsequent to the date the car was built or rebuilt and carried in the capital investment account.
  - Betterments are costs of all improvements of components of existing equipment through the substitution of superior parts for inferior parts subsequent to the date the car was built or rebuilt.
- For connected unit cars report the total Truck Location A for all units in the set

| Ind for Pos/Neg Total A&B                                                                   | A128 |
|---------------------------------------------------------------------------------------------|------|
| A code indicating the positive or negative adjustment to the original cost of the equipment |      |

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A128**

N Negative P Positive

| A&B Pos/Neg Ind                                                                                 | A316 |
|-------------------------------------------------------------------------------------------------|------|
| A code indicating the positive or negative adjustment to the individual addition and betterment |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A316**

N Negative P Positive

**Validation Rule for A316**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- The A&B Indicator is required when Additions & Betterments are reported.
- The A&B Indicator must not be reported if Additions & Betterments are not reported.

| A&B Amount                                                                                                          | A317 |
|---------------------------------------------------------------------------------------------------------------------|------|
| The amount of the individual addition and betterment added to or subtracted from the original cost of the equipment |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A317**

| Minimum | Maximum |
|---------|---------|
| 1       | 999999  |

**Validation Rule for A317**

- When entering an individual addition & betterment; A&B Date Done (A319), A&B Type (A318), A&B Pos/Neg Ind (A316), and A&B Amount (A317) must be reported

| A&B Date Done                                      | A319 |
|----------------------------------------------------|------|
| The date of the individual addition and betterment |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A319**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for A319**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- Addition and Betterment Date Done cannot be earlier than Built Date (BLDT).
- Additions & Betterments Date Done cannot be later than today's date.

| A&B Type                                                              | A318 |
|-----------------------------------------------------------------------|------|
| The type of individual addition and betterment as defined by Rule 107 |      |

## Data Specification Manual

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A318**

GNRL General - Capitalized Additions and Betterments  
INIT Initial load of historical A&B amount as of Umler 4.6 implementation date

**Validation Rule for A318**

- For each equipment, only one Individual A&B Type can have a value of INIT.
- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.

## Car Management

**Pool Number** P001

Unique number used to indicate the grouping of equipment for a particular purpose

Used for Transportation Codes. Affects Rating. This element is not eligible for Input. Value does not carry forward for Equipment Group Change / Add Back.

**Pool Control** TCPC

Pool Control

System Generated Field. Used for Transportation Codes. Affects Rating. This element is not eligible for Input, Output or Query.

**NOTES:**

- For further explanation reference Appendices C and E.

**User Routing Instructions** TCUR

The routing instruction reported by the user

Used for Transportation Codes.

**Permissible Values for TCUR**

2 Trailer Service Rule 2  
G Contaminated commodity service  
M Mark canceled  
O Owner requested return  
U Unassigned equipment

**NOTES:**

- For further explanation reference Appendix E.

**Umler Transportation Code** TCOD

The type of assigned service, empty routing or restriction of the equipment

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

**Transportation Cond Code** TCCD

The AAR or FRA interchange restriction code

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

**Mechanical Restriction** TCME

User reported or system generated type of mechanical restriction

Used for Transportation Codes.

**Permissible Values for TCME**

S Scrap  
X AAR Interchange Restriction  
Y FRA Interchange Prohibited

**NOTES:**

- For further explanation reference Appendix D.1

**Mech Restriction Reason**

TCMR

The explanation of the Mechanical Restriction (TCME)

Used for Transportation Codes.

**Permissible Values for TCMR**

A Restricted Due to Age (Over 40-AAR, Over 50-FRA)  
B Restricted Due to Air Brakes  
C Restricted Due to Axles  
D Restricted Due to Couplers and Couplers Parts  
F Restricted Due to Couplers Yokes  
G Restricted Due to Draft Gears  
J Restricted Due to Journal Bearing and Journal Lubrication  
N Restricted Due to Trucks  
P Restricted Due to Truck Side Frames  
T Restricted Due to Trucks Bolsters  
U Restricted by AAR or Owner  
W Restricted Due to Wheels  
X Restricted Due to Scrap or Early Warning  
Z Restricted Due to Umler Conflict (Not Valid for User Input)

**NOTES:**

- For further explanation reference Appendix D.2.
- The assignment of the Transportation Codes S, SX, XA, XZ and YA generate the Rate Indicator Code 6 to the CHARM file to zero (0) rate the car hire and mileage rate.

**Sys Gen Routing Inst**

TCGR

The routing instruction generated by the system

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.5.

**Loading Authority Fleet Status** B597

Identifies when a car is listed on a fleet in the Loading Authority application

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B597**

Y Yes  
S Suspended

**NOTES:**

- When equipment is on a fleet the Loading Authority (LA) application will update the flag to 'Y – Yes'. When equipment is removed from a fleet the LA application will remove the 'Y – Yes'.
- When equipment is on a LA fleet that is suspended the LA application will update the flag to 'S – Suspended'. When the equipment is on a LA fleet that is no longer suspended the LA application will update the flag to 'Y – Yes'.

## Train Service

**Restricted Speed Empty**

B180

Describes the maximum restricted speed the equipment can travel when empty

**Range of Values for B180**

| Minimum | Maximum |
|---------|---------|
| 5       | 95      |

**Restricted Speed Loaded**

B181

Describes the maximum restricted speed the equipment can travel when loaded

**Range of Values for B181**

| Minimum | Maximum |
|---------|---------|
| 5       | 95      |

## Data Specification Manual

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Shove Car to Rest</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>B189</b> |
| Identifies the car must be moved to rest by locomotive                                                                                                                                                                                                                                                                                                                                                                                                                        |             |
| <b>Permissible Values for B189</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |
| Y Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |
| <b>Shove Adj. Car to Rest</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>B188</b> |
| Identifies the adjacent car must be shoved to rest by locomotive                                                                                                                                                                                                                                                                                                                                                                                                              |             |
| <b>Permissible Values for B188</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |
| Y Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |
| <b>Train Position Sensitive</b>                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>B211</b> |
| Indicates there is a physical reason, limiting its position on a train                                                                                                                                                                                                                                                                                                                                                                                                        |             |
| <b>Permissible Values for B211</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |
| Y Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |
| <b>End of Train Only</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>B277</b> |
| Indicates the equipment must be placed at the end of the train (including per AAR RP-2001)                                                                                                                                                                                                                                                                                                                                                                                    |             |
| <b>Permissible Values for B277</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |
| Y Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |
| <b>Check Trailing Tonnage</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>B044</b> |
| Indicates the equipment has restrictions on trailing tonnage                                                                                                                                                                                                                                                                                                                                                                                                                  |             |
| <b>Permissible Values for B044</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |
| Y Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |
| <b>Curve Negotiate Exception</b>                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>B178</b> |
| Describes the requirement for negotiating a curve                                                                                                                                                                                                                                                                                                                                                                                                                             |             |
| <b>Permissible Values for B178</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |
| A Restrictive Curve Negotiability, Section 2.1.4 of M-1001                                                                                                                                                                                                                                                                                                                                                                                                                    |             |
| B Does not meet all Chapter XI Curving Requirements                                                                                                                                                                                                                                                                                                                                                                                                                           |             |
| <b>Cooper Rating Exception</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>B273</b> |
| Describes the cooper rating (weight distribution model of the equipment), for use in movement across bridges                                                                                                                                                                                                                                                                                                                                                                  |             |
| <b>Permissible Values for B273</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |
| A Excessive Cooper Rating                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |
| B Cooper Rating in Excess of E66                                                                                                                                                                                                                                                                                                                                                                                                                                              |             |
| <b>Clearance Exception</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>B275</b> |
| Describes equipment containing nonstandard dimension                                                                                                                                                                                                                                                                                                                                                                                                                          |             |
| <b>Permissible Values for B275</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |
| A Excessive Outside Extreme Height (A185)                                                                                                                                                                                                                                                                                                                                                                                                                                     |             |
| B Excessive Outside Extreme Width (A186)                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |
| D All other unique clearance issues                                                                                                                                                                                                                                                                                                                                                                                                                                           |             |
| <b>Loaded Net Braking Ratio</b>                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>B551</b> |
| Indicates calculated minimum loaded net braking ratio per AAR Specifications in place on built or rebuilt date (in percent).<br>System Generated Field. This element is not eligible for input.                                                                                                                                                                                                                                                                               |             |
| <b>Permissible Values for B551</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            |             |
| – 11.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |             |
| – 8.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |             |
| <b>NOTES:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |
| <ul style="list-style-type: none"> <li>Owner may enter a documented alternative minimum loaded net braking ratio in this field that is greater than the system calculated Loaded Net Braking Ratio (B551).</li> <li>When reported, the Owner-Provided Loaded Net Braking Ratio will be used in PTC stopping distance calculations.</li> <li>A change in value for the following elements will cause the Owner-Provided Loaded Net Braking Ratio to reset to blank:</li> </ul> |             |

- Rebuilt Date (RBDT)
- Gross Rail Load/Weight (A266)
- Equipment Type Code (UMET)
- Empty/Load Device Eqpd (B075)

|                                                                                                                                                                                    |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Empty Braking Ratio</b>                                                                                                                                                         | <b>B553</b> |
| Indicates calculated empty braking ratio per AAR Specifications in place on built or rebuilt date (in percent).<br>System Generated Field. This element is not eligible for input. |             |

**Range of Values for B553**

| Minimum | Maximum |
|---------|---------|
| 15.0    | 38.0    |

**NOTES:**

- Empty Braking Ratio is determined as follows:
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is less than 1/1/1972, then Empty Braking Ratio will be set to blank.

|                                                                         |             |
|-------------------------------------------------------------------------|-------------|
| <b>Owner-Provided Empty Braking Ratio</b>                               | <b>B554</b> |
| Indicates an owner supplied alternate empty braking ratio (in percent). |             |

**Range of Values for B554**

| Minimum | Maximum |
|---------|---------|
| 15.0    | 38.0    |

**NOTES:**

- Owner may enter a documented alternative minimum loaded net braking ratio in this field that is greater than the system calculated Loaded Net Braking Ratio (B551).
- When reported, the Owner-Provided Loaded Net Braking Ratio will be used in PTC stopping distance calculations.
- A change in value for the following elements will cause the Owner-Provided Loaded Net Braking Ratio to reset to blank:
  - Rebuilt Date (RBDT)
  - Gross Rail Load/Weight (A266)
  - Equipment Type Code (UMET)
  - Empty/Load Device Eqpd (B075)

## Truck Components

|                                                     |             |
|-----------------------------------------------------|-------------|
| <b>Axle Spacing Distance</b> <i>Mandatory</i>       | <b>B020</b> |
| The distance between axle centers on the same truck |             |

Affects Rating.

**Permissible Values for B020**

|    |                    |
|----|--------------------|
| 53 | 53 Inches          |
| 54 | 54 Inches          |
| 55 | 55 Inches          |
| 60 | 60 Inches          |
| 61 | 61 Inches          |
| 62 | 62 Inches          |
| 63 | 63 Inches          |
| 64 | 64 Inches          |
| 65 | 65 Inches          |
| 66 | 66 Inches          |
| 68 | 68 Inches          |
| 70 | 70 Inches          |
| 71 | 71 Inches          |
| 72 | 72 Inches          |
| 73 | 73 Inches          |
| 74 | 74 Inches          |
| 76 | 76 Inches          |
| 78 | 78 Inches          |
| 99 | Axle Space Unknown |

|                                          |             |
|------------------------------------------|-------------|
| <b>Truck Axle Count</b> <i>Mandatory</i> | <b>B252</b> |
| The number of axles per truck            |             |

**Range of Values for B252**

| Minimum | Maximum |
|---------|---------|
|---------|---------|

## Data Specification Manual

2 | 4

**Validation Rule for B252**

- Sum of Truck Axle Counts must equal Axle Count (A024)

**Journal Size *Mandatory* A147**

The size of the journal bearing

Affects Rating.

**Permissible Values for A147**

|   |            |   |           |   |            |
|---|------------|---|-----------|---|------------|
| A | 3-3/4 X 7  | B | 4-1/4 X 8 | C | 5 X 9      |
| D | 5-1/2 X 10 | E | 6X11      | F | 6-1/2 X 12 |
| G | 7 X 12     | K | 6-1/ 2X 9 | M | 7 X 9      |

**Validation Rule for A147**

- 4-axle equipment with Journal Size B and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 103,000 lbs.
- 4-axle equipment with Journal Size C and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 142,000 lbs.
- 4-axle equipment with Journal Size D and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 177,000 lbs.
- 4-axle equipment with Journal Size E and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 220,000 lbs.
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) is not populated, must have Gross Rail Load (A266) of 263,000 lbs.
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 1 or 2, must have Gross Rail Load (A266) of 286,000 lbs.
- 4-axle equipment with Journal Size G or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) is not populated, must have Gross Rail Load (A266) of 315,000 lbs.
- 4-axle equipment with Journal Size G, K, or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 1, must have Gross Rail Load (A266) of 286,000 lbs.

**NOTES:**

- A, B and C Journal Classes are prohibited in Interchange per Rule 90.B.4

**Wheel Diameter *Mandatory* A294**

The diameter of the wheels

Affects Rating.

**Permissible Values for A294**

|    |           |    |           |
|----|-----------|----|-----------|
| 33 | 33 Inches | 36 | 36 Inches |
| 38 | 38 Inches |    |           |

**Validation Rule for A294**

- Equipment with Qualification for Increased Gross Rail Load (B344) of 1, and Journal Size (A147) of G or M, must have Wheel Diameter of 38
- Equipment with Qualification for Increased Gross Rail Load (B344) of 1, and Journal Size (A147) of K, must have Wheel Diameter of 36
- If Connected Unit Count (A020) is not reported, different Wheel Diameters cannot be reported

**Stability Device Equipped B199**

Indicates a stability device is present on the truck

Affects Rating.

**Permissible Values for B199**

|   |     |
|---|-----|
| Y | Yes |
|---|-----|

**Bolster Component ID B351**

Bolster Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Sideframe Component ID B352**

Side Frame Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Wheelset Component ID****B350**

Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Draft System Components****Coupler Code****A057**

Defines the equipment coupler type

**Permissible Values for A057**

|          |                                       |
|----------|---------------------------------------|
| BE60AHT  | Type E (Rule 16) - BE60AHT            |
| BE60BHT  | Type E Obsolete (Rule 16) - BE60BHT   |
| BE63AHT  | Type E Obsolete (Rule 16) - BE63AHT   |
| BE63HT   | Type E (Rule 16) - BE63HT             |
| BE67HT   | Type E (Rule 16) - BE67HT             |
| E42BEX   | Type E/F (Rule 17) - E42BEX           |
| E50ARE   | Type E/F (Rule 17) - E50ARE           |
| E50BEX   | Type E/F (Rule 17) - E50BEX           |
| E60CC    | Type E (Rule 16) - E60CC              |
| E60CE    | Type E (Rule 16) - E60CE              |
| E60CEX   | Type E (Rule 16) - E60CEX             |
| E60CHT   | Type E (Rule 16) - E60CHT             |
| E60CHTE  | Type E (Rule 16) - E60CHTE            |
| E60CHTQ  | Type E (Rule 16) - E60CHTQ            |
| E60DC    | Type E (Rule 16) - E60DC              |
| E60DE    | Type E (Rule 16) - E60DE              |
| E60EE    | Type E (Rule 16) - E60EE              |
| E61      | Type E Obsolete (Rule 16) - E61       |
| E67AHT   | Type E (Rule 16) - E67AHT             |
| E67BC    | Type E (Rule 16) - E67BC              |
| E67BE    | Type E (Rule 16) - E67BE              |
| E67BHT   | Type E (Rule 16) - E67BHT             |
| E67BHTE  | Type E (Rule 16) - E67BHTE            |
| E67CC    | Type E (Rule 16) - E67CC              |
| E67CE    | Type E (Rule 16) - E67CE              |
| E68AHT   | Type E/F Obsolete (Rule 17) - E68AHT  |
| E68AHTE  | Type E/F Obsolete (Rule 17) - E68AHTE |
| E68BC    | Type E/F (Rule 17) - E68BC            |
| E68BE    | Type E/F (Rule 17) - E68BE            |
| E68BHT   | Type E/F (Rule 17) - E68BHT           |
| E68BHTE  | Type E/F (Rule 17) - E68BHTE          |
| E68BHTQ  | Type E/F (Rule 17) - E68BHTQ          |
| E68CE    | Type E/F (Rule 17) - E68CE            |
| E68DE    | Type E/F Obsolete (Rule 17) - E68DE   |
| E69AE    | Type E/F (Rule 17) - E69AE            |
| E69AHTE  | Type E/F (Rule 17) - E69AHTE          |
| E69BE    | Type E/F (Rule 17) - E69BE            |
| E69CE    | Type E/F (Rule 17) - E69CE            |
| E69CEX   | Type E/F (Rule 17) - E69CEX           |
| E69HTE   | Type E/F (Rule 17) - E69HTE           |
| E69LCE   | Type E/F (Rule 17) - E69LCE           |
| EB7AHT   | Type E (Rule 16) - EB7AHT             |
| EF204CE  | Type E/F (Rule 17) - EF204CE          |
| EF306CE  | Type E/F (Rule 17) - EF306CE          |
| EF511AE  | Type E/F (Rule 17) - EF511AE          |
| EF511BE  | Type E/F (Rule 17) - EF511BE          |
| EF511CE  | Type E/F (Rule 17) - EF511CE          |
| EF511DE  | Type E/F (Rule 17) - EF511DE          |
| EF511LCE | Type E/F (Rule 17) - EF511LCE         |
| EF511WE  | Type E/F (Rule 17) - EF511WE          |
| EF512CE  | Type E/F (Rule 17) - EF512CE          |
| EF512WE  | Type E/F (Rule 17) - EF512WE          |
| EF528WE  | Type E/F (Rule 17) - EF528WE          |
| EF60BWE  | Type E/F (Rule 17) - EF60BWE          |
| EFROTARY | Type E/F Rotary - EFROTARY            |
| EFSPEC   | Type E/F Special - EFSPEC             |

## Data Specification Manual

|           |                                                         |
|-----------|---------------------------------------------------------|
| EFUNK     | Type E/F Unknown - EFUNK                                |
| EK323CE   | Type E (Rule 16) - EK323CE (Long Travel)                |
| EK324CE   | Type E (Rule 16) - EK324CE (Long Travel)                |
| ESPEC     | Type E Special - ESPEC                                  |
| EUNK      | Type E Unknown - EUNK                                   |
| F70BHT    | Type F Obsolete (Rule 18) - F70BHT                      |
| F70BHTE   | Type F Obsolete (Rule 18) - F70BHTE                     |
| F70CC     | Type F (Rule 18) - F70CC                                |
| F70CE     | Type F (Rule 18) - F70CE                                |
| F70CHT    | Type F (Rule 18) - F70CHT                               |
| F70CHTE   | Type F (Rule 18) - F70CHTE                              |
| F70DE     | Type F (Rule 18) - F70DE                                |
| F70HT     | Type F Obsolete (Rule 18) - F70HT                       |
| F71CHT    | Type F (Rule 18) - F71CHT                               |
| F72HT     | Type F (Rule 18) - F72HT                                |
| F73AC     | Type F (Rule 18) - F73AC                                |
| F73AE     | Type F (Rule 18) - F73AE                                |
| F73AHT    | Type F (Rule 18) - F73AHT                               |
| F73AHTE   | Type F (Rule 18) - F73AHTE                              |
| F73BE     | Type F (Rule 18) - F73BE                                |
| F73HTE    | Type F Obsolete (Rule 18) - F73HTE                      |
| F79BHT    | Type F Obsolete (Rule 18) - F79BHT                      |
| F79BHTE   | Type F Obsolete (Rule 18) - F79BHTE                     |
| F79CC     | Type F (Rule 18) - F79CC                                |
| F79CE     | Type F (Rule 18) - F79CE                                |
| F79CHT    | Type F (Rule 18) - F79CHT                               |
| F79CHTE   | Type F (Rule 18) - F79CHTE                              |
| F79DE     | Type F (Rule 18) - F79DE                                |
| FF205E    | Type F (Rule 18) - FF205E                               |
| FF218AE   | Type F (Rule 18) - FF218AE                              |
| FR201E    | Type F (Rule 18) Rotary - FR201E                        |
| FR205AE   | Type F (Rule 18) Rotary - FR205AE                       |
| FR205BE   | Type F (Rule 18) Rotary - FR205BE                       |
| FR205E    | Type F (Rule 18) Rotary - FR205E                        |
| FR206E    | Type F (Rule 18) Rotary - FR206E                        |
| FR206EA   | Type F (Rule 18) Rotary - FR206EA                       |
| FR207AE   | Type F (Rule 18) Rotary - FR207AE                       |
| FR207E    | Type F (Rule 18) Rotary - FR207E                        |
| FR208AE   | Type F (Rule 18) Rotary - FR208AE (without wear insert) |
| FR208E    | Type F (Rule 18) Rotary - FR208E (with wear insert)     |
| FR209E    | Type F (Rule 18) Rotary - FR209E                        |
| FR301E    | Type F (Rule 18) Rotary - FR301E                        |
| FR304E    | Type F (Rule 18) Rotary - FR304E (with wear plate)      |
| FR304WE   | Type F (Rule 18) Rotary - FR304WE (without wear plate)  |
| FROTARY   | Type E/F Rotary - FROTARY                               |
| FSPEC     | Type F Special - FSPEC                                  |
| FUNK      | Type F Unknown - FUNK                                   |
| S700AE    | Type E (Rule 16) - S700AE                               |
| SBE60CC   | Type E (Rule 16) - SBE60CC                              |
| SBE60CE   | Type E (Rule 16) - SBE60CE                              |
| SBE60DC   | Type E (Rule 16) - SBE60DC                              |
| SBE60DE   | Type E (Rule 16) - SBE60DE                              |
| SBE60DREX | Type E (Rule 16) - SBE60DREX                            |
| SBE60EE   | Type E (Rule 16) - SBE60EE                              |
| SBE60EEX  | Type E (Rule 16) - SBE60EEX                             |
| SBE67BC   | Type E (Rule 16) - SBE67BC                              |
| SBE67BE   | Type E (Rule 16) - SBE67BE                              |
| SBE67CC   | Type E (Rule 16) - SBE67CC                              |
| SBE67CE   | Type E (Rule 16) - SBE67CE                              |
| SBE67CREX | Type E (Rule 16) - SBE67CREX                            |
| SBE67DE   | Type E (Rule 16) - SBE67DE                              |
| SBE68BC   | Type E/F (Rule 17) - SBE68BC                            |
| SBE68BE   | Type E/F (Rule 17) - SBE68BE                            |
| SBE68CE   | Type E/F (Rule 17) - SBE68CE                            |
| SBE68CREX | Type E/F (Rule 17) - SBE68CREX                          |
| SBE68DE   | Type E/F (Rule 17) - SBE68DE                            |
| SBE68WEX  | Type E/F (Rule 17) - SBE68WEX                           |
| SBE69AE   | Type E/F (Rule 17) - SBE69AE                            |

|           |                                |
|-----------|--------------------------------|
| SBE69BE   | Type E/F (Rule 17) - SBE69BE   |
| SBE69BREX | Type E/F (Rule 17) - SBE69BREX |
| SBE69CE   | Type E/F (Rule 17) - SBE69CE   |
| SE60CC    | Type E (Rule 16) - SE60CC      |
| SE60CE    | Type E (Rule 16) - SE60CE      |
| SE60CHT   | Type E (Rule 16) - SE60CHT     |
| SE60CHTE  | Type E (Rule 16) - SE60CHTE    |
| SE60DC    | Type E (Rule 16) - SE60DC      |
| SE60DE    | Type E (Rule 16) - SE60DE      |
| SE60DEX   | Type E (Rule 16) - SE60DEX     |
| SE60EE    | Type E (Rule 16) - SE60EE      |
| SE67BC    | Type E (Rule 16) - SE67BC      |
| SE67BE    | Type E (Rule 16) - SE67BE      |
| SE67BHT   | Type E (Rule 16) - SE67BHT     |
| SE67BHTE  | Type E (Rule 16) - SE67BHTE    |
| SE67CC    | Type E (Rule 16) - SE67CC      |
| SE67CE    | Type E (Rule 16) - SE67CE      |
| SE68BC    | Type E/F (Rule 17) - SE68BC    |
| SE68BE    | Type E/F (Rule 17) - SE68BE    |
| SE68BHT   | Type E/F (Rule 17) - SE68BHT   |
| SE68BHTE  | Type E/F (Rule 17) - SE68BHTE  |
| SE68CE    | Type E/F (Rule 17) - SE68CE    |
| SE69AE    | Type E/F (Rule 17) - SE69AE    |
| SE69BE    | Type E/F (Rule 17) - SE69BE    |
| SE69CE    | Type E/F (Rule 17) - SE69CE    |
| SF70CC    | Type F (Rule 18) - SF70CC      |
| SF70CE    | Type F (Rule 18) - SF70CE      |
| SF70CHT   | Type F (Rule 18) - SF70CHT     |
| SF70CHTE  | Type F (Rule 18) - SF70CHTE    |
| SF70DE    | Type F (Rule 18) - SF70DE      |
| SF79CC    | Type F (Rule 18) - SF79CC      |
| SF79CE    | Type F (Rule 18) - SF79CE      |
| SF79CHT   | Type F (Rule 18) - SF79CHT     |
| SF79CHTE  | Type F (Rule 18) - SF79CHTE    |
| SF79DE    | Type F (Rule 18) - SF79DE      |

**Validation Rule for A057**

- If Rotary Coupler Style is reported, then Coupler Code must be a rotary coupler.
- If Coupler Code is a rotary coupler, then Coupler Style must be R (Rotary).
- Coupler Code of Type E Obsolete (Rule 16) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of Type E/F Obsolete (Rule 17) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of Type F Obsolete (Rule 18) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of FROTARY or EFROTARY cannot be reported for cars Built or Rebuilt on or after August 12, 2014.

**NOTES:**

- Obsolete: All Type D couplers are obsolete and should report code DOBS; cars with this coupler code will be restricted in interchange as discussed below.
- Unknown: If the coupler code is unknown or if the code stamped on the coupler is illegible, the code BUNK FUNK, EFUNK, or LOCOUNK should be reported.
- Special: Codes ESPEC, FSPEC, and EFSPEC have been created to decline coupler bodies that have been manufactured specifically for the equipment owner and are not listed in the attached table.
- The codes FROTARY and EFROTARY cannot be reported for equipment Built or Rebuilt since August 12, 2014.

|                                                     |             |
|-----------------------------------------------------|-------------|
| <b>Coupler Style</b> <i>Mandatory</i>               | <b>B058</b> |
| Describes the basic coupler design of the equipment | ● ● ●       |

Used in ETC Generation. Affects Rating.

**Permissible Values for B058**

|   |              |   |              |
|---|--------------|---|--------------|
| B | Bottom Shelf | D | Double Shelf |
| P | Plain        | R | Rotary       |

**Validation Rule for B058**



## Data Specification Manual

- If Draft System Type (B073) is not Center Of Car or End Of Car, Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) of Center Of Car or End Of Car is reported then Inches of Travel (B061) must also be reported
- If Draft System Type (B073) is E then Coupler Style (B058) cannot be reported as L or R

| Inches of Travel                                | B061                                                                                                                                                                |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The number of inches a draft system will travel |   |

Used in ETC Generation. Affects Rating.

**Range of Values for B061**

| Minimum | Maximum |
|---------|---------|
| 1       | 30      |

**Validation Rule for B061**

- If Draft System Type (B073) is not Center Of Car or End Of Car, Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) of Center Of Car or End Of Car is reported then Inches of Travel (B061) must also be reported
- Inches of Travel cannot be greater than 20 for equipment with a Built Date (BLDT) on or after January 1, 1974

| Draft System Type <i>Mandatory</i>               | B073                                                                                                                                                                                                                                                  |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Describes the draft gear/underframe cushion type |    |

Used in ETC Generation. Affects Rating.

**Permissible Values for B073**

- C Cushioning at Center of Car (COC)
- E Cushioning at End of Car (EOC)
- S Standard Draft Gear
- X Devices with less than 6 inches buff travel approved under AAR Standard S-060
- Y Devices with 6 to 10 inches of buff travel approved under AAR Standard S-060

**Validation Rule for B073**

- If Draft System Type (B073) is Standard Draft Gear (S), Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) is reported as C, E, X, or Y then Inches of Travel (B061) must also be reported
- If Draft System Type (B073) of X, or Y is reported then Draft Gear Group/Cushion Unit Pocket (B562) cannot be reported
- If Draft System Type (B073) X is reported, the Inches of Travel (B061) value must be greater than or equal to 1 and less than 6
- If Draft System Type (B073) Y is reported, the Inches of Travel (B061) value must be greater than or equal to 6 and less than or equal to 10
- If Draft System Type (B073) is S then Draft Gear Group/Cushion Unit Pocket (B562) may only be A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z (AAR Rule 21)
- If Draft System Type (B073) is E then Draft Gear Group/Cushion Unit Pocket (B562) may only be EOC-1,EOC-1D, EOC-1B, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B,EOC-4, EOC-4B, EOC-5, EOC-5D, EOC-5B, EOC-6, EOC-6D, EOC-6B, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-8F, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10, EOC-10D, EOC-10B, EOC-10F, EOC-11, EOC-11D, EOC-11B,EOC-12, EOC-12D, EOC-12B, EOC-13, EOC-13B, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16, EOC-16D, EOC-16B, EOC-17, EOC-17D, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-23, EOC-23B, EOC-24, EOC-24B, EOC-25E, EOC-26B, EOC-26F, or EOC-27D, or EOC-27E (AAR Rule 59)

| Draft Gear Group/Cushion Unit Pocket                                                                | B562                                                                                |
|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Draft Gear Group/Cushion Unit Pocket value as listed in AAR Field Manual Interchange Rule 21 and 59 |  |

Carry forward for Single Clone / Multi-Clone / Restencil / Add-Back / Equipment Group Change.

**Permissible Values for B562**EOC-1,EOC-1D, EOC-1B, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B,EOC-4, EOC-4B, EOC-5, EOC-5D, EOC-5B, EOC-6, EOC-6D, EOC-

6B, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-8F, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10, EOC-10D, EOC-10B, EOC-10F, EOC-11, EOC-11D, EOC-11B,EOC-12, EOC-12D, EOC-12B, EOC-13, EOC-13B, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16, EOC-16D, EOC-16B, EOC-17, EOC-17D, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-23, EOC-23B, EOC-24, EOC-24B, EOC-25E, EOC-26B, EOC-26F, EOC-27D, EOC-27E, COC-1, COC-2, COC-3, COC-4, COC-5, COC-6, COC-7, COC-8 (AAR Rule 59).

A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, Z (AAR Rule 21).

**Validation Rule(s) for B562**

- Draft Gear Group/Cushion Unit Pocket (B562) is mandatory for equipment built on or after June 13, 2019, unless Draft System Type (B073) is reported as X or Y
- If Draft Gear Group/Cushion Unit Pocket (B562) is not equal to A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, or Z, then Cushion Unit Type (B563) must be populated
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-6, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-9, EOC-9B, EOC-9D, EOC-10, EOC-10B, EOC-10D, EOC-14, EOC-14B, EOC-18D, EOC-23, EOC-23B, EOC-24, EOC-25E, EOC-26B, or EOC-27D then the Cushion Unit Type (B563) must be 1
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-9E, EOC-26F, or EOC-27E, then the Cushion Unit Type (B563) must be 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-11, EOC-12, EOC-13, EOC-13B, EOC-15, EOC-15B, EOC-15D, EOC-17, EOC-17B, EOC-17D, EOC-18, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-24B, COC-3, COC-5, or COC-7 then the Cushion Unit Type (B563) must be 1 or 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-8F or EOC-10F then the Cushion Unit Type (B563) must be 2 or 3
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-5, EOC-5B, EOC-5D, EOC-6, EOC-6B, EOC-6D EOC-11B, EOC-11D, EOC-12B, EOC-12D, or COC-4 then the Cushion Unit Type (B563) must be 1, 2, or 3
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-16D, or COC-1 then the Cushion Unit Type (B563) must be 1, 2, or 4
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-2B, EOC-2D, EOC-3, EOC-3B, EOC-4, EOC-4B, or COC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, or 4
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1, EOC-1B, EOC-1D, or EOC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-8 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1D, EOC-2,EOC-2D, EOC-2B, EOC-3, EOC-3B, EOC-5, EOC-5D, EOC-5B, EOC-6D, EOC-7, EOC-7B, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10D, EOC-11, EOC-11B, EOC-11D, EOC-12D, EOC-14,EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16D, EOC-17D, EOC-23, EOC-23B, EOC-27D, or EOC-27E then the Inches of Travel (B061) must be 10
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-19, EOC-19B, EOC-22, EOC-22B, or EOC-25E then the inches of travel must be 12
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-20 or EOC-20B then the Inches of Travel (B061) must be 14
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1B, EOC-4, EOC-4B, EOC-6, EOC-6B, EOC-8, EOC-8B, EOC-8F, EOC-10, EOC-10B, EOC-10F, EOC-12, EOC-12B, EOC-13, EOC-13B, EOC-17, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-21, EOC-21B, EOC-24, or EOC-24B then the Inches of Travel (B061) must be 15
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-2, COC-3, COC-4, COC-5, COC-6, or COC-8 then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 1 or 2, then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 4, then the Inches of Travel (B061) must be 18
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 2, then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 1, then the Inches of Travel (B061) must be 30
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1 then the Inches of Travel (B061) must be 10, 12, or 15
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-26, then the Inches of Travel (B061) must be 18

**Note:**

Reference AAR Field Manual Interchange Rule(s) 21 and 59.

## Data Specification Manual

| Cushion Unit Type                                                                                                                                                                                                                                                                                                    | B563 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Cushion Unit Type value as listed in AAR Field Manual Interchange Rule 21 and 59                                                                                                                                                                                                                                     | ●    |
| Carry forward for Single Clone / Multi-Clone / Restencil / Add-Back / Equipment Group Change.                                                                                                                                                                                                                        |      |
| <b>Permissible Values for B563</b>                                                                                                                                                                                                                                                                                   |      |
| 1 – Type 1                                                                                                                                                                                                                                                                                                           |      |
| 2 – Type 2                                                                                                                                                                                                                                                                                                           |      |
| 3 – Type 3                                                                                                                                                                                                                                                                                                           |      |
| 4 – Type 4                                                                                                                                                                                                                                                                                                           |      |
| 5 – Type 5                                                                                                                                                                                                                                                                                                           |      |
| S – Type S                                                                                                                                                                                                                                                                                                           |      |
| <b>Validation Rule(s) for B563</b>                                                                                                                                                                                                                                                                                   |      |
| - Cushion Unit Type (B563) is mandatory for equipment built on or after June 13, 2019.                                                                                                                                                                                                                               |      |
| -If Draft Gear Group/Cushion Unit Pocket (B562) is not equal to A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, or Z, then Cushion Unit Type (B563) must be populated.                                                                                                                                               |      |
| -When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-6, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-9, EOC-9B, EOC-9D, EOC-10, EOC-10B, EOC-10D, EOC-14, EOC-14B, EOC-18D, EOC-23, EOC-23B, EOC-24, EOC-25E, or EOC-26B then the Cushion Unit Type (B563) must be 1.                                                   |      |
| -When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-9E, EOC-26F, or EOC-27E, then the Cushion Unit Type (B563) must be 2                                                                                                                                                                                    |      |
| -When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-11, EOC-12, EOC-13, EOC-13B, EOC-15, EOC-15B, EOC-15D, EOC-17, EOC-17B, EOC-17D, EOC-18, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-24B, COC-3, COC-5, or COC-7 then the Cushion Unit Type (B563) must be 1 or 2. |      |
| -When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-8F or EOC-10F then the Cushion Unit Type (B563) must be 2 or 3.                                                                                                                                                                                         |      |
| -When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-5, EOC-5B, EOC-5D, EOC-6, EOC-6B, EOC-6D EOC-11B, EOC-11D, EOC-12B, EOC-12D, or COC-4 then the Cushion Unit Type (B563) must be 1, 2, or 3.                                                                                                             |      |
| -When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-16D, or COC-1 then the Cushion Unit Type (B563) must be 1, 2, or 4.                                                                                                                                                                    |      |
| -When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-2B, EOC-2D, EOC-3, EOC-3B, EOC-4, EOC-4B, or COC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, or 4.                                                                                                                                             |      |
| -When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1, EOC-1B, EOC-1D, or EOC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5.                                                                                                                                                                 |      |
| -When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-8 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5.                                                                                                                                                                                           |      |
| -When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 1 or 2, then the Inches of Travel (B061) must be 20.                                                                                                                                                                 |      |
| -When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 4, then the Inches of Travel (B061) must be 18.                                                                                                                                                                      |      |
| -When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 2, then the Inches of Travel (B061) must be 20.                                                                                                                                                                      |      |
| -When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 1, then the Inches of Travel (B061) must be 30.                                                                                                                                                                      |      |
| <b>Note:</b>                                                                                                                                                                                                                                                                                                         |      |
| Reference AAR Field Manual Interchange Rule(s) 21 and 59.                                                                                                                                                                                                                                                            |      |
| Coupler Component ID                                                                                                                                                                                                                                                                                                 | B353 |
| Coupler Component ID from Component Registry                                                                                                                                                                                                                                                                         |      |
| Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.                                                                                                                                                                                           |      |
| Cushioning Unit Component ID                                                                                                                                                                                                                                                                                         | B361 |
| Component ID from Component Registry                                                                                                                                                                                                                                                                                 |      |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## Unit Segment Components

| Unit Equipment Group                                                                        | A307            |      |          |
|---------------------------------------------------------------------------------------------|-----------------|------|----------|
| Describes the equipment type of the platform                                                |                 |      |          |
| Affects Rating.                                                                             |                 |      |          |
| Permissible Values for A307                                                                 |                 |      |          |
| BOXC                                                                                        | Box Car         | FLAT | Flat Car |
| GOND                                                                                        | Gondola         | HOPP | Hopper   |
| IFLT                                                                                        | Intermodal Flat | TANK | Tank Car |
| VFLT                                                                                        | Vehicular Flat  |      |          |
| Validation Rule for A307                                                                    |                 |      |          |
| -Unit Equipment Group cannot be reported if the Connected Unit Count (A020) is not reported |                 |      |          |
| -Unit Equipment Group must be reported if Connected Unit Count (A020) is reported           |                 |      |          |

| Unit Tare Weight                                                                                      | A299    |
|-------------------------------------------------------------------------------------------------------|---------|
| The unit segment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds |         |
| Range of Values for A299                                                                              |         |
| Minimum                                                                                               | Maximum |
| 30000                                                                                                 | 150000  |
| Validation Rule for A299                                                                              |         |
| -Unit Tare Weight must not be reported if the Connected Unit Count (A020) is not reported             |         |
| -Unit Tare Weight must be reported if Connected Unit Count (A020) is reported                         |         |
| -Unit Tare Weight for Gondolas must be greater than or equal 30,000 lbs.                              |         |
| -Unit Tare Weight for Gondolas must be less than or equal 150,000 lbs.                                |         |
| -Unit Segment Tare Weights must add up to the Total Tare Weight (A259)                                |         |
| -Unit Tare Weight (A299) value must be reported to the nearest 100 pounds                             |         |

| Unit Load Limit                                                                                              | A300    |
|--------------------------------------------------------------------------------------------------------------|---------|
| The maximum permissible weight of the commodity that can be loaded into the unit segment, reported in pounds |         |
| Range of Values for A300                                                                                     |         |
| Minimum                                                                                                      | Maximum |
| 70000                                                                                                        | 300000  |
| Validation Rule for A300                                                                                     |         |
| -Unit Load Limit can not be reported if the Connected Unit Count (A020) is not reported                      |         |
| -Unit Load Limit must be reported if Connected Unit Count (A020) is reported                                 |         |
| -Unit Segment Load Limits must add up to the Load Limit (LDLT)                                               |         |

| Unit Cubic Feet Capacity                                                                          | A065    |
|---------------------------------------------------------------------------------------------------|---------|
| The calculated interior dimensions of the unit segment in cubic feet                              |         |
| Range of Values for A065                                                                          |         |
| Minimum                                                                                           | Maximum |
| 400                                                                                               | 8800    |
| Validation Rule for A065                                                                          |         |
| -Unit Cubic Feet Capacity must not be reported if the Connected Unit Count (A020) is not reported |         |
| -Unit Cubic Feet Capacity requires Connected Unit Count (A020)                                    |         |
| -Unit Cubic Feet Capacity for Gondolas or Hoppers must be greater than or equal 400 cubic feet    |         |
| -Unit Cubic Feet Capacity for Gondolas must be less than or equal 8800 cubic feet                 |         |
| -Unit Cubic Feet Capacity must add up to the Cubic Feet Capacity (A067).                          |         |

## Data Specification Manual

## Brake System Components

**Emergency Brake Valve CID** **B354**

Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Emergency Valve COTS Date** **B567**

Brake valve emergency portion recondition date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve COTS Date is system-generated from a Emergency Brake Valve Inspection.

**Emergency Valve OEM Warranty Date** **B568**

Brake valve emergency portion Original Equipment Manufacturer warranty date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve OEM Date is system-generated from a Emergency Brake Valve Inspection.

**Emergency Valve Part Number** **B569**

Brake valve emergency portion part number

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve Part Number is system-generated from a Emergency Brake Valve Inspection.

**Service Brake Valve CID** **B357**

Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Service Valve COTS Date** **B564**

Brake valve service portion recondition date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve COTS Date is system-generated from a Service Brake Valve Inspection.

**Service Valve OEM Warranty Date** **B565**

Brake valve service portion Original Equipment Manufacturer warranty date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve OEM Date is system-generated from a Service Brake Valve Inspection.

**Service Valve Part Number** **B566**

Brake valve service portion part number

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

Service Valve Part Number is system-generated from a Service Brake Valve Inspection.

**Slack Adjuster CID** **B359**

Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## Miscellaneous

**Commercial Owner CIF** **B049**

The Customer Identification File (CIF) number for a commercial owner at a specific location

**Commercial Lessee CIF** **B048**

The Customer Identification File (CIF) number for a commercial lessee at a specific location

**Umler Effective Date** **EFD**

The date the rating activity (pre-registration, modification, etc.) is expected to occur

This element is not eligible for Query. Does not Carry Forward.

**Validation Rule for EFD**

-Effective Date cannot be set to more than 13 months in the future.

**NOTES:**

- Effective Date will default to the 1st of the following month that equipment is registered

## Inspection

**ABT Due Date (Repair Track)** **DU13**

The due date of the air brake test per AAR Field Manual Rule 3

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**ABT 5-8 Year Due Date** **DU58**

The 5-8 year due date for the air brake test (ABT) after the ABT Due Date (Repair Track)

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Car Grade** **CG01**

The grading of the interior condition of the equipment

Value does not carry forward for Single Clone / Multi-Clone / Equipment Group Change.

**Permissible Values for CG01**

- A A-Grade A
- B B-Grade B
- C C-Grade C
- D D-Holes in Floor or Sides, Gates may be missing
- K K-Contaminated (system generated by waybill only)
- U U-Unfit for Lading
- X X-Grade A Contains Refuse
- Y Y-Grade B Contains Refuse
- Z Z-Grade C Contains Refuse

**Car Grade Inspection Date** **CG02**

The date of the grading of the interior condition of the equipment

Value does not carry forward for Single Clone / Multi-Clone / Equipment Group Change.

**Car Grade Inspection Time** **CG03**

The time of the grading of the interior condition of the equipment

Value does not carry forward for Single Clone / Multi-Clone / Equipment Group Change.

**Car Grade Location SPLC** **CG04**

## Data Specification Manual

|                                                                                                                     |                                                                                     |
|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>The SPLC of the grading location</b>                                                                             |                                                                                     |
| Value does not carry forward for Single Clone / Multi-Clone / Equipment Group Change.                               |                                                                                     |
| <b>Car Grade Inspection SCAC</b>                                                                                    | <b>CG05</b>                                                                         |
| <b>The shop SCAC grading location</b>                                                                               |                                                                                     |
| Value does not carry forward for Single Clone / Multi-Clone / Equipment Group Change.                               |                                                                                     |
| <b>Inspection Date Done</b>                                                                                         | <b>DTDN</b>                                                                         |
| <b>The date the inspection was completed; used for all inspection types reported on equipment</b>                   |                                                                                     |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                             |                                                                                     |
| <b>Validation Rule for DTDN</b>                                                                                     |                                                                                     |
| -The inspection date must not be 60 days before the Build Date                                                      |                                                                                     |
| <b>Inspection Due Date</b>                                                                                          | <b>INDD</b>                                                                         |
| <b>The due date of the next inspection; used for all inspection types reported on equipment</b>                     |                                                                                     |
| System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.          |                                                                                     |
| <b>Inspection Performer</b>                                                                                         | <b>PERF</b>                                                                         |
| <b>The SCAC that completed the inspection; used for all inspection types reported on equipment</b>                  |                                                                                     |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                             |                                                                                     |
| <b>Inspection Reporter</b>                                                                                          | <b>REPT</b>                                                                         |
| <b>The SCAC that reported the inspection; used for all inspection types reported on equipment</b>                   |                                                                                     |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                             |                                                                                     |
| <b>Location/SPLC</b>                                                                                                | <b>SPLC</b>                                                                         |
| <b>The SPLC of the inspecting location; used for all inspection types reported on equipment</b>                     |                                                                                     |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                             |                                                                                     |
| <b>Air Brake Test Device</b>                                                                                        | <b>B523</b>                                                                         |
| <b>Indicates the type of test device used to perform the Air Brake Test</b>                                         |  |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                             |                                                                                     |
| <b>Permissible Values for B523</b>                                                                                  |                                                                                     |
| A Automatic (Non 4-Pressure)                                                                                        |                                                                                     |
| M Manual                                                                                                            |                                                                                     |
| P Automatic (4-Pressure)                                                                                            |                                                                                     |
| <b>Validation Rule for B523</b>                                                                                     |                                                                                     |
| -Air Brake Test Device (B523) must be reported for Air Brake Test inspection reported on or after December 10, 2020 |                                                                                     |
| <b>Insp Service Valve COTS Date</b>                                                                                 | <b>B570</b>                                                                         |
| <b>Brake valve service portion recondition date</b>                                                                 |                                                                                     |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                             |                                                                                     |
| <b>NOTES:</b>                                                                                                       |                                                                                     |
| • Reports of 9999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.       |                                                                                     |
| • Valid date format: MMY                                                                                            |                                                                                     |
| <b>Insp Service Valve OEM Warranty Date</b>                                                                         | <b>B571</b>                                                                         |
| <b>Brake valve service portion Original Equipment Manufacturer warranty date</b>                                    |                                                                                     |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                             |                                                                                     |

**NOTES:**

- Reports of 999999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMYYYY

|                                                                                                                                |                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Insp Service Valve Part Number</b>                                                                                          | <b>B572</b>                                                                           |
| <b>Brake valve service portion part number</b>                                                                                 |                                                                                       |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                        |                                                                                       |
| <b>Insp Emergency Valve COTS Date</b>                                                                                          | <b>B573</b>                                                                           |
| <b>Brake valve emergency portion recondition date</b>                                                                          |                                                                                       |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                        |                                                                                       |
| <b>NOTES:</b>                                                                                                                  |                                                                                       |
| • Reports of 9999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.                  |                                                                                       |
| • Valid date format: MMY                                                                                                       |                                                                                       |
| <b>Insp Emergency Valve OEM Warranty Date</b>                                                                                  | <b>B574</b>                                                                           |
| <b>Brake valve emergency portion Original Equipment Manufacturer warranty date</b>                                             |                                                                                       |
| System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone. |                                                                                       |
| <b>NOTES:</b>                                                                                                                  |                                                                                       |
| • Reports of 999999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.                |                                                                                       |
| • Valid date format: MMYYYY                                                                                                    |                                                                                       |
| <b>Insp Emergency Valve Part Number</b>                                                                                        | <b>B575</b>                                                                           |
| <b>Brake valve emergency portion part number</b>                                                                               |                                                                                       |
| System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone. |                                                                                       |
| <b>Insp Service Valve Location <i>Mandatory</i></b>                                                                            | <b>B576</b>                                                                           |
| <b>Brake valve service portion location</b>                                                                                    |  |
| . Value does not carry forward for Single Clone / Multi-Clone.                                                                 |                                                                                       |
| <b>Insp Emergency Valve Location <i>Mandatory</i></b>                                                                          | <b>B577</b>                                                                           |
| <b>Brake valve emergency portion location reported on an emergency brake valve inspection</b>                                  |  |
| Value does not carry forward for Single Clone / Multi-Clone.                                                                   |                                                                                       |



## Data Specification Manual

## Hopper

|                                  |           |
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## Data Specification Manual

## General

**Status Code** *Mandatory*

USCD

Identifies the current operational state

Does not Carry Forward.

**Permissible Values for USCD**

A ACTIVE I INACTIVE  
P PRE-REGISTERED

**NOTES:**

- For Restencil and Clone process the initial Status of a car should be Pre-Registered.
- All Add-Back processes should initially set the Status to Pre-Registered
- A Pre-registered car will automatically have its Status changed to Active for the initial change when TRAIN detects three (3) movements on the car
- If the Status changes to Active due to movement and the car was created from a Restencil, the Prior Equipment ID (PRID) or source car will have its status changed to Inactive automatically by Umler

**Equipment ID**

0001

The equipment stenciled number

**Validation Rule for 0001**

-Equipment Number must not be larger than 6 digits (i.e., 999999)

**NOTES:**

- Equipment ID includes the mark and number stenciled on the equipment. Marks can be up to 4 characters and number up to 6 digits (i.e., ABCD999999).
- Up to 500 cars can be added or updated in a transaction.
- When adding an equipment record, ensure that Prior Equipment ID (PRID) is reported, unless the equipment is new.

**Mechanical Designation** *Mandatory*

UMMD

Equipment description without physical dimensions

Used in ETC Generation. Used for Transportation Codes.

**Permissible Values for UMMD**

HK Hopper-Doors Hinged Lengthwise, Dumping Inside/Outside of Rails  
HKR Hopper-With Roof, Doors Hinged Lengthwise, Dumping Inside/Outside of Rails  
HKS Hopper-Specially Equipped with Roof, Doors Hinged Lengthwise, Dumping Inside/Outside of Rails  
HM Hopper-2 Compartments, Doors Hinged Crosswise, Dumping Between Rails  
HMA Hopper-2 Compartments, Doors Hinged Lengthwise, Dumping Between Rails  
HMS Hopper-Specially Equipped, 2 Compartments, Doors Hinged Crosswise, Dumping Between Rails  
HMSR Hopper-Specially Equipped with Roof, 2 Compartments, Doors Hinged Crosswise, Dumping Between Rails  
HT Hopper-3 or more Compartments, Doors Hinged Crosswise, Dumping Between Rails  
HTA Hopper-3 or more Compartments, Doors Hinged Lengthwise, Dumping Between Rails  
HTR Hopper-With Roof, 3 or more Compartments, Doors Hinged Crosswise, Dumping Between Rails  
HTS Hopper-Specially Equipped, 3 or more Compartments, Doors Hinged Crosswise, Dumping Between Rails  
LM Hopper-Specially Equipped for demountable containers  
LO Hopper-Covered  
MWB MoW - Ballast Car  
MWH MoW - Hopper

**Equipment Type Code**

UMET

An alpha numeric code that describes the physical attributes of equipment

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Please Refer to Appendix I for More information Regarding ETC Generation

**Maint of Way Service Type**

B403

Identifies equipment Maintenance Of Way function

Value does not carry forward for Equipment Group Change.

**Permissible Values for B403**

C2 Crane / Boom Support Car  
F4 Flat-Wheel Sets  
T4 Training Car  
T8 Track Geometry Car

**Validation Rule for B403**

- Maint of Way Service Type can only be listed on records where the Equipment Group (0002) or Pseudo Equipment Group (B547) is listed as MISC

**Built Date** *Mandatory*

BLDT

The date the construction of the equipment is complete

Data is Confidential. Used for Transportation Codes. Affects Rating. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for BLDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for BLDT**

- Built Date must be within the last 99 years
- Built Date must not be in the future for equipment in Active Status
- Prior and target equipment's Built Date (BLDT) must match for restenciling
- Built Date cannot be updated within 30 days of the End of Service Date (B078)

**NOTES:**

- Data is public for railroad marked equipment.
- For connected unit cars report the oldest car in the set.

**Rebuilt / ILS Date**

RBDT

The date the re-construction of the equipment is complete

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for RBDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for RBDT**

- Rebuilt/Increased Life Service Date must be after the Built Date (BLDT)
- Rebuilt Date must not be more than 70 years after the Built Date (BLDT)
- Rebuilt Date is required for Extended Service Code (A096) 1, 2, or 3 for Increased Life Service
- Rebuilt Date is required for Extended Service Code (A096) R for Rebuilt, or V for 65 years of service
- If Rebuilt Date is reported then the Extended Service Code (A096) must be reported as R for Rebuilt, V, 1, 2, or 3 for Increased Life Service

**NOTES:**

- Railroad cars -- applicable only to cars meeting status as provided in both STB Accounting Rules, and the AAR Mechanical Interchange Rule 88, Office Manual.
- Private cars -- applicable to all cars meeting AAR Mechanical Interchange Rule 88, Section C, Office Manual and Sections A and B of the Field Manual.
- Private covered hopper cars -- qualifying under the provisions of Item 621, Note 1, Freight Tariff 6007-series for the purpose of determining cars' age for calculating the mileage rates.
- For connected unit cars report the oldest car in the set. Do not report Rebuilt Date unless car has been approved by the AAR.

**Rebuilt Flag**

RBFL

Identifies the equipment is nearing its end of life cycle

Data is Confidential. System Generated Field. This element is not eligible for Input.

**Permissible Values for RBFL**

N No Y Yes

**Owner** *Mandatory*

UMOW

Primary reporting mark of the railroad or private company owning the car

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**NOTES:**

- Report the primary reporting mark of the railroad or private company owning the car. When car's lease or lien is held by a bank, trust holder, capital lease company, etc. not having an assigned mark, report the primary reporting mark affiliated with the stenciled reporting mark.

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| Lessee                                                                                                                                                                                                                                                                | LESE                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| The reporting mark of the company leasing the equipment                                                                                                                                                                                                               |                            |
| Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.                                                                                                                                                                     |                            |
| <b>Validation Rule for LESE</b>                                                                                                                                                                                                                                       |                            |
| -Umler Owner (UMOW) and Lessee are not allowed to be equal                                                                                                                                                                                                            |                            |
| -Lessee cannot be a child reporting mark.                                                                                                                                                                                                                             |                            |
| <b>NOTES:</b>                                                                                                                                                                                                                                                         |                            |
| <ul style="list-style-type: none"> <li>In order to assign privately marked cars to a pool, a railroad reporting mark must be reported.</li> </ul>                                                                                                                     |                            |
| <b>Equipment Group <i>Mandatory</i></b>                                                                                                                                                                                                                               | <b>0002</b>                |
| Identifies the various major car types                                                                                                                                                                                                                                |                            |
| Used for Transportation Codes. Affects Rating.                                                                                                                                                                                                                        |                            |
| <b>Maintenance Party</b>                                                                                                                                                                                                                                              | <b>MNPT</b>                |
| The parent reporting mark of the company responsible for the maintenance and repairs of the equipment                                                                                                                                                                 |                            |
| Does not Carry Forward.                                                                                                                                                                                                                                               |                            |
| <b>Mark Owner Category</b>                                                                                                                                                                                                                                            | <b>B201</b>                |
| The company that owns the stenciled mark on the car                                                                                                                                                                                                                   |                            |
| System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.                                                                                              |                            |
| <b>Permissible Values for B201</b>                                                                                                                                                                                                                                    |                            |
| B                                                                                                                                                                                                                                                                     | US Private                 |
| C                                                                                                                                                                                                                                                                     | Canadian Private           |
| F                                                                                                                                                                                                                                                                     | Foreign Private            |
| H                                                                                                                                                                                                                                                                     | Canadian Class II          |
| I                                                                                                                                                                                                                                                                     | Canadian Class I           |
| J                                                                                                                                                                                                                                                                     | Mexican Class I            |
| K                                                                                                                                                                                                                                                                     | Canadian Class III         |
| M                                                                                                                                                                                                                                                                     | Mexican Private            |
| N                                                                                                                                                                                                                                                                     | US Private Steamship       |
| O                                                                                                                                                                                                                                                                     | Canadian Private Steamship |
| P                                                                                                                                                                                                                                                                     | Mexican Private Steamship  |
| Q                                                                                                                                                                                                                                                                     | Foreign Private Steamship  |
| R                                                                                                                                                                                                                                                                     | US Class II Railroad       |
| U                                                                                                                                                                                                                                                                     | US Class I Railroad        |
| V                                                                                                                                                                                                                                                                     | US Class III Railroad      |
| W                                                                                                                                                                                                                                                                     | Mexican Class II Railroad  |
| Y                                                                                                                                                                                                                                                                     | Mexican Class III Railroad |
| <b>NOTES:</b>                                                                                                                                                                                                                                                         |                            |
| <ul style="list-style-type: none"> <li>This value is stored in the Umler Database for informational purposes and is retrieved from the Roadmark Registry.</li> </ul>                                                                                                  |                            |
| <b>Prior Equipment ID</b>                                                                                                                                                                                                                                             | <b>PRID</b>                |
| The previous reporting mark and number of the equipment                                                                                                                                                                                                               |                            |
| Value does not carry forward for Single Clone / Multi-Clone.                                                                                                                                                                                                          |                            |
| <b>Validation Rule for PRID</b>                                                                                                                                                                                                                                       |                            |
| -Prior and target equipment's Built Date (BLDT) must match                                                                                                                                                                                                            |                            |
| -The Prior Equipment ID (0001) must belong to the same or comparable Equipment Group (0002) as the current car initial and number                                                                                                                                     |                            |
| <b>NOTES:</b>                                                                                                                                                                                                                                                         |                            |
| <ul style="list-style-type: none"> <li>Prior ID enables equipment records to share the same historical lineage. Equipment Identification Number (EIN) is a generated id that enables these equipment records to share inspections and transaction history.</li> </ul> |                            |
| <b>Last Update Date</b>                                                                                                                                                                                                                                               | <b>B122</b>                |
| Date of the last Umler element change                                                                                                                                                                                                                                 |                            |
| System Generated Field. This element is not eligible for Input.                                                                                                                                                                                                       |                            |
| <b>Equipment Add Date</b>                                                                                                                                                                                                                                             | <b>B082</b>                |
| Date the reporting mark and number was added to the Umler system                                                                                                                                                                                                      |                            |
| System Generated Field. This element is not eligible for Input.                                                                                                                                                                                                       |                            |

|                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Status Change Reason</b>                                                                                                                                                                                                                                                                                                                       | <b>USCR</b>                                                                                                                               |
| Identifies the reason for the current operational state                                                                                                                                                                                                                                                                                           |                                                                                                                                           |
| System Generated Field. This element is not eligible for Input. Does not Carry Forward.                                                                                                                                                                                                                                                           |                                                                                                                                           |
| <b>Permissible Values for USCR</b>                                                                                                                                                                                                                                                                                                                |                                                                                                                                           |
| I                                                                                                                                                                                                                                                                                                                                                 | Initial Load                                                                                                                              |
| M                                                                                                                                                                                                                                                                                                                                                 | Movement                                                                                                                                  |
| O                                                                                                                                                                                                                                                                                                                                                 | Status Changed Manually                                                                                                                   |
| R                                                                                                                                                                                                                                                                                                                                                 | Restencil                                                                                                                                 |
| <b>NOTES:</b>                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                           |
| <ul style="list-style-type: none"> <li>If movement is detected on equipment, status is changed to Active.</li> <li>If an equipment record is changed to Active, any prior equipment record is placed in Inactive status.</li> </ul>                                                                                                               |                                                                                                                                           |
| <b>Status Change Date</b>                                                                                                                                                                                                                                                                                                                         | <b>USCT</b>                                                                                                                               |
| Identifies the effective date of the current operational state                                                                                                                                                                                                                                                                                    |                                                                                                                                           |
| System Generated Field. This element is not eligible for Input. Does not Carry Forward.                                                                                                                                                                                                                                                           |                                                                                                                                           |
| <b>Extended Service <i>Mandatory</i></b>                                                                                                                                                                                                                                                                                                          | <b>A096</b>                                                                                                                               |
| A code indicating the eligibility of an increase to the life cycle                                                                                                                                                                                                                                                                                |                                                                                                                                           |
| Used for Transportation Codes. Value does not carry forward for Single Clone / Multi-Clone.                                                                                                                                                                                                                                                       |                                                                                                                                           |
| <b>Permissible Values for A096</b>                                                                                                                                                                                                                                                                                                                |                                                                                                                                           |
| 1                                                                                                                                                                                                                                                                                                                                                 | 1st ILS Inspection, additional 5 years of Service                                                                                         |
| 2                                                                                                                                                                                                                                                                                                                                                 | 2nd ILS Inspection, additional 5 years of service (10 years total)                                                                        |
| 3                                                                                                                                                                                                                                                                                                                                                 | 3rd ILS Inspection, additional 5 years of service (15 years total)                                                                        |
| C                                                                                                                                                                                                                                                                                                                                                 | Built New between January 1, 1964 - June 30, 1974, Certified for 50 Years of Service, Built New Before July 1, 1974 & Received AAR Waiver |
| E                                                                                                                                                                                                                                                                                                                                                 | Built new from July 1, 1974, Qualified for 50 Years Service                                                                               |
| N                                                                                                                                                                                                                                                                                                                                                 | Built Before January 1, 1964, Qualified for 40 Years Service                                                                              |
| R                                                                                                                                                                                                                                                                                                                                                 | Rule 88, Rebuilt cars                                                                                                                     |
| U                                                                                                                                                                                                                                                                                                                                                 | Built between January 1, 1964 - June 30, 1974, Qualified for 40 Years & eligible for certification for 50 Years Service                   |
| V                                                                                                                                                                                                                                                                                                                                                 | Car is certified (FRA Waiver & AAR) for 65 years of service from date built new from January 1, 1964                                      |
| <b>Validation Rule for A096</b>                                                                                                                                                                                                                                                                                                                   |                                                                                                                                           |
| -If Rebuilt Date (RBDT) is reported, then the Extended Service Code (A096) must be reported as R for Rebuilt, V, 1, 2, or 3 for Increased Life Service                                                                                                                                                                                            |                                                                                                                                           |
| -Extended Service Code of C cannot be reported if the car was built before January 1, 1964 or on/after July 1, 1974                                                                                                                                                                                                                               |                                                                                                                                           |
| -Extended Service Code of E cannot be reported if the car was built before July 1, 1974                                                                                                                                                                                                                                                           |                                                                                                                                           |
| -Extended Service Code of N cannot be reported if the car was built on/after January 1, 1964                                                                                                                                                                                                                                                      |                                                                                                                                           |
| -Extended Service Code of U cannot be reported if the car was built before January 1, 1964 or on/after July 1, 1974                                                                                                                                                                                                                               |                                                                                                                                           |
| <b>NOTES:</b>                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                           |
| <ul style="list-style-type: none"> <li>Value is used to calculate End of Service Date (B078).</li> <li>Rebuilt Date (RBDT) is required for Extended Service Code (A096) R for Rebuilt, or V for 65 years service.</li> <li>Rebuilt Date (RBDT) is required for Extended Service Code (A096) 1, 2, 3, and V for Increased Life Service.</li> </ul> |                                                                                                                                           |
| <b>End of Service Date</b>                                                                                                                                                                                                                                                                                                                        | <b>B078</b>                                                                                                                               |
| Indicates the date of the end of equipment life                                                                                                                                                                                                                                                                                                   |                                                                                                                                           |
| Data is Confidential. System Generated Field. This element is not eligible for Input.                                                                                                                                                                                                                                                             |                                                                                                                                           |
| <b>NOTES:</b>                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                           |
| <ul style="list-style-type: none"> <li>Data becomes non-confidential two years prior to End of Service Date.</li> </ul>                                                                                                                                                                                                                           |                                                                                                                                           |
| <b>Do Not Load After</b>                                                                                                                                                                                                                                                                                                                          | <b>B590</b>                                                                                                                               |
| Equipment should not be loaded after date shown in the element                                                                                                                                                                                                                                                                                    |                                                                                                                                           |
| Data is Confidential.                                                                                                                                                                                                                                                                                                                             |                                                                                                                                           |
| <b>Validation Rules for B590</b>                                                                                                                                                                                                                                                                                                                  |                                                                                                                                           |
| -Do Not Load After (B590) cannot be updated thirty days prior to the date shown in the element.                                                                                                                                                                                                                                                   |                                                                                                                                           |
| -Do Not Load After (B590) cannot be updated within thirty days of the End of Service Date (B078).                                                                                                                                                                                                                                                 |                                                                                                                                           |

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-Do Not Load After (B590) date cannot be on or after the End of Service (B078) date.

**NOTES:**

- The element will be initially populated by End of Service (B078) minus 30 days.
- Data becomes non-confidential thirty days prior to the Do Not Load After (B590) date.

| Equipment Identification                                 | EINN |
|----------------------------------------------------------|------|
| Unique equipment identifier regardless of stenciled mark |      |

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Specify the Prior ID (PRID) on equipment records to ensure the historical lineage is preserved. Equipment with the same EIN share history and inspections.

| Info Conflict Status                                                    | B355 |
|-------------------------------------------------------------------------|------|
| Indicates that an Informational Conflict exists on the Equipment record |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

| Conflict Status                                                 | B050 |
|-----------------------------------------------------------------|------|
| Identifies the escalation level of equipment in active conflict |      |

System Generated Field. Affects Rating. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B050**

- Subject to Zero-Rating
- Subject to Restricted in Interchange
- Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

| Date of Original Conflict                                            | B063 |
|----------------------------------------------------------------------|------|
| The date the equipment was originally placed in the current conflict |      |

System Generated Field. This element is not eligible for Input.

| Next Conflict Status                                                    | B135 |
|-------------------------------------------------------------------------|------|
| Identifies the next escalation level of an equipment in active conflict |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B135**

- Subject to Zero-Rating
- Subject to Restricted in Interchange
- Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

| Notice Indicator                                         | B137 |
|----------------------------------------------------------|------|
| Identifies equipment in error in Umler Notice Management |      |

System Generated Field. This element is not eligible for Input.

| Conflict Status Next Date                      | B062 |
|------------------------------------------------|------|
| The date the conflict status will be escalated |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

| Rate Indicator                                 | A070 |
|------------------------------------------------|------|
| Indicates the rate type applicable to the unit |      |

System Generated Field. Used for Transportation Codes. Affects Rating. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for A070**

- 0 Zero-Rated Due to Conflict Errors
- 2 Private Mileage Rate
- 6 Zero-Rated - Scrap (S, SX), AAR Overage (XA), FRA Overage (YA), Umler Conflict - CHR 1/Tariff 6007 (XZ). Zero-Rated Private Owner Election to Zero Rate [See Private Zero Rate (B150)].
- M Railroad Market Rate
- Q Zero-Rated Railroad Market Rate Due to Conflict Errors

**NOTES:**

- If unit is zero-rated, correction of conflicts will reinstate the appropriate rate indicator code.

| Private Zero Rate                                                                     | B150 |
|---------------------------------------------------------------------------------------|------|
| Indicates a private car is subject to contractual agreement, nullifying mileage rates |      |

Affects Rating.

**Permissible Values for B150**

- Y Yes

**NOTES:**

- Reporting "Y" generates Rate Indicator (A070) value 6 and a zero rate.

| First Movement Date                                               | USAT |
|-------------------------------------------------------------------|------|
| The first movement date under the stenciled mark of the equipment |      |

This element is not eligible for Input. Does not Carry Forward.

| Equipment Add Company                                      | B083 |
|------------------------------------------------------------|------|
| The reporting mark of the company that added the equipment |      |

System Generated Field. This element is not eligible for Input.

| Registration Reason                                    | B174 |
|--------------------------------------------------------|------|
| The code indicating the reason this equipment is added |      |

Does not Carry Forward.

**Permissible Values for B174**

- A Add-Back
- N New
- P Pending Restencil
- R Restencil

| Restencil Program Ind                                 | B177 |
|-------------------------------------------------------|------|
| Identifies the equipment is under a restencil program |      |

**Permissible Values for B177**

- Y Yes

| Delete Reason Code                                               | B064 |
|------------------------------------------------------------------|------|
| A code that designates the reason the equipment has been deleted |      |

Value does not carry forward for Add Back.

**Permissible Values for B064**

- A Restenciled
- D Destroyed or wrecked
- L Lease terminated, removed from fleet
- P Retired unserviceable beyond economic repair
- R Rebuilt
- S Sold Serviceable
- T Lost
- W Over age retired for dismantling
- Y Error, reporting did not exist
- Z Other

| Non-Compliant Wheelsets                                                                                                                         | B544 |
|-------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Equipment record is incomplete and has a missing wheelset component ID association. Refer to AAR Field Manual Rule 44 for industry requirements |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B544**

- A Wheelset Component ID is required for each applicable location on equipment built on or after January 1, 2016
- A Wheelset Component ID is required for each applicable location on equipment rebuilt on or after January 1, 2016 and Gross Rail Load (A266) is greater than 268,000 lbs

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## NOTES:

- A "Y" will be system generated if the equipment is active and the number of Wheelset CID's required is not equal to the Axle Count (A024) on the equipment
- Validation rule applies to equipment that has been in Active status for 60 days

**Pseudo Equipment Group** **B547**

Equipment needs to be identified as a miscellaneous record while maintaining all elements linked to the original equipment group

System Generated Field.

**Permissible Values for B547**

MISC Miscellaneous

**Weight****Gross Rail Load/Weight** **Mandatory** **A266**

The maximum permissible weight on rail of the equipment and the load, reported in pounds

Affects Rating.

**Range of Values for A266**

| Minimum | Maximum |
|---------|---------|
| 43000   | 2835000 |

**Validation Rule for A266**

-Gross Rail Load must be equal to the Load Limit (LDLT) plus the Tare Weight (A259)

## NOTES:

Use Table 1 below to determine Gross Rail Load, if Qualification for Increased Gross Rail Load (B344) does not exist.

TABLE 1 -

| Journal Size     | Load per Axle | Gross Rail Load for 4-axle Equipment |
|------------------|---------------|--------------------------------------|
| B - 4 1/2" x 8"  | 25,750 lbs.   | 103,000 lbs.                         |
| C - 5" x 9"      | 35,500 lbs.   | 142,000 lbs.                         |
| D - 5 1/2" x 10" | 44,250 lbs.   | 177,000 lbs.                         |
| E - 6" x 11"     | 55,000 lbs.   | 220,000 lbs.                         |
| F - 6 1/2" x 12" | 65,750 lbs.   | 263,000 lbs.                         |
| G - 7" x 12"     | 78,750 lbs.   | 315,000 lbs.                         |
| K - 6 1/2" x 9"  | 71,500 lbs.   | 263,000 lbs.                         |
| M - 7" x 9"      | 78,750 lbs.   | 315,000 lbs.                         |

Use Table 2 below to determine Gross Rail Load for 4-axle equipment if Qualification for Increased Gross Rail Load (B344) exists.

TABLE 2 -

| Qualification for Increased Gross Rail Load (B344) | Journal Size     | Gross Rail Load |
|----------------------------------------------------|------------------|-----------------|
| 1                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 1                                                  | G - 7" x 12"     | 286,000 lbs.    |
| 1                                                  | M - 7" x 9"      | 286,000 lbs.    |
| 2                                                  | F - 6 1/2" x 12" | 286,000 lbs.    |
| 2                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 3                                                  | F - 6 1/2" x 12" | 268,000 lbs.    |
| 3                                                  | K - 6 1/2" x 9"  | 268,000 lbs.    |

- For multi-unit equipment, report the total gross rail load for the entire set.
- Refer to Field Manual Rule 70 if additional information is required.

A Gross Rail Load less than the listed or calculated values may be entered; however:

- Star Code (A247) must be R or S, and
- Load Limit (LDLT) must also be reduced, ensuring Tare Weight (A259) plus Load Limit (LDLT) equals the reported Gross Rail Load.

For equipment having two or more different journal sizes, see following examples:

## Example for Drawbar Connected:

- A 3-unit drawbar connected car has 12 axles.
- The end units (Locations A and B) each have 4 axles with E - 6" x 11" journals.
- The intermediate unit (Locations C) has 4 axles with F - 6 1/2" x 12" journals

Using TABLE 1, the Gross Rail Load would be:

8 ea. E-6" x 11" journal axles X 55,000 lbs. per axle = 440,000 lbs.  
 + 4 ea. F-6 1/2" x 12" journal axles X 65,750 lbs. per axle = 263,000 lbs.  
 Gross Rail Load = 703,000 lbs.

## Example for Articulated Connected:

- A 5-unit articulated intermodal car has 6 trucks (12 axles).
- The end trucks (Locations A and B) each have 2 axles with E - 6" x 11" journals.
- The intermediate trucks (Locations C, D, E, and F) each have 2 axles with G - 7" x 12" journals

Using TABLE 1, the Gross Rail Load would be:

4 ea. E-6" x 11" journal axles X 55,000 lbs. per axle = 220,000 lbs.  
 + 8 ea. G-7" x 12" journal axles X 78,750 lbs. per axle = 630,000 lbs.  
 Gross Rail Load = 850,000 lbs.

**Tare Weight** **Mandatory** **A259**

The equipment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds

Affects Rating.

**Range of Values for A259**

| Minimum | Maximum |
|---------|---------|
| 23000   | 1080000 |

**Validation Rule for A259**

- Tare Weight for all non-articulated HOPP must be less than 120000 lbs.
- Tare Weight (A259) of HOPP with a blank Connected Unit Count (A020), must contain values between 23,000 lbs. and 120,000 lbs.
- Tare Weight (A259) of HOPP where Connected Unit Count (A020) is 2, must contain values between 46,000 lbs. and 240,000 lbs.
- Tare Weight (A259) of HOPP where Connected Unit Count (A020) is 3, must contain values between 69,000 lbs. and 360,000 lbs.
- Tare Weight (A259) of HOPP where Connected Unit Count (A020) is 4, must contain values between 92,000 lbs. and 480,000 lbs.
- Tare Weight (A259) of HOPP where Connected Unit Count (A020) is 5, must contain values between 115,000 lbs. and 600,000 lbs.
- Tare Weight (A259) of HOPP where Connected Unit Count (A020) is 6, must contain values between 138,000 lbs. and 720,000 lbs.
- Tare Weight (A259) of HOPP where Connected Unit Count (A020) is 7, must contain values between 161,000 lbs. and 840,000 lbs.
- Tare Weight (A259) of HOPP where Connected Unit Count (A020) is 8, must contain values between 184,000 lbs. and 960,000 lbs.
- Tare Weight (A259) of HOPP where Connected Unit Count (A020) is 9, must contain values between 207,000 lbs. and 1,080,000 lbs.
- Tare Weight (A259) value must be reported to the nearest 100 pounds

## NOTES:

- Do not report an average Tare Weight for car series, except for Pre-Registered cars
- When cars are made active, the actual Tare Weight must be recorded

**Load Limit** **Mandatory** **LDLT**

The maximum permissible weight of the commodity that can be loaded into the equipment, reported in pounds

Used in ETC Generation. Affects Rating.

**Range of Values for LDLT**

| Minimum | Maximum |
|---------|---------|
| 100000  | 2385000 |

**Validation Rule for LDLT**

- Load Limit (LDLT) of HOPP with a blank Connected Unit Count (A020), must contain values between 100,000 lbs. and 265,000 lbs



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- Load Limit (LDLT) of HOPP where Connected Unit Count (A020) is 2, must contain values between 200,000 lbs. and 530,000 lbs.
- Load Limit (LDLT) of HOPP where Connected Unit Count (A020) is 3, must contain values between 300,000 lbs. and 795,000 lbs.
- Load Limit (LDLT) of HOPP where Connected Unit Count (A020) is 4, must contain values between 400,000 lbs. and 1,060,000 lbs.
- Load Limit (LDLT) of HOPP where Connected Unit Count (A020) is 5, must contain values between 500,000 lbs. and 1,325,000 lbs.
- Load Limit (LDLT) of HOPP where Connected Unit Count (A020) is 6, must contain values between 600,000 lbs. and 1,590,000 lbs.
- Load Limit (LDLT) of HOPP where Connected Unit Count (A020) is 7, must contain values between 700,000 lbs. and 1,855,000 lbs.
- Load Limit (LDLT) of HOPP where Connected Unit Count (A020) is 8, must contain values between 800,000 lbs. and 2,120,000 lbs.
- Load Limit (LDLT) of HOPP where Connected Unit Count (A020) is 9, must contain values between 900,000 lbs. and 2,385,000 lbs.

**NOTES:**

- For connected unit cars report the sum of the load limits for all units in the set.

**Weighing Status *Mandatory*** **A289**

Indicates the weight information is an estimate or an actual measurement ●

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A289**

- A Actual
- E Estimated
- V Verified correct Tare Weight
- X Tare Weight subject to verification (System Generated)

**Validation Rule for A289**

- Equipment cannot be within a series of 10 with identical Tare Weights (A259), refer to Appendix P for further information on resolving tare weight conflicts
- When Status Code changes to Active or Inactive Weighing Status must be reported as Actual (A) or Verified (V) within 60 days of Status Code change

**Weighing Date** **A288**

The date the equipment was actually weighed

Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A288**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for A288**

- If Weighing Date is reported the Tare Weight (A259) must be reported
- When Weighing Date is reported then Weighing Status (A289) must be A (Actual) or V (Verified)
- If Weighing Status (A289) is A (Actual) or V (Verified correct Tare Weight) then Weighing Date must be reported
- Weighing Date must be on or before the current date
- Weighing Date cannot be before Built / Rebuilt date

**Cubic Feet Capacity *Mandatory*** **A067**

The maximum interior cubic feet capacity of the equipment ●▲

Used in ETC Generation.

**Range of Values for A067**

| Minimum | Maximum |
|---------|---------|
| 400     | 76500   |

**Validation Rule for A067**

- Cubic Feet Capacity for all non-articulated HOPP must be less than 8500 cubic feet
- Cubic Feet Capacity (A067) of HOPP with a blank Connected Unit Count (A020), must contain values between 400 cubic feet and 8,500 cubic feet
- Cubic Feet Capacity (A067) of HOPP where Connected Unit Count (A020) is 2, must contain values between 800 cubic feet and 17,000 cubic feet
- Cubic Feet Capacity (A067) of HOPP where Connected Unit Count (A020) is 3, must contain values between 1,200 cubic feet and 25,500 cubic feet
- Cubic Feet Capacity (A067) of HOPP where Connected Unit Count (A020) is 4, must contain values between 1,600 cubic feet and 34,000 cubic feet
- Cubic Feet Capacity (A067) of HOPP where Connected Unit Count (A020) is 5, must contain values between 2,000 cubic feet and 42,500 cubic feet
- Cubic Feet Capacity (A067) of HOPP where Connected Unit Count (A020) is 6, must contain values between 2,400 cubic feet and 51,000 cubic feet
- Cubic Feet Capacity (A067) of HOPP where Connected Unit Count (A020) is 7, must contain values between 2,800 cubic feet and 59,500 cubic feet

- Cubic Feet Capacity (A067) of HOPP where Connected Unit Count (A020) is 8, must contain values between 3,200 cubic feet and 68,000 cubic feet
- Cubic Feet Capacity (A067) of HOPP where Connected Unit Count (A020) is 9, must contain values between 3,600 cubic feet and 76,500 cubic feet

**NOTES:**

- For connected unit cars report the sum of all units cubic capacity.
- Plate Codes B, C, E, F, G are applicable to Hoppers

| Star Code                                                                       | A247 |
|---------------------------------------------------------------------------------|------|
| Indicates a reduction of the Load Limit (LDLT) of the equipment per AAR Rule 70 |      |

Affects Rating.

**Permissible Values for A247**

- R Body Capacity less than Truck Capacity
- S Reduced Load Limit

**Validation Rule for A247**

- 4-axle Cars with Star Codes of S or R must not exceed Gross Weight of 263,000 lbs. when Journal Size is A, B, C, D, or E
- Journal Sizes having Star Code of S must have a Gross Weight that is less than the calculated Gross Weight with rounding applied
- UnStarred 4 Axle Cars reporting Increased Gross Rail Load (IGRL) of 2 or 3 must have a Gross Weight greater than or equal to 264,000 lbs.
- Starred 4 axle cars with IGRL of 1 must have a Wheel Size of 36 inches when Gross Weight is less than 286,000 lbs.
- Starred 4 Axle Cars with Increased Gross Rail Load (IGRL) reported must have a Journal Size of K, G, or M

**Qual for Inc GRL** **B344**

AAR qualification for increased Rail Load Code designating AAR approval for operating 4-axle equipment at a gross rail load greater than 263,000 lbs per AAR Rule 88

**Permissible Values for B344**

- Rule 88 IGRL Code 1 (> 263,000 lbs. and <= 286,000 lbs. GRL per AAR Specification S-286)
- Rule 88 IGRL Code 2 (> 263,000 lbs. and <= 286,000 lbs. GRL)
- Rule 88 IGRL Code 3 (> 263,000 lbs. and <= 268,000 lbs. GRL)

**Validation Rule for B344**

- Equipment having Qualification for Increased Gross Rail Load of 3, and a Gross Rail Load (A266) less than 268,000 lbs, must have Star Code (A247) of S.
- Equipment having Qualification for Increased Gross Rail Load of 1 or 2, and a Gross Rail Load (A266) less than 286,000 lbs, must have Star Code (A247) of S.
- 4-axle equipment with Gross Rail Load (A266) greater than 263,000 lbs. and less than 315,000 lbs., and Star Code (A247) blank, must report Qualification for Increased Gross Rail Load.
- 4-axle equipment having Qualification for Increased Gross Rail Load of 1, 2, or 3 must have a Wheel Diameter (A294) of 36 or 38
- 4-axle equipment having Qualification for Increased Gross Rail Load of 2 or 3 must have a Journal Size (A147) of F or K
- 4-axle equipment having Qualification for Increased Gross Rail Load of 1 must have a Journal Size (A147) of K, G, or M
- 4-axle equipment having Qualification for Increased Gross Rail Load of 3 must have Gross Rail Load (A266) that does not exceed 268,000 lbs
- 4-axle equipment having Qualification for Increased Gross Rail Load of 1 or 2 must have Gross Rail Load (A266) that does not exceed 286,000 lbs

**Dimension**

| Plate Code <i>Mandatory</i>                                       | A046 |
|-------------------------------------------------------------------|------|
| Indicates the extreme height and width clearance of the equipment |      |

Affects Rating.

**Permissible Values for A046**

- B Plate Code B
- C Plate Code C
- E Plate Code E
- F Plate Code F
- G Clearance Code G
- N Plate Code N

**NOTES:**

- For a description of Plate Codes, please see Appendix J at the back of this manual.
  - Report B: If clearance does not exceed Plate B
  - Report C: If clearance is greater than Plate B. but does not exceed Plate C

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- Report E: If clearance is greater than Plates B and C, but does not exceed Plate E.
- Report F: If clearance is greater than Plates B, C and E, but does not exceed Plate F
- Report G: If clearance exceeds Plates B, C, E, F, and N.
- Report N: If clearance is greater than Plates B, C, E, and F, but does not exceed Plate N.
- There is no AAR Plate G. Clearance Code G is included in Umler to represent equipment that does not fit any existing AAR clearance plates.
- For ARTICULATED/MULTI-UNIT SET report the most restrictive clearance plate of UNIT in the set.

- Outside Extreme Height for Plate Codes C or I must be less than or equal to 15 feet 6 inches
- Outside Extreme Height for Plate Code E must be less than or equal to 15 feet 9 inches
- Outside Extreme Height for Plate Code F must be less than or equal to 17 feet 0 inch
- Outside Extreme Height for Plate Code N must be less than or equal to 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

| Outside Length <i>Mandatory</i>                                      | OSLG |
|----------------------------------------------------------------------|------|
| The outside length over pulling faces of couplers in normal position | ●●   |

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for OSLG**

| Minimum        | Maximum         |
|----------------|-----------------|
| 20 ft 0 inches | 720 ft 0 inches |

**Validation Rule for OSLG**

- Outside Length (OSLG) on freight cars (except refrigerators) must not exceed Inside Length (A135) by more than 16 feet
- Outside Length (OSLG) of HOPP with a blank Connected Unit Count (A020), must contain values between 20 feet and 80 feet
- Outside Length (OSLG) of HOPP where Connected Unit Count (A020), is 2, must contain values between 40 feet and 160 feet
- Outside Length (OSLG) of HOPP where Connected Unit Count (A020), is 3, must contain values between 60 feet and 240 feet
- Outside Length (OSLG) of HOPP where Connected Unit Count (A020), is 4, must contain values between 80 feet and 320 feet
- Outside Length (OSLG) of HOPP where Connected Unit Count (A020), is 5, must contain values between 100 feet and 400 feet
- Outside Length (OSLG) of HOPP where Connected Unit Count (A020), is 6, must contain values between 120 feet and 480 feet
- Outside Length (OSLG) of HOPP where Connected Unit Count (A020), is 7, must contain values between 140 feet and 560 feet
- Outside Length (OSLG) of HOPP where Connected Unit Count (A020), is 8, must contain values between 160 feet and 640 feet
- Outside Length (OSLG) of HOPP where Connected Unit Count (A020), is 9, must contain values between 180 feet and 720 feet

**NOTES:**

- For connected unit cars report the maximum coupled length of the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

| Outside Extreme Width <i>Mandatory</i>     | A186 |
|--------------------------------------------|------|
| The outside extreme width of the equipment | ●●   |

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A186**

| Minimum       | Maximum        |
|---------------|----------------|
| 7 ft 0 inches | 12 ft 0 inches |

**Validation Rule for A186**

- Outside Extreme Width must not exceed 10 feet 8 inches for Plate Codes B, C, E, F, or N

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

| Outside Extreme Height <i>Mandatory</i>              | A185 |
|------------------------------------------------------|------|
| Height from top of rail to extreme projecting height | ●●   |

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A185**

| Minimum        | Maximum        |
|----------------|----------------|
| 10 ft 0 inches | 17 ft 0 inches |

**Validation Rule for A185**

- Outside Extreme Height for Plate Codes B must be less than or equal to 15 feet 1 inch

| Outside Height Extr Width <i>Mandatory</i>                           | A187 |
|----------------------------------------------------------------------|------|
| The highest point at which the extreme width of the equipment occurs | ●    |

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A187**

| Minimum       | Maximum        |
|---------------|----------------|
| 1 ft 0 inches | 18 ft 0 inches |

**Validation Rule for A187**

- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 8 inches if Outside Height Extreme Width is 13 feet 10 inches or less
- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 7 inches if Outside Height Extreme Width is 13 feet 11 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 6 inches if Outside Height Extreme Width is 14 feet 0 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 4 inches if Outside Height Extreme Width is 14 feet 1 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 3 inches if Outside Height Extreme Width is 14 feet 2 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 2 inches if Outside Height Extreme Width is 14 feet 3 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 10 feet 0 inches if Outside Height Extreme Width is 14 feet 4 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 9 feet 9 inches if Outside Height Extreme Width is 14 feet 5 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 9 feet 5 inches if Outside Height Extreme Width is 14 feet 6 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 9 feet 2 inches if Outside Height Extreme Width is 14 feet 7 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 8 feet 10 inches if Outside Height Extreme Width is 14 feet 8 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 8 feet 6 inches if Outside Height Extreme Width is 14 feet 9 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 8 feet 3 inches if Outside Height Extreme Width is 14 feet 10 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 7 feet 11 inches if Outside Height Extreme Width is 14 feet 11 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 7 feet 6 inches if Outside Height Extreme Width is 15 feet 0 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 7 feet 4 inches if Outside Height Extreme Width is 15 feet 1 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 8 inches if Outside Height Extreme Width is 14 feet 3 inches or less
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 7 inches if Outside Height Extreme Width is 14 feet 4 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 6 inches if Outside Height Extreme Width is 14 feet 5 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 4 inches if Outside Height Extreme Width is 14 feet 6 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 3 inches if Outside Height Extreme Width is 14 feet 7 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 2 inches if Outside Height Extreme Width is 14 feet 8 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 10 feet 0 inches if Outside Height Extreme Width is 14 feet 9 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 9 feet 9 inches if Outside Height Extreme Width is 14 feet 10 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 9 feet 5 inches if Outside Height Extreme Width is 14 feet 11 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 9 feet 2 inches if Outside Height Extreme Width is 15 feet 0 inches

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- Outside Extreme Width (A186) for Plate Code C must not exceed 8 feet 10 inches if Outside Height Extreme Width is 15 feet 1 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 8 feet 6 inches if Outside Height Extreme Width is 15 feet 2 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 8 feet 3 inches if Outside Height Extreme Width is 15 feet 3 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 7 feet 11 inches if Outside Height Extreme Width is 15 feet 4 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 7 feet 8 inches if Outside Height Extreme Width is 15 feet 5 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 7 feet 4 inches if Outside Height Extreme Width is 15 feet 6 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 8 inches if Outside Height Extreme Width is 15 feet 2 inches or less
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 6 inches if Outside Height Extreme Width is 15 feet 3 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 3 inches if Outside Height Extreme Width is 15 feet 4 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 9 feet 6 inches if Outside Height Extreme Width is 15 feet 5 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 8 feet 8 inches if Outside Height Extreme Width is 15 feet 6 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 7 feet 11 inches if Outside Height Extreme Width is 15 feet 7 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 7 feet 1 inches if Outside Height Extreme Width is 15 feet 8 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 6 feet 3 inches if Outside Height Extreme Width is 15 feet 9 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 8 inches if Outside Height Extreme Width is 16 feet 3 inches or less
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 7 inches if Outside Height Extreme Width is between 16 feet 4 inches and 16 feet 6 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 6 inches if Outside Height Extreme Width is 16 feet 7 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 3 inches if Outside Height Extreme Width is 16 feet 8 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 0 inches if Outside Height Extreme Width is 16 feet 9 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 8 inches if Outside Height Extreme Width is 16 feet 10 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 5 inches if Outside Height Extreme Width is 16 feet 11 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 2 inches if Outside Height Extreme Width is 17 feet 0 inches
- Outside Extreme Width (A186) for Plate Code B must not exceed 8 feet 3 inches if Outside Height Extreme Width is 14 feet 10 inches
- Outside Extreme Width (A186) for Plate Code C must not exceed 8 feet 3 inches if Outside Height Extreme Width is 15 feet 3 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 8 inches if Outside Height Extreme Width (A187) is 16 feet 9 inches or less
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 6 inches if Outside Height Extreme Width (A187) is 16 feet 10 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 4 inches if Outside Height Extreme Width (A187) is 16 feet 11 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 2 inches if Outside Height Extreme Width (A187) is 17 feet 0 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 9 feet 11 inches if Outside Height Extreme Width (A187) is 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., .05 1/4" = 06"

**Outside Upper Eaves Width****A194**

The width between the outside uppermost corners of the equipment

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A194**

| Minimum       | Maximum        |
|---------------|----------------|
| 4 ft 0 inches | 11 ft 2 inches |

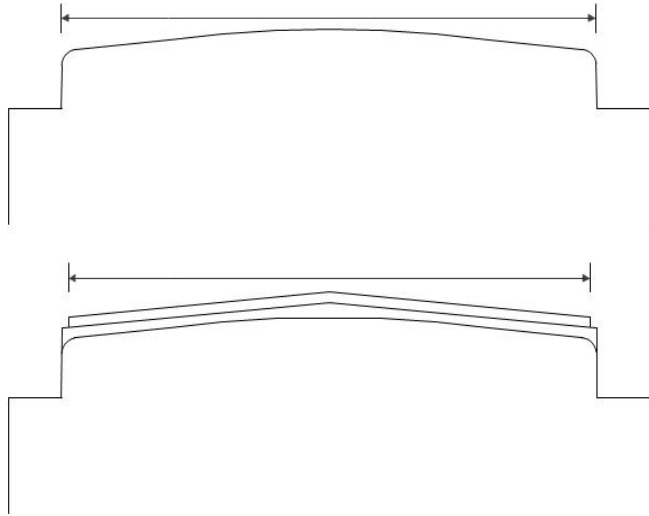
**Validation Rule for A194**

- Outside Upper Eaves Width (A194) is mandatory for Hoppers built or rebuilt on or after June 18, 2020
- Outside Upper Eaves Width must be less than or equal to the Outside Extreme Width (A186)
- Outside Upper Eaves Width must be less than or equal to the Outside Lower Eaves Width (A190)
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 8 inches if Outside Upper Eaves Height (A193) is 13 feet 10 inches or less
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 8 inches if Outside Upper Eaves Height (A193) is 13 feet 10 inches or less
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 7 inches if Outside Upper Eaves Height (A193) is 13 feet 11 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 6 inches if Outside Upper Eaves Height (A193) is 14 feet 0 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 4 inches if Outside Upper Eaves Height (A193) is 14 feet 1 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 3 inches if Outside Upper Eaves Height (A193) is 14 feet 2 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 2 inches if Outside Upper Eaves Height (A193) is 14 feet 3 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 10 feet 0 inches if Outside Upper Eaves Height (A193) is 14 feet 4 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 9 feet 9 inches if Outside Upper Eaves Height (A193) is 14 feet 5 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 9 feet 5 inches if Outside Upper Eaves Height (A193) is 14 feet 6 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 9 feet 2 inches if Outside Upper Eaves Height (A193) is 14 feet 7 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 8 feet 10 inches if Outside Upper Eaves Height (A193) is 14 feet 8 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 8 feet 6 inches if Outside Upper Eaves Height (A193) is 14 feet 9 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 8 feet 3 inches if Outside Upper Eaves Height (A193) is 14 feet 10 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 7 feet 11 inches if Outside Upper Eaves Height (A193) is 14 feet 11 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 7 feet 8 inches if Outside Upper Eaves Height (A193) is 15 feet 0 inches
- Outside Upper Eaves Width for Plate Code B must not exceed 7 feet 4 inches if Outside Upper Eaves Height (A193) is 15 feet 1 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 8 inches if Outside Upper Eaves Height (A193) is 14 feet 3 inches or less
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 7 inches if Outside Upper Eaves Height (A193) is 14 feet 4 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 6 inches if Outside Upper Eaves Height (A193) is 14 feet 5 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 4 inches if Outside Upper Eaves Height (A193) is 14 feet 6 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 3 inches if Outside Upper Eaves Height (A193) is 14 feet 7 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 2 inches if Outside Upper Eaves Height (A193) is 14 feet 8 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 10 feet 0 inches if Outside Upper Eaves Height (A193) is 14 feet 9 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 9 feet 9 inches if Outside Upper Eaves Height (A193) is 14 feet 10 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 9 feet 5 inches if Outside Upper Eaves Height (A193) is 14 feet 11 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 9 feet 2 inches if Outside Upper Eaves Height (A193) is 15 feet 0 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 8 feet 10 inches if Outside Upper Eaves Height (A193) is 15 feet 1 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 8 feet 6 inches if Outside Upper Eaves Height (A193) is 15 feet 2 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 8 feet 3 inches if Outside Upper Eaves Height (A193) is 15 feet 3 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 7 feet 11 inches if Outside Upper Eaves Height (A193) is 15 feet 4 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 7 feet 8 inches if Outside Upper Eaves Height (A193) is 15 feet 5 inches
- Outside Upper Eaves Width for Plate Code C must not exceed 7 feet 4 inches if Outside Upper Eaves Height (A193) is 15 feet 6 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 10 feet 8 inches if Outside Upper Eaves Height (A193) is 15 feet 3 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 10 feet 6 inches if Outside Upper Eaves Height (A193) is 15 feet 4 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 10 feet 3 inches if Outside Upper Eaves Height (A193) is 15 feet 5 inches
- Outside Upper Eaves Width for Plate Code E must not exceed 10 feet 3 inches if Outside Upper Eaves Height (A193) is 15 feet 4 inches





## Data Specification Manual

**Outside Upper Eaves Hght****A193**

Height from the top of rail to the uppermost outside corner of the equipment

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A193**

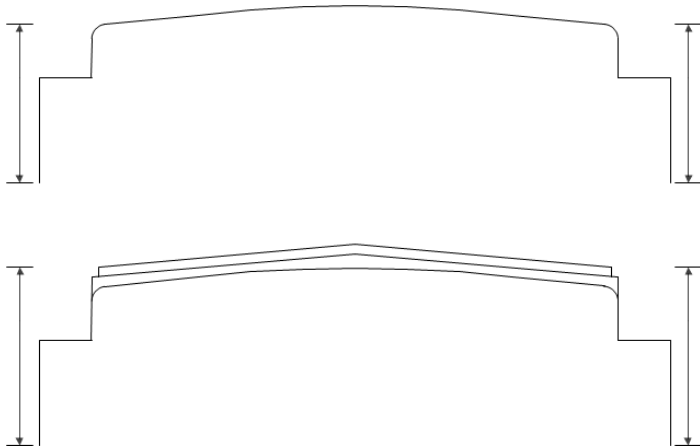
| Minimum       | Maximum        |
|---------------|----------------|
| 7 ft 0 inches | 17 ft 0 inches |

**Validation Rule for A193**

- Outside Upper Eaves Height must not exceed the Outside Extreme Height (A185)
- Outside Upper Eaves Height must be greater than or equal to the Outside Lower Eaves Height (A189)
- Outside Upper Eaves Height for Plate Codes B must not exceed 15 feet 1 inch
- Outside Upper Eaves Height for Plate Codes C must not exceed 15 feet 6 inches
- Outside Upper Eaves Height for Plate Code E must not exceed 15 feet 9 inches
- Outside Upper Eaves Height for Plate Code F must not exceed 17 feet 0 inches
- Outside Upper Eaves Height for Plate Code N must not exceed 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- If equipment operates with removable cover Roof Type (A226) code 2, report dimension with cover installed.

**Outside Lower Eaves Width****A190**

Width over lower eaves at sides of car (see diagram)

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A190**

| Minimum       | Maximum         |
|---------------|-----------------|
| 7 ft 0 inches | 10 ft 10 inches |

**Validation Rule for A190**

- Outside Lower Eaves Width can only be reported for Hoppers with roofs or covers (Mechanical Designation of LO, HTR, HKR, HMSR, LM, MWB, or MW)
- Outside Lower Eaves Width must not exceed the Outside Extreme Width (A186)
- Outside Lower Eaves Width must be greater than or equal to Outside Upper Eaves Width (A194)
- Outside Lower Eaves Width must be reported if Outside Lower Eaves Height (A189) is reported
- Outside Lower Eaves Width for Plate Code B must not exceed 10 feet 8 inches if Outside Lower Eaves Height (A189) is 13 feet 10 inches or less
- Outside Lower Eaves Width for Plate Code B must not exceed 10 feet 7 inches if Outside Lower Eaves Height (A189) is 13 feet 11 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 10 feet 6 inches if Outside Lower Eaves Height (A189) is 14 feet 0 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 10 feet 3 inches if Outside Lower Eaves Height (A189) is 14 feet 2 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 10 feet 2 inches if Outside Lower Eaves Height (A189) is 14 feet 3 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 10 feet 0 inches if Outside Lower Eaves Height (A189) is 14 feet 4 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 9 feet 9 inches if Outside Lower Eaves Height (A189) is 14 feet 5 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 9 feet 5 inches if Outside Lower Eaves Height (A189) is 14 feet 6 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 9 feet 2 inches if Outside Lower Eaves Height (A189) is 14 feet 7 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 8 feet 10 inches if Outside Lower Eaves Height (A189) is 14 feet 8 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 8 feet 3 inches if Outside Lower Eaves Height (A189) is 14 feet 10 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 7 feet 11 inches if Outside Lower Eaves Height (A189) is 14 feet 11 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 7 feet 8 inches if Outside Lower Eaves Height (A189) is 15 feet 0 inches
- Outside Lower Eaves Width for Plate Code B must not exceed 7 feet 4 inches if Outside Lower Eaves Height (A189) is 15 feet 1 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 8 inches if Outside Lower Eaves Height (A189) is 14 feet 3 inches or less
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 7 inches if Outside Lower Eaves Height (A189) is 14 feet 4 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 6 inches if Outside Lower Eaves Height (A189) is 14 feet 5 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 4 inches if Outside Lower Eaves Height (A189) is 14 feet 6 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 3 inches if Outside Lower Eaves Height (A189) is 14 feet 7 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 2 inches if Outside Lower Eaves Height (A189) is 14 feet 8 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 10 feet 0 inches if Outside Lower Eaves Height (A189) is 14 feet 9 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 9 feet 9 inches if Outside Lower Eaves Height (A189) is 14 feet 10 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 9 feet 5 inches if Outside Lower Eaves Height (A189) is 14 feet 11 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 9 feet 2 inches if Outside Lower Eaves Height (A189) is 15 feet 0 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 8 feet 10 inches if Outside Lower Eaves Height (A189) is 15 feet 1 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 8 feet 6 inches if Outside Lower Eaves Height (A189) is 15 feet 2 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 8 feet 3 inches if Outside Lower Eaves Height (A189) is 15 feet 3 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 7 feet 11 inches if Outside Lower Eaves Height (A189) is 15 feet 4 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 7 feet 8 inches if Outside Lower Eaves Height (A189) is 15 feet 5 inches
- Outside Lower Eaves Width for Plate Code C must not exceed 7 feet 4 inches if Outside Lower Eaves Height (A189) is 15 feet 6 inches
- Outside Lower Eaves Width for Plate Code E must not exceed 10 feet 8 inches if Outside Lower Eaves Height (A189) is 15 feet 2 inches or less
- Outside Lower Eaves Width for Plate Code E must not exceed 10 feet 6 inches if Outside Lower Eaves Height (A189) is 15 feet 3 inches
- Outside Lower Eaves Width for Plate Code E must not exceed 10 feet 3 inches if Outside Lower Eaves Height (A189) is 15 feet 4 inches



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- Outside Lower Eaves Width for Plate Code E must not exceed 9 feet 6 inches if Outside Lower Eaves Height (A189) is 15 feet 5 inches
- Outside Lower Eaves Width for Plate Code E must not exceed 8 feet 8 inches if Outside Lower Eaves Height (A189) is 15 feet 6 inches
- Outside Lower Eaves Width for Plate Code E must not exceed 7 feet 11 inches if Outside Lower Eaves Height (A189) is 15 feet 7 inches
- Outside Lower Eaves Width for Plate Code E must not exceed 7 feet 1 inches if Outside Lower Eaves Height (A189) is 15 feet 8 inches
- Outside Lower Eaves Width for Plate Code F must not exceed 10 feet 8 inches if Outside Lower Eaves Height (A189) is 16 feet 3 inches or less
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 8 inches if Outside Lower Eaves Height (A189) is 16 feet 9 inches or less
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 6 inches if Outside Lower Eaves Height (A189) is 16 feet 10 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 4 inches if Outside Lower Eaves Height (A189) is 16 feet 11 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 2 inches if Outside Lower Eaves Height (A189) is 17 feet 0 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 9 feet 11 inches if Outside Lower Eaves Height (A189) is 17 feet 1 inch

**NOTES:**

- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- For connected unit cars report the dimension of the largest unit in the set.

| Outside Lower Eaves Hght                                             | A189 |
|----------------------------------------------------------------------|------|
| Height from top of rail to lower eaves at side of car (see diagrams) |      |

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A189**

| Minimum       | Maximum        |
|---------------|----------------|
| 8 ft 0 inches | 16 ft 0 inches |

**Validation Rule for A189**

- Outside Lower Eaves Height may only be reported for Hoppers with roofs or covers (Mechanical Designations of LO, HTR, HKR, HMSR LM, MWB, or MW)
- Outside Lower Eaves Height must not exceed the Outside Extreme Height (A185)
- Outside Lower Eaves Height for Plate Codes A, B or H must not exceed 15 feet 1 inch
- Outside Lower Eaves Height for Plate Codes C or I must not exceed 15 feet 6 inches
- Outside Lower Eaves Height for Plate Code E must not exceed 15 feet 9 inches
- Outside Lower Eaves Height for Plate Code F must not exceed 17 feet 0 inches
- Outside Lower Eaves Height for Plate Code N must not exceed 17 feet 1 inch

**NOTES:**

- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- For connected unit cars report the dimension of the largest unit in the set.

| Truck Center Length                                     | A276 |
|---------------------------------------------------------|------|
| The length between the centers of the two truck systems |      |

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A276**

| Minimum        | Maximum        |
|----------------|----------------|
| 15 ft 0 inches | 64 ft 0 inches |

**Validation Rule for A276**

- Truck Center Length is required if the equipment has a Built Date (BLDT) or Rebuilt Date (RBDT) that is on or after June 18, 2020
- Truck Center Length is required for cars with an Outside Length (OSLG) of greater than 62 feet 6 inches

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

## Specification

| Truck Count                                 | B256 |
|---------------------------------------------|------|
| The total number of trucks on the equipment |      |

System Generated Field. This element is not eligible for Input.

**Range of Values for B256**

| Minimum | Maximum |
|---------|---------|
| 2       | 4       |

| Axle Count <i>Mandatory</i>                | A024 |
|--------------------------------------------|------|
| The total number of axles on the equipment |      |

Affects Rating.

**Range of Values for A024**

| Minimum | Maximum |
|---------|---------|
| 4       | 36      |

**Validation Rule for A024**

- Axle Count must be greater than or equal to 4
- Axle Count for an articulated car must be greater than or equal to ((Connected Unit Count (A020) x 2) + 2)
- Axle Count for a draw bar connected car must be greater than or equal to (Connected Unit Count (A020) x 4)
- Total Axle Count must match sum of truck axle counts

**NOTES:**

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

| Wheel Bearing Type <i>Mandatory</i>                          | B191 |
|--------------------------------------------------------------|------|
| Indicates the wheel bearing journal design for the equipment |      |

Affects Rating.

**Permissible Values for B191**

P Plain R Roller

**Validation Rule for B191**

- Cars with Plain Bearings will have a Transportation Code (TCOD) and Transportation Condition Code (TCCD) of either YA, S\_, SX, or XJ
- Equipment cannot have Plain Bearings if Built Date (BLDT) is on or after January 1, 1993

**NOTES:**

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

| Bearing Shielded From HBD                                                | B021 |
|--------------------------------------------------------------------------|------|
| Indicates the wheel bearings are shielded from wayside hot box detectors |      |

**Permissible Values for B021**

Y Yes

| Brake Shoe Type <i>Mandatory</i>                  | B026 |
|---------------------------------------------------|------|
| Indicates the type of brake shoe on the equipment |      |

**Permissible Values for B026**

C Tread Conditioning  
H High Friction Composite  
L Low Friction Composite/Cast Iron

| CC Side Bearing Type                                                                        | A146 |
|---------------------------------------------------------------------------------------------|------|
| Indicates the travel range of the constant contact side bearings installed on the equipment |      |

**Permissible Values for A146**

LC Long Travel Constant Contact  
SC Short Travel Constant Contact

**Validation Rule for A146**

- Equipment having Qualification for Increased Gross Rail Load (B344) of 1 must have Constant Contact Side Bearing Type of LC

| Empty/Load Device Eqpd                                                                                                                                 | B075 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Indicates that the air brake system includes a device to determine if the equipment is empty or loaded, and then varies the braking forces accordingly |      |

**Permissible Values for B075**

Y Yes

| Body Material                                        | A030 |
|------------------------------------------------------|------|
| The material that composes the body of the equipment |      |

**Permissible Values for A030**

01 Aluminum  
04 Combination  
18 Stainless Steel  
19 Standard Steel

## Data Specification Manual

|                                                                                                                                                                                             |                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| <b>Center Of Gravity Empty</b>                                                                                                                                                              | <b>A045</b>           |
| When empty, indicates the height from Top of Rail to the Center of Gravity                                                                                                                  |                       |
| <b>Range of Values for A045</b>                                                                                                                                                             |                       |
| <b>Minimum</b>                                                                                                                                                                              | <b>Maximum</b>        |
| 22                                                                                                                                                                                          | 98                    |
| <b>Validation Rule for A045</b>                                                                                                                                                             |                       |
| -All cars that exceed Plate Code (A046) C built on or after January 1, 2012 must report Center of Gravity (Empty Car)                                                                       |                       |
| <b>Remote Monitoring Device</b>                                                                                                                                                             | <b>B176</b>           |
| Indicates the equipment has a device that transmits a signal or records data                                                                                                                |                       |
| <b>Permissible Values for B176</b>                                                                                                                                                          |                       |
| Y                                                                                                                                                                                           | Yes                   |
| N                                                                                                                                                                                           | No                    |
| <b>NOTES:</b>                                                                                                                                                                               |                       |
| <ul style="list-style-type: none"> <li>Per AAR S-2045, This may be data related to ride quality, geographic location, temperature/condition of the load, load/empty status, etc.</li> </ul> |                       |
| <b>AEI High Temperature Tag</b>                                                                                                                                                             | <b>B006</b>           |
| Indicates the equipment is equipped with a high temperature AEI tag                                                                                                                         |                       |
| <b>Permissible Values for B006</b>                                                                                                                                                          |                       |
| Y                                                                                                                                                                                           | High Temperature Tag  |
| <b>Compartment Count</b>                                                                                                                                                                    | <b>A052</b>           |
| The number of individual compartments the equipment contains                                                                                                                                |                       |
| <b>Range of Values for A052</b>                                                                                                                                                             |                       |
| <b>Minimum</b>                                                                                                                                                                              | <b>Maximum</b>        |
| 1                                                                                                                                                                                           | 9                     |
| <b>Degree of Slope Sheets</b>                                                                                                                                                               | <b>A071</b>           |
| The angle in degrees of the slope sheets, from horizontal                                                                                                                                   |                       |
| <b>Range of Values for A071</b>                                                                                                                                                             |                       |
| <b>Minimum</b>                                                                                                                                                                              | <b>Maximum</b>        |
| 10                                                                                                                                                                                          | 90                    |
| <b>Validation Rule for A071</b>                                                                                                                                                             |                       |
| -Degree of Slope Sheets is required for Hoppers other than Mechanical Designation (UMMD) of LO, MWB, or MW if the car was Built Date (BLDT) or Rebuilt Date (RBDT) after July 1, 1997       |                       |
| <b>Unloading System Type</b>                                                                                                                                                                | <b>B220</b>           |
| Describes the unloading system of the equipment                                                                                                                                             |                       |
| Used in ETC Generation.                                                                                                                                                                     |                       |
| <b>Permissible Values for B220</b>                                                                                                                                                          |                       |
| FLGR                                                                                                                                                                                        | Fluidized/Gravity     |
| FLPN                                                                                                                                                                                        | Fluidized/Pneumatic   |
| GRAV                                                                                                                                                                                        | Gravity               |
| GRPN                                                                                                                                                                                        | Gravity/Pneumatic     |
| OTHR                                                                                                                                                                                        | Other                 |
| PNEU                                                                                                                                                                                        | Pneumatic             |
| PSDF                                                                                                                                                                                        | Pressure Differential |
| <b>Validation Rule for B220</b>                                                                                                                                                             |                       |
| -Unloading System Type must be reported for Covered Hoppers (UMMD = LO).                                                                                                                    |                       |
| <b>Auto Unload Device Equip</b>                                                                                                                                                             | <b>B224</b>           |
| Identifies whether non-covered Hoppers have an automatic unloading device                                                                                                                   |                       |
| <b>Permissible Values for B224</b>                                                                                                                                                          |                       |
| Y                                                                                                                                                                                           | Yes                   |
| <b>Validation Rule for B224</b>                                                                                                                                                             |                       |
| -Automatic Unloading Device Equipped cannot be reported for Covered Hoppers.                                                                                                                |                       |
| <b>Vibrator Bracket Equipped</b>                                                                                                                                                            | <b>B223</b>           |
| Identifies the equipment has vibrator brackets                                                                                                                                              |                       |
| <b>Permissible Values for B223</b>                                                                                                                                                          |                       |
| Y                                                                                                                                                                                           | Yes                   |
| <b>Validation Rule for B223</b>                                                                                                                                                             |                       |
| -Vibrator Bracket can only be reported for Covered Hoppers with Mechanical Designation (UMMD) of LO, MWB, or MW                                                                             |                       |

|                                                                                                                                      |             |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Light Density</b>                                                                                                                 | <b>B124</b> |
| Indicates the equipment is designed to carry low density commodities such as wood chips and similar products                         |             |
| Used in ETC Generation.                                                                                                              |             |
| <b>Permissible Values for B124</b>                                                                                                   |             |
| Y                                                                                                                                    | Yes         |
| <b>Validation Rule for B124</b>                                                                                                      |             |
| -Light Density can only be reported for Hoppers with Mechanical Designation (UMMD) of HKS, HMS, HTR, HTS, HKR, HMSR, HMA, MWB, or MW |             |

|                                                                                                   |                |
|---------------------------------------------------------------------------------------------------|----------------|
| <b>Connected Unit Count</b>                                                                       | <b>A020</b>    |
| Indicates the number of units within an articulated or multi-unit equipment                       |                |
| Affects Rating.                                                                                   |                |
| <b>Range of Values for A020</b>                                                                   |                |
| <b>Minimum</b>                                                                                    | <b>Maximum</b> |
| 2                                                                                                 | 9              |
| <b>Validation Rule for A020</b>                                                                   |                |
| -Connected Unit Count must equal the number of Unit Segments                                      |                |
| -Unit Segment Component elements must not be reported if the Connected Unit Count is not reported |                |
| -Unit Segment Component elements must be reported if Connected Unit Count is reported             |                |

|                                                                              |                       |
|------------------------------------------------------------------------------|-----------------------|
| <b>Intermediate Conn Style</b>                                               | <b>B115</b>           |
| Indicates the method by which two or more pieces of equipment are connected  |                       |
| <b>Permissible Values for B115</b>                                           |                       |
| A                                                                            | Articulated Connector |
| D                                                                            | Drawbar Connector     |
| <b>Validation Rule for B115</b>                                              |                       |
| -Intermediate Connector Style is required for multi-unit equipment           |                       |
| -Intermediate Connector Style must not be reported for single unit equipment |                       |

|                                                                                                                                                                                                    |             |   |   |   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|---|---|---|
| <b>Operating Brakes</b> <i>Mandatory</i>                                                                                                                                                           | <b>A182</b> |   |   |   |
| The number of air brake control valves on the equipment (excludes hand brakes). One control valve consists of a service portion, emergency portion, and pipe bracket. Example: DB-60 control valve |             |   |   |   |
| <b>Permissible Values for A182</b>                                                                                                                                                                 |             |   |   |   |
| 1                                                                                                                                                                                                  | 2           | 3 | 4 | 5 |
| 6                                                                                                                                                                                                  | 7           | 8 | 9 |   |
| <b>Validation Rule for A182</b>                                                                                                                                                                    |             |   |   |   |
| -Operating Brakes must be reported for all equipment                                                                                                                                               |             |   |   |   |
| -Operating Brakes (A182) must be 1 for non-articulated equipment with an Axle Count (A024) equal to 4                                                                                              |             |   |   |   |
| <b>NOTES:</b>                                                                                                                                                                                      |             |   |   |   |
| • Excludes empty/load device, number 8 vent valve, and proportion valve.                                                                                                                           |             |   |   |   |

|                                                                                                 |                                |
|-------------------------------------------------------------------------------------------------|--------------------------------|
| <b>ECP Brake Type</b>                                                                           | <b>B327</b>                    |
| Indicates the type of electronic controlled pneumatic brake used on the equipment               |                                |
| <b>Permissible Values for B327</b>                                                              |                                |
| N                                                                                               | Not Equipped                   |
| O                                                                                               | Overlay - Both ECP & Air Brake |
| S                                                                                               | Stand Alone - ECP Only         |
| <b>Validation Rule for B327</b>                                                                 |                                |
| -Equipment must have a value entered for ECP Brake Type if built or rebuilt after June 28, 2012 |                                |

|                                                                                                        |                       |
|--------------------------------------------------------------------------------------------------------|-----------------------|
| <b>ECP Brake Builder</b>                                                                               | <b>B328</b>           |
| The manufacturer of the electronic controlled pneumatic brake used on the equipment                    |                       |
| <b>Permissible Values for B328</b>                                                                     |                       |
| HPA                                                                                                    | HPA Monon Corporation |
| NYAB                                                                                                   | New York Air Brake    |
| WABT                                                                                                   | WABTEC                |
| <b>Validation Rule for B328</b>                                                                        |                       |
| -If ECP Brake Type (B327) is Stand Alone or Overlay then a value must be entered for ECP Brake Builder |                       |

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-If ECP Brake Type (B327) is Not Equipped then ECP Brake Builder is not reportable

### Slack Adjuster Group B538

The slack adjuster group on the equipment per AAR Field Manual Rule #8 ●

Value does not carry forward for Single Clone / Multi-Clone.

#### Permissible Values for B538

|   |          |   |            |   |         |   |         |
|---|----------|---|------------|---|---------|---|---------|
| A | Group A  | B | Group B    | C | Group C | D | Group D |
| E | Group E  | F | Group F    | G | Group G | H | Group H |
| J | Group J  | L | Group L    | M | Group M | N | Group N |
| O | Group O  | P | Group P    | Q | Group Q | R | Group R |
| 1 | Internal | 2 | Unequipped |   |         |   |         |

#### Validation Rule for B538

- Slack Adjuster Group is mandatory for all equipment built or rebuilt on or after January 1, 2016
- If Slack Adjuster Group is reported as "1" then Brake Cylinder Mount Type (B540) must be reported as "T"
- If Slack Adjuster Group is "1" or "2", then Slack Adjuster CID (B359) must not be reported.

#### NOTES:

- Permissible value of "1 – Internal" identifies special truck mounted internal slack adjuster within brake cylinder.

### Brake Cylinder Mount Type B540

Identifies the location of the brake cylinder ●

#### Permissible Values for B540

|   |               |
|---|---------------|
| B | Body Mounted  |
| T | Truck Mounted |

#### Validation Rule for B540

- Brake Cylinder Mount Type is mandatory for all equipment built or rebuilt on or after January 1, 2016

### Equipment Builder A035

Identifies the original manufacturer of the equipment ●

#### Permissible Values for A035

|      |                                      |
|------|--------------------------------------|
| AB   | AMF BEAIRD                           |
| ACF  | American Car & Foundry               |
| ACFX | ACF Industries                       |
| ARI  | ARI Industries                       |
| BERW | Berwick Forge                        |
| BETH | Bethlehem Car Works                  |
| BSP  | Bethlehem Steel Corporation          |
| CE   | CHESAPEAKE & OHIO                    |
| CNCF | Carros De Ferrocarril, SA            |
| CURR | Curry Rail Service                   |
| EASX | East Rail Car Division               |
| EDSP | ESTRATEGIAS DUL S. DE R.L.           |
| ERSB | Ebenezer Railcar                     |
| EVAN | Evans Products                       |
| FCA  | Freight Car America                  |
| FMC  | FMC Corporation                      |
| FREU | Freuhauf Corporation                 |
| GATX | General American Transportation Corp |
| GLOB | Global Lot                           |
| GMB  | Greenbrier                           |
| GSC  | Greenville Steel Car                 |
| GULF | Gulf Railcar                         |
| GUND | Gunderson Inc                        |
| GUNM | Gunderson - Mexico                   |
| HST  | Hawker Siddeley                      |
| IA   | INGALLS                              |
| IR   | Ingersoll Rand                       |
| JAC  | Johnstown America Corporation        |
| JKFO | JK-CO LLC                            |
| KASG | Kasgro Railcar                       |
| LAVE | Lavelin                              |
| MAGR | Magor Car Manufacturing              |
| MF   | MECHTRON                             |
| MH   | MURFREESBORO (BUTLER)                |
| MRNE | Marine Industries                    |
| NACA | National Alabama Corporation         |
| NACC | North American Car                   |
| NG   | NORFOLK & WESTERN                    |
| NSC  | National Steel Car                   |
| ORTN | Ortner                               |
| PCF  | Pacific Car & Foundry                |

|      |                                                  |
|------|--------------------------------------------------|
| PCM  | Pullman Car & Manufacturing                      |
| PE   | PORTEC                                           |
| PORT | Porter Locomotive Company                        |
| PORW | Thrall-Winder                                    |
| PRO  | Procor Limited                                   |
| PS   | Pullman-Standard                                 |
| PSP  | Pullman-Standard, Division of Trinity Industries |
| RCC  | Raceland Car Corporation                         |
| RICH | Richmond Locomotive Works                        |
| RTCX | Richmond Tank Car                                |
| SC   | SOUTHEASTERN                                     |
| THR  | Thrall Car Service Parts                         |
| THRL | Thrall                                           |
| TRAN | Tranzrail                                        |
| TREN | Trenton Works                                    |
| TRIN | Trinity                                          |
| TRIX | Trinity Mexico                                   |
| UNAM | United America                                   |
| UNKN | Unknown                                          |
| UTLX | Union Tank Car                                   |
| V    | OWNER RAILROAD                                   |
| VERM | Vertex                                           |

#### Validation Rule for A035

- Equipment Builder must be populated if the Built Date (BLDT) is July 1, 2010 or newer
- Equipment built or rebuilt on or after July 1, 2010 cannot have a Equipment Builder of Unknown
- Equipment with a Built Date (BLDT) on or after July 1, 2010 cannot have an Equipment Builder Code of OWNER RAILROAD.
- Equipment Builder can have a value of MULT only if the equipment has multiple units.

### Builder Lot Code B030

A unique identifier for a group of equipment built by one manufacturer under the same builder specification ●

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

#### Validation Rule for B030

- Equipment built or rebuilt on or after June 28, 2012 must have a value for Builder Lot Code

#### NOTES:

- If the value is unknown, enter six zeroes (000000).

### Built Country B031

The country where the equipment was constructed

Data is Confidential.

#### Permissible Values for B031

|    |               |    |        |
|----|---------------|----|--------|
| CA | Canada        | MX | Mexico |
| US | United States |    |        |

### Rebuilt Country B170

The country where the equipment was re-constructed

#### Permissible Values for B170

|    |               |    |        |
|----|---------------|----|--------|
| CA | Canada        | MX | Mexico |
| US | United States |    |        |

### FRA Reflectorization B096

Indicates the equipment owner assumes responsibility for applying reflectorization tape

#### Permissible Values for B096

|   |                         |
|---|-------------------------|
| P | Reflectorization Plan   |
| W | Reflectorization Waiver |

#### Validation Rule for B096

- Reflectorization is mandatory for all equipment after November 28, 2015.

### Bottom Outlet Count B142

The number of bottom outlets or washouts on the equipment

#### Range of Values for B142

| Minimum | Maximum |
|---------|---------|
| 1       | 9       |

## Data Specification Manual

| Air Hose Arrangement                       | B524 |
|--------------------------------------------|------|
| The type of trainline air hose arrangement | ★    |

## Permissible Values for B524

|   |                                                                                                                       |
|---|-----------------------------------------------------------------------------------------------------------------------|
| A | S-424 Angle Cock Location                                                                                             |
| B | S-425 Angle Cock Location on Cars Equipped with AAR Type F Coupler                                                    |
| C | S-426 Angle Cock Location on Cars with Floating Sills                                                                 |
| D | S-427 Angle Cock and Air Brake Hose Location on Cars with Excessive Overhang Preventing Compliance with AAR Standards |
| E | S-428 Angle Cock Location on Cars Equipped with AAR Type F Coupler and Cushioned Underframe                           |
| F | S-4003 (Former Standard)                                                                                              |
| G | S-4003x (Former Standard Retrofitted to Meet All Dimensions Except Height)                                            |
| H | S-4003-05 (Current Standard Train Line Arrangement for Cars with F-Shank Couplers)                                    |
| I | S-4021 Angle Cock and Brake Hose Location on Cars with EOCC (E and F)                                                 |
| J | S-4021 Coupler Mounted Bracket End Arrangement                                                                        |
| K | S-4028 Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Not Exceeding 45 in. in Length   |
| L | S-4029 Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Exceeding 45 in. in Length       |
| M | S-4030 Trolley Arrangement on Cars with EOCC and E-Shank Couplers                                                     |
| N | S-4031 Trainline Arrangement for Cars with E-Type Couplers and Draft System Buff Travel of 6 to 10 inches             |
| O | S-4032 Trainline Arrangement for Cars with E/F-Type Couplers and Draft System Buff Travel of 6 to 10 inches           |

## Validation Rule for B524

-Air Hose Arrangement must be reported for this equipment if it is Built or Rebuilt on or after April 22, 2014.

## NOTES:

- If any of the following conditions apply, Air Hose Arrangement (B524) must be reported for cars Built or Rebuilt on or after April 22, 2014:
  - Draft Gear Type (B073) at any location is C or E.
  - Connected Unit Count (A020) is reported.
  - Outside Length (OSLG) is greater than or equal to 70 feet (840 inches).
  - The overhang is greater than 5 feet 6 inches (66 inches). Overhang is calculated as follows:
    - 0.5 \* (Outside Length, in inches, minus Truck Center Length, in inches, minus 31 inches)
    - For all other equipment, reporting Air Hose Arrangement is optional.

| 4-Pressure ABT Receiver Eqpd                                                      | B539 |
|-----------------------------------------------------------------------------------|------|
| Identifies if the equipment is equipped with a 4-pressure air brake test receiver |      |

Value does not carry forward for Single Clone / Multi-Clone.

## Permissible Values for B539

|   |              |
|---|--------------|
| E | Equipped     |
| N | Not Equipped |

## NOTES:

- An "E" will be system generated if a 4-Pressure ABT is reported on the equipment.

## Feature

| Lining Material                                                             | A158 |
|-----------------------------------------------------------------------------|------|
| Describes the type of construction material used in the lining of equipment |      |

## Permissible Values for A158

|    |                          |
|----|--------------------------|
| 03 | Cement                   |
| 07 | Composite Wood and Steel |
| 08 | Fiberglass               |
| 12 | Metal Clad               |
| 13 | Metal Spray              |
| 16 | Rubber                   |
| 17 | Sheet Metal              |
| 26 | Synthetic                |
| 28 | Unlined                  |
| 29 | Vinyl                    |
| 30 | Wood                     |

| Roof Type                                              | A226 |
|--------------------------------------------------------|------|
| Describes the type of roof or hatches on the equipment |      |

## Permissible Values for A226

- Trough hatch in roof
- Removable roof
- Self-storing roof
- Round hatches on center line of car
- Other types of roof openings
- Combination (trough & round or square) hatches
- Rectangular or square roof hatches
- Round hatches offset from center line of car
- Rectangular or square hatches offset from center line of car

## Validation Rule for A226

- Trough Hatch Roofs are only applicable to Gondolas and Hoppers with Mechanical Designation of GBR, GBSR, GWSR, HKR, HMSR, HTR, or LO
- Self-Storing Roofs are only applicable to Boxcars and Hoppers with Mechanical Designation of HKR, HMSR, HTR, LC, LO, or XP
- Round hatches on center line of car are only applicable for Covered Hoppers with Mechanical Designation (UMMD) of LO
- Rectangular or Square Roof Hatches are only applicable to Boxcars with Mechanical Designation (UMMD) LC
- Other types of Roofs are only applicable to Hoppers, or Specialized Gondolas with Roofs with Mechanical Designation of LO, HTR, or GTR
- Mechanical Designations GBR, GBSR, GWSR, GTR, HKR, HMSR, HTR, or LO require that Roof Type be set

| Lining Date Done               | B602 |
|--------------------------------|------|
| The date car lining is applied |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

## Range of Values for B602

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

## Validation Rules for B602

- Lining Date Done cannot be earlier than the Built Date (BLDT)
- Lining Date Done cannot be later than today's date
- Lining Date Done cannot be populated if Lining Material (A158) is Unlined

| Lining Touch-up Date Done                    | B603 |
|----------------------------------------------|------|
| The date car lining is patched or touched up |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

## Range of Values for B603

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

## Validation Rules for B603

- Lining Touch-up Date Done cannot be earlier than the Built Date (BLDT)
- Lining Touch-up Date Done cannot be later than today's date
- Lining Touch-up Date Done cannot be earlier than the Lining Date Done (B602)
- Lining Touch-up Date Done cannot be populated if Lining Material (A158) is Unlined

## Cost

| Original Cost                           | A184 |
|-----------------------------------------|------|
| The original manufacturer selling price | ★    |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

## Range of Values for A184

| Minimum | Maximum  |
|---------|----------|
| 0       | 99999999 |

## Validation Rule for A184

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Original Cost must be equal to the Ledger Value if Additions & Betterments Indicator is not reported.
- Railroad marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost
- Private marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost if Built Date (BLDT) is on or after January 1, 2015

## NOTES:

- Original Cost is never altered. It is the cost of the equipment to the original owner.

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- For privately marked hopper (LO) cars, report in US dollars the original cost.
- For railroad-marked cars, report in US dollars the original ledger value of the original owner. For cars rebuilt, report the cost prescribed in MR Interchange Rule 88 and Circular Letter OT-24
- The original cost is used in the settlement of AAR Interchange Rule 107 Office Manual.
- For connected unit cars report the total original cost for all units in the set.
- Numeric, applicable to all railroad-marked cars. Also, applicable to privately marked covered hopper (LO) cars.
- Raise all cents to the next dollar, e.g. \$5,501.02 = 0005502

| Ledger Value                                         | A150 |
|------------------------------------------------------|------|
| The sum of original cost and additions & betterments |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A150**

| Minimum | Maximum |
|---------|---------|
| 0       | 9999999 |

**Validation Rule for A150**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Ledger Value must equal the Original Cost (A184) plus the additions & betterments, if Total A&B (A003) has been reported. Otherwise Ledger Value should equal Original Cost (A184).

| Total A&B                                                                        | A003 |
|----------------------------------------------------------------------------------|------|
| System generated sum of all reported amounts in A&B Amount (A317), in US dollars |      |

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A003**

| Minimum | Maximum  |
|---------|----------|
| 0       | 99999999 |

**NOTES:**

- For railroad-marked cars, report the sum of all additions and betterments applied to the car. This value is for record keeping purposes only and will not be used to report Ledger Value.
- For private Cars report the additions and betterments as qualified under AAR interchange Rule 107 for determination of settlement value.
- For privately marked covered hopper (LO) cars, report (if not in original cost) the cost of original into-service freight, capitalized linings, capitalized additions and betterments as authorized by Freight Tariff 6007-series. This field is used to determine Adjusted Value for mileage rate calculations.
  - Additions are costs of all new components applied subsequent to the date the car was built or rebuilt and carried in the capital investment account.
  - Betterments are costs of all improvements of components of existing equipment through the substitution of superior parts for inferior parts subsequent to the date the car was built or rebuilt.
- For connected unit cars report the total Truck Location A for all units in the set

| Ind for Pos/Neg Total A&B                                                                   | A128 |
|---------------------------------------------------------------------------------------------|------|
| A code indicating the positive or negative adjustment to the original cost of the equipment |      |

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A128**

N Negative P Positive

| A&B Pos/Neg Ind                                                                                 | A316 |
|-------------------------------------------------------------------------------------------------|------|
| A code indicating the positive or negative adjustment to the individual addition and betterment |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A316**

N Negative P Positive

**Validation Rule for A316**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.

- The A&B Indicator is required when Additions & Betterments are reported.
- The A&B Indicator must not be reported if Additions & Betterments are not reported.

| A&B Amount                                                                                                          | A317 |
|---------------------------------------------------------------------------------------------------------------------|------|
| The amount of the individual addition and betterment added to or subtracted from the original cost of the equipment |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A317**

| Minimum | Maximum |
|---------|---------|
| 1       | 999999  |

**Validation Rule for A317**

- When entering an individual addition & betterment; A&B Date Done (A319), A&B Type (A318), A&B Pos/Neg Ind (A316), and A&B Amount (A317) must be reported

| A&B Date Done                                      | A319 |
|----------------------------------------------------|------|
| The date of the individual addition and betterment |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A319**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for A319**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- Addition and Betterment Date Done cannot be earlier than Built Date (BLDT).
- Additions & Betterments Date Done cannot be later than today's date.

| A&B Type                                                              | A318 |
|-----------------------------------------------------------------------|------|
| The type of individual addition and betterment as defined by Rule 107 |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A318**

- GNRL General - Capitalized Additions and Betterments
- INIT Initial load of historical A&B amount as of Umler 4.6 implementation date
- LOLI Protective coating inside LO covered hopper, includes renewal of lining in damaged cars
- SPAR Any type Sparger system applied. Includes renewal of lining in damaged cars.

**Validation Rule for A318**

- For each equipment, only one Individual A&B Type can have a value of INIT.
- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.

## Car Management

| Pool Number                                                                       | P001 |
|-----------------------------------------------------------------------------------|------|
| Unique number used to indicate the grouping of equipment for a particular purpose |      |

Used for Transportation Codes. Affects Rating. This element is not eligible for Input. Value does not carry forward for Equipment Group Change / Add Back.

| Pool Control | TCPC |
|--------------|------|
| Pool Control |      |

System Generated Field. Used for Transportation Codes. This element is not eligible for Input, Output or Query.

**NOTES:**

- For further explanation reference Appendices C and E.

| User Routing Instructions                    | TCUR |
|----------------------------------------------|------|
| The routing instruction reported by the user |      |

Used for Transportation Codes.

**Permissible Values for TCUR**

- 2 Trailer Service Rule 2
- G Contaminated commodity service
- M Mark canceled



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- O Owner requested return  
U Unassigned equipment

**NOTES:**

- For further explanation reference Appendix E.

| Umler Transportation Code                                                   | TCOD |
|-----------------------------------------------------------------------------|------|
| The type of assigned service, empty routing or restriction of the equipment |      |

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

| Transportation Cond Code                    | TCCD |
|---------------------------------------------|------|
| The AAR or FRA interchange restriction code |      |

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

| Mechanical Restriction                                           | TCME |
|------------------------------------------------------------------|------|
| User reported or system generated type of mechanical restriction |      |

Used for Transportation Codes.

**Permissible Values for TCME**

- S Scrap  
X AAR Interchange Restriction  
Y FRA Interchange Prohibited

**NOTES:**

- For further explanation reference Appendix D.1

| Mech Restriction Reason                              | TCMR |
|------------------------------------------------------|------|
| The explanation of the Mechanical Restriction (TCME) |      |

Used for Transportation Codes.

**Permissible Values for TCMR**

- A Restricted Due to Age (Over 40-AAR, Over 50-FRA)  
B Restricted Due to Air Brakes  
C Restricted Due to Axles  
D Restricted Due to Couplers and Couplers Parts  
F Restricted Due to Couplers Yokes  
G Restricted Due to Draft Gears  
J Restricted Due to Journal Bearing and Journal Lubrication  
N Restricted Due to Trucks  
P Restricted Due to Truck Side Frames  
T Restricted Due to Trucks Bolsters  
U Restricted by AAR or Owner  
W Restricted Due to Wheels  
X Restricted Due to Scrap or Early Warning  
Z Restricted Due to Umler Conflict (Not Valid for User Input)

**NOTES:**

- For further explanation reference Appendix D.2.
- The assignment of the Transportation Codes S\_, SX, XA, XZ and YA generate the Rate Indicator Code 6 to the CHARM file to zero (0) rate the car hire and mileage rate.

| Sys Gen Routing Inst                            | TCGR |
|-------------------------------------------------|------|
| The routing instruction generated by the system |      |

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.5.

| Loading Authority Fleet Status                                                  | B597 |
|---------------------------------------------------------------------------------|------|
| Identifies when a car is listed on a fleet in the Loading Authority application |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B597**

- Y Yes  
S Suspended

**NOTES:**

- When equipment is on a fleet the Loading Authority (LA) application will update the flag to 'Y – Yes'. When equipment is removed from a fleet the

LA application will remove the 'Y – Yes'.

- When equipment is on a LA fleet that is suspended the LA application will update the flag to 'S – Suspended'. When the equipment is on a LA fleet that is no longer suspended the LA application will update the flag to 'Y – Yes'.

## Train Service

| Restricted Speed Empty                                                     | B180 |
|----------------------------------------------------------------------------|------|
| Describes the maximum restricted speed the equipment can travel when empty |      |

**Range of Values for B180**

| Minimum | Maximum |
|---------|---------|
| 5       | 95      |

| Restricted Speed Loaded                                                     | B181 |
|-----------------------------------------------------------------------------|------|
| Describes the maximum restricted speed the equipment can travel when loaded |      |

**Range of Values for B181**

| Minimum | Maximum |
|---------|---------|
| 5       | 95      |

| Shove Car to Rest                                      | B189 |
|--------------------------------------------------------|------|
| Identifies the car must be moved to rest by locomotive |      |

**Permissible Values for B189**

- Y Yes

| Shove Adj. Car to Rest                                           | B188 |
|------------------------------------------------------------------|------|
| Identifies the adjacent car must be shoved to rest by locomotive |      |

**Permissible Values for B188**

- Y Yes

| Train Position Sensitive                                               | B211 |
|------------------------------------------------------------------------|------|
| Indicates there is a physical reason, limiting its position on a train |      |

**Permissible Values for B211**

- Y Yes

| End of Train Only                                                                          | B277 |
|--------------------------------------------------------------------------------------------|------|
| Indicates the equipment must be placed at the end of the train (including per AAR RP-2001) |      |

**Permissible Values for B277**

- Y Yes

| Check Trailing Tonnage                                       | B044 |
|--------------------------------------------------------------|------|
| Indicates the equipment has restrictions on trailing tonnage |      |

**Permissible Values for B044**

- Y Yes

| Curve Negotiate Exception                         | B178 |
|---------------------------------------------------|------|
| Describes the requirement for negotiating a curve |      |

**Permissible Values for B178**

- A Restrictive Curve Negotiability, Section 2.1.4 of M-1001  
B Does not meet all Chapter XI Curving Requirements

| Cooper Rating Exception                                                                                      | B273 |
|--------------------------------------------------------------------------------------------------------------|------|
| Describes the cooper rating (weight distribution model of the equipment), for use in movement across bridges |      |

**Permissible Values for B273**

- A Excessive Cooper Rating  
B Cooper Rating in Excess of E66

| Clearance Exception                                  | B275 |
|------------------------------------------------------|------|
| Describes equipment containing nonstandard dimension |      |

**Permissible Values for B275**

- A Excessive Outside Extreme Height (A185)  
B Excessive Outside Extreme Width (A186)  
D All other unique clearance issues

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- E Hopper with excessive Outside Width (A186) only when pickup shoes are extended

**Validation Rule for B275**

- Clearance Exception of E can only be reported if Auto Unload Device Equip (B224) is reported.

**NOTES:**

- For hoppers reporting a Clearance Exception (B275) of E, report the Plate Code (A046) that the equipment meets with the pickup shoes in the retracted position.

**Loaded Net Braking Ratio****B551**

Indicates calculated minimum loaded net braking ratio per AAR Specifications in place on built or rebuilt date (in percent).  
System Generated Field. This element is not eligible for input.

**Permissible Values for B551**

- 11.0
- 8.5

**NOTES:**

- Loaded Net Braking Ratio is determined as follows:
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is less than 1/1/1972, then Loaded Net Braking Ratio will be set to blank.
  - If Built Date (BLDT) is greater than or equal to 1/1/1972 and less than 1/1/2004, then loaded Net Braking Ratio is 8.5%.
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is greater than or equal to 1/1/2004, then Loaded Net Braking Ratio is 11.0%.

**Owner-Provided Loaded Net Braking Ratio****B552**

Indicates an alternate minimum loaded net braking ratio provided by owner (in percent).

**Range of Values for B552**

| Minimum | Maximum |
|---------|---------|
| 8.5     | 14.0    |

**NOTES:**

- Owner may enter a documented alternative minimum loaded net braking ratio in this field that is greater than the system calculated Loaded Net Braking Ratio (B551).
- When reported, the Owner-Provided Loaded Net Braking Ratio will be used in PTC stopping distance calculations.
- A change in value for the following elements will cause the Owner-Provided Loaded Net Braking Ratio to reset to blank:
  - Rebuilt Date (RBDT)
  - Gross Rail Load/Weight (A266)
  - Equipment Type Code (UMET)
  - Empty/Load Device Eqpd (B075)

**Empty Braking Ratio****B553**

Indicates calculated empty braking ratio per AAR Specifications in place on built or rebuilt date (in percent).  
System Generated Field. This element is not eligible for input.

**Range of Values for B553**

| Minimum | Maximum |
|---------|---------|
| 15.0    | 38.0    |

**NOTES:**

- Empty Braking Ratio is determined as follows:
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is less than 1/1/1972, then Empty Braking Ratio will be set to blank.

**Owner-Provided Empty Braking Ratio****B554**

Indicates an owner supplied alternate empty braking ratio (in percent).

**Range of Values for B554**

| Minimum | Maximum |
|---------|---------|
| 15.0    | 38.0    |

**NOTES:**

- Owner may enter a documented alternative minimum loaded net braking ratio in this field that is greater than the system calculated Loaded Net Braking Ratio (B551).
- When reported, the Owner-Provided Loaded Net Braking Ratio will be used

in PTC stopping distance calculations.

- A change in value for the following elements will cause the Owner-Provided Loaded Net Braking Ratio to reset to blank:
  - Rebuilt Date (RBDT)
  - Gross Rail Load/Weight (A266)
  - Equipment Type Code (UMET)
  - Empty/Load Device Eqpd (B075)

**Truck Components****Axle Spacing Distance** *Mandatory***B020**

The distance between axle centers on the same truck

Affects Rating.

**Permissible Values for B020**

|    |                    |
|----|--------------------|
| 53 | 53 Inches          |
| 54 | 54 Inches          |
| 55 | 55 Inches          |
| 60 | 60 Inches          |
| 61 | 61 Inches          |
| 62 | 62 Inches          |
| 63 | 63 Inches          |
| 64 | 64 Inches          |
| 65 | 65 Inches          |
| 66 | 66 Inches          |
| 68 | 68 Inches          |
| 70 | 70 Inches          |
| 71 | 71 Inches          |
| 72 | 72 Inches          |
| 73 | 73 Inches          |
| 74 | 74 Inches          |
| 76 | 76 Inches          |
| 78 | 78 Inches          |
| 99 | Axle Space Unknown |

**Truck Axle Count** *Mandatory***B252**

The number of axles per truck

**Range of Values for B252**

| Minimum | Maximum |
|---------|---------|
| 2       | 4       |

**Validation Rule for B252**

- Sum of Truck Axle Count must equal Axle Count (A024)

**Journal Size** *Mandatory***A147**

The size of the journal bearing

Affects Rating.

**Permissible Values for A147**

|   |            |   |           |   |            |
|---|------------|---|-----------|---|------------|
| A | 3-3/4 X 7  | B | 4-1/4 X 8 | C | 5 X 9      |
| D | 5-1/2 X 10 | E | 6X11      | F | 6-1/2 X 12 |
| G | 7 X 12     | K | 6-1/ 2X 9 | M | 7 X 9      |

**Validation Rule for A147**

- 4-axle equipment with Journal Size B and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 103,000 lbs.
- 4-axle equipment with Journal Size C and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 142,000 lbs.
- 4-axle equipment with Journal Size D and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 177,000 lbs.
- 4-axle equipment with Journal Size E and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 220,000 lbs.
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) is not populated, must have Gross Rail Load (A266) of 263,000 lbs.
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 1 or 2, must have Gross Rail Load (A266) of 286,000 lbs.
- 4-axle equipment with Journal Size G or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) is not populated, must have Gross Rail Load (A266) of 315,000 lbs.
- 4-axle equipment with Journal Size G, K, or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 1, must have Gross Rail Load (A266) of 286,000 lbs.

**NOTES:**

- A, B and C Journal Classes are prohibited in Interchange per Rule 90.B.4

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|                                        |             |
|----------------------------------------|-------------|
| <b>Wheel Diameter</b> <i>Mandatory</i> | <b>A294</b> |
| The diameter of the wheels             | ●           |

Affects Rating.

**Permissible Values for A294**

33 33 Inches 36 36 Inches  
38 38 Inches

**Validation Rule for A294**

- Equipment with Qualification for Increased Gross Rail Load (B344) of 1, and Journal Size (A147) of G or M, must have Wheel Diameter of 38
- Equipment with Qualification for Increased Gross Rail Load (B344) of 1, and Journal Size (A147) of K, must have Wheel Diameter of 36
- If Connected Unit Count (A020) is not reported, different Wheel Diameters cannot be reported

|                                                      |             |
|------------------------------------------------------|-------------|
| <b>Stability Device Equipped</b>                     | <b>B199</b> |
| Indicates a stability device is present on the truck | ■           |

Affects Rating.

**Permissible Values for B199**

Y Yes

|                                              |             |
|----------------------------------------------|-------------|
| <b>Bolster Component ID</b>                  | <b>B351</b> |
| Bolster Component ID from Component Registry |             |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

|                                                 |             |
|-------------------------------------------------|-------------|
| <b>Sideframe Component ID</b>                   | <b>B352</b> |
| Side Frame Component ID from Component Registry |             |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

|                                      |             |
|--------------------------------------|-------------|
| <b>Wheelset Component ID</b>         | <b>B350</b> |
| Component ID from Component Registry |             |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## Draft System Components

|                                    |             |
|------------------------------------|-------------|
| <b>Coupler Code</b>                | <b>A057</b> |
| Defines the equipment coupler type |             |

**Permissible Values for A057**

BE60AHT Type E (Rule 16) - BE60AHT  
BE60BHT Type E Obsolete (Rule 16) - BE60BHT  
BE63AHT Type E Obsolete (Rule 16) - BE63AHT  
BE63HT Type E (Rule 16) - BE63HT  
BE67HT Type E (Rule 16) - BE67HT  
E42BEX Type E/F (Rule 17) - E42BEX  
E50ARE Type E/F (Rule 17) - E50ARE  
E50BEX Type E/F (Rule 17) - E50BEX  
E60CC Type E (Rule 16) - E60CC  
E60CE Type E (Rule 16) - E60CE  
E60CHT Type E (Rule 16) - E60CHT  
E60CHTE Type E (Rule 16) - E60CHTE  
E60DC Type E (Rule 16) - E60DC  
E60DE Type E (Rule 16) - E60DE  
E60EE Type E (Rule 16) - E60EE  
E61 Type E Obsolete (Rule 16) - E61  
E67AHT Type E (Rule 16) - E67AHT  
E67BC Type E (Rule 16) - E67BC  
E67BE Type E (Rule 16) - E67BE  
E67BHT Type E (Rule 16) - E67BHT  
E67BHTE Type E (Rule 16) - E67BHTE  
E67CC Type E (Rule 16) - E67CC  
E67CE Type E (Rule 16) - E67CE  
E68AHT Type E/F Obsolete (Rule 17) - E68AHT  
E68AHTE Type E/F Obsolete (Rule 17) - E68AHTE  
E68BC Type E/F (Rule 17) - E68BC  
E68BE Type E/F (Rule 17) - E68BE  
E68BHT Type E/F (Rule 17) - E68BHT  
E68BHTE Type E/F (Rule 17) - E68BHTE  
E68CE Type E/F (Rule 17) - E68CE  
E69AE Type E/F (Rule 17) - E69AE  
E69AHTE Type E/F (Rule 17) - E69AHTE  
E69BE Type E/F (Rule 17) - E69BE

E69CE Type E/F (Rule 17) - E69CE  
E69CEX Type E/F (Rule 17) - E69CEX  
E69HTE Type E/F (Rule 17) - E69HTE  
E69LCE Type E/F (Rule 17) - E69LCE  
EB7AHT Type E (Rule 16) - EB7AHT  
EF204CE Type E/F (Rule 17) - EF204CE  
EF306CE Type E/F (Rule 17) - EF306CE  
EF511AE Type E/F (Rule 17) - EF511AE  
EF511BE Type E/F (Rule 17) - EF511BE  
EF511CE Type E/F (Rule 17) - EF511CE  
EF511DE Type E/F (Rule 17) - EF511DE  
EF511WE Type E/F (Rule 17) - EF511WE  
EF511LCE Type E/F (Rule 17) - EF511LCE  
EF512CE Type E/F (Rule 17) - EF512CE  
EF512WE Type E/F (Rule 17) - EF512WE  
EF528WE Type E/F (Rule 17) - EF528WE  
EF60BWE Type E/F (Rule 17) - EF60BWE  
EFROTARY Type E/F Rotary - EFROTARY  
EFSPEC Type E/F Special - EFSPEC  
EFUNK Type E/F Unknown - EFUNK  
ESPEC Type E Special - ESPEC  
EUNK Type E Unknown - EUNK  
F70BHT Type F Obsolete (Rule 18) - F70BHT  
F70BHTE Type F Obsolete (Rule 18) - F70BHTE  
F70CC Type F (Rule 18) - F70CC  
F70CE Type F (Rule 18) - F70CE  
F70CHT Type F (Rule 18) - F70CHT  
F70CHTE Type F (Rule 18) - F70CHTE  
F70DE Type F (Rule 18) - F70DE  
F70HT Type F Obsolete (Rule 18) - F70HT  
F71CHT Type F (Rule 18) - F71CHT  
F72HT Type F (Rule 18) - F72HT  
F73AC Type F (Rule 18) - F73AC  
F73AE Type F (Rule 18) - F73AE  
F73AHT Type F (Rule 18) - F73AHT  
F73AHTE Type F (Rule 18) - F73AHTE  
F73BE Type F (Rule 18) - F73BE  
F73HTE Type F Obsolete (Rule 18) - F73HTE  
F79BHT Type F Obsolete (Rule 18) - F79BHT  
F79BHTE Type F Obsolete (Rule 18) - F79BHTE  
F79CC Type F (Rule 18) - F79CC  
F79CE Type F (Rule 18) - F79CE  
F79CHT Type F (Rule 18) - F79CHT  
F79CHTE Type F (Rule 18) - F79CHTE  
F79DE Type F (Rule 18) - F79DE  
FF205E Type F (Rule 18) - FF205E  
FF218AE Type F (Rule 18) - FF218AE  
FR201E Type F (Rule 18) Rotary - FR201E  
FR205AE Type F (Rule 18) Rotary - FR205AE  
FR205BE Type F (Rule 18) Rotary - FR205BE  
FR205E Type F (Rule 18) Rotary - FR205E  
FR206E Type F (Rule 18) Rotary - FR206E  
FR207AE Type F (Rule 18) Rotary - FR207AE  
FR207E Type F (Rule 18) Rotary - FR207E  
FR208AE Type F (Rule 18) Rotary - FR208AE (without wear insert)  
FR208E Type F (Rule 18) Rotary - FR208E (with wear insert)  
FR209E Type F (Rule 18) Rotary - FR209E  
FR301E Type F (Rule 18) Rotary - FR301E  
FR304E Type F (Rule 18) Rotary - FR304E (with wear plate)  
FR304WE Type F (Rule 18) Rotary - FR304WE (without wear plate)  
FROTARY Type E/F Rotary - FROTARY  
FSPEC Type F Special - FSPEC  
FUNK Type F Unknown - FUNK  
S700AE Type E (Rule 16) - S700AE  
SBE60CC Type E (Rule 16) - SBE60CC  
SBE60CE Type E (Rule 16) - SBE60CE  
SBE60DC Type E (Rule 16) - SBE60DC  
SBE60DE Type E (Rule 16) - SBE60DE  
SBE60DREX Type E (Rule 16) - SBE60DREX  
SBE60EE Type E (Rule 16) - SBE60EE  
SBE67BC Type E (Rule 16) - SBE67BC  
SBE67BE Type E (Rule 16) - SBE67BE  
SBE67CC Type E (Rule 16) - SBE67CC  
SBE67CE Type E (Rule 16) - SBE67CE  
SBE67CREX Type E (Rule 16) - SBE67CREX  
SBE67DE Type E (Rule 16) - SBE67DE  
SBE68BC Type E/F (Rule 17) - SBE68BC  
SBE68BE Type E/F (Rule 17) - SBE68BE  
SBE68CE Type E/F (Rule 17) - SBE68CE  
SBE68CREX Type E/F (Rule 17) - SBE68CREX  
SBE68DE Type E/F (Rule 17) - SBE68DE  
SBE68WEX Type E/F (Rule 17) - SBE68WEX  
SBE69AE Type E/F (Rule 17) - SBE69AE

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|          |                               |
|----------|-------------------------------|
| SBE69BE  | Type E/F (Rule 17) - SBE69BE  |
| SBE69BEX | Type E/F (Rule 17) - SBE69BEX |
| SBE69CE  | Type E/F (Rule 17) - SBE69CE  |
| SE60CC   | Type E (Rule 16) - SE60CC     |
| SE60CE   | Type E (Rule 16) - SE60CE     |
| SE60CHT  | Type E (Rule 16) - SE60CHT    |
| SE60CHTE | Type E (Rule 16) - SE60CHTE   |
| SE60DC   | Type E (Rule 16) - SE60DC     |
| SE60DE   | Type E (Rule 16) - SE60DE     |
| SE60EE   | Type E (Rule 16) - SE60EE     |
| SE67BC   | Type E (Rule 16) - SE67BC     |
| SE67BE   | Type E (Rule 16) - SE67BE     |
| SE67BHT  | Type E (Rule 16) - SE67BHT    |
| SE67BHTE | Type E (Rule 16) - SE67BHTE   |
| SE67CC   | Type E (Rule 16) - SE67CC     |
| SE67CE   | Type E (Rule 16) - SE67CE     |
| SE68BC   | Type E/F (Rule 17) - SE68BC   |
| SE68BE   | Type E/F (Rule 17) - SE68BE   |
| SE68BHT  | Type E/F (Rule 17) - SE68BHT  |
| SE68BHTE | Type E/F (Rule 17) - SE68BHTE |
| SE68CE   | Type E/F (Rule 17) - SE68CE   |
| SE69AE   | Type E/F (Rule 17) - SE69AE   |
| SE69BE   | Type E/F (Rule 17) - SE69BE   |
| SE69CE   | Type E/F (Rule 17) - SE69CE   |
| SF70CC   | Type F (Rule 18) - SF70CC     |
| SF70CE   | Type F (Rule 18) - SF70CE     |
| SF70CHT  | Type F (Rule 18) - SF70CHT    |
| SF70CHTE | Type F (Rule 18) - SF70CHTE   |
| SF70DE   | Type F (Rule 18) - SF70DE     |
| SF79CC   | Type F (Rule 18) - SF79CC     |
| SF79CE   | Type F (Rule 18) - SF79CE     |
| SF79CHT  | Type F (Rule 18) - SF79CHT    |
| SF79CHTE | Type F (Rule 18) - SF79CHTE   |
| SF79DE   | Type F (Rule 18) - SF79DE     |

**Validation Rule for A057**

- If Rotary Coupler Style is reported, then Coupler Code must be a rotary coupler.
- If Coupler Code is a rotary coupler, then Coupler Style must be R (Rotary).
- Coupler Code of Type E Obsolete (Rule 16) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of Type E/F Obsolete (Rule 17) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of Type F Obsolete (Rule 18) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of FROTARY or EFROTARY cannot be reported for cars Built or Rebuilt on or after August 12, 2014.

**NOTES:**

- Obsolete: All Type D couplers are obsolete and should report code DOBS; cars with this coupler code will be restricted in interchange as discussed below.
- Unknown: If the coupler code is unknown or if the code stamped on the coupler is illegible, the code BUNK FUNK, EFUNK, or LOCOUNK should be reported.
- Special: Codes ESPEC, FSPEC, and EFSPEC have been created to decline coupler bodies that have been manufactured specifically for the equipment owner and are not listed in the attached table.
- The codes FROTARY and EFROTARY cannot be reported for equipment Built or Rebuilt since August 12, 2014.

**Coupler Style Mandatory****B058**

Describes the basic coupler design of the equipment

Used in ETC Generation. Affects Rating.

**Permissible Values for B058**

|   |              |   |              |
|---|--------------|---|--------------|
| B | Bottom Shelf | D | Double Shelf |
| P | Plain        | R | Rotary       |

**Validation Rule for B058**

- If Draft System Type (B073) is H (Hydraulic) then Coupler Style cannot be reported as M (Solid Drawbar) or L (Rotary Drawbar)
- If Draft System Type (B073) is not Center Of Car or End Of Car, Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) of Center Of Car or End Of Car is reported then Inches of Travel (B061) must also be reported

**Inches of Travel****B061**

The number of inches a draft system will travel

Affects Rating.

**Range of Values for B061**

| Minimum | Maximum |
|---------|---------|
| 1       | 36      |

**Validation Rule for B061**

- If Draft System Type (B073) is not Center Of Car or End Of Car, Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) of Center Of Car or End Of Car is reported then Inches of Travel (B061) must also be reported

**Draft System Type Mandatory****B073**

Describes the draft gear/underframe cushion type

Affects Rating.

**Permissible Values for B073**

|   |                                                                               |
|---|-------------------------------------------------------------------------------|
| C | Cushioning Center of Car                                                      |
| E | Cushioning End of Car                                                         |
| S | Standard                                                                      |
| X | Devices with less than 6 inches buff travel approved under AAR Standard S-060 |
| Y | Devices with 6 to 10 inches of buff travel approved under AAR Standard S-060  |

**Validation Rule for B073**

- If Draft System Type (B073) is Standard Draft Gear (S), Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) is reported as C, E, X, or Y then Inches of Travel (B061) must also be reported
- If Draft System Type (B073) of X, or Y is reported then Draft Gear Group/Cushion Unit Pocket (B562) cannot be reported
- If Draft System Type (B073) X is reported, the Inches of Travel (B061) value must be greater than or equal to 1 and less than 6
- If Draft System Type (B073) Y is reported, the Inches of Travel (B061) value must be greater than or equal to 6 and less than or equal to 10
- If Draft System Type (B073) is S then Draft Gear Group/Cushion Unit Pocket (B562) may only be A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z (AAR Rule 21)
- If Draft System Type (B073) is E then Draft Gear Group/Cushion Unit Pocket (B562) may only be EOC-1,EOC-1D, EOC-1B, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B,EOC-4, EOC-4B, EOC-5, EOC-5D, EOC-5B, EOC-6, EOC-6D, EOC-6B, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-8F, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10, EOC-10D, EOC-10B, EOC-10F, EOC-11, EOC-11D, EOC-11B,EOC-12, EOC-12D, EOC-12B, EOC-13, EOC-13B, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16, EOC-16D, EOC-16B, EOC-17, EOC-17D, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-23, EOC-23B, EOC-24, EOC-24B, EOC-25E, EOC-26B, EOC-26F, or EOC-27D, or EOC-27E (AAR Rule 59)

**Draft Gear Group/Cushion Unit Pocket****B562**

Draft Gear Group/Cushion Unit Pocket value as listed in AAR Field Manual Interchange Rule 21 and 59

Carry forward for Single Clone / Multi-Clone / Restencil / Add-Back / Equipment Group Change.

**Permissible Values for B562**EOC-1,EOC-1D, EOC-1B, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B,EOC-4, EOC-4B, EOC-5, EOC-5D, EOC-5B, EOC-6, EOC-6D, EOC-6B, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-8F, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10, EOC-10D, EOC-10B, EOC-10F, EOC-11, EOC-11D, EOC-11B,EOC-12, EOC-12D, EOC-12B, EOC-13, EOC-13B, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16, EOC-16D, EOC-16B, EOC-17, EOC-17D, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-23, EOC-23B, EOC-24, EOC-24B, EOC-25E, EOC-26B, EOC-26F, EOC-27D, EOC-27E, COC-1, COC-2, COC-3, COC-4, COC-5, COC-6, COC-7, COC-8 (AAR Rule 59).

A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, Z (AAR Rule 21).

**Validation Rule(s) for B562**

- Draft Gear Group/Cushion Unit Pocket (B562) is mandatory for equipment built on or after June 13, 2019, unless Draft System Type (B073) is reported as X or Y
- If Draft Gear Group/Cushion Unit Pocket (B562) is not equal to A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z, then Cushion Unit Type (B563) must be populated



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- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-6, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-9, EOC-9B, EOC-9D, EOC-10, EOC-10B, EOC-10D, EOC-14, EOC-14B, EOC-18D, EOC-23, EOC-23B, EOC-24, EOC-25E, EOC-26B, or EOC-27D then the Cushion Unit Type (B563) must be 1
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-9E, EOC-26F, or EOC-27E, then the Cushion Unit Type (B563) must be 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-11, EOC-12, EOC-13, EOC-13B, EOC-15, EOC-15B, EOC-15D, EOC-17, EOC-17B, EOC-17D, EOC-18, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-24B, COC-3, COC-5, or COC-7 then the Cushion Unit Type (B563) must be 1 or 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-8F or EOC-10F then the Cushion Unit Type (B563) must be 2 or 3
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-5, EOC-5B, EOC-5D, EOC-6, EOC-6B, EOC-6D EOC-11B, EOC-11D, EOC-12B, EOC-12D, or COC-4 then the Cushion Unit Type (B563) must be 1, 2, or 3
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-16D, or COC-1 then the Cushion Unit Type (B563) must be 1, 2, or 4
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-2B, EOC-2D, EOC-3, EOC-3B, EOC-4, EOC-4B, or COC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, or 4
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1, EOC-1B, EOC-1D, or EOC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-8 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1D, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B, EOC-5, EOC-5D, EOC-5B, EOC-6D, EOC-7, EOC-7B, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10D, EOC-11, EOC-11B, EOC-11D, EOC-12D, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16D, EOC-17D, EOC-23, EOC-23B, EOC-27D, or EOC-27E then the Inches of Travel (B061) must be 10
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-19, EOC-19B, EOC-22, EOC-22B, or EOC-25E then the inches of travel must be 12
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-20 or EOC-20B then the Inches of Travel (B061) must be 14
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1B, EOC-4, EOC-4B, EOC-6, EOC-6B, EOC-8, EOC-8B, EOC-8F, EOC-10, EOC-10B, EOC-10F, EOC-12, EOC-12B, EOC-13, EOC-13B, EOC-17, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-21, EOC-21B, EOC-24, or EOC-24B then the Inches of Travel (B061) must be 15
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-2, COC-3, COC-4, COC-5, COC-6, or COC-8 then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 1 or 2, then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 4, then the Inches of Travel (B061) must be 18
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 2, then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 1, then the Inches of Travel (B061) must be 30
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1 then the Inches of Travel (B061) must be 10, 12, or 15
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-26, then the Inches of Travel (B061) must be 18

**Note:**

Reference AAR Field Manual Interchange Rule(s) 21 and 59.

| Cushion Unit Type                                                                | B563 |
|----------------------------------------------------------------------------------|------|
| Cushion Unit Type value as listed in AAR Field Manual Interchange Rule 21 and 59 | ●    |

Carry forward for Single Clone / Multi-Clone / Restencil / Add-Back / Equipment Group Change.

**Permissible Values for B563**

- 1 – Type 1
- 2 – Type 2
- 3 – Type 3
- 4 – Type 4
- 5 – Type 5
- S – Type S

**Validation Rule(s) for B563**

- Cushion Unit Type (B563) is mandatory for equipment built on or after June 13, 2019.
- If Draft Gear Group/Cushion Unit Pocket (B562) is not equal to A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z, then Cushion Unit Type (B563) must be populated.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-6, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-9, EOC-9B, EOC-9D, EOC-10, EOC-10B, EOC-10D, EOC-14, EOC-14B, EOC-18D, EOC-23, EOC-23B, EOC-24, EOC-25E, or EOC-26B then the Cushion Unit Type (B563) must be 1.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-26F then the Cushion Unit Type (B563) must be 2.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-11, EOC-12, EOC-13, EOC-13B, EOC-15, EOC-15B, EOC-15D, EOC-17, EOC-17B, EOC-17D, EOC-18, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-24B, COC-3, COC-5, or COC-7 then the Cushion Unit Type (B563) must be 1 or 2.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-8F or EOC-10F then the Cushion Unit Type (B563) must be 2 or 3.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-5, EOC-5B, EOC-5D, EOC-6, EOC-6B, EOC-6D EOC-11B, EOC-11D, EOC-12B, EOC-12D, or COC-4 then the Cushion Unit Type (B563) must be 1, 2, or 3.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-16D, or COC-1 then the Cushion Unit Type (B563) must be 1, 2, or 4.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-2B, EOC-2D, EOC-3, EOC-3B, EOC-4, EOC-4B, or COC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, or 4.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1, EOC-1B, EOC-1D, or EOC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-8 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 1 or 2, then the Inches of Travel (B061) must be 20.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 4, then the Inches of Travel (B061) must be 18.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 2, then the Inches of Travel (B061) must be 20.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 1, then the Inches of Travel (B061) must be 30.

**Note:**

Reference AAR Field Manual Interchange Rule(s) 21 and 59.

| Coupler Component ID                         | B353 |
|----------------------------------------------|------|
| Coupler Component ID from Component Registry |      |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

| Cushioning Unit Component ID         | B361 |
|--------------------------------------|------|
| Component ID from Component Registry |      |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## Unit Segment Components

| Unit Equipment Group                         | A307 |
|----------------------------------------------|------|
| Describes the equipment type of the platform | ●    |

Affects Rating.

**Permissible Values for A307**

|      |                 |      |          |
|------|-----------------|------|----------|
| BOXC | Box Car         | FLAT | Flat Car |
| GOND | Gondola         | HOPP | Hopper   |
| IFLT | Intermodal Flat | TANK | Tank Car |



## Data Specification Manual

VFLT Vehicular Flat

**Validation Rule for A307**

- Unit Equipment Group cannot be reported if the Connected Unit Count (A020) is not reported
- Unit Equipment Group must be reported if Connected Unit Count (A020) is reported

**Unit Tare Weight** **A299**

The unit segment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds

**Range of Values for A299**

| Minimum | Maximum |
|---------|---------|
| 23000   | 120000  |

**Validation Rule for A299**

- Unit Tare Weight must not be reported if the Connected Unit Count (A020) is not reported
- Unit Tare Weight must be reported if Connected Unit Count (A020) is reported
- Unit Tare Weight for Hoppers must be greater than or equal 23,000 lbs.
- Unit Tare Weight for Hoppers must be less than 120,000 lbs.
- Unit Segment Tare Weights must add up to the Total Tare Weight (A259)
- Unit Tare Weight (A299) value must be reported to the nearest 100 pounds

**Unit Load Limit** **A300**

The maximum permissible weight of the commodity that can be loaded into the unit segment, reported in pounds

**Range of Values for A300**

| Minimum | Maximum |
|---------|---------|
| 70000   | 300000  |

**Validation Rule for A300**

- Unit Load Limit can not be reported if the Connected Unit Count (A020) is not reported
- Unit Load Limit must be reported if Connected Unit Count (A020) is reported
- Unit Segment Load Limits must add up to the Load Limit (LDLT)

**Unit Cubic Feet Capacity** **A065**

The calculated interior dimensions of the unit segment in cubic feet

**Range of Values for A065**

| Minimum | Maximum |
|---------|---------|
| 400     | 8500    |

**Validation Rule for A065**

- Unit Cubic Feet Capacity must not be reported if the Connected Unit Count (A020) is not reported
- Unit Cubic Feet Capacity requires Connected Unit Count (A020)
- Unit Cubic Feet Capacity for Gondolas or Hoppers must be greater than or equal 400 cubic feet
- Unit Cubic Feet Capacity for Hoppers must be less than or equal 8500 cubic feet
- Unit Cubic Feet Capacity must add up to the Cubic Feet Capacity (A067).

**Brake System Components****Emergency Brake Valve CID** **B354**

Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Emergency Valve COTS Date** **B567**

Brake valve emergency portion recondition date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve COTS Date is system-generated from a Emergency Brake Valve Inspection.

**Emergency Valve OEM Warranty Date** **B568**

Brake valve emergency portion Original Equipment Manufacturer warranty date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve OEM Date is system-generated from a Emergency Brake Valve Inspection.

**Emergency Valve Part Number** **B569**

Brake valve emergency portion part number

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve Part Number is system-generated from a Emergency Brake Valve Inspection.

**Service Brake Valve CID** **B357**

Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Service Valve COTS Date** **B564**

Brake valve service portion recondition date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve COTS Date is system-generated from a Service Brake Valve Inspection.

**Service Valve OEM Warranty Date** **B565**

Brake valve service portion Original Equipment Manufacturer warranty date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve OEM Date is system-generated from a Service Brake Valve Inspection.

**Service Valve Part Number** **B566**

Brake valve service portion part number

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve Part Number is system-generated from a Service Brake Valve Inspection.

**Slack Adjuster CID** **B359**

Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Miscellaneous****Commercial Owner CIF** **B049**

The Customer Identification File (CIF) number for a commercial owner at a specific location

**Commercial Lessee CIF** **B048**

The Customer Identification File (CIF) number for a commercial lessee at a specific location

**Umler Effective Date** **EFDI**

The date the rating activity (pre-registration, modification, etc.) is expected to occur

This element is not eligible for Query. Does not Carry Forward.

**Validation Rule for EFDI**

-Effective Date cannot be set to more than 13 months in the future.

**NOTES:**

- Effective Date will default to the 1st of the following month that equipment is registered

## Data Specification Manual

## Inspection

**ABT Due Date (Repair Track)****DU13**

The due date of the air brake test per AAR Field Manual Rule 3

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**ABT 5-8 Year Due Date****DU58**

The 5-8 year due date for the air brake test (ABT) after the ABT Due Date (Repair Track)

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Car Grade****CG01**

The grading of the interior condition of the equipment

Value does not carry forward for Single Clone / Multi-Clone / Equipment Group Change.

**Permissible Values for CG01**

N N-Ruminant Proteins (system generated by waybill only)

**Car Grade Inspection Date****CG02**

The date of the grading of the interior condition of the equipment

Value does not carry forward for Single Clone / Multi-Clone / Equipment Group Change.

**Car Grade Inspection Time****CG03**

The time of the grading of the interior condition of the equipment

Value does not carry forward for Single Clone / Multi-Clone / Equipment Group Change.

**Car Grade Location SPLC****CG04**

The SPLC of the grading location

Value does not carry forward for Single Clone / Multi-Clone / Equipment Group Change.

**Car Grade Inspection SCAC****CG05**

The shop SCAC grading location

Value does not carry forward for Single Clone / Multi-Clone / Equipment Group Change.

**Inspection Date Done****DTDN**

The date the inspection was completed; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Validation Rule for DTDN**

-The inspection date must not be 60 days before the Build Date

**Inspection Due Date****INDD**

The due date of the next inspection; used for all inspection types reported on equipment

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Inspection Performer****PERF**

The SCAC that completed the inspection; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Inspection Reporter****REPT**

The SCAC that reported the inspection; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Location/SPLC****SPLC**

The SPLC of the inspecting location; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Air Brake Test Device****B523**

Indicates the type of test device used to perform the Air Brake Test



Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Permissible Values for B523**

- A Automatic (Non 4-Pressure)
- M Manual
- P Automatic (4-Pressure)

**Validation Rule for B523**

-Air Brake Test Device (B523) must be reported for Air Brake Test inspection reported on or after December 10, 2020

**Insp Service Valve COTS Date****B570**

Brake valve service portion recondition date

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**NOTES:**

- Reports of 9999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMY

**Insp Service Valve OEM Warranty Date****B571**

Brake valve service portion Original Equipment Manufacturer warranty date

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**NOTES:**

- Reports of 999999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMYYY

**Insp Service Valve Part Number****B572**

Brake valve service portion part number

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Insp Emergency Valve COTS Date****B573**

Brake valve emergency portion recondition date

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**NOTES:**

- Reports of 9999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMY

**Insp Emergency Valve OEM Warranty Date****B574**

Brake valve emergency portion Original Equipment Manufacturer warranty date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Reports of 999999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMYYY

**Insp Emergency Valve Part Number****B575**

Brake valve emergency portion part number

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Insp Service Valve Location *Mandatory*****B576**

Brake valve service portion location



Value does not carry forward for Single Clone / Multi-Clone.

|                                                                                        |      |
|----------------------------------------------------------------------------------------|------|
| Insp Emergency Valve Location <i>Mandatory</i>                                         | B577 |
| Brake valve emergency portion location reported on an emergency brake valve inspection | ●    |

Value does not carry forward for Single Clone / Multi-Clone.

## Data Specification Manual

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## Data Specification Manual

## General

**Status Code** *Mandatory* USCDIdentifies the current operational state ●

Does not Carry Forward.

**Permissible Values for USCD**

A ACTIVE I INACTIVE  
P PRE-REGISTERED

**NOTES:**

- For Restencil and Clone process the initial Status of a car should be Pre-Registered.
- All Add-Back processes should initially set the Status to Pre-Registered
- A Pre-registered car will automatically have its Status changed to Active for the initial change when TRAIN detects three (3) movements on the car
- If the Status changes to Active due to movement and the car was created from a Restencil, the Prior Equipment ID (PRID) or source car will have its status changed to Inactive automatically by Umler

**Equipment ID** 0001

The equipment stenciled number

**Validation Rule for 0001**

-Equipment Number must not be larger than 6 digits (i.e., 999999)

**NOTES:**

- Equipment ID includes the mark and number stenciled on the equipment. Marks can be up to 4 characters and number up to 6 digits (i.e., ABCD999999).
- Up to 500 cars can be added or updated in a transaction.
- When adding an equipment record, ensure that Prior Equipment ID (PRID) is reported, unless the equipment is new.

**Mechanical Designation** *Mandatory* UMMDEquipment description without physical dimensions ● ▲

Used in ETC Generation. Used for Transportation Codes.

**Permissible Values for UMMD**

MFND Fuel Tender Diesel (Non-tank)  
MFTD Fuel Tender Diesel (Tank)  
MFNG Natural Gas Fuel Tender (Non-tank)  
MFTG Natural Gas Fuel Tender (Tank)  
MS MoW - Scale Test Car  
MT MoW - Training Unit  
MW MoW - Miscellaneous  
MWB MoW - Ballast Car  
MWD MoW - Side Dump Cars  
MWDC Retired Mechanical Designation  
MWE MoW - Ballast Spreader  
MWF MoW - Flats  
MWG MoW - Section Gang or Track Inspection Car  
MWK MoW - Snow Removal Equipment  
MWM MoW - Box cars  
MWP MoW - Pile Driver  
MWRC MoW - Remote Control Equipment  
MWS MoW - Hoist Crane  
MWSP MoW - Shoving Platform  
MWW MoW - Wrecking Derrick  
MWX MoW - Boarding/Camp car  
NE MoW - Cabooses

**Validation Rule for UMMD**

-Outside Length cannot be greater than 190 feet for equipment without the Mechanical Designation MWG in the MISC Group

**Equipment Type Code** UMET

An alpha numeric code that describes the physical attributes of equipment System Generated Field. This element is not eligible for Input.

**NOTES:**

- Please Refer to Appendix I for More information Regarding ETC Generation

**Maint of Way Service Type** B403

Identifies equipment Maintenance Of Way function

**Permissible Values for B403**

A1 Box Car  
B1 Ballast Car  
C1 Crane  
C2 Crane / Boom Support Car  
D1 Body Side Dump Car  
F1 Flat Car  
F2 Road Way Equipment Carrier  
F3 Ramp Unit  
F4 Flat-Wheel Sets  
G1 Gondola  
L1 Flat-Load Up  
P1 Plow  
R1 Welded Rail Flat Car  
S1 Shoving Platform  
S2 Scale Test Car  
T1 Cross Tie Car  
T2 Track Panel Car  
T3 Switch Panel Car  
T4 Training Car  
T5 TANK Training Car  
T6 Diesel Fuel Tender  
T7 Water Fuel Tender  
T8 Track Geometry Car  
R2 Welded Rail Gondola Car

**Built Date** *Mandatory* BLDTThe date the construction of the equipment is complete ● ●

Data is Confidential. Used for Transportation Codes. Affects Rating. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for BLDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for BLDT**

- Built Date must not be in the future for equipment in Active Status
- Prior and target equipment's Built Date (BLDT) must match for restenciling
- Built Date cannot be updated within 30 days of the End of Service Date (B078)

**NOTES:**

- Data is public for railroad marked equipment.
- For connected unit cars report the oldest car in the set.

**Rebuilt / ILS Date** RBDT

The date the re-construction of the equipment is complete

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for RBDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for RBDT**

- Rebuilt/Increased Life Service Date must be after the Built Date (BLDT)
- Rebuilt Date must not be more than 70 years after the Built Date (BLDT)
- Rebuilt Date is required for Extended Service Code (A096) 1, 2, or 3 for Increased Life Service
- Rebuilt Date is required for Extended Service Code (A096) R for Rebuilt, or V for 65 years of service
- If Rebuilt Date is reported then the Extended Service Code (A096) must be reported as R for Rebuilt, V, 1, 2, or 3 for Increased Life Service

## Data Specification Manual

**NOTES:**

- Railroad cars -- applicable only to cars meeting status as provided in both STB Accounting Rules, and the AAR Mechanical Interchange Rule 88, Office Manual.
- Private cars -- applicable to all cars meeting AAR Mechanical Interchange Rule 88, Section C, Office Manual and Sections A and B of the Field Manual.
- For connected unit cars report the oldest car in the set. Do not report Rebuilt Date unless car has been approved by the AAR.

**Rebuilt Flag****RBFL**

Identifies the equipment is nearing its end of life cycle

Data is Confidential. System Generated Field. This element is not eligible for Input.

**Permissible Values for RBFL**

N No Y Yes

**Owner Mandatory****UMOW**

Primary reporting mark of the railroad or private company owning the car ●

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**NOTES:**

- Report the primary reporting mark of the railroad or private company owning the car. When car's lease or lien is held by a bank, trust holder, capital lease company, etc. not having an assigned mark, report the primary reporting mark affiliated with the stenciled reporting mark.

**Equipment Group Mandatory****0002**

Identifies the various major car types ●●

Used for Transportation Codes. Affects Rating.

**Lessee****LESE**

The reporting mark of the company leasing the equipment

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**Validation Rule for LESE**

- Umler Owner (UMOW) and Lessee are not allowed to be equal
- Lessee cannot be a child reporting mark

**Maintenance Party****MNPT**

The parent reporting mark of the company responsible for the maintenance and repairs of the equipment

Does not Carry Forward.

**Mark Owner Category****B201**

The company that owns the stenciled mark on the car

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**Permissible Values for B201**

B US Private  
 C Canadian Private  
 F Foreign Private  
 H Canadian Class II  
 I Canadian Class I  
 J Mexican Class I  
 K Canadian Class III  
 M Mexican Private  
 N US Private Steamship  
 O Canadian Private Steamship  
 P Mexican Private Steamship  
 Q Foreign Private Steamship  
 R US Class II Railroad  
 U US Class I Railroad  
 V US Class III Railroad

W Mexican Class II Railroad  
 Y Mexican Class III Railroad

**NOTES:**

- This value is stored in the Umler Database for informational purposes and is retrieved from the Roadmark Registry.

**Prior Equipment ID****PRID**

The previous reporting mark and number of the equipment

Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for PRID**

- Prior and target equipment's Built Date (BLDT) must match
- The Prior Equipment ID (0001) must belong to the same or comparable Equipment Group (0002) as the current car initial and number

**NOTES:**

- Prior ID enables equipment records to share the same historical lineage. Equipment Identification Number (EIN) is a generated id that enables these equipment records to share inspections and transaction history.

**Last Update Date****B122**

Date of the last Umler element change

System Generated Field. This element is not eligible for Input.

**Equipment Add Date****B082**

Date the reporting mark and number was added to the Umler system

System Generated Field. This element is not eligible for Input.

**Status Change Reason****USCR**

Identifies the reason for the current operational state

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for USCR**

I Initial Load  
 M Movement  
 O Status Changed Manually  
 R Restencil

**NOTES:**

- If movement is detected on equipment, status is changed to Active.
- If an equipment record is changed to Active, any prior equipment record is placed in Inactive status.

**Status Change Date****USCT**

Identifies the effective date of the current operational state

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

**Extended Service Mandatory****A096**

A code indicating the eligibility of an increase to the life cycle ●

Used for Transportation Codes. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A096**

1 1st ILS Inspection, additional 5 years of Service  
 2 2nd ILS Inspection, additional 5 years of service (10 years total)  
 3 3rd ILS Inspection, additional 5 years of service (15 years total)  
 C Built New between January 1, 1964 - June 30, 1974, Certified for 50 Years of Service, Built New Before July 1, 1974 & Received AAR Waiver  
 E Built new from July 1, 1974, Qualified for 50 Years Service  
 N Built Before January 1, 1964, Qualified for 40 Years Service  
 R Rule 88, Rebuilt cars  
 U Built between January 1, 1964 - June 30, 1974, Qualified for 40 Years & eligible for certification for 50 Years Service

## Data Specification Manual

- V Car is certified (FRA Waiver & AAR) for 65 years of service from date built new from January 1, 1964

**Validation Rule for A096**

- If Rebuilt Date (RBDT) is reported, then the Extended Service Code (A096) must be reported as R for Rebuilt, V, 1, 2, or 3 for Increased Life Service
- Extended Service Code of C cannot be reported if the car was built before January 1, 1964 or on/after July 1, 1974
- Extended Service Code of E cannot be reported if the car was built before July 1, 1974
- Extended Service Code of N cannot be reported if the car was built on/after January 1, 1964
- Extended Service Code of U cannot be reported if the car was built before January 1, 1964 or on/after July 1, 1974

**NOTES:**

- Value is used to calculate End of Service Date (B078).
- Rebuilt Date (RBDT) is required for Extended Service Code (A096) R for Rebuilt, or V for 65 years service.
- Rebuilt Date (RBDT) is required for Extended Service Code (A096) 1, 2, 3, and V for Increased Life Service.

**End of Service Date****B078**

Indicates the date of the end of equipment life

Data is Confidential. System Generated Field. This element is not eligible for Input.

**NOTES:**

Data becomes non-confidential two years prior to End of Service Date.

**Equipment Identification****EINN**

Unique equipment identifier regardless of stenciled mark

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Specify the Prior ID (PRID) on equipment records to ensure the historical lineage is preserved. Equipment with the same EIN share history and inspections.

**Info Conflict Status****B355**

Indicates that an Informational Conflict exists on the Equipment record

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Conflict Status****B050**

Identifies the escalation level of equipment in active conflict

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B050**

- 1 Subject to Zero-Rating
- 2 Subject to Restricted in Interchange
- 3 Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

**Date of Original Conflict****B063**

The date the equipment was originally placed in the current conflict

System Generated Field. This element is not eligible for Input.

**Next Conflict Status****B135**

Identifies the next escalation level of an equipment in active conflict

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B135**

- 1 Subject to Zero-Rating
- 2 Subject to Restricted in Interchange
- 3 Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

**Notice Indicator****B137**

Identifies equipment in error in Umler Notice Management

System Generated Field. This element is not eligible for Input.

**Conflict Status Next Date****B062**

The date the conflict status will be escalated

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Rate Indicator****A070**

Indicates the rate type applicable to the unit

System Generated Field. Used for Transportation Codes. Affects Rating. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for A070**

- 0 Zero-Rated Due to Conflict Errors
- 6 Zero-Rated - Scrap (S\_SX), AAR Overage (XA), FRA Overage (YA), Umler Conflict - CHR 1/Tariff 6007 (XZ). Zero-Rated Private Owner Election to Zero Rate [See Private Zero Rate (B150)].

**NOTES:**

- If unit is zero-rated, correction of conflicts will reinstate the appropriate rate indicator code.

**First Movement Date****USAT**

The first movement date under the stenciled mark of the equipment

This element is not eligible for Input. Does not Carry Forward.

**Equipment Add Company****B083**

The reporting mark of the company that added the equipment

System Generated Field. This element is not eligible for Input.

**Registration Reason****B174**

The code indicating the reason this equipment is added

Does not Carry Forward.

**Permissible Values for B174**

- |   |                   |   |           |
|---|-------------------|---|-----------|
| A | Add-Back          | N | New       |
| P | Pending Restencil | R | Restencil |

**Restencil Program Ind****B177**

Identifies the equipment is under a restencil program

**Permissible Values for B177**

- |   |     |
|---|-----|
| Y | Yes |
|---|-----|

**Delete Reason Code****B064**

A code that designates the reason the equipment has been deleted

Value does not carry forward for Add Back.

**Permissible Values for B064**

- |   |                                              |
|---|----------------------------------------------|
| A | Restenciled                                  |
| D | Destroyed or wrecked                         |
| L | Lease terminated, removed from fleet         |
| P | Retired unserviceable beyond economic repair |
| R | Rebuilt                                      |
| S | Sold Serviceable                             |
| T | Lost                                         |
| W | Over age retired for dismantling             |

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- Y Error, reporting did not exist  
Z Other

**Non-Compliant Wheelsets****B544**

Equipment record is incomplete and has a missing wheelset component ID association. Refer to AAR Field Manual Rule 44 for industry requirements 

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B544**

- A Wheelset Component ID is required for each applicable location on equipment built on or after January 1, 2016
- A Wheelset Component ID is required for each applicable location on equipment rebuilt on or after January 1, 2016 and Gross Rail Load (A266) is greater than 268,000 lbs

**NOTES:**

- A "Y" will be system generated if the equipment is active and the number of Wheelset CID's required is not equal to the Axle Count (A024) on the equipment
- Validation rule applies to equipment that has been in Active status for 60 days

**Weight****Gross Rail Load/Weight****A266**

The maximum permissible weight on rail of the equipment and the load, reported in pounds

**Range of Values for A266**

| Minimum | Maximum |
|---------|---------|
| 30000   | 2835000 |

**Validation Rule for A266**

- Gross Rail Load must be equal to the Load Limit (LDLT) plus the Tare Weight (A259)

**NOTES:**

Use Table 1 below to determine Gross Rail Load, if Qualification for Increased Gross Rail Load (B344) does not exist.

TABLE 1 -

| Journal Size     | Load per Axle | Gross Rail Load for 4-axle Equipment |
|------------------|---------------|--------------------------------------|
| B - 4 1/2" x 8"  | 25,750 lbs.   | 103,000 lbs.                         |
| C - 5" x 9"      | 35,500 lbs.   | 142,000 lbs.                         |
| D - 5 1/2" x 10" | 44,250 lbs.   | 177,000 lbs.                         |
| E - 6" x 11"     | 55,000 lbs.   | 220,000 lbs.                         |
| F - 6 1/2" x 12" | 65,750 lbs.   | 263,000 lbs.                         |
| G - 7" x 12"     | 78,750 lbs.   | 315,000 lbs.                         |
| K - 6 1/2" x 9"  | 71,500 lbs.   | 263,000 lbs.                         |
| M - 7" x 9"      | 78,750 lbs.   | 315,000 lbs.                         |

Use Table 2 below to determine Gross Rail Load for 4-axle equipment if Qualification for Increased Gross Rail Load (B344) exists.

TABLE 2 -

| Qualification for Increased Gross Rail Load (B344) | Journal Size     | Gross Rail Load |
|----------------------------------------------------|------------------|-----------------|
| 1                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 1                                                  | G - 7" x 12"     | 286,000 lbs.    |
| 1                                                  | M - 7" x 9"      | 286,000 lbs.    |
| 2                                                  | F - 6 1/2" x 12" | 286,000 lbs.    |
| 2                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 3                                                  | F - 6 1/2" x 12" | 268,000 lbs.    |
| 3                                                  | K - 6 1/2" x 9"  | 268,000 lbs.    |

- For multi-unit equipment, report the total gross rail load for the entire set.
- Refer to Field Manual Rule 70 if additional information is required.

A Gross Rail Load less than the listed or calculated values may be entered; however:

- Star Code (A247) must be R or S, and
- Load Limit (LDLT) must also be reduced, ensuring Tare Weight (A259) plus Load Limit (LDLT) equals the reported Gross Rail Load.

For equipment having two or more different journal sizes, see following examples:

Example for Drawbar Connected:

- A 3-unit drawbar connected car has 12 axles.
- The end units (Locations A and B) each have 4 axles with E - 6" x 11" journals.
- The intermediate unit (Locations C) has 4 axles with F - 6 1/2" x 12" journals

Using TABLE 1, the Gross Rail Load would be:

$$8 \text{ ea. E-6" x 11" journal axles X } 55,000 \text{ lbs. per axle} = 440,000 \text{ lbs.} \\ + 4 \text{ ea. F-6 1/2" x 12" journal axles X } 65,750 \text{ lbs. per axle} = 263,000 \text{ lbs.} \\ \text{Gross Rail Load} = 703,000 \text{ lbs.}$$

Example for Articulated Connected:

- A 5-unit articulated intermodal car has 6 trucks (12 axles).
- The end trucks (Locations A and B) each have 2 axles with E - 6" x 11" journals.
- The intermediate trucks (Locations C, D, E, and F) each have 2 axles with G - 7" x 12" journals

Using TABLE 1, the Gross Rail Load would be:

$$4 \text{ ea. E-6" x 11" journal axles X } 55,000 \text{ lbs. per axle} = 220,000 \text{ lbs.} \\ + 8 \text{ ea. G-7" x 12" journal axles X } 78,750 \text{ lbs. per axle} = 630,000 \text{ lbs.} \\ \text{Gross Rail Load} = 850,000 \text{ lbs.}$$

**Tare Weight****A259**

The equipment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds

**Range of Values for A259**

| Minimum | Maximum |
|---------|---------|
| 16000   | 1800000 |

**Validation Rule for A259**

- Tare Weight (A259) value must be reported to the nearest 100 pounds

**NOTES:**

- Do not report an average Tare Wt. for car series, except for Pre-Registered cars
- When cars are made active, the actual Tare Wt. must be recorded

**Load Limit *Mandatory*****LDLT**

The maximum permissible weight of the commodity that can be loaded into the equipment, reported in pounds 

**Range of Values for LDLT**

| Minimum | Maximum |
|---------|---------|
| 0       | 1600000 |

**NOTES:**

- For connected unit cars report the sum of the load limits for all units in the set.

**Weighing Status *Mandatory*****A289**

Indicates the weight information is an estimate or an actual measurement 

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A289**

- A Actual

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- E Estimated  
 V Verified correct Tare Weight  
 X Tare Weight subject to verification (System Generated)

**Validation Rule for A288**

-Equipment cannot be within a series of 10 with identical Tare Weights (A259), refer to Appendix P for further information on resolving tare weight conflicts

| Weighing Date                               | A288 |
|---------------------------------------------|------|
| The date the equipment was actually weighed |      |

Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A288**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for A288**

- If Weighing Date is reported the Tare Weight (A259) must be reported
- When Weighing Date is reported then Weighing Status (A289) must be A (Actual) or V (Verified)
- If Weighing Status (A289) is A (Actual) or V (Verified correct Tare Weight) then Weighing Date must be reported
- Weighing Date must be on or before the current date
- Weighing Date cannot be before Built / Rebuilt date

| Cubic Feet Capacity                                       | A067 |
|-----------------------------------------------------------|------|
| The maximum interior cubic feet capacity of the equipment |      |

**NOTES:**

- For connected unit cars report the sum of all units cubic capacity.

| Star Code                                                                       | A247 |
|---------------------------------------------------------------------------------|------|
| Indicates a reduction of the Load Limit (LDLT) of the equipment per AAR Rule 70 |      |

Affects Rating.

**Permissible Values for A247**

- R Body Capacity less than Truck Capacity  
 S Reduced Load Limit

**Validation Rule for A247**

- 4-axle Cars with Star Codes of S or R must not exceed Gross Weight of 263,000 lbs. when Journal Size is A, B, C, D, or E
- Journal Sizes having Star Code of S must have a Gross Weight that is less than the calculated Gross Weight with rounding applied
- UnStarred 4 Axle Cars reporting Increased Gross Rail Load (IGRL) of 2 or 3 must have a Gross Weight greater than or equal to 264,000 lbs.
- Starred 4 axle cars with IGRL of 1 must have a Wheel Size of 36 inches when Gross Weight is less than 286,000 lbs.
- Starred 4 Axle Cars with Increased Gross Rail Load (IGRL) reported must have a Journal Size of K, G, or M

| Qual for Inc GRL                                                                                                                                                     | B344 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| AAR qualification for increased Rail Load Code designating AAR approval for operating 4-axle equipment at a gross rail load greater than 263,000 lbs per AAR Rule 88 |      |

**Permissible Values for B344**

- Rule 88 IGRL Code 1 (> 263,000 lbs. and <= 286,000 lbs. GRL per AAR Specification S-286)
- Rule 88 IGRL Code 2 (> 263,000 lbs. and <= 286,000 lbs. GRL)
- Rule 88 IGRL Code 3 (> 263,000 lbs. and <= 268,000 lbs. GRL)

**Validation Rule for B344**

- 4-axle Cars reporting Increased Gross Rail Load (IGRL) of 3, or reporting IGRL of 1 or 2 and having an S Star Code must have a Gross Weight that does not exceed 286,000 lbs.
- 4-axle Cars with Increased Gross Rail Load (IGRL) of 2 or 3 must have a Journal Size of F or K
- 4-axle Rule 88 Cars require a Wheel Size of 36 or 38 inches for Gross Weight greater than 263,000 and less than or equal to 286,000 lbs.
- 4-axle Cars with Increased Gross Rail Load (IGRL) of 1 or 2 having no Star Code and a Journal Size of other than F or K, must have a Gross

Weight greater than or equal to 263,000 lbs. and less than or equal to 286,000 lbs.

- 4-axle equipment with Increased Gross Rail Load (IGRL) of 1 and having no Star Code (A247) must have a Journal Size (A147) of G, K, or M
- 4-axle equipment having Qualification for Increased Gross Rail Load of 2 or 3 must have a Journal Size (A147) of F or K
- Unstarred 4 Axle Cars with Increased Gross Rail Load of 2 or IGRL of 1 and Journal Size K must have a Wheel Size of 36 inches
- Unstarred 4 Axle Cars with GRL of 315,000 and no IGRL reported and Unstarred cars with Journal Size of G or M must have a Wheel Size of 38 inches
- Unstarred 4 axle cars must report Qualifications for Increased GRL if the GRL is between 263,000 and 315,000

## Dimension

| Plate Code                                                        | Mandatory | A046 |
|-------------------------------------------------------------------|-----------|------|
| Indicates the extreme height and width clearance of the equipment |           |      |

**Permissible Values for A046**

- B Plate Code B  
 C Plate Code C  
 E Plate Code E  
 F Plate Code F  
 G Clearance Code G  
 H Plate Code H  
 J Plate Code J  
 K Plate Code K  
 L Plate Code L  
 M Plate Code M  
 N Plate Code N

**NOTES:**

- For a description of Plate Codes, please see Appendix J at the back of this manual.
  - Report B: If clearance does not exceed Plate B
  - Report C: If clearance is greater than Plate B. but does not exceed Plate C
  - Report E: If clearance is greater than Plates B and C, but does not exceed Plate E.
  - Report F: If clearance is greater than Plates B, C and E, but does not exceed Plate F
  - Report G: If clearance exceeds Plates B, C, E, F. and N.
  - Report N: If clearance is greater than Plates B, C, E, and F, but does not exceed Plate N.
- There is no AAR Plate G. Clearance Code G is included in Umler to represent equipment that does not fit any existing AAR clearance plates.
- For ARTICULATED/MULTI-UNIT SET report the most restrictive clearance plate of UNIT in the set.

| Outside Length                                                       | Mandatory | OSLG |
|----------------------------------------------------------------------|-----------|------|
| The outside length over pulling faces of couplers in normal position |           |      |

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for OSLG**

| Minimum        | Maximum         |
|----------------|-----------------|
| 13 ft 0 inches | 225 ft 0 inches |

**Validation Rule for OSLG**

- If Axle Count (A024) is 4, then Outside Length must not exceed Inside Length (A135) by more than 24 feet

**NOTES:**

- For connected unit cars report the maximum coupled length of the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

| Outside Extreme Width                      | Mandatory | A186 |
|--------------------------------------------|-----------|------|
| The outside extreme width of the equipment |           |      |



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Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A186**

| Minimum       | Maximum         |
|---------------|-----------------|
| 7 ft 0 inches | 11 ft 10 inches |

**Validation Rule for A186**

- Outside Extreme Width must not exceed 10 feet 8 inches for Plate Codes B, C, E, F, or N
- Outside Extreme Width (A186) for Plate Code A must not be less than 10 feet 8 inches.
- Outside Extreme Width (A186) for Plate Code A must not exceed 10 feet 10 inches.

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Outside Extreme Height****A185**

Height from top of rail to extreme projecting height

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A185**

| Minimum       | Maximum        |
|---------------|----------------|
| 2 ft 0 inches | 21 ft 0 inches |

**Validation Rule for A185**

- Outside Extreme Height for Plate Codes A, B, or H must be less than or equal to 15 feet 1 inch
- Outside Extreme Height for Plate Codes C or I must be less than or equal to 15 feet 6 inches
- Outside Extreme Height for Plate Code E must be less than or equal to 15 feet 9 inches
- Outside Extreme Height for Plate Code F must be less than or equal to 17 feet 0 inch
- Outside Extreme Height for Plate Code N must be less than or equal to 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Outside Height Extr Width****A187**

The highest point at which the extreme width of the equipment occurs

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A187**

| Minimum       | Maximum        |
|---------------|----------------|
| 1 ft 0 inches | 18 ft 0 inches |

**Validation Rule for A187**

- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 8 inches if Outside Height Extreme Width is 13 feet 10 inches or less
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 7 inches if Outside Height Extreme Width is 13 feet 11 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 6 inches if Outside Height Extreme Width is 14 feet 0 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 4 inches if Outside Height Extreme Width is 14 feet 1 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 3 inches if Outside Height Extreme Width is 14 feet 2 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 2 inches if Outside Height Extreme Width is 14 feet 3 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 0 inches if Outside Height Extreme Width is 14 feet 4 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 9 feet 9 inches if Outside Height Extreme Width is 14 feet 5 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 9 feet 5 inches if Outside Height Extreme Width is 14 feet 6 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 9 feet 2 inches if Outside Height Extreme Width is 14 feet 7 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 8 feet 10 inches if Outside Height Extreme Width is 14 feet 8 inches

- Outside Extreme Width (A186) for Plate Codes B must not exceed 8 feet 6 inches if Outside Height Extreme Width is 14 feet 9 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 8 feet 3 inches if Outside Height Extreme Width is 14 feet 10 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 7 feet 11 inches if Outside Height Extreme Width is 14 feet 11 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 7 feet 6 inches if Outside Height Extreme Width is 15 feet 0 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 7 feet 4 inches if Outside Height Extreme Width is 15 feet 1 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 8 inches if Outside Height Extreme Width is 14 feet 3 inches or less
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 7 inches if Outside Height Extreme Width is 14 feet 4 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 6 inches if Outside Height Extreme Width is 14 feet 5 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 4 inches if Outside Height Extreme Width is 14 feet 6 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 3 inches if Outside Height Extreme Width is 14 feet 7 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 2 inches if Outside Height Extreme Width is 14 feet 8 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 0 inches if Outside Height Extreme Width is 14 feet 9 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 9 feet 9 inches if Outside Height Extreme Width is 14 feet 10 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 9 feet 5 inches if Outside Height Extreme Width is 14 feet 11 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 9 feet 2 inches if Outside Height Extreme Width is 15 feet 0 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 8 feet 10 inches if Outside Height Extreme Width is 15 feet 1 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 8 feet 6 inches if Outside Height Extreme Width is 15 feet 2 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 8 feet 3 inches if Outside Height Extreme Width is 15 feet 3 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 7 feet 11 inches if Outside Height Extreme Width is 15 feet 4 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 7 feet 8 inches if Outside Height Extreme Width is 15 feet 5 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 7 feet 4 inches if Outside Height Extreme Width is 15 feet 6 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 8 inches if Outside Height Extreme Width is 15 feet 2 inches or less
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 6 inches if Outside Height Extreme Width is 15 feet 3 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 3 inches if Outside Height Extreme Width is 15 feet 4 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 9 feet 6 inches if Outside Height Extreme Width is 15 feet 5 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 8 feet 8 inches if Outside Height Extreme Width is 15 feet 6 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 7 feet 11 inches if Outside Height Extreme Width is 15 feet 7 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 7 feet 1 inches if Outside Height Extreme Width is 15 feet 8 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 6 feet 3 inches if Outside Height Extreme Width is 15 feet 9 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 8 inches if Outside Height Extreme Width is 16 feet 3 inches or less
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 7 inches if Outside Height Extreme Width is between 16 feet and 4 inches and 16 feet 6 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 6 inches if Outside Height Extreme Width is 16 feet 7 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 3 inches if Outside Height Extreme Width is 16 feet 8 inches

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- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 0 inches if Outside Height Extreme Width is 16 feet 9 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 8 inches if Outside Height Extreme Width is 16 feet 10 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 5 inches if Outside Height Extreme Width is 16 feet 11 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 2 inches if Outside Height Extreme Width is 17 feet 0 inches
- Outside Extreme Width (A186) for Plate Code J must not exceed 10 feet 8 inches if Outside Height Extreme Width is 16 feet 4 inches or less
- Outside Extreme Width (A186) for Plate Code K must not exceed 10 feet 8 inches if Outside Height Extreme Width is 18 feet 5 inches or less
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 8 inches if Outside Height Extreme Width (A187) is 16 feet 9 inches or less
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 6 inches if Outside Height Extreme Width (A187) is 16 feet 10 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 4 inches if Outside Height Extreme Width (A187) is 16 feet 11 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 2 inches if Outside Height Extreme Width (A187) is 17 feet 0 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 9 feet 11 inches if Outside Height Extreme Width (A187) is 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Outside Upper Eaves Width** **A194**

The width between the outside uppermost corners of the equipment

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A194**

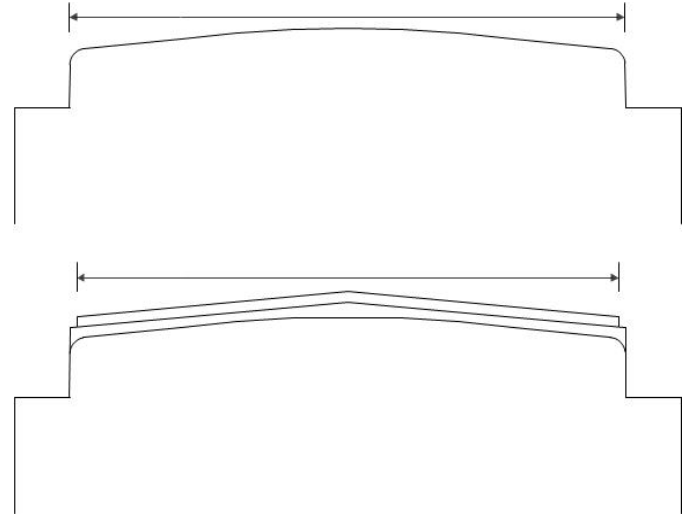
| Minimum       | Maximum         |
|---------------|-----------------|
| 4 ft 0 inches | 10 ft 10 inches |

**Validation Rule for A194**

- Outside Upper Eaves Width must be less than or equal to the Outside Extreme Width (A186)
- Outside Upper Eaves Width must be less than or equal to the Outside Lower Eaves Width (A190)
- Outside Upper Eaves Width for Plate Code A must not exceed 10 feet 10 inches
- Outside Upper Eaves Width for Plate Code B, C, E, F, H, or I must not exceed 10 feet 8 inches
- Outside Upper Eaves Width for Plate Code N must not exceed 10 feet 8 inches if Outside Upper Eaves Height (A193) is 16 feet 9 inches or less
- Outside Upper Eaves Width for Plate Code N must not exceed 10 feet 6 inches if Outside Upper Eaves Height (A193) is 16 feet 10 inches
- Outside Upper Eaves Width for Plate Code N must not exceed 10 feet 4 inches if Outside Upper Eaves Height (A193) is 16 feet 11 inches
- Outside Upper Eaves Width for Plate Code N must not exceed 10 feet 2 inches if Outside Upper Eaves Height (A193) is 17 feet 0 inches
- Outside Upper Eaves Width for Plate Code N must not exceed 9 feet 11 inches if Outside Upper Eaves Height (A193) is 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set

**Outside Upper Eaves Height****A193**

Height from the top of rail to the uppermost outside corner of the equipment

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A193**

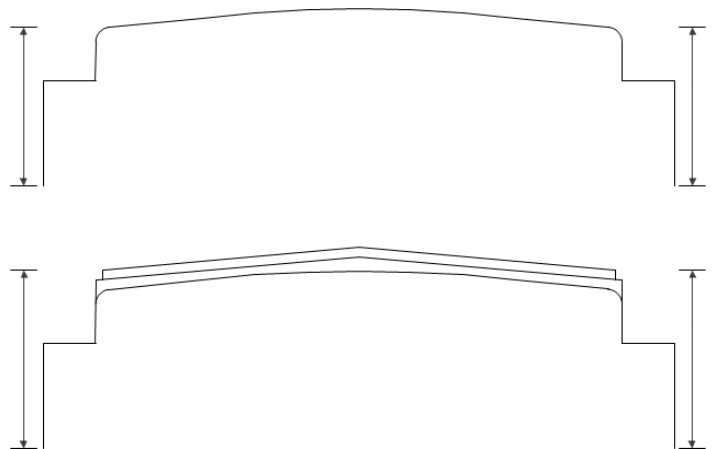
| Minimum       | Maximum         |
|---------------|-----------------|
| 2 ft 0 inches | 17 ft 11 inches |

**Validation Rule for A193**

- Outside Upper Eaves Height must not exceed the Outside Extreme Height
- Outside Upper Eaves Height must be greater than or equal to the Outside Lower Eaves Height (A189)
- Outside Upper Eaves Height for Plate Codes A, B, or H must not exceed 15 feet 1 inch
- Outside Upper Eaves Height for Plate Codes C or I must not exceed 15 feet 6 inches
- Outside Upper Eaves Height for Plate Code E must not exceed 15 feet 9 inches
- Outside Upper Eaves Height for Plate Code F must not exceed 17 feet 0 inches
- Outside Upper Eaves Height for Plate Code N must not exceed 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.

**Outside Lower Eaves Width****A190**

Width over lower eaves at sides of car (see diagram)

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A190**

## Data Specification Manual

| Minimum       | Maximum         |
|---------------|-----------------|
| 7 ft 0 inches | 10 ft 10 inches |

**Validation Rule for A190**

- Outside Lower Eaves Width must not exceed the Outside Extreme Width (A186)
- Outside Lower Eaves Width for Plate Code A must not exceed 10 feet 10 inches
- Outside Lower Eaves Width for Plate Codes B, C, E, F, H, or I must not exceed 10 feet 8 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 8 inches if Outside Lower Eaves Height (A189) is 16 feet 9 inches or less
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 6 inches if Outside Lower Eaves Height (A189) is 16 feet 10 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 4 inches if Outside Lower Eaves Height (A189) is 16 feet 11 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 2 inches if Outside Lower Eaves Height (A189) is 17 feet 0 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 9 feet 11 inches if Outside Lower Eaves Height (A189) is 17 feet 1 inch

**NOTES:**

- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- For connected unit cars report the dimension of the largest unit in the set.

**Outside Lower Eaves Hght** **A189**

Height from top of rail to lower eaves at side of car (see diagrams)

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A189**

| Minimum       | Maximum         |
|---------------|-----------------|
| 8 ft 0 inches | 17 ft 11 inches |

**Validation Rule for A189**

- Outside Lower Eaves Height must not exceed the Outside Extreme Height (A185)
- Outside Lower Eaves Height for Plate Codes A, B or H must not exceed 15 feet 1 inch
- Outside Lower Eaves Height for Plate Codes C or I must not exceed 15 feet 6 inches
- Outside Lower Eaves Height for Plate Code E must not exceed 15 feet 9 inches
- Outside Lower Eaves Height for Plate Code F must not exceed 17 feet 0 inches
- Outside Lower Eaves Height for Plate Code N must not exceed 17 feet 1 inch

**NOTES:**

- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- For connected unit cars report the dimension of the largest unit in the set.

**Inside Length** **A135**

The inside length of the equipment from end to end inside walls, linings, and permanent bulkheads

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A135**

| Minimum        | Maximum        |
|----------------|----------------|
| 19 ft 0 inches | 99 ft 3 inches |

**Validation Rule for A135**

- Inside Length/Inside Platform Length must be less than or equal to Outside Length (OSLG)

**NOTES:**

- Round fraction to the lower inch, e.g., 05 1/4" = 05"
- For connected unit cars report the shortest dimension of a unit in the set.

**Inside Width** **A138**

The inside width of the equipment from side walls and linings

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A138**

| Minimum | Maximum |
|---------|---------|
|---------|---------|

4 ft 0 inches | 12 ft 6 inches

**Validation Rule for A138**

- Inside Width/Inside Platform Width must not exceed Outside Extreme Width

**NOTES:**

- For connected unit cars report the shortest dimension of a unit in the set.

**Inside Height** **A133**

The inside height of the equipment from the floor to the top of the side, or to the lowest point of the interior ceiling

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A133**

| Minimum       | Maximum         |
|---------------|-----------------|
| 1 ft 0 inches | 15 ft 10 inches |

**Validation Rule for A133**

- Inside Height must not exceed Outside Extreme Height (A185)

**NOTES:**

- For connected unit cars report the shortest dimension of a unit in the set.

**Truck Center Length** **A276**

The length between the centers of the two truck systems

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A276**

| Minimum        | Maximum         |
|----------------|-----------------|
| 15 ft 0 inches | 76 ft 11 inches |

**Validation Rule for A276**

- Truck Center Length is required for cars with an Outside Length of greater than 62 feet 6 inches
- Truck Center Length must be a minimum of 15 feet for cars with an Outside Length greater than 62 feet 6 inches

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.

**Platform Hght Above Rail** **A192**

Describes the platform height above the rail in inches

Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A192**

| Minimum       | Maximum        |
|---------------|----------------|
| 2 ft 0 inches | 8 ft 10 inches |

**Validation Rule for A192**

- Platform Height cannot be greater than Outside Height

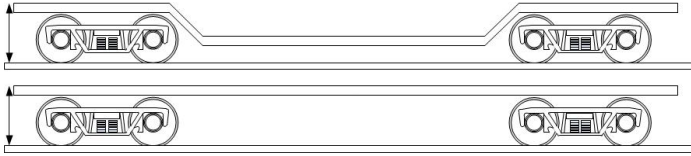
**NOTES:**

- EXCEPTIONS: For bi-level and tri-level flat cars, measurement is from top of rail to top of floor of lower deck. Feet in Pos. 45-46, inches in Pos. 47-48. Round fraction to the higher inch, e.g., 05 1/4" = 06". This field must agree relationally for V\_\_\_ Equipment Type Codes and P\_\_\_.

|                               |                                  |
|-------------------------------|----------------------------------|
| P___                          | MINIMUM—1ft 1in MAXIMUM—4ft 9in  |
| Q___                          | MINIMUM—10in MAXIMUM—4ft         |
| S___                          | MINIMUM—10in MAXIMUM—4ft         |
| All F___ except F_3_ and F_6_ | MINIMUM—2ft MAXIMUM—5ft 11in     |
| All F_3_, F_6_ and F_9_       | MINIMUM—2ft MAXIMUM—8ft 11in     |
| Q8__                          | MINIMUM—2ft 6in MAXIMUM—5ft      |
| P1__, P2__, P5__, P6__        | MINIMUM—2ft MAXIMUM—3ft 3in      |
| P3__, P4__, P7__, P8__        | MINIMUM—3ft 4in MAXIMUM—5ft 11in |
| P9__                          | MINIMUM—3ft 2in MAXIMUM—3ft 2in  |
| Q_1_                          | MINIMUM—2ft MAXIMUM—2ft 8in      |

- See diagram below for place of measurement on depressed cars (Equipment Type Code F\_3\_, F\_9) and well cars (Equipment Type Code F\_6\_).

## Data Specification Manual

**Bulkhead Top Width** B038

Describes the width of the bulkhead

Value does not carry forward for Equipment Group Change.

**Range of Values for B038**

| Minimum | Maximum |
|---------|---------|
| 25      | 139     |

**Bulkhd Height Abov Pltfrm** B035

Describes the height of the bulkhead

Value does not carry forward for Equipment Group Change.

**Range of Values for B035**

| Minimum | Maximum |
|---------|---------|
| 36      | 195     |

## Specification

**Truck Count** B256

The total number of trucks on the equipment

System Generated Field. This element is not eligible for Input.

**Range of Values for B256**

| Minimum | Maximum |
|---------|---------|
| 1       | 30      |

**Axle Count** *Mandatory* A024

The total number of axles on the equipment

**Range of Values for A024**

| Minimum | Maximum |
|---------|---------|
| 2       | 999     |

**Validation Rule for A024**

- Axle Count for an articulated car must be greater than or equal to  $((\text{Connected Unit Count (A020)} \times 2) + 2)$
- Axle Count for a draw bar connected car must be greater than or equal to  $(\text{Connected Unit Count (A020)} \times 4)$
- Total Axle Count must match sum of truck axle counts

**NOTES:**

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

**Wheel Bearing Type** *Mandatory* B191

Indicates the wheel bearing journal design for the equipment

Affects Rating.

**Permissible Values for B191**

P Plain R Roller

**Validation Rule for B191**

- Cars with Plain Bearings will have a Transportation Code (TCOD) and Transportation Condition Code (TCCD) of either YA, S\_, SX, or XJ
- Equipment cannot have Plain Bearings if Built Date (BLDT) is on or after January 1, 1993

**NOTES:**

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

**Bearing Shielded From HBD** B021

Indicates the wheel bearings are shielded from wayside hot box detectors

**Permissible Values for B021**

Y Yes

**Brake Shoe Type** *Mandatory* B026

Indicates the type of brake shoe on the equipment

**Permissible Values for B026**

C Tread Conditioning  
H High Friction Composite  
L Low Friction Composite/Cast Iron

**CC Side Bearing Type** A146

Indicates the travel range of the constant contact side bearings installed on the equipment

**Permissible Values for A146**

LC Long Travel Constant Contact  
SC Short Travel Constant Contact

**Validation Rule for A146**

- Equipment having Qualification for Increased Gross Rail Load (B344) of 1 must have Constant Contact Side Bearing Type of LC

**Empty/Load Device Eqpd** B075

Indicates that the air brake system includes a device to determine if the equipment is empty or loaded, and then varies the braking forces accordingly

**Permissible Values for B075**

Y Yes

**Body Material** A030

The material that composes the body of the equipment

**Permissible Values for A030**

01 Aluminum  
04 Combination  
09 Fiberglass Reinforced Composite  
18 Stainless Steel  
19 Standard Steel  
30 Wood

**Center of Gravity Empty** A045

When empty, indicates the height from Top of Rail to the Center of Gravity

**Range of Values for A045**

| Minimum | Maximum |
|---------|---------|
| 22      | 80      |

**Validation Rule for A045**

- All cars that exceed Plate Code (A046) C built on or after January 1, 2012 must report Center of Gravity (Empty Car)

**Remote Monitoring Device** B176

Indicates the equipment has a device that transmits a signal or records data

**Permissible Values for B176**

Y Yes  
N No

**NOTES:**

- Per AAR S-2045, This may be data related to ride quality, geographic location, temperature/condition of the load, load/empty status, etc.

**Auto Unload Device Equip** B224

Identifies whether non-covered Hoppers have an automatic unloading device

**Permissible Values for B224**

Y Yes

**Connected Unit Count** A020

Indicates the number of units within an articulated or multi-unit equipment

Affects Rating.

**Range of Values for A020**

## Data Specification Manual

| Minimum | Maximum |
|---------|---------|
| 2       | 45      |

**Validation Rule for A020**

- Connected Unit Count must equal the number of Unit Segments
- Unit Segment Component elements must not be reported if the Connected Unit Count is not reported
- Unit Segment Component elements must be reported if Connected Unit Count is reported

**Intermediate Conn Style** **B115**

Indicates the method by which two or more pieces of equipment are connected

**Permissible Values for B115**

- A Articulated Connector
- D Drawbar Connector

**Validation Rule for B115**

- Intermediate Connector Style is required for multi-unit equipment
- Intermediate Connector Style must not be reported for single unit equipment

**Operating Brakes** **Mandatory** **A182**

The number of air brake control valves on the equipment (excludes hand brakes). One control valve consists of a service portion, emergency portion, and pipe bracket. Example: DB-60 control valve

**Permissible Values for A182**

- |   |   |   |   |   |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 |   |

**Validation Rule for A182**

- Operating Brakes must be reported for all equipment
- Operating Brakes (A182) must be 1 for non-articulated equipment with an Axle Count (A024) equal to 4

**NOTES:**

- Excludes empty/load device, number 8 vent valve, and proportion valve.

**ECP Brake Type** **B327**

Indicates the type of electronic controlled pneumatic brake used on the equipment

**Permissible Values for B327**

- N Not Equipped
- O Overlay - Both ECP & Air Brake
- S Stand Alone - ECP Only

**Validation Rule for B327**

- Equipment must have a value entered for ECP Brake Type if built or rebuilt after June 28, 2012

**ECP Brake Builder** **B328**

The manufacturer of the electronic controlled pneumatic brake used on the equipment

**Permissible Values for B328**

- NYAB New York Air Brake
- WABT WABTEC

**Validation Rule for B328**

- If ECP Brake Type (B327) is Stand Alone or Overlay then a value must be entered for ECP Brake Builder
- If ECP Brake Type (B327) is Not Equipped then ECP Brake Builder is not reportable

**Slack Adjuster Group** **B538**

The slack adjuster group on the equipment per AAR Field Manual Rule #8

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B538**

- |   |          |   |            |   |         |   |         |
|---|----------|---|------------|---|---------|---|---------|
| A | Group A  | B | Group B    | C | Group C | D | Group D |
| E | Group E  | F | Group F    | G | Group G | H | Group H |
| J | Group J  | L | Group L    | M | Group M | N | Group N |
| O | Group O  | P | Group P    | Q | Group Q | R | Group R |
| 1 | Internal | 2 | Unequipped |   |         |   |         |

**Validation Rule for B538**

- Slack Adjuster Group is mandatory for all equipment built or rebuilt on or after January 1, 2016
- If Slack Adjuster Group is reported as "1" then Brake Cylinder Mount Type (B540) must be reported as "T"
- If Slack Adjuster Group is "1" or "2", then Slack Adjuster CID (B359) must not be reported.

**NOTES:**

- Permissible value of "1 – Internal" identifies special truck mounted internal slack adjuster within brake cylinder.

**Brake Cylinder Mount Type** **B540**

Identifies the location of the brake cylinder

**Permissible Values for B540**

- B Body Mounted
- T Truck Mounted

**Validation Rule for B540**

- Brake Cylinder Mount Type is mandatory for all equipment built or rebuilt on or after January 1, 2016

**Equipment Builder** **A035**

Identifies the original manufacturer of the equipment

**Permissible Values for A035**

- |      |                                                  |
|------|--------------------------------------------------|
| 9    | NORFOLK SOUTHERN RWY                             |
| AB   | AMF BEAIRD                                       |
| ACF  | American Car & Foundry                           |
| ACFX | ACF Industries                                   |
| ARI  | ARI Industries                                   |
| BETH | Bethlehem Car Works                              |
| CURR | Curry Rail Service                               |
| EDSP | ESTRATEGIAS DUL S. DE R.L.                       |
| ERSB | Ebenezer Railcar                                 |
| EVAN | Evans Products                                   |
| FCA  | Freight Car America                              |
| GATX | General American Transportation Corp             |
| GENS | General Steel                                    |
| GMB  | Greenbrier                                       |
| GSC  | Greenville Steel Car                             |
| GUND | Gunderson Inc                                    |
| GUNM | Gunderson – Mexico                               |
| HARS | Harsco                                           |
| HST  | Hawker Siddeley                                  |
| HYUN | Hyundai                                          |
| ICC  | International Car Company                        |
| JKFO | JK-CO LLC                                        |
| KASG | Kasgro Railcar                                   |
| LAVE | Lavelin                                          |
| MRNE | Marine Industries                                |
| NACA | National Alabama Corporation                     |
| NACC | North American Car                               |
| NRE  | National Railway Equipment                       |
| NSC  | National Steel Car                               |
| PCF  | Pacific Car & Foundry                            |
| PLAS | Plasser America                                  |
| PSP  | Pullman-Standard, Division of Trinity Industries |
| RELK | Relco                                            |
| SI   | SOUTH IRON                                       |
| TETX | Texana Tank                                      |
| THRL | Thrall                                           |
| TRIN | Trinity                                          |
| TRIX | Trinity Mexico                                   |
| TT   | TEXANA TANK                                      |
| UNKN | Unknown                                          |
| UTLX | Union Tank Car                                   |
| V    | OWNER RAILROAD                                   |

**Validation Rule for A035**



## Data Specification Manual

- Equipment Builder must be populated if the Built Date (BLDT) is July 1, 2010 or newer
- Equipment built or rebuilt on or after July 1, 2010 cannot have a Equipment Builder of Unknown
- Equipment with a Built Date (BLDT) on or after July 1, 2010 cannot have an Equipment Builder Code of OWNER RAILROAD.
- Equipment Builder can have a value of MULT only if the equipment has multiple units.

**NOTES:**

- If 'M999' is utilized, please email csc@railinc.com to introduce a new value to Equipment Builder (A035) for the Miscellaneous Equipment Group.

|                                                                                                |             |
|------------------------------------------------------------------------------------------------|-------------|
| <b>Builder Lot Code</b>                                                                        | <b>B030</b> |
| A unique identifier for a group of equipment built by one manufacturer under the same contract |             |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- If the value is unknown, enter six zeroes (000000).

|                                                                                         |             |
|-----------------------------------------------------------------------------------------|-------------|
| <b>FRA ReflectORIZATION</b>                                                             | <b>B096</b> |
| Indicates the equipment owner assumes responsibility for applying reflectorization tape |             |

**Permissible Values for B096**

- P ReflectORIZATION Plan
- W ReflectORIZATION Waiver

**Validation Rule for B096**

- Reflectorization is mandatory for all equipment after November 28, 2015.

|                                            |             |
|--------------------------------------------|-------------|
| <b>Air Hose Arrangement</b>                | <b>B524</b> |
| The type of trainline air hose arrangement |             |

**Permissible Values for B524**

- A S-424 Angle Cock Location
- B S-425 Angle Cock Location on Cars Equipped with AAR Type F Coupler
- C S-426 Angle Cock Location on Cars with Floating Sills
- D S-427 Angle Cock and Air Brake Hose Location on Cars with Excessive Overhang Preventing Compliance with AAR Standards
- E S-428 Angle Cock Location on Cars Equipped with AAR Type F Coupler and Cushioned Underframe
- F S-4003 (Former Standard)
- G S-4003x (Former Standard Retrofitted to Meet All Dimensions Except Height)
- H S-4003-05 (Current Standard Train Line Arrangement for Cars with F-Shank Couplers)
- I S-4021 Angle Cock and Brake Hose Location on Cars with EOCC (E and F)
- J S-4021 Coupler Mounted Bracket End Arrangement
- K S-4028 Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Not Exceeding 45 in. in Length
- L S-4029 Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Exceeding 45 in. in Length
- M S-4030 Trolley Arrangement on Cars with EOCC and E-Shank Couplers
- N S-4031 Trainline Arrangement for Cars with E-Type Couplers and Draft System Buff Travel of 6 to 10 inches
- O S-4032 Trainline Arrangement for Cars with E/F-Type Couplers and Draft System Buff Travel of 6 to 10 inches

**Validation Rule for B524**

- Air Hose Arrangement must be reported for this equipment if it is Built or Rebuilt on or after April 22, 2014.

**NOTES:**

- If any of the following conditions apply, Air Hose Arrangement (B524) must be reported for cars Built or Rebuilt on or after April 22, 2014:
  - Draft Gear Type (B073) at any location is C or E.
  - Connected Unit Count (A020) is reported.
  - Outside Length (OSLG) is greater than or equal to 70 feet (840 inches).

- The overhang is greater than 5 feet 6 inches (66 inches). Overhang is calculated as follows:
- $0.5 * (\text{Outside Length, in inches, minus Truck Center Length, in inches, minus 31 inches})$ 
  - For all other equipment, reporting Air Hose Arrangement is optional.

|                                                                                   |             |
|-----------------------------------------------------------------------------------|-------------|
| <b>4-Pressure ABT Receiver Eqpd</b>                                               | <b>B539</b> |
| Identifies if the equipment is equipped with a 4-pressure air brake test receiver |             |

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B539**

- E Equipped
- N Not Equipped

**NOTES:**

- An "E" will be system generated if a 4-Pressure ABT is reported on the equipment.

**Feature**

|                                                                          |             |
|--------------------------------------------------------------------------|-------------|
| <b>Floor Material</b>                                                    | <b>A104</b> |
| Describes the type of construction material used for the equipment floor |             |

**Permissible Values for A104**

- 01 Aluminum
- 02 Aluminum (Ribbed)
- 05 Composite Nailable (considered same as wood)
- 06 Composite Nailable, Reinforced (considered same as wood)
- 14 Other
- 15 Other, Reinforced
- 19 Standard Steel
- 21 Steel Floor, (straight deck) without risers (F-8-)
- 22 Steel Floor, permanently mounted steel risers (F-8-)
- 23 Steel Nailable (includes alternate wood and steel floor)
- 24 Steel Nailable, Reinforced (includes alternate wood and steel floor)
- 25 Standard Steel, Reinforced
- 27 Unknown (Flats only)
- 30 Wood
- 32 Wood, Double
- 33 Wood, Double, Reinforced
- 34 Wood Floor with Steel Protective Plates (includes perforated steel)
- 35 Wood Floor, Reinforced, with Steel Protective Plates (includes perforated steel)
- 36 Wood Floor, Reinforced

**NOTES:**

- If Mechanical Designation (UMMD) is FBC and Floor material is 22 (Steel w/Risers), Steel Riser Equipped (B200) in not reportable.

|                                                           |             |
|-----------------------------------------------------------|-------------|
| <b>Bulkhead Type</b>                                      | <b>B034</b> |
| Identifies the type of bulkhead attached to the equipment |             |

Value does not carry forward for Equipment Group Change.

**Permissible Values for B034**

- F Fixed
- L Fixed with Flipper

|                                                                                  |             |
|----------------------------------------------------------------------------------|-------------|
| <b>Vehicle/Track Interaction Equipped</b>                                        | <b>B550</b> |
| Identifies if equipment is equipped with Vehicle/Track Interaction (VTI) Monitor |             |

**Permissible Values for B550**

- A Automated Track Geometry Measurement System
- E Enhanced System (Extra Sensors or DGPS Antenna)
- K Kawasaki GEO System
- N ENSCO GEO System
- O BNSF ODIN GEO System
- S Standard GPS System
- V Automated Track Geometry Measurement System with Camera Vision System

## Data Specification Manual

| Non-Freight Trucks <span style="float: right;">B604</span>            |                          |
|-----------------------------------------------------------------------|--------------------------|
| Indicates equipment has trucks non normally used in freight equipment |                          |
| <b>Permissible Values for B604</b>                                    |                          |
| C                                                                     | Crane Trucks             |
| L                                                                     | Locomotive Trucks        |
| P                                                                     | Passenger Car Trucks     |
| O                                                                     | Other Non-Freight Trucks |

| Cost                                                                                                                                                                                              |         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Original Cost <span style="float: right;">A184</span>                                                                                                                                             |         |
| The original manufacturer selling price <span style="float: right;">★</span>                                                                                                                      |         |
| Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.                                                                                                                |         |
| <b>Range of Values for A184</b>                                                                                                                                                                   |         |
| Minimum                                                                                                                                                                                           | Maximum |
| 0                                                                                                                                                                                                 | 9999999 |
| <b>Validation Rule for A184</b>                                                                                                                                                                   |         |
| -Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.                                                                                                         |         |
| -Original Cost must be equal to the Ledger Value if Additions & Betterments Indicator is not reported.                                                                                            |         |
| -Railroad marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost                                                                     |         |
| -Private marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost if Built Date (BLDT) is on or after January 1, 2015                  |         |
| <b>NOTES:</b>                                                                                                                                                                                     |         |
| • Original Cost is never altered. It is the cost of the equipment to the original owner.                                                                                                          |         |
| • For railroad-marked cars, report in US dollars the original ledger value of the original owner For cars rebuilt, report the cost prescribed in MR Interchange Rule 88 and Circular Letter OT-24 |         |
| • The original cost is used in the settlement of AAR Interchange Rule 107 Office Manual.                                                                                                          |         |
| • For connected unit cars report the total original cost for all units in the set.                                                                                                                |         |
| • Numeric, applicable to all railroad-marked cars Also, applicable to privately marked covered hopper (LO) cars.                                                                                  |         |
| • Raise all cents to the next dollar, e.g. \$5,501.02 = 0005502                                                                                                                                   |         |

| Ledger Value <span style="float: right;">A150</span>                                                                                                                                 |         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| The sum of original cost and additions & betterments                                                                                                                                 |         |
| Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.                                                                                                   |         |
| <b>Range of Values for A150</b>                                                                                                                                                      |         |
| Minimum                                                                                                                                                                              | Maximum |
| 0                                                                                                                                                                                    | 9999999 |
| <b>Validation Rule for A150</b>                                                                                                                                                      |         |
| -Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.                                                                                            |         |
| -Ledger Value must equal the Original Cost (A184) plus the additions & betterments, if Total A&B (A003) has been reported. Otherwise Ledger Value should equal Original Cost (A184). |         |

| Total A&B <span style="float: right;">A003</span>                                                                                                  |          |
|----------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| System generated sum of all reported amounts in A&B Amount (A317), in US dollars                                                                   |          |
| Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone. |          |
| <b>Range of Values for A003</b>                                                                                                                    |          |
| Minimum                                                                                                                                            | Maximum  |
| 0                                                                                                                                                  | 99999999 |
| <b>NOTES:</b>                                                                                                                                      |          |
| • For railroad-marked cars, report the sum of all additions and betterments                                                                        |          |

applied to the car. This value is for record keeping purposes only and will not be used to report Ledger Value.

- For private Cars report the additions and betterments as qualified under AAR interchange Rule 107 for determination of settlement value.
  - Additions are costs of all new components applied subsequent to the date the car was built or rebuilt and carried in the capital investment account.
  - Betterments are costs of all improvements of components of existing equipment through the substitution of superior parts for inferior parts subsequent to the date the car was built or rebuilt.
- For connected unit cars report the total Truck Location A for all units in the set

| Ind for Pos/Neg Total A&B <span style="float: right;">A128</span>                                                                                  |          |
|----------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| A code indicating the positive or negative adjustment to the original cost of the equipment                                                        |          |
| Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone. |          |
| <b>Permissible Values for A128</b>                                                                                                                 |          |
| N                                                                                                                                                  | Negative |
| P                                                                                                                                                  | Positive |

| A&B Pos/Neg Ind <span style="float: right;">A316</span>                                         |          |
|-------------------------------------------------------------------------------------------------|----------|
| A code indicating the positive or negative adjustment to the individual addition and betterment |          |
| Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.              |          |
| <b>Permissible Values for A316</b>                                                              |          |
| N                                                                                               | Negative |
| P                                                                                               | Positive |
| <b>Validation Rule for A316</b>                                                                 |          |
| -When entering an individual Addition & Betterment, you must enter a value in all 4 fields.     |          |
| -The A&B Indicator is required when Additions & Betterments are reported.                       |          |
| -The A&B Indicator must not be reported if Additions & Betterments are not reported.            |          |

| A&B Amount <span style="float: right;">A317</span>                                                                                                        |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| The amount of the individual addition and betterment added to or subtracted from the original cost of the equipment                                       |         |
| Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.                                                                        |         |
| <b>Range of Values for A317</b>                                                                                                                           |         |
| Minimum                                                                                                                                                   | Maximum |
| 1                                                                                                                                                         | 999999  |
| <b>Validation Rule for A317</b>                                                                                                                           |         |
| -When entering an individual addition & betterment; A&B Date Done (A319), A&B Type (A318), A&B Pos/Neg Ind (A316), and A&B Amount (A317) must be reported |         |

| A&B Date Done <span style="float: right;">A319</span>                                       |            |
|---------------------------------------------------------------------------------------------|------------|
| The date of the individual addition and betterment                                          |            |
| Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.          |            |
| <b>Range of Values for A319</b>                                                             |            |
| Minimum                                                                                     | Maximum    |
| 1/1/1900                                                                                    | 12/31/9999 |
| <b>Validation Rule for A319</b>                                                             |            |
| -When entering an individual Addition & Betterment, you must enter a value in all 4 fields. |            |
| -Addition and Betterment Date Done cannot be earlier than Built Date (BLDT).                |            |
| -Additions & Betterments Date Done cannot be later than today's date.                       |            |

| A&B Type <span style="float: right;">A318</span>                             |  |
|------------------------------------------------------------------------------|--|
| The type of individual addition and betterment as defined by Rule 107        |  |
| Data is Confidential. Value does not carry forward for Single Clone / Multi- |  |

## Data Specification Manual

Clone.

**Permissible Values for A318**

GNRL General - Capitalized Additions and Betterments  
INIT Initial load of historical A&B amount as of Umler 4.6 implementation date

**Validation Rule for A318**

- For each equipment, only one Individual A&B Type can have a value of INIT.
- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.

## Car Management

### Pool Number P001

Unique number used to indicate the grouping of equipment for a particular purpose

Used for Transportation Codes. This element is not eligible for Input. Value does not carry forward for Equipment Group Change / Add Back.

### User Routing Instructions TCUR

The routing instruction reported by the user

Used for Transportation Codes.

**Permissible Values for TCUR**

2 Trailer Service Rule 2  
G Contaminated commodity service  
M Mark canceled  
O Owner requested return  
U Unassigned equipment

**NOTES:**

- For further explanation reference Appendix E.

### Umler Transportation Code TCOD

The type of assigned service, empty routing or restriction of the equipment

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

### Transportation Cond Code TCCD

The AAR or FRA interchange restriction code

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

### Mechanical Restriction TCME

User reported or system generated type of mechanical restriction

Used for Transportation Codes.

**Permissible Values for TCME**

S Scrap  
X AAR Interchange Restriction  
Y FRA Interchange Prohibited

**NOTES:**

- For further explanation reference Appendix D.1

### Mech Restriction Reason TCMR

The explanation of the Mechanical Restriction (TCME)

Used for Transportation Codes.

**Permissible Values for TCMR**

A Restricted Due to Age (Over 40-AAR, Over 50-FRA)  
B Restricted Due to Air Brakes  
C Restricted Due to Axles  
D Restricted Due to Couplers and Couplers Parts  
F Restricted Due to Couplers Yokes

G Restricted Due to Draft Gears  
J Restricted Due to Journal Bearing and Journal Lubrication  
N Restricted Due to Trucks  
P Restricted Due to Truck Side Frames  
T Restricted Due to Trucks Bolsters  
U Restricted by AAR or Owner  
W Restricted Due to Wheels  
X Restricted Due to Scrap or Early Warning  
Z Restricted Due to Umler Conflict (Not Valid for User Input)

**NOTES:**

- For further explanation reference Appendix D.2.
- The assignment of the Transportation Codes S, SX, XA, XZ and YA generate the Rate Indicator Code 6 to the CHARM file to zero (0) rate the car hire and mileage rate.

### Sys Gen Routing Inst TCGR

The routing instruction generated by the system

This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Add Back.

**NOTES:**

- For further explanation reference Appendix E.5.

### Loading Authority Fleet Status B597

Identifies when a car is listed on a fleet in the Loading Authority application

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B597**

Y Yes  
S Suspended

**NOTES:**

- When equipment is on a fleet the Loading Authority (LA) application will update the flag to 'Y – Yes'. When equipment is removed from a fleet the LA application will remove the 'Y – Yes'.
- When equipment is on a LA fleet that is suspended the LA application will update the flag to 'S – Suspended'. When the equipment is on a LA fleet that is no longer suspended the LA application will update the flag to 'Y – Yes'.

## Train Service

### Restricted Speed Empty B180

Describes the maximum restricted speed the equipment can travel when empty

**Range of Values for B180**

| Minimum | Maximum |
|---------|---------|
| 5       | 95      |

### Restricted Speed Loaded B181

Describes the maximum restricted speed the equipment can travel when loaded

**Range of Values for B181**

| Minimum | Maximum |
|---------|---------|
| 5       | 95      |

### Shove Car to Rest B189

Identifies the car must be moved to rest by locomotive

**Permissible Values for B189**

Y Yes

### Train Position Sensitive B211

Indicates there is a physical reason, limiting its position on a train

**Permissible Values for B211**

Y Yes

### End of Train Only B277

## Data Specification Manual

Indicates the equipment must be placed at the end of the train (including per AAR RP-2001)

**Permissible Values for B277**

Y Yes

**Check Trailing Tonnage****B044**

Indicates the equipment has restrictions on trailing tonnage

**Permissible Values for B044**

Y Yes

**Curve Negotiate Exception****B178**

Describes the requirement for negotiating a curve

**Permissible Values for B178**

- A Restrictive Curve Negotiability, Section 2.1.4 of M-1001
- B Does not meet all Chapter XI Curving Requirements

**Coupler Restriction****B278**

Special Train Service Code WI

**Permissible Values for B278**

Y Yes

**Cooper Rating Exception****B273**

Describes the cooper rating (weight distribution model of the equipment), for use in movement across bridges

**Permissible Values for B273**

- A Excessive Cooper Rating
- B Cooper Rating in Excess of E66

**Clearance Exception****B275**

Describes equipment containing nonstandard dimension

**Permissible Values for B275**

- A Excessive Outside Extreme Height (A185)
- B Excessive Outside Extreme Width (A186)
- C Lower Guides for Loading High Cube Containers
- D All other unique clearance issues
- E Hopper with Excessive Outside Width when pickup shoes are extended

**Loaded Net Braking Ratio****B551**

Indicates calculated minimum loaded net braking ratio per AAR Specifications in place on built or rebuilt date (in percent).  
System Generated Field. This element is not eligible for input.

**Permissible Values for B551**

– 11.0  
– 8.5

**NOTES:**

- Loaded Net Braking Ratio is determined as follows:
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is less than 1/1/1972, then Loaded Net Braking Ratio will be set to blank.
  - If Built Date (BLDT) is greater than or equal to 1/1/1972 and less than 1/1/2004, then loaded Net Braking Ratio is 8.5%.
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is greater than or equal to 1/1/2004, then Loaded Net Braking Ratio is 11.0%.

**Owner-Provided Loaded Net Braking Ratio****B552**

Indicates an alternate minimum loaded net braking ratio provided by owner (in percent).

**Range of Values for B552**

| Minimum | Maximum |
|---------|---------|
| 8.5     | 14.0    |

**NOTES:**

- Owner may enter a documented alternative minimum loaded net braking ratio in this field that is greater than the system calculated Loaded Net Braking Ratio (B551).

- When reported, the Owner-Provided Loaded Net Braking Ratio will be used in PTC stopping distance calculations.
- A change in value for the following elements will cause the Owner-Provided Loaded Net Braking Ratio to reset to blank:
  - Rebuilt Date (RBDT)
  - Gross Rail Load/Weight (A266)
  - Equipment Type Code (UMET)
  - Empty/Load Device Eqpd (B075)

**Empty Braking Ratio****B553**

Indicates calculated empty braking ratio per AAR Specifications in place on built or rebuilt date (in percent).  
System Generated Field. This element is not eligible for input.

**Range of Values for B553**

| Minimum | Maximum |
|---------|---------|
| 15.0    | 38.0    |

**NOTES:**

- Empty Braking Ratio is determined as follows:
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is less than 1/1/1972, then Empty Braking Ratio will be set to blank.

**Owner-Provided Empty Braking Ratio****B554**

Indicates an owner supplied alternate empty braking ratio (in percent).

**Range of Values for B554**

| Minimum | Maximum |
|---------|---------|
| 15.0    | 38.0    |

**NOTES:**

- Owner may enter a documented alternative minimum loaded net braking ratio in this field that is greater than the system calculated Loaded Net Braking Ratio (B551).
- When reported, the Owner-Provided Loaded Net Braking Ratio will be used in PTC stopping distance calculations.
- A change in value for the following elements will cause the Owner-Provided Loaded Net Braking Ratio to reset to blank:
  - Rebuilt Date (RBDT)
  - Gross Rail Load/Weight (A266)
  - Equipment Type Code (UMET)
  - Empty/Load Device Eqpd (B075)

## Truck Components

**Axle Spacing Distance** *Mandatory***B020**

The distance between axle centers on the same truck

Affects Rating.

**Permissible Values for B020**

|    |                    |
|----|--------------------|
| 53 | 53 Inches          |
| 54 | 54 Inches          |
| 55 | 55 Inches          |
| 60 | 60 Inches          |
| 61 | 61 Inches          |
| 62 | 62 Inches          |
| 63 | 63 Inches          |
| 64 | 64 Inches          |
| 65 | 65 Inches          |
| 66 | 66 Inches          |
| 68 | 68 Inches          |
| 70 | 70 Inches          |
| 71 | 71 Inches          |
| 72 | 72 Inches          |
| 73 | 73 Inches          |
| 74 | 74 Inches          |
| 76 | 76 Inches          |
| 78 | 78 Inches          |
| 99 | Axle Space Unknown |

**Truck Axle Count****B252**

## Data Specification Manual

## The number of axles per truck

## Range of Values for B252

| Minimum | Maximum |
|---------|---------|
| 1       | 4       |

## Validation Rule for B252

- Sum of Truck Axle Count must equal Axle Count (A024)

Journal Size *Mandatory*

A147

## The size of the journal bearing

Affects Rating.

## Permissible Values for A147

|   |            |   |           |   |            |
|---|------------|---|-----------|---|------------|
| A | 3-3/4 X 7  | B | 4-1/4 X 8 | C | 5 X 9      |
| D | 5-1/2 X 10 | E | 6X11      | F | 6-1/2 X 12 |
| G | 7 X 12     | H | 7 X 14    | K | 6-1/ 2X 9  |
| M | 7 X 9      |   |           |   |            |

## Validation Rule for A147

- 4-axle equipment with Journal Size B and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 103,000 lbs.
- Journal Size B (4 1/4 x 8) requires a Gross Weight of 154,000 lbs. for 6-axle cars unless the car is Star Coded
- 4-axle equipment with Journal Size C and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 142,000 lbs.
- Journal Size C (5 x 9) requires a Gross Weight of 213,000 lbs. for 6-axle cars unless the car is Star Coded
- 4-axle equipment with Journal Size D and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 177,000 lbs.
- Journal Size D (5 1/2 x 10) requires a Gross Weight of 265,000 lbs. for 6-axle cars unless the car is Star Coded
- 4-axle equipment with Journal Size E and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 220,000 lbs.
- Journal Size E (6 x 11) requires a Gross Weight of 179,000 lbs. for 4-axes ETC P---, Q---, V--- cars only (cars with 28 inch wheels) unless the car is Star Coded
- Journal Size E (6 x 11) requires a Gross Weight of 330,000 lbs. for 6-axes
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) is not populated, must have Gross Rail Load (A266) of 263,000 lbs.
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 1 or 2, must have Gross Rail Load (A266) of 286,000 lbs.
- Journal Size F requires a Gross Weight of 394,500 lbs. or 429,000 lbs. for 6-axle cars unless the car is Star Coded.
- 4-axle equipment with Journal Size G or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) is not populated, must have Gross Rail Load (A266) of 315,000 lbs.
- 4-axle equipment with Journal Size G, K, or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 1, must have Gross Rail Load (A266) of 286,000 lbs.
- Journal Size G (7 x 12) requires a Gross Weight of 472,000 lbs. for 6-axle cars unless the car is Star Coded
- Journal Size H (7 x 14) requires a Gross Weight of 315,000 lbs. for 4-axle cars unless the car is Star Coded
- Journal Size H (7 x 14) requires a Gross Weight of 472,000 lbs. for 6-axle cars unless the car is Star Coded
- Journal Size I (6 x 11 and 6 1/2 x 12) or J (6 x 11 and 7 x 12) are only applicable to articulated or draw-bar cars
- Journal Size Code M (7 x 9) requires a Gross Weight of 472,000 lbs. for 6-axes
- Unstarred 4 Axle Cars with GRL of 315,000 and no IGRL reported and Unstarred cars with Journal Size of G or M must have a Wheel Size of 38 inches
- Gross Weight must be 394,000 lbs. for 6 -axle cars with Journal Size K

## NOTES:

- A, B and C Journal Classes are prohibited in Interchange per Rule 90.B.4

Wheel Diameter *Mandatory*

A294

## The diameter of the wheels

## Permissible Values for A294

|    |           |    |           |    |           |
|----|-----------|----|-----------|----|-----------|
| 28 | 28 Inches | 30 | 30 Inches | 33 | 33 Inches |
| 36 | 36 Inches | 38 | 38 Inches |    |           |

## Validation Rule for A294

- UnStarred Cars with Gross Weight of 286,000 lbs. and Increased Gross Rail Load of 2 must have a Wheel Diameter of 36 inches
- UnStarred Cars with Gross Weight of 286,000 lbs. and Increased Gross Rail Load of 2 must have a Wheel Diameter of either 36 or 38 inches
- Cars with an Increased Gross Rail Load of 1 and Journal of G or M must have a Wheel Diameter of 38 inches
- If Connected Unit Count (A020) is not reported, different Wheel Diameters cannot be reported

## Stability Device Equipped

B199

## Indicates a stability device is present on the truck

Affects Rating.

## Permissible Values for B199

Y Yes

## Bolster Component ID

B351

## Bolster Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## Sideframe Component ID

B352

## Side Frame Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## Wheelset Component ID

B350

## Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## Draft System Components

## Coupler Code

A057

## Defines the equipment coupler type

## Permissible Values for A057

|         |                                     |
|---------|-------------------------------------|
| BE60AHT | Type E (Rule 16) - BE60AHT          |
| BE60BHT | Type E Obsolete (Rule 16) - BE60BHT |
| BE63AHT | Type E Obsolete (Rule 16) - BE63AHT |
| BE63HT  | Type E (Rule 16) - BE63HT           |
| BE67HT  | Type E (Rule 16) - BE67HT           |
| BE68HT  | Type E/F (Rule 17) - BE68HT         |
| E42BEX  | Type E/F (Rule 17) - E42BEX         |
| E50ARE  | Type E/F (Rule 17) - E50ARE         |
| E50BEX  | Type E/F (Rule 17) - E50BEX         |
| E60CC   | Type E (Rule 16) - E60CC            |
| E60CE   | Type E (Rule 16) - E60CE            |
| E60CHT  | Type E (Rule 16) - E60CHT           |
| E60CHTE | Type E (Rule 16) - E60CHTE          |
| E60DC   | Type E (Rule 16) - E60DC            |
| E60DE   | Type E (Rule 16) - E60DE            |
| E60EE   | Type E (Rule 16) - E60EE            |
| E61     | Type E Obsolete (Rule 16) - E61     |
| E67AHT  | Type E (Rule 16) - E67AHT           |
| E67BC   | Type E (Rule 16) - E67BC            |
| E67BE   | Type E (Rule 16) - E67BE            |
| E67BHT  | Type E (Rule 16) - E67BHT           |
| E67BHTE | Type E (Rule 16) - E67BHTE          |
| E67CC   | Type E (Rule 16) - E67CC            |



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|          |                                                         |
|----------|---------------------------------------------------------|
| E67CE    | Type E (Rule 16) - E67CE                                |
| E68AHT   | Type E/F Obsolete (Rule 17) - E68AHT                    |
| E68AHTe  | Type E/F Obsolete (Rule 17) - E68AHTe                   |
| E68BC    | Type E/F (Rule 17) - E68BC                              |
| E68BE    | Type E/F (Rule 17) - E68BE                              |
| E68BHT   | Type E/F (Rule 17) - E68BHT                             |
| E68BHTE  | Type E/F (Rule 17) - E68BHTE                            |
| E68CE    | Type E/F (Rule 17) - E68CE                              |
| E69AE    | Type E/F (Rule 17) - E69AE                              |
| E69AHTe  | Type E/F (Rule 17) - E69AHTe                            |
| E69BE    | Type E/F (Rule 17) - E69BE                              |
| E69CE    | Type E/F (Rule 17) - E69CE                              |
| E69CEX   | Type E/F (Rule 17) - E69CEX                             |
| E69HTE   | Type E/F (Rule 17) - E69HTE                             |
| E69LCE   | Type E/F (Rule 17) - E69LCE                             |
| EB7AHT   | Type E (Rule 16) - EB7AHT                               |
| EF204CE  | Type E/F (Rule 17) - EF204CE                            |
| EF306CE  | Type E/F (Rule 17) - EF306CE                            |
| EF511AE  | Type E/F (Rule 17) - EF511AE                            |
| EF511BE  | Type E/F (Rule 17) - EF511BE                            |
| EF511CE  | Type E/F (Rule 17) - EF511CE                            |
| EF511DE  | Type E/F (Rule 17) - EF511DE                            |
| EF511LCE | Type E/F (Rule 17) - EF511LCE                           |
| EF511WE  | Type E/F (Rule 17) - EF511WE                            |
| EF512CE  | Type E/F (Rule 17) - EF512CE                            |
| EF512WE  | Type E/F (Rule 17) - EF512WE                            |
| EF528WE  | Type E/F (Rule 17) - EF528WE                            |
| EF60BWE  | Type E/F (Rule 17) - EF60BWE                            |
| EFROTARY | Type E/F Rotary - EFROTARY                              |
| EFSPEC   | Type E/F Special - EFSPEC                               |
| EFUNK    | Type E/F Unknown - EFUNK                                |
| ESPEC    | Type E Special - ESPEC                                  |
| EUNK     | Type E Unknown - EUNK                                   |
| F70BHT   | Type F Obsolete (Rule 18) - F70BHT                      |
| F70BHTE  | Type F Obsolete (Rule 18) - F70BHTE                     |
| F70CC    | Type F (Rule 18) - F70CC                                |
| F70CE    | Type F (Rule 18) - F70CE                                |
| F70CHT   | Type F (Rule 18) - F70CHT                               |
| F70CHTE  | Type F (Rule 18) - F70CHTE                              |
| F70DE    | Type F (Rule 18) - F70DE                                |
| F70HT    | Type F Obsolete (Rule 18) - F70HT                       |
| F71CHT   | Type F (Rule 18) - F71CHT                               |
| F72HT    | Type F (Rule 18) - F72HT                                |
| F73AC    | Type F (Rule 18) - F73AC                                |
| F73AE    | Type F (Rule 18) - F73AE                                |
| F73AHT   | Type F (Rule 18) - F73AHT                               |
| F73AHTe  | Type F (Rule 18) - F73AHTe                              |
| F73BE    | Type F (Rule 18) - F73BE                                |
| F73HTE   | Type F Obsolete (Rule 18) - F73HTE                      |
| F79BHT   | Type F Obsolete (Rule 18) - F79BHT                      |
| F79BHTE  | Type F Obsolete (Rule 18) - F79BHTE                     |
| F79CC    | Type F (Rule 18) - F79CC                                |
| F79CE    | Type F (Rule 18) - F79CE                                |
| F79CHT   | Type F (Rule 18) - F79CHT                               |
| F79CHTE  | Type F (Rule 18) - F79CHTE                              |
| F79DE    | Type F (Rule 18) - F79DE                                |
| FF20SE   | Type F (Rule 18) - FF20SE                               |
| FF218AE  | Type F (Rule 18) - FF218AE                              |
| FR201E   | Type F (Rule 18) Rotary - FR201E                        |
| FR205AE  | Type F (Rule 18) Rotary - FR205AE                       |
| FR205BE  | Type F (Rule 18) Rotary - FR205BE                       |
| FR205E   | Type F (Rule 18) Rotary - FR205E                        |
| FR206E   | Type F (Rule 18) Rotary - FR206E                        |
| FR207AE  | Type F (Rule 18) Rotary - FR207AE                       |
| FR207E   | Type F (Rule 18) Rotary - FR207E                        |
| FR208AE  | Type F (Rule 18) Rotary - FR208AE (without wear insert) |
| FR208E   | Type F (Rule 18) Rotary - FR208E (with wear insert)     |
| FR209E   | Type F (Rule 18) Rotary - FR209E                        |

|           |                                                        |
|-----------|--------------------------------------------------------|
| FR301E    | Type F (Rule 18) Rotary - FR301E                       |
| FR304E    | Type F (Rule 18) Rotary - FR304E (with wear plate)     |
| FR304WE   | Type F (Rule 18) Rotary - FR304WE (without wear plate) |
| FROTARY   | Type E/F Rotary - FROTARY                              |
| FSPEC     | Type F Special - FSPEC                                 |
| FUNK      | Type F Unknown - FUNK                                  |
| S700AE    | Type E (Rule 16) - S700AE                              |
| SBE60CC   | Type E (Rule 16) - SBE60CC                             |
| SBE60CE   | Type E (Rule 16) - SBE60CE                             |
| SBE60DC   | Type E (Rule 16) - SBE60DC                             |
| SBE60DE   | Type E (Rule 16) - SBE60DE                             |
| SBE60DREX | Type E (Rule 16) - SBE60DREX                           |
| SBE60EE   | Type E (Rule 16) - SBE60EE                             |
| SBE67BC   | Type E (Rule 16) - SBE67BC                             |
| SBE67BE   | Type E (Rule 16) - SBE67BE                             |
| SBE67CC   | Type E (Rule 16) - SBE67CC                             |
| SBE67CE   | Type E (Rule 16) - SBE67CE                             |
| SBE67CREX | Type E (Rule 16) - SBE67CREX                           |
| SBE67DE   | Type E (Rule 16) - SBE67DE                             |
| SBE68BC   | Type E/F (Rule 17) - SBE68BC                           |
| SBE68BE   | Type E/F (Rule 17) - SBE68BE                           |
| SBE68CE   | Type E/F (Rule 17) - SBE68CE                           |
| SBE68CREX | Type E/F (Rule 17) - SBE68CREX                         |
| SBE68DE   | Type E/F (Rule 17) - SBE68DE                           |
| SBE68WEX  | Type E/F (Rule 17) - SBE68WEX                          |
| SBE69AE   | Type E/F (Rule 17) - SBE69AE                           |
| SBE69BE   | Type E/F (Rule 17) - SBE69BE                           |
| SBE69BREX | Type E/F (Rule 17) - SBE69BREX                         |
| SBE69CE   | Type E/F (Rule 17) - SBE69CE                           |
| SE60CC    | Type E (Rule 16) - SE60CC                              |
| SE60CE    | Type E (Rule 16) - SE60CE                              |
| SE60CHT   | Type E (Rule 16) - SE60CHT                             |
| SE60CHTE  | Type E (Rule 16) - SE60CHTE                            |
| SE60DC    | Type E (Rule 16) - SE60DC                              |
| SE60DE    | Type E (Rule 16) - SE60DE                              |
| SE60EE    | Type E (Rule 16) - SE60EE                              |
| SE67BC    | Type E (Rule 16) - SE67BC                              |
| SE67BE    | Type E (Rule 16) - SE67BE                              |
| SE67BHT   | Type E (Rule 16) - SE67BHT                             |
| SE67BHTE  | Type E (Rule 16) - SE67BHTE                            |
| SE67CC    | Type E (Rule 16) - SE67CC                              |
| SE67CE    | Type E (Rule 16) - SE67CE                              |
| SE68BC    | Type E/F (Rule 17) - SE68BC                            |
| SE68BE    | Type E/F (Rule 17) - SE68BE                            |
| SE68BHT   | Type E/F (Rule 17) - SE68BHT                           |
| SE68BHTE  | Type E/F (Rule 17) - SE68BHTE                          |
| SE68CE    | Type E/F (Rule 17) - SE68CE                            |
| SE69AE    | Type E/F (Rule 17) - SE69AE                            |
| SE69BE    | Type E/F (Rule 17) - SE69BE                            |
| SE69CE    | Type E/F (Rule 17) - SE69CE                            |
| SF70CC    | Type F (Rule 18) - SF70CC                              |
| SF70CE    | Type F (Rule 18) - SF70CE                              |
| SF70CHT   | Type F (Rule 18) - SF70CHT                             |
| SF70CHTE  | Type F (Rule 18) - SF70CHTE                            |
| SF70DE    | Type F (Rule 18) - SF70DE                              |
| SF79CC    | Type F (Rule 18) - SF79CC                              |
| SF79CE    | Type F (Rule 18) - SF79CE                              |
| SF79CHT   | Type F (Rule 18) - SF79CHT                             |
| SF79CHTE  | Type F (Rule 18) - SF79CHTE                            |
| SF79DE    | Type F (Rule 18) - SF79DE                              |

**Validation Rule for A057**

- If Rotary Coupler Style is reported, then Coupler Code must be a rotary coupler.
- If Coupler Code is a rotary coupler, then Coupler Style must be R (Rotary).
- Coupler Code of Type E Obsolete (Rule 16) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of Type E/F Obsolete (Rule 17) can only be reported if the car was built or rebuilt before July 31, 2015

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- Coupler Code of Type F Obsolete (Rule 18) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of FROTARY or EFROTARY cannot be reported for cars Built or Rebuilt on or after August 12, 2014.

**NOTES:**

- Obsolete: All Type D couplers are obsolete and should report code DOBS; cars with this coupler code will be restricted in interchange as discussed below.
- Unknown: If the coupler code is unknown or if the code stamped on the coupler is illegible, the code BUNK FUNK, EFUNK, or LOCOUNK should be reported.
- Special: Codes ESPEC, FSPEC, and EFSPEC have been created to decline coupler bodies that have been manufactured specifically for the equipment owner and are not listed in the attached table.
- The codes FROTARY and EFROTARY cannot be reported for equipment Built or Rebuilt since August 12, 2014.

|                                                     |             |
|-----------------------------------------------------|-------------|
| <b>Coupler Style</b> <i>Mandatory</i>               | <b>B058</b> |
| Describes the basic coupler design of the equipment |             |

Affects Rating.

**Permissible Values for B058**

|   |              |   |              |
|---|--------------|---|--------------|
| B | Bottom Shelf | D | Double Shelf |
| P | Plain        | R | Rotary       |

**Validation Rule for B058**

- If Draft System Type (B073) is H (Hydraulic) then Coupler Style cannot be reported as M (Solid Drawbar) or L (Rotary Drawbar)
- If Draft System Type (B073) is not Center Of Car or End Of Car, Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) of Center Of Car or End Of Car is reported then Inches of Travel (B061) must also be reported

|                                                 |             |
|-------------------------------------------------|-------------|
| <b>Inches of Travel</b>                         | <b>B061</b> |
| The number of inches a draft system will travel |             |

Affects Rating.

**Range of Values for B061**

| Minimum | Maximum |
|---------|---------|
| 1       | 36      |

**Validation Rule for B061**

- If Draft System Type (B073) is not Center Of Car or End Of Car, Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) of Center Of Car or End Of Car is reported then Inches of Travel (B061) must also be reported

|                                                  |             |
|--------------------------------------------------|-------------|
| <b>Draft System Type</b> <i>Mandatory</i>        | <b>B073</b> |
| Describes the draft gear/underframe cushion type |             |

Affects Rating.

**Permissible Values for B073**

|   |                                                                               |
|---|-------------------------------------------------------------------------------|
| C | Cushioning Center of Car                                                      |
| E | Cushioning End of Car                                                         |
| S | Standard                                                                      |
| X | Devices with less than 6 inches buff travel approved under AAR Standard S-060 |
| Y | Devices with 6 to 10 inches of buff travel approved under AAR Standard S-060  |

**Validation Rule for B073**

- If Draft System Type (B073) is Standard Draft Gear (S), Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) is reported as C, E, X, or Y then Inches of Travel (B061) must also be reported
- If Draft System Type (B073) of X, or Y is reported then Draft Gear Group/Cushion Unit Pocket (B562) cannot be reported
- If Draft System Type (B073) X is reported, the Inches of Travel (B061) value must be greater than or equal to 1 and less than 6
- If Draft System Type (B073) Y is reported, the Inches of Travel (B061) value must be greater than or equal to 6 and less than or equal to 10

- If Draft System Type (B073) is S then Draft Gear Group/Cushion Unit Pocket (B562) may only be A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z (AAR Rule 21)
- If Draft System Type (B073) is E then Draft Gear Group/Cushion Unit Pocket (B562) may only be EOC-1,EOC-1D, EOC-1B, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B,EOC-4, EOC-4B, EOC-5, EOC-5D, EOC-5B, EOC-6, EOC-6D, EOC-6B, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-8F, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10, EOC-10D, EOC-10B, EOC-10F, EOC-11, EOC-11D, EOC-11B,EOC-12, EOC-12D, EOC-12B, EOC-13, EOC-13B, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16, EOC-16D, EOC-16B, EOC-17, EOC-17D, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-23, EOC-23B, EOC-24, EOC-24B, EOC-25E, EOC-26B, EOC-26F, or EOC-27D, or EOC-27E (AAR Rule 59)

|                                                                                                     |             |
|-----------------------------------------------------------------------------------------------------|-------------|
| <b>Draft Gear Group/Cushion Unit Pocket</b>                                                         | <b>B562</b> |
| Draft Gear Group/Cushion Unit Pocket value as listed in AAR Field Manual Interchange Rule 21 and 59 |             |

Carry forward for Single Clone / Multi-Clone / Restencil / Add-Back / Equipment Group Change.

**Permissible Values for B562**EOC-1,EOC-1D, EOC-1B, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B,EOC-4, EOC-4B, EOC-5, EOC-5D, EOC-5B, EOC-6, EOC-6D, EOC-6B, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-8F, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10, EOC-10D, EOC-10B, EOC-10F, EOC-11, EOC-11D, EOC-11B,EOC-12, EOC-12D, EOC-12B, EOC-13, EOC-13B, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16, EOC-16D, EOC-16B, EOC-17, EOC-17D, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-23, EOC-23B, EOC-24, EOC-24B, EOC-25E, EOC-26B, EOC-26F, EOC-27D, EOC-27E, COC-1, COC-2, COC-3, COC-4, COC-5, COC-6, COC-7, COC-8 (AAR Rule 59).

A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, Z (AAR Rule 21).

**Validation Rule(s) for B562**

- Draft Gear Group/Cushion Unit Pocket (B562) is mandatory for equipment built on or after June 13, 2019, unless Draft System Type (B073) is reported as X or Y-If Draft Gear Group/Cushion Unit Pocket (B562) is not equal to A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z, then Cushion Unit Type (B563) must be populated
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-6, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-9, EOC-9B, EOC-9D, EOC-10, EOC-10B, EOC-10D, EOC-14, EOC-14B, EOC-18D, EOC-23, EOC-23B, EOC-24, EOC-25E, EOC-26B, or EOC-27D then the Cushion Unit Type (B563) must be 1
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-9E, EOC-26F, or EOC-27E, then the Cushion Unit Type (B563) must be 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-11, EOC-12, EOC-13, EOC-13B, EOC-15, EOC-15B, EOC-15D, EOC-17, EOC-17B, EOC-17D, EOC-18, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-24B, COC-3, COC-5, or COC-7 then the Cushion Unit Type (B563) must be 1 or 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-8F or EOC-10F then the Cushion Unit Type (B563) must be 2 or 3
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-5, EOC-5B, EOC-5D, EOC-6, EOC-6B, EOC-6D EOC-11B, EOC-11D, EOC-12B, EOC-12D, or COC-4 then the Cushion Unit Type (B563) must be 1, 2, or 3
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-16D, or COC-1 then the Cushion Unit Type (B563) must be 1, 2, or 4
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-2B, EOC-2D, EOC-3, EOC-3B, EOC-4, EOC-4B, or COC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, or 4
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1, EOC-1B, EOC-1D, or EOC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-8 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1D, EOC-2,EOC-2D, EOC-2B, EOC-3, EOC-3B, EOC-5, EOC-5D, EOC-5B, EOC-6D, EOC-7, EOC-7B, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10D, EOC-11, EOC-11B, EOC-11D, EOC-12D, EOC-14,EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16D, EOC-17D, EOC-23, EOC-23B, EOC-27D, or EOC-27E then the Inches of Travel (B061) must be 10
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-19, EOC-19B, EOC-22, EOC-22B, or EOC-25E then the inches of travel must be 12
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-20 or EOC-20B then the Inches of Travel (B061) must be 14
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1B, EOC-4, EOC-4B, EOC-6, EOC-6B, EOC-8, EOC-8B, EOC-8F, EOC-10, EOC-10B, EOC-

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- 10F, EOC-12, EOC-12B, EOC-13, EOC-13B, EOC-17, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-21, EOC-21B, EOC-24, or EOC-24B then the Inches of Travel (B061) must be 15
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-2, COC-3, COC-4, COC-5, COC-6, or COC-8 then the Inches of Travel (B061) must be 20
  - When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 1 or 2, then the Inches of Travel (B061) must be 20
  - When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 4, then the Inches of Travel (B061) must be 18
  - When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 2, then the Inches of Travel (B061) must be 20
  - When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 1, then the Inches of Travel (B061) must be 30
  - When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1 then the Inches of Travel (B061) must be 10, 12, or 15
  - When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-26, then the Inches of Travel (B061) must be 18

**Note:**

Reference AAR Field Manual Interchange Rule(s) 21 and 59.

| Cushion Unit Type                                                                | B563 |
|----------------------------------------------------------------------------------|------|
| Cushion Unit Type value as listed in AAR Field Manual Interchange Rule 21 and 59 | ●    |

Carry forward for Single Clone / Multi-Clone / Restencil / Add-Back / Equipment Group Change.

**Permissible Values for B563**

- 1 – Type 1
- 2 – Type 2
- 3 – Type 3
- 4 – Type 4
- 5 – Type 5
- S – Type S

**Validation Rule(s) for B563**

- Cushion Unit Type (B563) is mandatory for equipment built on or after June 13, 2019.
- If Draft Gear Group/Cushion Unit Pocket (B562) is not equal to A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z, then Cushion Unit Type (B563) must be populated.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-6, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-9, EOC-9B, EOC-9D, EOC-10, EOC-10B, EOC-10D, EOC-14, EOC-14B, EOC-18D, EOC-23, EOC-23B, EOC-24, EOC-25E, or EOC-26B then the Cushion Unit Type (B563) must be 1.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-9E, EOC-26F, or EOC-27E, then the Cushion Unit Type (B563) must be 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-11, EOC-12, EOC-13, EOC-13B, EOC-15, EOC-15B, EOC-15D, EOC-17, EOC-17B, EOC-17D, EOC-18, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-24B, COC-3, COC-5, or COC-7 then the Cushion Unit Type (B563) must be 1 or 2.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-8F or EOC-10F then the Cushion Unit Type (B563) must be 2 or 3.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-5, EOC-5B, EOC-5D, EOC-6, EOC-6B, EOC-6D EOC-11B, EOC-11D, EOC-12B, EOC-12D, or COC-4 then the Cushion Unit Type (B563) must be 1, 2, or 3.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-16D, or COC-1 then the Cushion Unit Type (B563) must be 1, 2, or 4.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-2B, EOC-2D, EOC-3, EOC-3B, EOC-4, EOC-4B, or COC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, or 4.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1, EOC-1B, EOC-1D, or EOC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-8 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5.

- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 1 or 2, then the Inches of Travel (B061) must be 20.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 4, then the Inches of Travel (B061) must be 18.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 2, then the Inches of Travel (B061) must be 20.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 1, then the Inches of Travel (B061) must be 30.

**Note:**

Reference AAR Field Manual Interchange Rule(s) 21 and 59.

| Coupler Component ID                         | B353 |
|----------------------------------------------|------|
| Coupler Component ID from Component Registry |      |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

| Cushioning Unit Component ID         | B361 |
|--------------------------------------|------|
| Component ID from Component Registry |      |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## Unit Segment Components

| Unit Tare Weight                                                                                      | A299 |
|-------------------------------------------------------------------------------------------------------|------|
| The unit segment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds |      |

**Range of Values for A299**

| Minimum | Maximum |
|---------|---------|
| 10000   | 500000  |

**Validation Rule for A299**

- Unit Tare Weight must not be reported if the Connected Unit Count (A020) is not reported
- Unit Tare Weight must be reported if Connected Unit Count (A020) is reported
- Unit Tare Weight for Boxcars must be less than or equal 160,000 lbs.
- Unit Tare Weight for Refrigerators must be less than or equal 140,000 lbs.
- Unit Tare Weight for Gondolas must be greater than or equal 30,000 lbs.
- Unit Tare Weight for Gondolas must be less than or equal 110,000 lbs.
- Unit Tare Weight for Hoppers must be greater than or equal 23,000 lbs.
- Unit Tare Weight for Hoppers must be less than 120,000 lbs.
- Unit Tare Weight for Tanks must be greater than 31,000 lbs.
- Unit Tare Weight for Tanks must be less than 200,000 lbs.
- Unit Tare Weight for Vflats must be greater than 55,000 lbs.
- Unit Tare Weight for VFlats must be less than 136,000 lbs.
- Unit Tare Weight for IFLT must be greater than 10,000 lbs.
- Unit Tare Weight for IFLT must be less than 72,000 lbs.
- Unit Tare Weight for all flats other than VFlats with ETC Q\_\_\_ must be greater than 23,000 lbs.
- Unit Tare Weight for all flats other than VFlats with ETC Q\_\_\_ must be less than 500,000 lbs.
- Unit Segment Tare Weights must add up to the Total Tare Weight (A259)
- Unit Tare Weight (A299) value must be reported to the nearest 100 pounds

| Unit Load Limit                                                                                              | A300 |
|--------------------------------------------------------------------------------------------------------------|------|
| The maximum permissible weight of the commodity that can be loaded into the unit segment, reported in pounds |      |

**Range of Values for A300**

| Minimum | Maximum |
|---------|---------|
| 10000   | 500000  |

**Validation Rule for A300**

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- Unit Load Limit must not be reported if the Connected Unit Count (A020) is not reported
- Unit Load Limit must be reported if Connected Unit Count (A020) is reported
- Unit Segment Load Limits must add up to the Load Limit (LDLT)

## Brake System Components

**Emergency Brake Valve CID** B354

Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Emergency Valve COTS Date** B567

Brake valve emergency portion recondition date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve COTS Date is system-generated from a Emergency Brake Valve Inspection.

**Emergency Valve OEM Warranty Date** B568

Brake valve emergency portion Original Equipment Manufacturer warranty date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve OEM Date is system-generated from a Emergency Brake Valve Inspection.

**Emergency Valve Part Number** B569

Brake valve emergency portion part number

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve Part Number is system-generated from a Emergency Brake Valve Inspection.

**Service Brake Valve CID** B357

Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Service Valve COTS Date** B564

Brake valve service portion recondition date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve COTS Date is system-generated from a Service Brake Valve Inspection.

**Service Valve OEM Warranty Date** B565

Brake valve service portion Original Equipment Manufacturer warranty date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve OEM Date is system-generated from a Service Brake Valve Inspection.

**Service Valve Part Number** B566

Brake valve service portion part number

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

Service Valve Part Number is system-generated from a Service Brake Valve Inspection.

**Slack Adjuster CID**

B359

Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## Miscellaneous

**Umler Effective Date**

EFDT

The date the rating activity (pre-registration, modification, etc.) is expected to occur

This element is not eligible for Query. Does not Carry Forward.

**Validation Rule for EFDT**

-Effective Date cannot be set to more than 13 months in the future.

**NOTES:**

- Effective Date will default to the 1st of the following month that equipment is registered

## Inspection

**ABT Due Date (Repair Track)**

DU13

The due date of the air brake test per AAR Field Manual Rule 3

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**ABT 5-8 Year Due Date**

DU58

The 5-8 year due date for the air brake test (ABT) after the ABT Due Date (Repair Track)

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**FRA Drop Dead Date**

DDNE

FRA Drop Dead Date

System Generated Field. This element is not eligible for Input.

**Inspection Certified by**

CERT

Person certifying inspection

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Inspection Conducted by**

COND

Person conducting inspection

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Inspection Date Done**

DTDN

The date the inspection was completed; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Validation Rule for DTDN**

-The inspection date must not be 60 days before the Build Date

**Inspection Due Date**

INDD

The due date of the next inspection; used for all inspection types reported on equipment

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Inspection Performer**

PERF

The SCAC that completed the inspection; used for all inspection types reported

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|                                                                                                                     |                            |
|---------------------------------------------------------------------------------------------------------------------|----------------------------|
| on equipment                                                                                                        |                            |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                             |                            |
| <b>Inspection Reporter</b>                                                                                          | <b>REPT</b>                |
| The SCAC that reported the inspection; used for all inspection types reported on equipment                          |                            |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                             |                            |
| <b>Scheduled Due Date</b>                                                                                           | <b>SCDD</b>                |
| Scheduled Due Date                                                                                                  |                            |
| This element is not eligible for Input. Does not Carry Forward.                                                     |                            |
| <b>Location/SPLC</b>                                                                                                | <b>SPLC</b>                |
| The SPLC of the inspecting location; used for all inspection types reported on equipment                            |                            |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                             |                            |
| <b>Air Card Item</b>                                                                                                | <b>L015</b>                |
| Detail indicating type of items inspected as part of a locomotive Air Card Inspection                               |                            |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                             |                            |
| <b>Air Card Description</b>                                                                                         | <b>L016</b>                |
| Description of the items inspected as part of a Locomotive Air Card Inspection                                      |                            |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                             |                            |
| <b>Air Card Frequency Days</b>                                                                                      | <b>L017</b>                |
| Locomotive Air Card Frequency Days                                                                                  |                            |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                             |                            |
| <b>Range of Values for L017</b>                                                                                     |                            |
| <b>Minimum</b>                                                                                                      | <b>Maximum</b>             |
| 0                                                                                                                   | 99999                      |
| <b>Air Brake Test Device</b>                                                                                        | <b>B523</b>                |
| Indicates the type of test device used to perform the Air Brake Test                                                |                            |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                             |                            |
| <b>Permissible Values for B523</b>                                                                                  |                            |
| A                                                                                                                   | Automatic (Non 4-Pressure) |
| M                                                                                                                   | Manual                     |
| P                                                                                                                   | Automatic (4-Pressure)     |
| <b>Validation Rule for B523</b>                                                                                     |                            |
| -Air Brake Test Device (B523) must be reported for Air Brake Test inspection reported on or after December 10, 2020 |                            |
| <b>Insp Service Valve COTS Date</b>                                                                                 | <b>B570</b>                |
| Brake valve service portion recondition date                                                                        |                            |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                             |                            |

**NOTES:**

- Reports of 9999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMY

|                                                                                                                                                                                                     |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Insp Service Valve OEM Warranty Date</b>                                                                                                                                                         | <b>B571</b> |
| Brake valve service portion Original Equipment Manufacturer warranty date                                                                                                                           |             |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                             |             |
| <b>NOTES:</b>                                                                                                                                                                                       |             |
| <ul style="list-style-type: none"> <li>• Reports of 999999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.</li> <li>• Valid date format: MMY</li> </ul> |             |
| <b>Insp Service Valve Part Number</b>                                                                                                                                                               | <b>B572</b> |
| Brake valve service portion part number                                                                                                                                                             |             |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                             |             |
| <b>Insp Emergency Valve COTS Date</b>                                                                                                                                                               | <b>B573</b> |
| Brake valve emergency portion recondition date                                                                                                                                                      |             |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                             |             |
| <b>NOTES:</b>                                                                                                                                                                                       |             |
| <ul style="list-style-type: none"> <li>• Reports of 9999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.</li> <li>• Valid date format: MMY</li> </ul>   |             |
| <b>Insp Emergency Valve OEM Warranty Date</b>                                                                                                                                                       | <b>B574</b> |
| Brake valve emergency portion Original Equipment Manufacturer warranty date                                                                                                                         |             |
| System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.                                                                      |             |
| <b>NOTES:</b>                                                                                                                                                                                       |             |
| <ul style="list-style-type: none"> <li>• Reports of 999999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.</li> <li>• Valid date format: MMY</li> </ul> |             |
| <b>Insp Emergency Valve Part Number</b>                                                                                                                                                             | <b>B575</b> |
| Brake valve emergency portion part number                                                                                                                                                           |             |
| System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.                                                                      |             |
| <b>Insp Service Valve Location <i>Mandatory</i></b>                                                                                                                                                 | <b>B576</b> |
| Brake valve service portion location                                                                                                                                                                |             |
| Value does not carry forward for Single Clone / Multi-Clone.                                                                                                                                        |             |
| <b>Insp Emergency Valve Location <i>Mandatory</i></b>                                                                                                                                               | <b>B577</b> |
| Brake valve emergency portion location reported on an emergency brake valve inspection                                                                                                              |             |
| Value does not carry forward for Single Clone / Multi-Clone.                                                                                                                                        |             |



## Data Specification Manual

## Tank Cars

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## Data Specification Manual

## General

**Status Code** *Mandatory*

USCD

Identifies the current operational state

Does not Carry Forward.

**Permissible Values for USCD**

A ACTIVE I INACTIVE  
P PRE-REGISTERED

**NOTES:**

- For Restencil and Clone process the initial Status of a car should be Pre-Registered.
- All Add-Back processes should initially set the Status to Pre-Registered
- A Pre-registered car will automatically have its Status changed to Active for the initial change when TRAIN detects three (3) movements on the car
- If the Status changes to Active due to movement and the car was created from a Restencil, the Prior Equipment ID (PRID) or source car will have its status changed to Inactive automatically by Umler

**Equipment ID**

0001

The equipment stenciled number

**Validation Rule for 0001**

-Equipment Number must not be larger than 6 digits (i.e., 999999)

**NOTES:**

- Equipment ID includes the mark and number stenciled on the equipment. Marks can be up to 4 characters and number up to 6 digits (i.e., ABCD999999).
- Up to 500 cars can be added or updated in a transaction.
- When adding an equipment record, ensure that Prior Equipment ID (PRID) is reported, unless the equipment is new.

**Mechanical Designation** *Mandatory*

UMMD

Equipment description without physical dimensions

Used in ETC Generation. Used for Transportation Codes.

**Permissible Values for UMMD**

MWTK MoW - Tank T Tank

**Equipment Type Code**

UMET

An alpha numeric code that describes the physical attributes of equipment

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Please Refer to Appendix I for More information Regarding ETC Generation

**Maint of Way Service Type**

B403

Identifies equipment Maintenance Of Way function

Value does not carry forward for Equipment Group Change.

**Permissible Values for B403**

C2 Crane / Boom Support Car  
F4 Flat-Wheel Sets  
T4 Training Car  
T8 Track Geometry Car

**Validation Rule for B403**

- Maint of Way Service Type can only be listed on records where the Equipment Group (0002) or Pseudo Equipment Group (B547) is listed as MISC

**Built Date** *Mandatory*

BLDT

The date the construction of the equipment is complete

Data is Confidential. Used for Transportation Codes. Affects Rating. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for BLDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for BLDT**

-Built Date must be within the last 99 years

-Built Date must not be in the future for equipment in Active Status

-Prior and target equipment's Built Date (BLDT) must match for restenciling

-Built Date cannot be updated within 30 days of the End of Service Date (B078)

**NOTES:**

- Data is public for railroad marked equipment.
- For connected unit cars report the oldest car in the set.

**Tank Built Date**

A298

Tank Built Date

Data is Confidential.

**Range of Values for A298**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for A298**

-When Stub Sill Design Type is reported as Full then Private Tank Year must be reported

**Orig Cert of Constr Nbr** *Mandatory*

A183

The construction certification number of the AAR provides to the equipment manufacturer (Form AAR 4-2)

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for A183**

-Tank Original Certificate of Construction is required for Tanks that have a Built/Rebuilt (Birth) Date on or after July 1, 1997

**Rebuilt / ILS Date**

RBDT

The date the re-construction of the equipment is complete

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for RBDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for RBDT**

- Rebuilt/Increased Life Service Date must be after the Built Date (BLDT)
- Rebuilt Date must not be more than 70 years after the Built Date (BLDT)
- Rebuilt Date is required for Extended Service Code (A096) 1, 2, or 3 for Increased Life Service
- Rebuilt Date is required for Extended Service Code (A096) R for Rebuilt, or V for 65 years of service
- If Rebuilt Date is reported then the Extended Service Code (A096) must be reported as R for Rebuilt, V, 1, 2, or 3 for Increased Life Service

**NOTES:**

- Railroad cars -- applicable only to cars meeting status as provided in both STB Accounting Rules, and the AAR Mechanical Interchange Rule 88, Office Manual.
- Private cars -- applicable to all cars meeting AAR Mechanical Interchange Rule 88, Section C, Office Manual and Sections A and B of the Field Manual.
- For connected unit cars report the oldest car in the set. Do not report Rebuilt Date unless car has been approved by the AAR.

**Rebuilt Flag**

RBFL

Identifies the equipment is nearing its end of life cycle

Data is Confidential. System Generated Field. This element is not eligible for Input.

**Permissible Values for RBFL**

N No  
Y Yes

**Owner** *Mandatory*

UMOW

Primary reporting mark of the railroad or private company owning the car

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil /

## Data Specification Manual

Multi-Restencil.

**NOTES:**

- Report the primary reporting mark of the railroad or private company owning the car. When car's lease or lien is held by a bank, trust holder, capital lease company, etc. not having an assigned mark, report the primary reporting mark affiliated with the stenciled reporting mark.
- Owners are required to submit a form R-1 to the operating and Maintenance Department AAR when reporting marks are changed.

|                                                         |             |
|---------------------------------------------------------|-------------|
| <b>Lessee</b>                                           | <b>LESE</b> |
| The reporting mark of the company leasing the equipment |             |

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**Validation Rule for LESE**

- Umler Owner (UMOW) and Lessee are not allowed to be equal
- Lessee cannot be a child reporting mark

**NOTES:**

- In order to assign privately marked cars to a pool, a railroad reporting mark must be reported.

|                                         |             |
|-----------------------------------------|-------------|
| <b>Equipment Group</b> <i>Mandatory</i> | <b>0002</b> |
| Identifies the various major car types  |             |

Used for Transportation Codes. Affects Rating.

|                                                                                                       |             |
|-------------------------------------------------------------------------------------------------------|-------------|
| <b>Maintenance Party</b>                                                                              | <b>MNPT</b> |
| The parent reporting mark of the company responsible for the maintenance and repairs of the equipment |             |

Does not Carry Forward.

|                                                     |             |
|-----------------------------------------------------|-------------|
| <b>Mark Owner Category</b>                          | <b>B201</b> |
| The company that owns the stenciled mark on the car |             |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**Permissible Values for B201**

|   |                            |
|---|----------------------------|
| B | US Private                 |
| C | Canadian Private           |
| F | Foreign Private            |
| H | Canadian Class II          |
| I | Canadian Class I           |
| J | Mexican Class I            |
| K | Canadian Class III         |
| M | Mexican Private            |
| N | US Private Steamship       |
| O | Canadian Private Steamship |
| P | Mexican Private Steamship  |
| Q | Foreign Private Steamship  |
| R | US Class II Railroad       |
| U | US Class I Railroad        |
| V | US Class III Railroad      |
| W | Mexican Class II Railroad  |
| Y | Mexican Class III Railroad |

**NOTES:**

- This value is stored in the Umler Database for informational purposes and is retrieved from the Roadmark Registry.

|                                                         |             |
|---------------------------------------------------------|-------------|
| <b>Prior Equipment ID</b>                               | <b>PRID</b> |
| The previous reporting mark and number of the equipment |             |

Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for PRID**

- Prior and target equipment's Built Date (BLDT) must match
- The Prior Equipment ID (0001) must belong to the same or comparable Equipment Group (0002) as the current car initial and number

**NOTES:**

- Prior ID enables equipment records to share the same historical lineage. Equipment Identification Number (EIN) is a generated id that enables these equipment records to share inspections and transaction history.

|                                       |             |
|---------------------------------------|-------------|
| <b>Last Update Date</b>               | <b>B122</b> |
| Date of the last Umler element change |             |

System Generated Field. This element is not eligible for Input.

|                                                                  |             |
|------------------------------------------------------------------|-------------|
| <b>Equipment Add Date</b>                                        | <b>B082</b> |
| Date the reporting mark and number was added to the Umler system |             |

System Generated Field. This element is not eligible for Input.

|                                                         |             |
|---------------------------------------------------------|-------------|
| <b>Status Change Reason</b>                             | <b>USCR</b> |
| Identifies the reason for the current operational state |             |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for USCR**

|   |                         |
|---|-------------------------|
| I | Initial Load            |
| M | Movement                |
| O | Status Changed Manually |
| R | Restencil               |

**NOTES:**

- If movement is detected on equipment, status is changed to Active.
- If an equipment record is changed to Active, any prior equipment record is placed in Inactive status.

|                                                                |             |
|----------------------------------------------------------------|-------------|
| <b>Status Change Date</b>                                      | <b>USCT</b> |
| Identifies the effective date of the current operational state |             |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

|                                                                    |             |
|--------------------------------------------------------------------|-------------|
| <b>Extended Service</b> <i>Mandatory</i>                           | <b>A096</b> |
| A code indicating the eligibility of an increase to the life cycle |             |

Used for Transportation Codes. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A096**

|   |                                                                                                                                           |
|---|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | 1st ILS Inspection, additional 5 years of Service                                                                                         |
| 2 | 2nd ILS Inspection, additional 5 years of service (10 years total)                                                                        |
| 3 | 3rd ILS Inspection, additional 5 years of service (15 years total)                                                                        |
| C | Built New between January 1, 1964 - June 30, 1974, Certified for 50 Years of Service, Built New Before July 1, 1974 & Received AAR Waiver |
| E | Built new from July 1, 1974, Qualified for 50 Years Service                                                                               |
| N | Built Before January 1, 1964, Qualified for 40 Years Service                                                                              |
| R | Rule 88, Rebuilt cars                                                                                                                     |
| U | Built between January 1, 1964 - June 30, 1974, Qualified for 40 Years & eligible for certification for 50 Years Service                   |
| V | Car is certified (FRA Waiver & AAR) for 65 years of service from date built new from January 1, 1964                                      |

**Validation Rule for A096**

- If Rebuilt Date (RBDT) is reported, then the Extended Service Code (A096) must be reported as R for Rebuilt, V, 1, 2, or 3 for Increased Life Service
- Extended Service Code of C cannot be reported if the car was built before January 1, 1964 or on/after July 1, 1974
- Extended Service Code of E cannot be reported if the car was built before July 1, 1974
- Extended Service Code of N cannot be reported if the car was built on/after January 1, 1964
- Extended Service Code of U cannot be reported if the car was built before January 1, 1964 or on/after July 1, 1974

**NOTES:**

- Value is used to calculate End of Service Date (B078).
- Rebuilt Date (RBDT) is required for Extended Service Code (A096) R for

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Rebuilt, or V for 65 years service.

- Rebuilt Date (RBDT) is required for Extended Service Code (A096) 1, 2, 3, and V for Increased Life Service.

#### End of Service Date B078

Indicates the date of the end of equipment life

Data is Confidential. System Generated Field. This element is not eligible for Input.

##### NOTES:

Data becomes non-confidential two year priors to End of Service Date.

#### Do Not Load After B590

Equipment should not be loaded after date shown in the element

Data is Confidential.

##### Validation Rules for B590

- Do Not Load After (B590) cannot be updated thirty days prior to the date shown in the element.
- Do Not Load After (B590) cannot be updated within thirty days of the End of Service Date (B078).
- Do Not Load After (B590) date cannot be on or after the End of Service (B078) date.

##### NOTES:

- The element will be initially populated by End of Service (B078) minus 30 days.
- Data becomes non-confidential thirty days prior to the Do Not Load After (B590) date.

#### Equipment Identification EINN

Unique equipment identifier regardless of stenciled mark

System Generated Field. This element is not eligible for Input.

##### NOTES:

- Specify the Prior ID (PRID) on equipment records to ensure the historical lineage is preserved. Equipment with the same EIN share history and inspections.

#### Info Conflict Status B355

Indicates that an Informational Conflict exists on the Equipment record

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

#### Conflict Status B050

Identifies the escalation level of equipment in active conflict

System Generated Field. Affects Rating. This element is not eligible for Input. Value does not carry forward for Add Back.

##### Permissible Values for B050

- Subject to Zero-Rating
- Subject to Restricted in Interchange
- Subject to Deletion

##### NOTES:

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

#### Date of Original Conflict B063

The date the equipment was originally placed in the current conflict

System Generated Field. This element is not eligible for Input.

#### Next Conflict Status B135

Identifies the next escalation level of an equipment in active conflict

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

##### Permissible Values for B135

- Subject to Zero-Rating
- Subject to Restricted in Interchange
- Subject to Deletion

##### NOTES:

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

#### Notice Indicator B137

Identifies equipment in error in Umler Notice Management

System Generated Field. This element is not eligible for Input.

#### Conflict Status Next Date B062

The date the conflict status will be escalated

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

#### Rate Indicator A070

Indicates the rate type applicable to the unit

System Generated Field. Used for Transportation Codes. Affects Rating. This element is not eligible for Input. Does not Carry Forward.

##### Permissible Values for A070

- Zero-Rated Due to Conflict Errors
- Private Mileage Rate
- Zero-Rated - Scrap (S\_,SX), AAR Overage (XA), FRA Overage (YA), Umler Conflict - CHR 1/Tariff 6007 (XZ). Zero-Rated Private Owner Election to Zero Rate [See Private Zero Rate (B150)].
- Railroad Market Rate
- Zero-Rated Railroad Market Rate Due to Conflict Errors

##### NOTES:

- If unit is zero-rated, correction of conflicts will reinstate the appropriate rate indicator code.

#### Private Zero Rate B150

Indicates a private car is subject to contractual agreement, nullifying mileage rates

Affects Rating.

##### Permissible Values for B150

- Y Yes

##### NOTES:

- Reporting "Y" generates Rate Indicator (A070) value 6 and a zero rate.

#### First Movement Date USAT

The first movement date under the stenciled mark of the equipment

This element is not eligible for Input. Does not Carry Forward.

#### Equipment Add Company B083

The reporting mark of the company that added the equipment

System Generated Field. This element is not eligible for Input.

#### Registration Reason B174

The code indicating the reason this equipment is added

Does not Carry Forward.

##### Permissible Values for B174

- |   |                   |   |           |
|---|-------------------|---|-----------|
| A | Add-Back          | N | New       |
| P | Pending Restencil | R | Restencil |

#### Restencil Program Ind B177

Identifies the equipment is under a restencil program

##### Permissible Values for B177

- Y Yes



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|                                                                  |             |
|------------------------------------------------------------------|-------------|
| <b>Delete Reason Code</b>                                        | <b>B064</b> |
| A code that designates the reason the equipment has been deleted |             |

Value does not carry forward for Add Back.

**Permissible Values for B064**

|   |                                              |
|---|----------------------------------------------|
| A | Restenciled                                  |
| D | Destroyed or wrecked                         |
| L | Lease terminated, removed from fleet         |
| P | Retired unserviceable beyond economic repair |
| R | Rebuilt                                      |
| S | Sold Serviceable                             |
| T | Lost                                         |
| W | Over age retired for dismantling             |
| Y | Error, reporting did not exist               |
| Z | Other                                        |

|                                                                                                                                                 |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Non-Compliant Wheelsets</b>                                                                                                                  | <b>B544</b> |
| Equipment record is incomplete and has a missing wheelset component ID association. Refer to AAR Field Manual Rule 44 for industry requirements |             |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B544**

- A Wheelset Component ID is required for each applicable location on equipment built on or after January 1, 2016
- A Wheelset Component ID is required for each applicable location on equipment rebuilt on or after January 1, 2016 and Gross Rail Load (A266) is greater than 268,000 lbs

**NOTES:**

- A "Y" will be system generated if the equipment is active and the number of Wheelset CID's required is not equal to the Axle Count (A024) on the equipment
- Validation rule applies to equipment that has been in Active status for 60 days

|                                                                                                                                  |             |
|----------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Pseudo Equipment Group</b>                                                                                                    | <b>B547</b> |
| Equipment needs to be identified as a miscellaneous record while maintaining all elements linked to the original equipment group |             |

System Generated Field.

**Permissible Values for B547**

|      |               |
|------|---------------|
| MISC | Miscellaneous |
|------|---------------|

**Weight**

|                                                                                          |             |
|------------------------------------------------------------------------------------------|-------------|
| <b>Gross Rail Load/Weight</b> <b>Mandatory</b>                                           | <b>A266</b> |
| The maximum permissible weight on rail of the equipment and the load, reported in pounds |             |

Affects Rating.

**Range of Values for A266**

| Minimum | Maximum |
|---------|---------|
| 43000   | 1000000 |

**Validation Rule for A266**

- UnStarred 4 Axle Cars with a Journal Size of G must have a Gross Weight equal to 315,000 lbs.
- Gross Rail Load must be equal to the Load Limit (LDLT) plus the Tare Weight (A259)

**NOTES:**

Use Table 1 below to determine Gross Rail Load, if Qualification for Increased Gross Rail Load (B344) does not exist.

TABLE 1 -

| Journal Size     | Load per Axle | Gross Rail Load for 4-axle Equipment |
|------------------|---------------|--------------------------------------|
| B - 4 1/2" x 8"  | 25,750 lbs.   | 103,000 lbs.                         |
| C - 5" x 9"      | 35,500 lbs.   | 142,000 lbs.                         |
| D - 5 1/2" x 10" | 44,250 lbs.   | 177,000 lbs.                         |

|                  |             |              |
|------------------|-------------|--------------|
| E - 6" x 11"     | 55,000 lbs. | 220,000 lbs. |
| F - 6 1/2" x 12" | 65,750 lbs. | 263,000 lbs. |
| G - 7" x 12"     | 78,750 lbs. | 315,000 lbs. |
| K - 6 1/2" x 9"  | 71,500 lbs. | 263,000 lbs. |
| M - 7" x 9"      | 78,750 lbs. | 315,000 lbs. |

Use Table 2 below to determine Gross Rail Load for 4-axle equipment if Qualification for Increased Gross Rail Load (B344) exists.

TABLE 2 -

| Qualification for Increased Gross Rail Load (B344) | Journal Size     | Gross Rail Load |
|----------------------------------------------------|------------------|-----------------|
| 1                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 1                                                  | G - 7" x 12"     | 286,000 lbs.    |
| 1                                                  | M - 7" x 9"      | 286,000 lbs.    |
| 2                                                  | F - 6 1/2" x 12" | 286,000 lbs.    |
| 2                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 3                                                  | F - 6 1/2" x 12" | 268,000 lbs.    |
| 3                                                  | K - 6 1/2" x 9"  | 268,000 lbs.    |

- For multi-unit equipment, report the total gross rail load for the entire set.
- Refer to Field Manual Rule 70 if additional information is required.

A Gross Rail Load less than the listed or calculated values may be entered; however:

- Star Code (A247) must be R or S, and
- Load Limit (LDLT) must also be reduced, ensuring Tare Weight (A259) plus Load Limit (LDLT) equals the reported Gross Rail Load.

For equipment having two or more different journal sizes, see following examples:

Example for Drawbar Connected:

- A 3-unit drawbar connected car has 12 axles.
- The end units (Locations A and B) each have 4 axles with E - 6" x 11" journals.
- The intermediate unit (Locations C) has 4 axles with F - 6 1/2" x 12" journals

Using TABLE 1, the Gross Rail Load would be:

$$8 \text{ ea. E-6" x 11" journal axles X } 55,000 \text{ lbs. per axle} = 440,000 \text{ lbs.} \\ + 4 \text{ ea. F-6 1/2" x 12" journal axles X } 65,750 \text{ lbs. per axle} = 263,000 \text{ lbs.} \\ \text{Gross Rail Load} = 703,000 \text{ lbs.}$$

Example for Articulated Connected:

- A 5-unit articulated intermodal car has 6 trucks (12 axles).
- The end trucks (Locations A and B) each have 2 axles with E - 6" x 11" journals.
- The intermediate trucks (Locations C, D, E, and F) each have 2 axles with G - 7" x 12" journals

Using TABLE 1, the Gross Rail Load would be:

$$4 \text{ ea. E-6" x 11" journal axles X } 55,000 \text{ lbs. per axle} = 220,000 \text{ lbs.} \\ + 8 \text{ ea. G-7" x 12" journal axles X } 78,750 \text{ lbs. per axle} = 630,000 \text{ lbs.} \\ \text{Gross Rail Load} = 850,000 \text{ lbs.}$$

|                                                                                                    |             |
|----------------------------------------------------------------------------------------------------|-------------|
| <b>Tare Weight</b> <b>Mandatory</b>                                                                | <b>A259</b> |
| The equipment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds |             |

**Range of Values for A259**

| Minimum | Maximum |
|---------|---------|
| 31000   | 200000  |

**Validation Rule for A259**

- Tare Weight for all non-articulated TANK must be less than 200000 lbs.

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- Tare Weight (A259) value must be reported to the nearest 100 pounds

**NOTES:**

- Do not report an average Tare Weight for car series, except for Pre-Registered cars
- When cars are made active, the actual Tare Weight must be recorded

| Load Limit <i>Mandatory</i>                                                                               | LDLT |
|-----------------------------------------------------------------------------------------------------------|------|
| The maximum permissible weight of the commodity that can be loaded into the equipment, reported in pounds |      |

Affects Rating.

**Range of Values for LDLT**

| Minimum | Maximum |
|---------|---------|
| 35000   | 650000  |

**NOTES:**

- For connected unit cars report the sum of the load limits for all units in the set.
- Tank cars in Chlorine service cannot exceed 180,000 value. Reference Star Code (A247) Validation Rules and notes for Chlorine cars in this situation.

| Weighing Status <i>Mandatory</i>                                         | A289 |
|--------------------------------------------------------------------------|------|
| Indicates the weight information is an estimate or an actual measurement |      |

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A289**

|   |                                                        |
|---|--------------------------------------------------------|
| A | Actual                                                 |
| E | Estimated                                              |
| V | Verified correct Tare Weight                           |
| X | Tare Weight subject to verification (System Generated) |

**Validation Rule for A289**

- Equipment cannot be within a series of 10 with identical Tare Weights (A259), refer to Appendix P for further information on resolving tare weight conflicts
- When Status Code changes to Active or Inactive Weighing Status must be reported as Actual (A) or Verified (V) within 60 days of Status Code change

| Weighing Date                               | A288 |
|---------------------------------------------|------|
| The date the equipment was actually weighed |      |

Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A288**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for A288**

- If Weighing Date is reported the Tare Weight (A259) must be reported
- When Weighing Date is reported then Weighing Status (A289) must be A (Actual) or V (Verified)
- If Weighing Status (A289) is A (Actual) or V (Verified correct Tare Weight) then Weighing Date must be reported
- Weighing Date must be on or before the current date
- Weighing Date cannot be before Built / Rebuilt date

| Gallage Capacity                              | A297 |
|-----------------------------------------------|------|
| The number of gallons the equipment will hold |      |
| Used in ETC Generation.                       |      |

| Star Code                                                                       | A247 |
|---------------------------------------------------------------------------------|------|
| Indicates a reduction of the Load Limit (LDLT) of the equipment per AAR Rule 70 |      |

Affects Rating.

**Permissible Values for A247**

|   |                                        |
|---|----------------------------------------|
| R | Body Capacity less than Truck Capacity |
| S | Reduced Load Limit                     |

**Validation Rule for A247**

- 4-axle Cars with Star Codes of S or R must not exceed Gross Weight of 263,000 lbs. when Journal Size is A, B, C, D, or E
- Journal Sizes having Star Code of S must have a Gross Weight that is less than the calculated Gross Weight with rounding applied
- Unstarred 4 Axle Cars reporting Increased Gross Rail Load (IGRL) of 2 or 3 must have a Gross Weight greater than or equal to 264,000 lbs.
- Starred 4 axle cars with IGRL of 1 must have a Wheel Size of 36 inches when Gross Weight is less than 286,000 lbs.
- Starred 4 Axle Cars with Increased Gross Rail Load (IGRL) reported must have a Journal Size of K, G, or M

**NOTES:**

- Tank cars in Chlorine service cannot have a Load Limit (LDLT) greater than 180,000. If the Gross Rail Load (A266) minus the Tare Weight (A259) results in a Load Limit (LDLT) greater than 180,000 the following must be true:
  - Load Limit (LDLT) = 180,000
  - Star Code (A247) = S
  - Gross Rail Load (A266) = Tare Weight (A259) plus 180,000

| Qual for Inc GRL                                                                                                                                                     | B344 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| AAR qualification for increased Rail Load Code designating AAR approval for operating 4-axle equipment at a gross rail load greater than 263,000 lbs per AAR Rule 88 |      |

**Permissible Values for B344**

- Rule 88 IGRL Code 1 (> 263,000 lbs. and <= 286,000 lbs. GRL per AAR Specification S-286)
- Rule 88 IGRL Code 2 (> 263,000 lbs. and <= 286,000 lbs. GRL)
- Rule 88 IGRL Code 3 (> 263,000 lbs. and <= 268,000 lbs. GRL)

**Validation Rule for B344**

- 4-axle Cars reporting Increased Gross Rail Load (IGRL) of 3, or reporting IGRL of 1 or 2 and having an S Star Code must have a Gross Weight that does not exceed 286,000 lbs.
- 4-axle Cars with Increased Gross Rail Load (IGRL) of 2 or 3 must have a Journal Size of F or K
- 4-axle Rule 88 Cars require a Wheel Size of 36 or 38 inches for Gross Weight greater than 263,000 and less than or equal to 286,000 lbs.
- 4-axle Cars with Increased Gross Rail Load (IGRL) of 1 or 2 having no Star Code and a Journal Size of other than F or K, must have a Gross Weight greater than or equal to 263,000 lbs. and less than or equal to 286,000 lbs.
- 4-axle equipment with Increased Gross Rail Load (IGRL) of 1 and having no Star Code (A247) must have a Journal Size (A147) of G, K, or M
- 4-axle equipment having Qualification for Increased Gross Rail Load of 2 or 3 must have a Journal Size (A147) of F or K
- Unstarred 4 Axle Cars with Increased Gross Rail Load of 2 or IGRL of 1 and Journal Size K must have a Wheel Size of 36 inches
- Unstarred 4 Axle Cars with GRL of 315,000 and no IGRL reported and Unstarred cars with Journal Size of G or M must have a Wheel Size of 38 inches
- Unstarred 4 axle cars must report Qualifications for Increased GRL if the GRL is between 263,000 and 315,000

## Dimension

| Plate Code <i>Mandatory</i>                                       | A046 |
|-------------------------------------------------------------------|------|
| Indicates the extreme height and width clearance of the equipment |      |

Affects Rating.

**Permissible Values for A046**

|   |                  |
|---|------------------|
| B | Plate Code B     |
| C | Plate Code C     |
| E | Plate Code E     |
| F | Plate Code F     |
| G | Clearance Code G |
| N | Plate Code N     |

**NOTES:**

- For a description of Plate Codes, please see Appendix J at the back of this manual.
  - Report B: If clearance does not exceed Plate B

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- Report C: If clearance is greater than Plate B, but does not exceed Plate C
- Report E: If clearance is greater than Plates B and C, but does not exceed Plate E.
- Report F: If clearance is greater than Plates B, C and E, but does not exceed Plate F
- Report G: If clearance exceeds Plates B, C, E, F, and N.
- Report N: If clearance is greater than Plates B, C, E, and F, but does not exceed Plate N.
- There is no AAR Plate G. Clearance Code G is included in Umler to represent equipment that does not fit any existing AAR clearance plates.
- For ARTICULATED/MULTI-UNIT SET report the most restrictive clearance plate of UNIT in the set.

|                                                                      |             |
|----------------------------------------------------------------------|-------------|
| <b>Outside Length</b> <i>Mandatory</i>                               | <b>OSLG</b> |
| The outside length over pulling faces of couplers in normal position |             |

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for OSLG**

| Minimum        | Maximum         |
|----------------|-----------------|
| 26 ft 6 inches | 124 ft 0 inches |

**Validation Rule for OSLG**

- Tanks cannot have an Outside Length greater than 80 feet 11 inches.
- Outside Length (OSLG) on freight cars must exceed the Inside Length (A135) by 2 feet or more

**NOTES:**

- For connected unit cars report the maximum coupled length of the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

|                                               |             |
|-----------------------------------------------|-------------|
| <b>Outside Extreme Width</b> <i>Mandatory</i> | <b>A186</b> |
| The outside extreme width of the equipment    |             |

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A186**

| Minimum       | Maximum        |
|---------------|----------------|
| 7 ft 0 inches | 11 ft 1 inches |

**Validation Rule for A186**

- Outside Extreme Width must not exceed 10 feet 8 inches for Plate Codes B, C, E, F, or N
- Outside Extreme Width (A186) for Plate Code A must not be less than 10 feet 8 inches.
- Outside Extreme Width (A186) for Plate Code A must not exceed 10 feet 10 inches.

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

|                                                      |             |
|------------------------------------------------------|-------------|
| <b>Outside Extreme Height</b> <i>Mandatory</i>       | <b>A185</b> |
| Height from top of rail to extreme projecting height |             |

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A185**

| Minimum       | Maximum         |
|---------------|-----------------|
| 8 ft 0 inches | 17 ft 11 inches |

**Validation Rule for A185**

- Outside Extreme Height for Plate Codes B must be less than or equal to 15 feet 1 inch
- Outside Extreme Height for Plate Codes C or I must be less than or equal to 15 feet 6 inches
- Outside Extreme Height for Plate Code E must be less than or equal to 15 feet 9 inches
- Outside Extreme Height for Plate Code F must be less than or equal to 17 feet 0 inch
- Outside Extreme Height for Plate Code N must be less than or equal to 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

|                                                                      |             |
|----------------------------------------------------------------------|-------------|
| <b>Outside Height Extr Width</b> <i>Mandatory</i>                    | <b>A187</b> |
| The highest point at which the extreme width of the equipment occurs |             |

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A187**

| Minimum       | Maximum         |
|---------------|-----------------|
| 1 ft 0 inches | 17 ft 11 inches |

**Validation Rule for A187**

- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 8 inches if Outside Height Extreme Width is 13 feet 10 inches or less
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 7 inches if Outside Height Extreme Width is 13 feet 11 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 6 inches if Outside Height Extreme Width is 14 feet 0 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 4 inches if Outside Height Extreme Width is 14 feet 1 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 3 inches if Outside Height Extreme Width is 14 feet 2 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 2 inches if Outside Height Extreme Width is 14 feet 3 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 0 inches if Outside Height Extreme Width is 14 feet 4 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 9 feet 9 inches if Outside Height Extreme Width is 14 feet 5 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 9 feet 5 inches if Outside Height Extreme Width is 14 feet 6 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 9 feet 2 inches if Outside Height Extreme Width is 14 feet 7 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 8 feet 10 inches if Outside Height Extreme Width is 14 feet 8 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 8 feet 6 inches if Outside Height Extreme Width is 14 feet 9 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 8 feet 3 inches if Outside Height Extreme Width is 14 feet 10 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 7 feet 11 inches if Outside Height Extreme Width is 14 feet 11 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 7 feet 6 inches if Outside Height Extreme Width is 15 feet 0 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 7 feet 4 inches if Outside Height Extreme Width is 15 feet 1 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 8 inches if Outside Height Extreme Width is 14 feet 3 inches or less
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 7 inches if Outside Height Extreme Width is 14 feet 4 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 6 inches if Outside Height Extreme Width is 14 feet 5 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 4 inches if Outside Height Extreme Width is 14 feet 6 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 3 inches if Outside Height Extreme Width is 14 feet 7 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 2 inches if Outside Height Extreme Width is 14 feet 8 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 0 inches if Outside Height Extreme Width is 14 feet 9 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 9 feet 9 inches if Outside Height Extreme Width is 14 feet 10 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 9 feet 5 inches if Outside Height Extreme Width is 14 feet 11 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 9 feet 2 inches if Outside Height Extreme Width is 15 feet 0 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 8 feet 10 inches if Outside Height Extreme Width is 15 feet 1 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 8 feet 6 inches if Outside Height Extreme Width is 15 feet 2 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 8 feet 3 inches if Outside Height Extreme Width is 15 feet 3 inches

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- Outside Extreme Width (A186) for Plate Codes C must not exceed 7 feet 11 inches if Outside Height Extreme Width is 15 feet 4 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 7 feet 8 inches if Outside Height Extreme Width is 15 feet 5 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 7 feet 4 inches if Outside Height Extreme Width is 15 feet 6 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 8 inches if Outside Height Extreme Width is 15 feet 2 inches or less
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 6 inches if Outside Height Extreme Width is 15 feet 3 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 3 inches if Outside Height Extreme Width is 15 feet 4 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 9 feet 6 inches if Outside Height Extreme Width is 15 feet 5 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 8 feet 8 inches if Outside Height Extreme Width is 15 feet 6 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 7 feet 11 inches if Outside Height Extreme Width is 15 feet 7 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 7 feet 1 inches if Outside Height Extreme Width is 15 feet 8 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 6 feet 3 inches if Outside Height Extreme Width is 15 feet 9 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 8 inches if Outside Height Extreme Width is 16 feet 3 inches or less
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 7 inches if Outside Height Extreme Width is between 16 feet 4 inches and 16 feet 6 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 6 inches if Outside Height Extreme Width is 16 feet 7 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 3 inches if Outside Height Extreme Width is 16 feet 8 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 0 inches if Outside Height Extreme Width is 16 feet 9 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 8 inches if Outside Height Extreme Width is 16 feet 10 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 5 inches if Outside Height Extreme Width is 16 feet 11 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 2 inches if Outside Height Extreme Width is 17 feet 0 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 8 inches if Outside Height Extreme Width (A187) is 16 feet 9 inches or less
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 6 inches if Outside Height Extreme Width (A187) is 16 feet 10 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 4 inches if Outside Height Extreme Width (A187) is 16 feet 11 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 2 inches if Outside Height Extreme Width (A187) is 17 feet 0 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 9 feet 11 inches if Outside Height Extreme Width (A187) is 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Truck Center Length** A276The length between the centers of the two truck systems ■

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A276**

| Minimum        | Maximum         |
|----------------|-----------------|
| 15 ft 0 inches | 76 ft 11 inches |

**Validation Rule for A276**

- Truck Center Length is required for cars with an Outside Length of greater than 62 feet 6 inches
- Truck Center Length must be a minimum of 15 feet for cars with an Outside Length greater than 62 feet 6 inches

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.

**Specification****Truck Count** B256

The total number of trucks on the equipment

System Generated Field. This element is not eligible for Input.

**Range of Values for B256**

| Minimum | Maximum |
|---------|---------|
| 2       | 4       |

**Axle Count** *Mandatory* A024The total number of axles on the equipment ● ■

Affects Rating.

**Range of Values for A024**

| Minimum | Maximum |
|---------|---------|
| 2       | 6       |

**Validation Rule for A024**

- Axle Count must be greater than or equal to 4
- Axle Count for an articulated car must be greater than or equal to ((Connected Unit Count (A020) x 2) + 2)
- Axle Count for a draw bar connected car must be greater than or equal to (Connected Unit Count (A020) x 4)
- Total Axle Count must match sum of truck axle counts

**NOTES:**

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

**Wheel Bearing Type** *Mandatory* B191Indicates the wheel bearing journal design for the equipment ● ■

Affects Rating.

**Permissible Values for B191**

P Plain R Roller

**Validation Rule for B191**

- Cars with Plain Bearings will have a Transportation Code (TCOD) and Transportation Condition Code (TCCD) of either YA, S\_, SX, or XJ
- Equipment cannot have Plain Bearings if Built Date (BLDT) is on or after January 1, 1993

**NOTES:**

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

**Bearing Shielded From HBD** B021

Indicates the wheel bearings are shielded from wayside hot box detectors

**Permissible Values for B021**

Y Yes

**Brake Shoe Type** *Mandatory* B026Indicates the type of brake shoe on the equipment ●**Permissible Values for B026**

C Tread Conditioning  
H High Friction Composite  
L Low Friction Composite/Cast Iron

**CC Side Bearing Type** A146

Indicates the travel range of the constant contact side bearings installed on the equipment

**Permissible Values for A146**

LC Long Travel Constant Contact  
SC Short Travel Constant Contact

**Validation Rule for A146**

- Equipment having Qualification for Increased Gross Rail Load (B344) of 1 must have Constant Contact Side Bearing Type of LC
- All Tank cars must be equipped with (M-948) approved Long Travel CC Side Bearings

## Data Specification Manual

| Empty/Load Device Eqpd                                                                                                                                 | B075 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Indicates that the air brake system includes a device to determine if the equipment is empty or loaded, and then varies the braking forces accordingly |      |

**Permissible Values for B075**

Y Yes

| Remote Monitoring Device                                                     | B176 |
|------------------------------------------------------------------------------|------|
| Indicates the equipment has a device that transmits a signal or records data |      |

**Permissible Values for B176**

Y Yes

N No

**Validation Rule for B176**

-Remote Monitoring Device (B176) is mandatory for all tank cars on or after August 1, 2021

**NOTES:**

- Per AAR S-2045, This may be data related to ride quality, geographic location, temperature/condition of the load, load/empty status, etc.

| AEI High Temperature Tag                                            | B006 |
|---------------------------------------------------------------------|------|
| Indicates the equipment is equipped with a high temperature AEI tag |      |

**Permissible Values for B006**

Y Yes

| Compartment Count <i>Mandatory</i>                           | A052 |
|--------------------------------------------------------------|------|
| The number of individual compartments the equipment contains |      |

Affects Rating.

**Range of Values for A052**

| Minimum | Maximum |
|---------|---------|
| 1       | 6       |

| Operating Brakes <i>Mandatory</i>                                                                                                                                                                  | A182 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| The number of air brake control valves on the equipment (excludes hand brakes). One control valve consists of a service portion, emergency portion, and pipe bracket. Example: DB-60 control valve |      |

**Permissible Values for A182**

1

**Validation Rule for A182**

- Operating Brakes must be reported for all equipment
- Operating Brakes (A182) must be 1 for non-articulated equipment with an Axle Count (A024) equal to 4
- Auto populate element value '1' on equipment characteristic add (ECA) for TANK equipment

**NOTES:**

- Excludes empty/load device, number 8 vent valve, and proportion valve.

| ECP Brake Type                                                                    | B327 |
|-----------------------------------------------------------------------------------|------|
| Indicates the type of electronic controlled pneumatic brake used on the equipment |      |

**Permissible Values for B327**

N Not Equipped

O Overlay - Both ECP &amp; Air Brake

S Stand Alone - ECP Only

**Validation Rule for B327**

-Equipment must have a value entered for ECP Brake Type if built or rebuilt after June 28, 2012

| ECP Brake Builder                                                                   | B328 |
|-------------------------------------------------------------------------------------|------|
| The manufacturer of the electronic controlled pneumatic brake used on the equipment |      |

**Permissible Values for B328**

NYAB New York Air Brake

WABT WABTEC

**Validation Rule for B328**

-If ECP Brake Type (B327) is Stand Alone or Overlay then a value must be entered for ECP Brake Builder

-If ECP Brake Type (B327) is Not Equipped then ECP Brake Builder is not reportable

| Slack Adjuster Group                                                   | B538 |
|------------------------------------------------------------------------|------|
| The slack adjuster group on the equipment per AAR Field Manual Rule #8 |      |

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B538**

B Group B E Group E F Group F H Group H

J Group J L Group L M Group M N Group N

O Group O P Group P Q Group Q R Group R

1 Internal 2 Unequipped

**Validation Rule for B538**

- Slack Adjuster Group is mandatory for all equipment built or rebuilt on or after January 1, 2016

- If Slack Adjuster Group is reported as "1" then Brake Cylinder Mount Type (B540) must be reported as "T"

- If Slack Adjuster Group is "1" or "2", then Slack Adjuster CID (B359) must not be reported.

**NOTES:**

- Permissible value of "1 – Internal" identifies special truck mounted internal slack adjuster within brake cylinder.

| Brake Cylinder Mount Type                     | B540 |
|-----------------------------------------------|------|
| Identifies the location of the brake cylinder |      |

**Permissible Values for B540**

B Body Mounted

T Truck Mounted

**Validation Rule for B540**

- Brake Cylinder Mount Type is mandatory for all equipment built or rebuilt on or after January 1, 2016

| Equipment Builder                                     | A035 |
|-------------------------------------------------------|------|
| Identifies the original manufacturer of the equipment |      |

**Permissible Values for A035**

AB AMF BEAIRD

ACF American Car &amp; Foundry

ACFX ACF Industries

ALCC Alloy Crafts Company

ARI ARI Industries

CIPM Chart Industries, Inc.

CNCF Carros De Ferrocarril, SA

EVAN Evans Products

GATX General American Transportation Corp

GMB Greenbrier

GULF Gulf Railcar

HA HARGIS RAILCAR

HST Hawker Siddeley

LAVE Lavelin

LOX Lox Equipment Company

MC MARATHON TANK CAR

NACA National Alabama Corporation

NACC North American Car

NSC National Steel Car

PREE Process Engineering

PRO Procor Limited

REBD Reilly Beard

RTCX Richmond Tank Car

TETX Texana Tank

TRIN Trinity

TTPM Tital



## Data Specification Manual

UTLX Union Tank Car  
VERM Vertex

**Validation Rule for A035**

-Equipment Builder must be populated if the Built Date (BLDT) is July 1, 2010 or newer

**Builder Lot Code****B030**

A unique identifier for a group of equipment built by one manufacturer under the same contract

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B030**

-Equipment built or rebuilt on or after June 28, 2012 must have a value for Builder Lot Code

**NOTES:**

- If the value is unknown, enter six zeroes (000000).

**Built Country****B031**

The country where the equipment was constructed

Data is Confidential.

**Permissible Values for B031**

CA Canada MX Mexico  
US United States

**Rebuilt Country****B170**

The country where the equipment was re-constructed

**Permissible Values for B170**

CA Canada MX Mexico  
US United States

**FRA ReflectORIZATION****B096**

Indicates the equipment owner assumes responsibility for applying reflectorization tape

**Permissible Values for B096**

P Reflectorization Plan  
W Reflectorization Waiver

**Validation Rule for B096**

-Reflectorization is mandatory for all equipment after November 28, 2015.

**Tank Major Class** *Mandatory***B207**

The high level description of the tank design type

Used in ETC Generation.

**Permissible Values for B207**

- 01 Aluminum Non Pressure
- 02 High Purity Aluminum Non Pressure
- 04 Nickel
- 05 Acid Car Welded or Riveted
- 06 Stainless Steel Grade 304 or 430
- 07 Stainless Steel Grade 304L
- 08 Stainless Steel Grade 316
- 09 Stainless Steel Grade 316L
- 10 General Service Carbon Steel Tank Welded or Riveted Includes Rubber Lined
- 11 Non Pressure Tank Within a Tank Carbon Steel Inner Tank
- 13 Non Pressure Tank Within a Tank Grade 304 or 430 Stainless Steel Inner Tank
- 14 Non Pressure Tank Within a Tank Grade 304L Stainless Steel Inner Tank
- 15 Non Pressure Tank Within a Tank Grade 316 Stainless Steel Inner Tank
- 16 Non Pressure Tank Within a Tank Grade 316L Stainless Steel Inner Tank
- 17 Non Pressure Tank HM-251

- 18 Stainless Clad Steel
- 19 Nickel Clad Steel
- 20 Non Pressure Tank With a Head Shield
- 21 Non Pressure Tank With a Head Shield and Thermal Protection
- 36 Maintenance Of Way
- 37 Steel Pressure Non Insulated
- 38 Steel Pressure Non Insulated
- 39 Steel Pressure Non Insulated
- 40 Steel Pressure Non Insulated
- 41 Steel Pressure Non Insulated
- 42 Steel Pressure Non Insulated
- 43 Steel Pressure Non Insulated
- 44 Steel Pressure Non Insulated
- 45 Steel Pressure Non Insulated
- 46 Steel Pressure Non Insulated
- 47 Steel Pressure Non Insulated
- 48 Steel Pressure Non Insulated
- 49 Steel Pressure Non Insulated
- 50 Aluminum Pressure
- 51 Aluminum High Pressure
- 52 Steel Pressure Insulated
- 53 Steel Pressure Insulated
- 54 Steel Pressure Insulated
- 55 Steel Pressure Insulated
- 56 Steel Pressure Insulated
- 57 Steel Pressure Insulated
- 58 Steel Pressure Multi Unit Tanks
- 59 Steel Pressure Non Insulated
- 60 Steel Pressure Non Insulated
- 61 Steel Pressure Non Insulated
- 62 Steel Pressure Non Insulated
- 64 Steel Pressure Non Insulated
- 65 Steel Pressure Non Insulated
- 67 Pressure Tank Within a Tank
- 76 Cryogenic Tank Within a Tank
- 77 Helium
- 80 Stainless Clad Steel
- 81 Stainless Clad Steel
- 84 Pressure Tank for TIH (HM-246)
- 85 Pressure Tank for TIH (HM-246)
- 86 Steel Pressure Insulated
- 87 Steel Pressure Insulated
- 88 Steel Pressure Insulated
- 89 Steel Pressure Insulated
- 90 Steel Pressure Insulated
- 91 Steel Pressure Insulated
- 92 Steel Pressure Insulated
- 93 Steel Pressure Insulated
- 94 Steel Pressure Insulated
- 95 Steel Pressure Insulated
- 96 Steel Pressure Insulated
- 97 Steel Pressure Insulated

**NOTES:**

- See Appendix N for data ordered by Tank Major Class.
- This element is used in determining if the tank car meets DOT117.
- This element is used in determining if the tank car meets HM-246.

**CPC-1232 Compliant****B522**

System generated element to identify tank cars that meet the CPC-1232 technical requirements. Specifics on the requirements can be found in Chapter 2 of M-1002, paragraph 2.7.

System Generated Field. This element is not eligible for Input, Output or Query.

Does not Carry Forward.

**Permissible Values for B522**

Y Yes

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**NOTES:**

- For a tank car to qualify to element B522 (CPC-1232 compliant), all of the following mandatory elements must be populated:
  - A237 Stenciled Shipping Specs begins with "111" or "117R"
  - A264 Top Fittings Protection = "E" Equipped M1002 Appendix E10.2
  - B105 Head Protection Shield Thickness >= 0.5
  - B203 Tank Head Material Norm = "Y"
  - B208 Tank Shell Material Norm = "Y"
- In addition to the above, the car must have one of these interdependent combinations:

|   | B204<br>Tank<br>Jacket<br>Material | A118<br>Head<br>Protection<br>Type | A257<br>Tank<br>Shell<br>Material<br>Spec = | A258<br>Tank<br>Shell<br>Thickness<br>s >= | A254<br>Tank<br>Head<br>Material<br>Spec = | A255<br>Tank<br>Head<br>Thickness<br>s >= |
|---|------------------------------------|------------------------------------|---------------------------------------------|--------------------------------------------|--------------------------------------------|-------------------------------------------|
| 1 | N or S                             | F                                  | 128B                                        | 0.4375                                     | 128B                                       | 0.4375                                    |
| 2 | N or S                             | F                                  | 51670                                       | 0.5                                        | 51670                                      | 0.5                                       |
| 3 | U                                  | F or H or T                        | 128B                                        | 0.5                                        | 128B                                       | 0.5                                       |
| 4 | U                                  | F or H or T                        | 51670                                       | 0.5625                                     | 51670                                      | 0.5625                                    |
| 5 | N or S                             | F                                  | 5167128                                     | 0.5                                        | 51670 or<br>128B                           | 0.5                                       |
| 6 | U                                  | F or H or T                        | 5167128                                     | 0.5625                                     | 51670 or<br>128B                           | 0.5625                                    |
| 7 | N or S                             | F                                  | 240304<br>240304L<br>240316<br>240316L      | 0.4375                                     | 240304<br>240304L<br>240316<br>240316L     | 0.4375                                    |
| 8 | U                                  | F or H or T                        | 240304<br>240304L<br>240316<br>240316L      | 0.5                                        | 240304<br>240304L<br>240316<br>240316L     | 0.5                                       |

**Stub Sill Variation****B526**

Type of reinforcement on the bottom shell of the tank car

Value does not carry forward for Equipment Group Change.

**Permissible Values for B526**

C Continuous N Non-Continuous

**Validation Rule for B526**

-For this tank car, a value for Stub Sill Design Variation is required.

**NOTES:**

- If the following conditions are met, Stub Sill Design Variation (B526) must be reported.
- If Shipping Container Spec Stenciled (A237) begins with '111' or '211'
  - and Stub Sill Design Type (A251) = any value except 'FULL'
  - and if Tank Shell Material Norm (B208) = any value except 'Y'
  - and if Tank Shell Material Spec (A257) = '51570' or '1997UNK'
  - and if Heater System Type (X109) = any value except 'E'
- then the user must report a value of 'C (Continuous)' or 'N (Non-continuous)' for Stub Sill Design Variation (B526).

**Restricted under TC-PD-34****B527**

Tank Car Subject to restrictions under TC-PD-34

System Generated Field. This element is not eligible for Input, Output or Query.  
Does not Carry Forward.**Permissible Values for B527**

Y Yes

**NOTES:**

- If the following conditions are met, Restricted Under TC-PD-34 (B527) will be assigned a value of 'Y (Yes)' by the system.
- If Shipping Container Spec Stenciled (A237) begins with '111' or '211'
  - and Stub Sill Design Type (A251) = any value except 'FULL'
  - and Tank Shell Material Norm (B208) = any value except 'Y'
  - and Tank Shell Material Spec (A257) = '51570' or '1997UNK'
  - and if Heater System Type (X109) = any value except 'E'
  - and Stub Sill Design Variation (B526) = any value except 'C'
- then the system will assign a value of 'Y (Yes)' for Restricted Under TC-PD-34 (B527).

**Design Shipping Cont Spec****A072**

The Department of Transportation (DOT) design specification - as built

**Permissible Values for A072**

|             |                                    |
|-------------|------------------------------------|
| 105A100ALW  | DOT 105A100ALW                     |
| 105A100W    | DOT 105A100W                       |
| 105A200ALW  | DOT 105A200ALW                     |
| 105A200W    | DOT 105A200W                       |
| 105A300ALW  | DOT 105A300ALW                     |
| 105A300W    | DOT 105A300W                       |
| 105A400W    | DOT 105A400W                       |
| 105A500W    | DOT 105A500W                       |
| 105A600W    | DOT 105A600W                       |
| 107A        | DOT 107A                           |
| 109A100ALW  | DOT 109A100ALW                     |
| 109A200ALW  | DOT 109A200ALW                     |
| 109A300ALW  | DOT 109A300ALW                     |
| 109A300W    | DOT 109A300W                       |
| 111A100ALW1 | DOT 111A100ALW1                    |
| 111A100ALW2 | DOT 111A100ALW2                    |
| 111A100W    | 10 and 18 Major Class (ICC or DOT) |
| 111A100W1   | DOT 111A100W1                      |
| 111A100W2   | DOT 111A100W2                      |
| 111A100W3   | DOT 111A100W3                      |
| 111A100W4   | DOT 111A100W4                      |
| 111A100W5   | DOT 111A100W5                      |
| 111A100W6   | DOT 111A100W6                      |
| 111A100W7   | DOT 111A100W7                      |
| 111A60ALW1  | DOT 111A60ALW1                     |
| 111A60ALW2  | DOT 111A60ALW2                     |
| 111A60W1    | DOT 111A60W1                       |
| 111A60W2    | DOT 111A60W2                       |
| 111A60W6    | DOT 111A60W6                       |
| 111A60W7    | DOT 111A60W7                       |
| 112A200W    | DOT 112A200W                       |
| 112A340W    | DOT 112A340W                       |
| 112A400W    | DOT 112A400W                       |
| 112A500W    | DOT 112A500W                       |
| 113A60W     | DOT 113A60W                        |
| 113A90W     | DOT 113A90W                        |
| 113C120W    | DOT 113C120W                       |
| 113C120W9   | DOT 113C120W9                      |
| 113C140W    | TC 113C140W                        |
| 114A340W    | DOT 114A340W                       |
| 114A400W    | DOT 114A400W                       |
| 115A60ALW   | DOT 115A60ALW                      |
| 115A60W1    | DOT 115A60W1                       |
| 115A60W6    | DOT 115A60W6                       |
| 117A100W    | DOT 117A100W                       |
| 117P100W    | DOT 117P100W                       |
| 120A100W    | DOT 120A100W                       |
| 120A200ALW  | DOT 120A200ALW                     |
| 120A200W    | DOT 120A200W                       |
| 120A300W    | DOT 120A300W                       |
| 120A400W    | DOT 120A400W                       |
| 120A500W    | DOT 120A500W                       |
| 204W        | AAR 204W                           |
| 206W        | AAR 206W                           |
| 207A20W     | AAR 207A20W                        |
| 207A28W     | AAR 207A28W                        |
| 207A40W     | AAR 207A40W                        |
| 207A48W     | AAR 207A48W                        |
| 207A60W     | AAR 207A60W                        |
| 207A80W     | AAR 207A80W                        |
| 211A100ALW1 | AAR 211A100ALW1                    |
| 211A100W1   | AAR 211A100W1                      |
| 211A100W3   | AAR 211A100W3                      |
| 211A100W5   | AAR 211A100W5                      |

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211A100W6 AAR 211A100W6  
 211A60ALW1 AAR 211A60ALW1  
 211A60W1 AAR 211A60W1  
 211A60W7 AAR 211A60W7

**Validation Rule for A072**

- Tanks with Design Shipping Cont Spec (A072) that begin with 105, 107, 109, 112, 113, 114, or 120 must have Compartment Count (A052) reported as '1'

**NOTES:**

- Cars can be downgraded, but never upgraded past its design tank test pressure.
- Selection of DOT117P requires approval from the FRA per 49 CFR 179.202-12(a).

**Stenciled Shipping Spec Mandatory****A237**

The Department of Transportation (DOT) design specification - as stenciled

Affects Rating.

**Permissible Values for A237**

|             |                                         |
|-------------|-----------------------------------------|
| 105A100ALW  | Major Class 50 - DOT 105A100ALW         |
| 105A100W    | Major Class 52 - DOT 105A100W           |
| 105A200ALW  | Major Class 50 - DOT 105A200ALW         |
| 105A200W    | Major Class 53 - DOT 105A200W           |
| 105A300W    | Major Class 18/54 - DOT 105A300W        |
| 105A400W    | Major Class 55 - DOT 105A400W           |
| 105A500W    | Major Class 18/56 - DOT 105A500W        |
| 105A600W    | Major Class 57 - DOT 105A600W           |
| 105H500W    | Major Class 84 - DOT 105H500W           |
| 105H600W    | Major Class 85 - DOT 105H600W           |
| 105J100W    | Major Class 86 - DOT 105J100W           |
| 105J200ALW  | Major Class 50 - DOT 105J200ALW         |
| 105J200W    | Major Class 88 - DOT 105J200W           |
| 105J300ALW  | Major Class 50 - DOT 105J300ALW         |
| 105J300W    | Major Class 80/90 - DOT 105J300W        |
| 105J400W    | Major Class 92 - DOT 105J400W           |
| 105J500I    | Major Class 84 - DOT 105J500I           |
| 105J500W    | Major Class 94 - DOT 105J500W           |
| 105J600I    | Major Class 85 - DOT 105J600I           |
| 105J600W    | Major Class 96 - DOT 105J600W           |
| 105S100W    | Major Class 87 - DOT 105S100W           |
| 105S200W    | Major Class 89 - DOT 105S200W           |
| 105S300W    | Major Class 81/91 - DOT 105S300W        |
| 105S400W    | Major Class 81/91 - DOT 105S400W        |
| 105S500W    | Major Class 95 - DOT 105S500W           |
| 105S600W    | Major Class 97 - DOT 105S600W           |
| 107A        | Major Class 77 - DOT 107A               |
| 109A100ALW  | Major Class 50 - DOT 109A100ALW         |
| 109A200ALW  | Major Class 50 - DOT 109A200ALW         |
| 109A300ALW  | Major Class 51 - DOT 109A300ALW         |
| 109A300W    | Major Class 54 - DOT 109A300W           |
| 111A100ALW1 | Major Class 01 - DOT 111A100ALW1        |
| 111A100ALW2 | Major Class 01 - DOT 111A100ALW2        |
| 111A100W1   | Major Class 10/18 - DOT 111A100W1       |
| 111A100W2   | Major Class 05/18/19 - DOT 111A100W2    |
| 111A100W3   | Major Class 10/18 - DOT 111A100W3       |
| 111A100W4   | Major Class 10 - DOT 111A100W4          |
| 111A100W5   | Major Class 05 - DOT 111A100W5          |
| 111A100W6   | Major Class 06/07/08/09 - DOT 111A100W6 |
| 111A100W7   | Major Class 07 - DOT 111A100W7          |
| 111A60ALW1  | Major Class 01 - DOT 111A60ALW1         |
| 111A60ALW2  | Major Class 01 - DOT 111A60ALW2         |
| 111A60W1    | Major Class 10 - DOT 111A60W1           |
| 111A60W2    | Major Class 05 - DOT 111A60W2           |
| 111A60W5    | Major Class 05 - DOT 111A60W5           |
| 111A60W6    | Major Class 06 - DOT 111A60W6           |
| 111A60W7    | Major Class 06/07/09 - DOT 111A60W7     |
| 111J100W2   | Major Class 21 - DOT 111J100W2          |
| 111J100W3   | Major Class 21 - DOT 111J100W3          |
| 111J100W4   | Major Class 21 - DOT 111J100W4          |

|             |                                        |
|-------------|----------------------------------------|
| 111S100ALW1 | Major Class 01 - DOT 111S100ALW1       |
| 111S100ALW2 | Major Class 01 - DOT 111S100ALW2       |
| 111S100W1   | Major Class 20 - DOT 111S100W1         |
| 111S100W2   | Major Class 20 - DOT 111S100W2         |
| 111S100W3   | Major Class 20 - DOT 111S100W3         |
| 111S100W5   | Major Class 20 - DOT 111S100W5         |
| 111S100W6   | Major Class 09 - DOT 111S100W6         |
| 111S60ALW1  | Major Class -01 - DOT 111S60ALW1       |
| 111S60ALW2  | Major Class 01 - DOT 111S60ALW2        |
| 112A200W    | Major Class 59 - DOT 112A200W          |
| 112A340W    | Major Class 60 - DOT 112A340W          |
| 112A400W    | Major Class 61 - DOT 112A400W          |
| 112A500W    | Major Class 62 - DOT 112A500W          |
| 112H500W    | Major Class 84 - DOT 112H500W          |
| 112J200W    | Major Class 37 - DOT 112J200W          |
| 112J340W    | Major Class 38 - DOT 112J340W          |
| 112J400W    | Major Class 41 - DOT 112J400W          |
| 112J500I    | Major Class 84 - DOT 112J500I          |
| 112J500W    | Major Class 62 - DOT 112J500W          |
| 112S200W    | Major Class 37 - DOT 112S200W          |
| 112S340W    | Major Class 39/60 - DOT 112S340W       |
| 112S400W    | Major Class 42/61 - DOT 112S400W       |
| 112S500I    | Major Class 84 - DOT 112S500I          |
| 112S500W    | Major Class 62 - DOT 112S500W          |
| 112T200W    | Major Class 37 - DOT 112T200W          |
| 112T340W    | Major Class 40 - DOT 112T340W          |
| 112T400W    | Major Class 43 - DOT 112T400W          |
| 112T500W    | Major Class 62 - DOT 112T500W          |
| 113A60W     | Major Class 67 - DOT 113A60W           |
| 113A90W     | Major Class 76 - DOT 113A90W           |
| 113C120W    | Major Class 67 - DOT 113C120W          |
| 113C120W9   | Major Class 67 - DOT 113C120W9         |
| 113C140W    | Major Class 76 - TC 113C140W           |
| 113C60W     | Major Class 76 - TC 113C60W            |
| 113D120W    | Major Class 67 - DOT 113D120W          |
| 113D60W     | Major Class 76 - TC 113D60W            |
| 114A340W    | Major Class 64 - DOT 114A340W          |
| 114A400W    | Major Class 65 - DOT 114A400W          |
| 114J340W    | Major Class 44 - DOT 114J340W          |
| 114J400W    | Major Class 47 - DOT 114J400W          |
| 114S340W    | Major Class 45 - DOT 114S340W          |
| 114S400W    | Major Class 48 - DOT 114S400W          |
| 114T340W    | Major Class 46 - DOT 114T340W          |
| 114T400W    | Major Class 49 - DOT 114T400W          |
| 115A60ALW   | Major Class 67 - DOT 115A60ALW         |
| 115A60W1    | Major Class 11 - DOT 115A60W1          |
| 115A60W6    | Major Class 13/14/15/16 - DOT 115A60W6 |
| 117J100W    | Major Class 17 - DOT 117J100W          |
| 117P100W    | Major Class 17 - DOT 117P100W          |
| 117R100W    | Major Class 17 - DOT 117R100W          |
| 120A100W    | Major Class 52 - DOT 120A100W          |
| 120A200ALW  | Major Class 50 - DOT 120A200ALW        |
| 120A200W    | Major Class 53 - DOT 120A200W          |
| 120A300W    | Major Class 54 - DOT 120A300W          |
| 120A400W    | Major Class 55 - DOT 120A400W          |
| 120A500W    | Major Class 56 - DOT 120A500W          |
| 120J100W    | Major Class 52 - DOT 120J100W          |
| 120J200W    | Major Class 07/53 - DOT 120J200W       |
| 204W        | Major Class 76 - AAR 204W              |
| 206W        | Major Class 11/13/14/15/16 - AAR 206W  |
| 207A20W     | Major Class 77 - AAR 207A20W           |
| 207A28W     | Major Class 77 - AAR 207A28W           |
| 207A40W     | Major Class 77 - AAR 207A40W           |
| 207A48W     | Major Class 77 - AAR 207A48W           |
| 207A60W     | Major Class 77 - AAR 207A60W           |
| 207A80W     | Major Class 77 - AAR 207A80W           |
| 211A100ALW1 | Major Class 01 - AAR 211A100ALW1       |
| 211A100W1   | Major Class 10 - AAR 211A100W1         |

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|            |                                 |
|------------|---------------------------------|
| 211A100W3  | Major Class 10 - AAR 211A100W3  |
| 211A100W5  | Major Class 10 - AAR 211A100W5  |
| 211A100W6  | Major Class 06 - AAR 211A100W6  |
| 211A200W1  | Major Class 10 - AAR 211A200W1  |
| 211A60ALW1 | Major Class 01 - AAR 211A60ALW1 |
| 211A60W1   | Major Class 10 - AAR 211A60W1   |
| 211A60W7   | Major Class 07 - AAR 211A60W7   |
| 211J100W1  | Major Class 10 - AAR 211J100W1  |
| MOW        | Water Tank (non-stenciled)      |

**Validation Rule for A237**

- Stencil Shipping Specifications must be reported for Tank Major Class – 94
- The original Built date (BLDT) for a DOT117R must occur before 10/1/2015

**NOTES:**

- This element is used in determining if the tank car meets CPC-1232 Compliance (B522). See CPC-1232 Compliant (B522) for explanation.
- This element is used in determining tank major class 17. See Appendix N for explanation.
- Selection of DOT117P requires approval from the FRA per 49 CFR 179.202-12(a).
- This element is used in determining if the tank car meets DOT117.
- This element is used in determining if the tank car meets HM-246.

**Stub Sill Design Type****A251**

Identifies the underframe type or stub sill design

**Permissible Values for A251**

|         |                                  |
|---------|----------------------------------|
| 1997UNK | Unknown, built prior to 7/1/1997 |
| ACF100  | ACF100 Stub Sill Design          |
| ACF200  | ACF200 Stub Sill Design          |
| ACF230  | ACF230 Stub Sill Design          |
| ACF270  | ACF270 Stub Sill Design          |
| ACF300  | ACF300 Stub Sill Design          |
| AMFABC  | AMFABC Stub Sill Design          |
| AMFJKL  | AMFJKL Stub Sill Design          |
| ARI300  | ARI300 Stub Sill Design          |
| ARI301  | ARI301 Stub Sill Design          |
| ARI310  | ARI310 Stub Sill Design          |
| ARI330  | ARI330 Stub Sill Design          |
| CHT001  | CHT001 Stub Sill Design          |
| CNC001  | CNC001 Stub Sill Design          |
| CNC002  | CNC002 Stub Sill Design          |
| EVAEVA  | EVAEVA Stub Sill Design          |
| EVAWBR  | EVAWBR Stub Sill Design          |
| FCA001  | FCA001 Stub Sill Design          |
| FCA002  | FCA002 Stub Sill Design          |
| FULL    | FULL Sill Underframe Design      |
| GAT017  | GAT017 Stub Sill Design          |
| GAT018  | GAT018 Stub Sill Design          |
| GAT020  | GAT020 Stub Sill Design          |
| GAT098  | GAT098 Stub Sill Design          |
| GAT102  | GAT102 Stub Sill Design          |
| GAT18B  | GAT18B Stub Sill Design          |
| GBR001  | GBR001 Stub Sill Design          |
| GUL270  | GUL270 Stub Sill Design          |
| GULGUL  | GULGUL Stub Sill Design          |
| GULWBR  | GULWBR Stub Sill Design          |
| GUN001  | GUN001 Stub Sill Design          |
| HST098  | HST098 Stub Sill Design          |
| HSTJKL  | HSTJKL Stub Sill Design          |
| LAVLIN  | LAVLIN Stub Sill Design          |
| LOXLOX  | LOXLOX Stub Sill Design          |
| NAC200  | NAC200 Stub Sill Design          |
| NACABC  | NACABC Stub Sill Design          |
| NACDEF  | NACDEF Stub Sill Design          |
| NACGHI  | NACGHI Stub Sill Design          |
| NACJKL  | NACJKL Stub Sill Design          |
| NACZBN  | NACZBN Stub Sill Design          |
| NSC001  | NSC001 Stub Sill Design          |
| NSC002  | NSC002 Stub Sill Design          |

|        |                         |
|--------|-------------------------|
| PENPEN | PENPEN Stub Sill Design |
| PROCBO | PROCBO Stub Sill Design |
| PROCBR | PROCBRS tub Sill Design |
| PROZBA | PROZBA Stub Sill Design |
| PROZBD | PROZBD Stub Sill Design |
| PROZBF | PROZBF Stub Sill Design |
| PROZBG | PROZBG Stub Sill Design |
| PROZBH | PROZBH Stub Sill Design |
| PROZBI | PROZBI Stub Sill Design |
| PROZBN | PROZBN Stub Sill Design |
| PROZBR | PROZBR Stub Sill Design |
| RICRIC | RICRIC Stub Sill Design |
| RICWBR | RICWBR Stub Sill Design |
| RILRIL | RILRIL Stub Sill Design |
| RILWBR | RILWBR Stub Sill Design |
| SEN001 | SEN001 Stub Sill Design |
| SFE001 | SFE001 Stub Sill Design |
| TEXTEX | TEXTEX Stub Sill Design |
| TEX012 | TEX012 Stub Sill Design |
| TRN021 | TRN021 Stub Sill Design |
| TRN022 | TRN022 Stub Sill Design |
| TRN023 | TRN023 Stub Sill Design |
| TRN024 | TRN024 Stub Sill Design |
| TRN201 | TRN201 Stub Sill Design |
| TRN211 | TRN211 Stub Sill Design |
| TRN221 | TRN221 Stub Sill Design |
| TRN231 | TRN231 Stub Sill Design |
| TRN31  | TRN31 Stub Sill Design  |
| TRNTY1 | TRNTY1 Stub Sill Design |
| TRNTY2 | TRNTY2 Stub Sill Design |
| TRNTY3 | TRNTY3 Stub Sill Design |
| TRNTYA | TRNTYA Stub Sill Design |
| TYT001 | TYT001 Stub Sill Design |
| UTL00F | UTL00F Stub Sill Design |
| UTLCBO | UTLCBO Stub Sill Design |
| UTLCBR | UTLCBR Stub Sill Design |
| UTLCWO | UTLCWO Stub Sill Design |
| UTLFBR | UTLFBR Stub Sill Design |
| UTLZBA | UTLZBA Stub Sill Design |
| UTLZBB | UTLZBB Stub Sill Design |
| UTLZBC | UTLZBC Stub Sill Design |
| UTLZBD | UTLZBD Stub Sill Design |
| UTLZBE | UTLZBE Stub Sill Design |
| UTLZBG | UTLZBG Stub Sill Design |
| UTLZBH | UTLZBH Stub Sill Design |
| UTLZBI | UTLZBI Stub Sill Design |
| UTLZBL | UTLZBL Stub Sill Design |
| UTLZBM | UTLZBM Stub Sill Design |
| UTLZBN | UTLZBN Stub Sill Design |
| UTLZBO | UTLZBO Stub Sill Design |
| UTLZBR | UTLZBR Stub Sill Design |
| UTLZBT | UTLZBT Stub Sill Design |
| VRT001 | VRT001 Stub Sill Design |
| VRT002 | VRT002 Stub Sill Design |
| VRT003 | VRT003 Stub Sill Design |

**Validation Rule for A251**

- Stub Sill Design Type (A251) must be reported for tank cars built on or after July 1, 1997

**Tank Lining Material****A315**

Identifies the type of coating or lining material applied to the interior of the tank

**Permissible Values for A315**

|   |                                    |
|---|------------------------------------|
| B | Nickel electroplating, e.g., Bart  |
| F | Fiberglass                         |
| K | Electroless plating, e.g., Kanigen |
| L | Lead                               |

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- R Rubber - both natural and synthetic  
 T Liquid barrier applied by spray applications of materials such as epoxy and phenolic. Examples of some manufacturers' names are Plasite, PPG and Heresite  
 U Unlined  
 V PolyVinyl Chloride

**Validation Rule for A315**

-Tank Lining Material is required for Tanks that have a Built/Rebuilt (Birth) Date on or after March 14, 2019

| Tank Head Thickness                               | A255 |
|---------------------------------------------------|------|
| The material thickness of the tank head in inches | ●    |

**Range of Values for A255**

| Minimum | Maximum |
|---------|---------|
| 0.25    | 1.3     |

**Validation Rule for A255**

-Tank Head Thickness is required for Tanks that have a Built/Rebuilt (Birth) Date on or after July 1, 1997

-Tank Head Thickness must be reported for tank cars built on or after October 1, 2011 and whose Stenciled Shipping Specification begins with 111 or 211.

**NOTES:**

- This element is used in determining if the tank car meets CPC-1232 Compliance (B522). See CPC-1232 Compliant (B522) for explanation.
- This element is used in determining if the tank car meets DOT117.
- This element is used in determining if the tank car meets HM-246.
- For Stenciled Shipping Specifications beginning with 113 or 115, this element represents the material thickness of the inner tank.

| Tank Head Mat Spec <i>Mandatory</i>                                              | A254 |
|----------------------------------------------------------------------------------|------|
| The material characteristics including specification and grade for the tank head | ●    |

**Permissible Values for A254**

|         |                                   |
|---------|-----------------------------------|
| 128A    | AAR TC-128 Gr. A                  |
| 128B    | AAR TC-128, Gr. B                 |
| 133     | AAR TC-133                        |
| 134     | AAR TC-134                        |
| 162     | ASTM B162                         |
| 1997UNK | Unknown, built prior to 7/1/1997  |
| 2095052 | ASTM B209, ALLOY 5052             |
| 2095083 | ASTM B209, ALLOY 5083             |
| 2095086 | ASTM B209, ALLOY 5086             |
| 2095154 | ASTM B209, ALLOY 5154             |
| 2095254 | ASTM B209, ALLOY 5254             |
| 2095454 | ASTM B209, ALLOY 5454             |
| 2095652 | ASTM B209, ALLOY 5652             |
| 212B    | ASTM A212, Gr. B                  |
| 240304  | ASTM A240, TYPE 304               |
| 240304L | ASTM A240, TYPE 304L              |
| 240316  | ASTM A240, TYPE 316               |
| 240316L | ASTM A240, TYPE 316L              |
| 285A    | ASTM A285, Gr. A                  |
| 285B    | ASTM A285, Gr. B                  |
| 285C    | ASTM A285, Gr. C                  |
| 302B    | ASTM A302 Gr. B                   |
| 304L    | ASTMA515, Gr. 70 -- 304L (DOT113) |
| 316L    | ASTMA516, Gr. 70 -- 316L (DOT115) |
| 353     | ASTM A353                         |
| 51565   | ASTM A515, Gr. 65                 |
| 51570   | ASTM A515, Gr. 70                 |
| 5157128 | A -- 515, Grade 70 and AAR TC-128 |
| 51660   | ASTM A516, Gr. 60                 |
| 51670   | ASTM A516, Gr. 70                 |
| 5167128 | A -- 516, Grade 70 and AAR TC-128 |
| 5371    | ASTM A537, Class 1                |

- 537A ASTM A537, Gr. A  
 537B ASTM A537, Gr. B

**Validation Rule for A254**

-Tank Head Material Specification and Grade is required for Tanks having a Built/Rebuilt (Birth) Date on or after July 1, 1997

**NOTES:**

- This element is used in determining if the tank car meets CPC-1232 Compliance (B522). See CPC-1232 Compliant (B522) for explanation.
- This element is used in determining if the tank car meets DOT117.
- This element is used in determining if the tank car meets HM-246.

| Tank Head Material Norm                                           | B203 |
|-------------------------------------------------------------------|------|
| Indicates the tank head steel is normalized (cooled in still air) | ●    |

**Permissible Values for B203**

N No Y Yes Z Unknown

**Validation Rule for B203**

-Tank Head Material Normalized cannot be reported as Y-Yes if Tank Head Material Spec (A254) value is equal to 240304, 240316, 2095052, 2095083, 2095086, 2095154, 2095254, 2095454, 2095652, 240304L, or 240316L

- Tank Head Material Normalized cannot be reported as Unknown (Z) for tank cars built on or after January 1, 2010

- Tank Head Material Normalized must be reported for tank cars built on or after October 1, 2011 and whose Stenciled Shipping Specification begins with 105, 111, 112, 117, or 211

**NOTES:**

- This element is used in determining if the tank car meets CPC-1232 Compliance (B522). See CPC-1232 Compliant (B522) for explanation.
- 240304, 240316, 240304L and 240316L (Stainless Steel) qualify for CPC -1232
- This element is used in determining if the tank car meets DOT117.
- This element is used in determining if the tank car meets HM-246.

| Tank Shell Material Spec <i>Mandatory</i>                                                   | A257 |
|---------------------------------------------------------------------------------------------|------|
| The equipment material characteristics including specification and grade for the tank shell | ●    |

**Permissible Values for A257**

|         |                                   |
|---------|-----------------------------------|
| 128A    | AAR TC-128 Gr.A                   |
| 128B    | AAR TC128, Gr. B                  |
| 133     | AAR TC 133                        |
| 134     | AAR TC 134                        |
| 162     | ASTM B162                         |
| 1997UNK | Unknown, built prior to 7/1/1997  |
| 2095052 | ASTM B209, Alloy 5052             |
| 2095083 | ASTM B209, Alloy 5083             |
| 2095086 | ASTM B209, Alloy 5086             |
| 2095154 | ASTM B209, Alloy 5154             |
| 2095254 | ASTM B209, Alloy 5254             |
| 2095454 | ASTM B209, Alloy 5454             |
| 2095652 | ASTM B209, Alloy 5652             |
| 212B    | ASTM A212 Gr. B                   |
| 240304  | ASTM A240, Type 304               |
| 240304L | ASTM A240, Type 304L              |
| 240316  | ASTM A240, Type 316               |
| 240316L | ASTM A240, Type 316L              |
| 285A    | ASTM A285, Gr. A                  |
| 285B    | ASTM A285, Gr. B                  |
| 285C    | ASTM A285, Gr. C                  |
| 302B    | ASTM A302 Gr. B                   |
| 304L    | ASTMA515, Gr. 70 -- 304L (DOT113) |
| 316L    | ASTMA516, Gr. 70 -- 316L (DOT115) |
| 353     | ASTM A353                         |
| 51565   | ASTM A515, Gr. 65                 |
| 51570   | ASTM A515, Gr. 70                 |
| 5157128 | A -- 515, Grade 70 and AAR TC-128 |
| 51660   | ASTM A516 Gr. 60                  |
| 51670   | ASTM A516, Gr. 70                 |



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|         |                                   |
|---------|-----------------------------------|
| 5167128 | A -- 516, Grade 70 and AAR TC-128 |
| 5371    | ASTM A537, Class 1                |
| 537A    | ASTM A537 Gr. A                   |
| 537B    | ASTM A537 Gr. B                   |

**Validation Rule for A257**

-Tank Shell Material Specification and Grade is required for Tanks having a Built/Rebuilt (Birth) Date on or after July 1, 1997

**NOTES:**

- This element is used in determining if the tank car meets CPC-1232 Compliance (B522). See CPC-1232 Compliant (B522) for explanation.
- This element is used in determining if the tank car meets DOT117.
- This element is used in determining if the tank car meets HM-246.

**Tank Shell Thickness****A258**

The material thickness of the tank shell in inches

**Range of Values for A258**

| Minimum | Maximum |
|---------|---------|
| 0.1875  | 1.3     |

**Validation Rule for A258**

- Tank Shell Thickness is required for Tanks that have a Built/Rebuilt (Birth) Date on or after July 1, 1997
- Tank Shell Thickness must be reported for tank cars built on or after October 1, 2011 and whose Stenciled Shipping Specification begins with 111 or 211.

**NOTES:**

- This element is used in determining if the tank car meets CPC-1232 Compliance (B522). See CPC-1232 Compliant (B522) for explanation.
- This element is used in determining if the tank car meets DOT117.
- This element is used in determining if the tank car meets HM-246.
- For Stenciled Shipping Specifications beginning with 113, 115, 204, or 206 this element represents the material thickness of the inner tank.

**Tank Shell Material Norm****B208**

Indicates the tank shell steel is normalized (cooled in still air)

**Permissible Values for B208**

N No Y Yes Z Unknown

**Validation Rule for B208**

- Normalized Tank Shell Material cannot be YES if Tank Head Material value is equal to 240304, 240316, 2095052, 2095083, 2095086, 2095154, 2095254, 2095454, 2095652, 240304L, 240316L, or 304L
- Tank Shell Material Normalized cannot be reported as Unknown (Z) for tank cars built on or after January 1, 2010
- Tank Shell Material Normalized must be reported for tank cars built on or after October 1, 2011 and whose Stenciled Shipping Specification begins with 105, 111, 112, 117, or 211

**NOTES:**

- This element is used in determining if the tank car meets CPC-1232 Compliance (B522). See CPC-1232 Compliant (B522) for explanation.
- 240304, 240316, 240304L and 240316L (Stainless Steel) qualify for CPC -1232
- This element is used in determining if the tank car meets DOT117.
- This element is used in determining if the tank car meets HM-246.

**Coil Material****X111**

Indicates the construction material of the coils

**Permissible Values for X111**

A Aluminum C Carbon Steel  
N Nickel S Stainless Steel

**Heater System Type****X109**

Indicates the type of heater system that the tank is equipped with

**Permissible Values for X109**

C Combination Ext/Int Heater System  
E Exterior Coils  
I Interior Coils

**Validation Rule for X109**

- If Heater System Type is reported, then Coil Material must be reported
- If the Heater System Type is not reported, the Coil Material must not be reported

**NOTES:**

- If Combination Ext/Int Heater System is reported, then the Coil Material is of the exterior coil.

**Head Protection Thickness****B105**

The material thickness in inches of the protective head shield.

**Range of Values for B105**

| Minimum | Maximum |
|---------|---------|
| 0.119   | 1.3     |

**Validation Rule for B105**

- If Head Protection Type (A118) is F, H or T, then Head Protection Thickness must be greater than or equal to 0.5 inches
- If Head Protection Type (A118) is U, then Head Protection Thickness must not be reported

**NOTES:**

- This element is used in determining if the tank car meets CPC-1232 Compliance (B522). See CPC-1232 Compliant (B522) for explanation.
- This element is used in determining if the tank car meets DOT117.
- This element is used in determining if the tank car meets HM-246.

**Head Protection Type****A118**

Indicates the construction design of head protection or head shield

**Permissible Values for A118**

C Head Protection (other than Head Shield)  
F Full Height Head Shield  
H Half Height Head Shield  
T Trapezoidal Head Shield  
U Unequipped  
Z Unknown, built before 7/1/1997

**Validation Rule for A118**

- If the 4th character of the Stencil Class is J or S and the car was built on or after July 1, 1997, Head Protection Type must be reported as C, F, H, or T
- If the 4th character of the Stencil Class is T and the car was built on or after July 1, 1997, Head Protection Type must be reported as F, H, or T
- Head Protection Type must be reported for tank cars built on or after October 1, 2011 and whose Stenciled Shipping Specification begins with 111 or 211

**NOTES:**

- This element is used in determining if the tank car meets CPC-1232 Compliance (B522). See CPC-1232 Compliant (B522) for explanation.
- This element is used in determining if the tank car meets DOT117.
- This element is used in determining if the tank car meets HM-246.
- Permissible value C is a performance based head puncture resistance system meeting 49 CFR 179.16(a). The common 11 gauge jacket alone does not meet this requirement but may be used as part of a system including the tank car tank proven by testing.
- Permissible value F is a prescribed head puncture-resistance system meeting 49 CFR 179.16(c)(1).
- Permissible value U is for non-insulated cars, or cars with a jacket (typically 11 gauge) that is solely used to cover the insulation and is not C, F, H, or T.

**Jacket Material Category Mandatory****B204**

The equipment material characteristics including specification and grade for the tank jacket

**Permissible Values for B204**

N CARBON STEEL  
S Stainless Steel  
U UNEQUIPPED

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**NOTES:**

- This element is used in determining if the tank car meets CPC-1232 Compliance (B522). See CPC-1232 Compliant (B522) for explanation.
- This element is used in determining if the tank car meets DOT117.
- This element is used in determining if the tank car meets HM-246.

| Insulatn/Thermal Prot Type                                                                | A142 |
|-------------------------------------------------------------------------------------------|------|
| Describes the type of material(s) used for insulation/thermal protection of the tank car. |      |

**Permissible Values for A142**

|    |                                      |
|----|--------------------------------------|
| CF | Ceramic Fiber                        |
| CK | Cork                                 |
| CR | Cork and Closed Cell Rubber Foam     |
| FC | Fiberglass & Ceramic Fiber           |
| FG | Standard Fiberglass                  |
| FS | Fiberglass and Spray On Foam         |
| FT | High Temp Fiberglass                 |
| MW | Mineral Wool                         |
| PC | Polyurethane Foam and Ceramic Fiber  |
| PE | Perlite                              |
| PF | Polyurethane Foam                    |
| PI | High Temperature Polyurethane Foam   |
| RF | Rubatex                              |
| SP | Spray On Exterior Thermal Protection |
| UE | Unequipped                           |

**Validation Rule for A142**

- If Insulation/Thermal Protection Thickness (B259) is blank, then Insulation/Thermal Protection Type must be blank or Unequipped
- If Insulation/Thermal Protection Thickness (B259) is reported, then Insulation/Thermal Protection Type must be populated with a permissible value other than UE (Unequipped)
- When Insulation/Thermal Protection Type is CK - Cork, then Compartment Count (A052) must be 1
- Insulation/Thermal Protection Type is mandatory if Stenciled Shipping Spec (A237) is 105Axxx, 105Sxxx, 111A100W3, 111A100W4, 113xxx, 115xxx, 204W, 206W (permissible value cannot be UE-Unequipped)
- Insulation/Thermal Protection Type is mandatory if the 4th character of the Stenciled Shipping Spec (A237) is equal to H, J, P, or R (permissible values cannot be UE – Unequipped or blank)
- Insulation/Thermal Protection Type must be reported as SP - Spray On Foam if 4th character of the Stenciled Shipping Spec (A237) is T

| Insulation Thickness                               | B259 |
|----------------------------------------------------|------|
| The thickness of the insulation/thermal protection |      |

**Range of Values for B259**

| Minimum | Maximum |
|---------|---------|
| 0.5     | 12      |

**Validation Rule for B259**

- If Insulation/Thermal Protection Type is Unequipped, Insulation/Thermal Thickness must not be reported

**NOTES:**

- This element is used in determining if the tank car meets DOT117.

| Bottom Outlet/Fitting Type <i>Mandatory</i>           | A308 |
|-------------------------------------------------------|------|
| Describes the design of the bottom outlet of the tank |      |

**Permissible Values for A308**

|   |                                  |
|---|----------------------------------|
| A | Bottom Washout & Sump            |
| B | Bottom Outlet                    |
| C | Bottom Outlet & Sump             |
| F | Designed for but not equipped    |
| S | Sump                             |
| U | Unequipped                       |
| W | Bottom Washout                   |
| Z | Unknown, built prior to 7/1/1997 |

**Validation Rule for A308**

- Tank Bottom Outlet Fitting Type is required for Tanks having a Built/Rebuilt (Birth) Date on or after July 1, 1997
- If the Tank Bottom Outlet Fitting Type is not reported, then the Bottom Outlet Count (B142) must be reported as Zero
- If the Tank Bottom Outlet/Fitting Type = U (Unequipped), then the Tank Bottom Fitting Protection (A153) must equal U (Unequipped)
- Bottom Outlet Type must be reported as S (Sump) or U (Unequipped) if the Stencil Class (A237) is 105xxx, 111A60W5, 111A60W7, 111A100W5, 111A100W4, 111A100W7, 112xxx, or 211A60W7
- Bottom Outlet Fitting Type may be reported but cannot contain the value B or C if the Stenciled Shipping Specification (A237) is equal to 111A100ALW2, 111A100W2, 111A60ALW2, 111A60W2, 211A60W2, or 211A100W2
- Tanks with Stenciled Shipping Specification (A237) that begin with 120 can only have Bottom Outlet Fitting Type (A308) of B, W, S, or U
- Tanks with Stenciled Shipping Specification (A237) that begin with 109 can only have Bottom Outlet Fitting Type (A308) of W, S, or U

| Bottom Outlet Count                                       | B142 |
|-----------------------------------------------------------|------|
| The number of bottom outlets or washouts on the equipment |      |

**Range of Values for B142**

| Minimum | Maximum |
|---------|---------|
| 0       | 9       |

**Validation Rule for B142**

- Tanks with Stenciled Shipping Specification (A237) that begin with 120 or 109 can only have 1 Bottom Outlet
- Tank Bottom Outlet Count is required for Tanks with a Bottom Outlet Fitting Type (A308) that is not equal to F, S or U and a Built/Rebuilt (Birth) Date on or after July 1, 1997

| Bottom Outlet Valve Type                                                   | B542 |
|----------------------------------------------------------------------------|------|
| Describes the type of Bottom Outlet Valve (BOV) design applied to the tank |      |

**Permissible Values for B542**

|   |                                   |
|---|-----------------------------------|
| A | External Bottom Outlet Ball Valve |
| B | Internal Bottom Outlet Ball Valve |
| C | Bottom Operated Plug Valve        |
| D | Top Operated Valve                |
| E | Bottom Operated Butterfly Valve   |

**Validation Rule for B542**

- Bottom Outlet Valve Type is required when Bottom Outlet Fitting Type (A308) equals B or C and the Tanks with a Built/Rebuilt date is on or after July 1, 2015

| Btm Outlet Vlv Actuation                                          | B543 |
|-------------------------------------------------------------------|------|
| Identifies how the bottom outlet valve is to be actuated/operated |      |

**Permissible Values for B543**

|   |                                                                                                   |
|---|---------------------------------------------------------------------------------------------------|
| A | Handle that is stowed separately                                                                  |
| B | Handle that is located completely within the skid                                                 |
| C | Handle that is disengaged from the valve when in the closed position and located outside the skid |
| D | Alternate means of actuation approved by the AAR Tank Car Committee                               |

**Validation Rule for B543**

- Bottom Outlet Valve Actuation is required when Bottom Outlet Valve Type (B542) equals A and the tank car Built/Rebuilt date is on or after July 1, 2015
- If Stenciled Shipping Specification (A237) begins with 117J, 117P or 117R, reporting of Bottom Outlet Valve Actuation (B543) becomes conditionally mandatory when:  
Bottom Outlet/Fitting Type (A308) equals B or C; and  
Bottom Outlet Valve Type (B542) equals A, B, C, or E

**NOTES:**

- This element is used in determining tank major class 17. See Appendix N for explanation.
- This element is used in determining if the tank car meets DOT117.

## Data Specification Manual

**Bottom Fitting Protection****A153**

Describes the design protection level around the bottom outlet value

**Permissible Values for A153**

- A Level A > 1" Protusion
- B Level B Varies By Type
- C Level C > 5" Protusion
- E Level E (meets CPC-1406)
- U Unequipped
- Z Unknown, built prior to 7/1/1997

**Validation Rule for A153**

- If Tank Bottom Outlet Count is not reported, then the Tank Bottom Fittings Protection must not be reported
- Tank Bottom Fittings Protection is required for Tanks with a Built/Rebuilt (Birth) Date on or after July 1, 1997

**NOTES:**

- Tank cars ordered built new on or after January 1, 2024 must have Bottom Fitting Protection (A153) of E or U reported.
- Level A protection means that:
  - at time of retrofit, the bottom service equipment or sump extended more than one inch below the bottom of the tank envelope. This applies to tank cars built prior to May 1982 and that were retrofitted with bottom fittings protection prior to July 2006.
- at time of construction no portion of the bottom service equipment/sump extended more than one inch below the tank envelope, or the bottom service equipment/sump was within the envelope of the safety system or continuous center-sill. This applies to tank cars built new after May 1982 with bottom fittings protection per M-1002 Appendix E.
- Level B protection means that:
  - at time of retrofit, the bottom service equipment or sump met conditions for bottom fittings protection. Refer to M-1002 Appendix E 9.1.5.2 (Version 2014). This applies to tank cars built prior to May 1982 and that were retrofitted with Bottom Fittings Protection prior to July 2006.
- Level C protection means that:
  - at time of retrofit, the bottom service equipment or sump extended more than five inches below the bottom of the tank envelope. This applies to tank cars built prior to May 1982 and that were retrofitted with bottom fittings protection prior to July 2006.
- Level E is intended for bottom safety systems conforming to specification M-1002 Appendix E 8.0 (Version 2023).

**Top Fittings Protection Mandatory****A264**

Identifies the existence of top fittings protection associated with preventing loss of commodity due to rollover.

**Permissible Values for A264**

- A Equipped per M-1002 Chapter 2, paragraph 2.2.3.3 (Acid Cars)
- E Equipped per M-1002, Appendix E, paragraph 9.2.1 (non-pressure cars)
- F Equipped per 49 CFR 179.202-13(h) (DOT117R tank cars)
- N Unequipped
- P Equipped per 49 CFR 179.100-12(c) (pressure style housing)
- R Equipped per 49 CFR §179.102-3(a)(1) (9 MPH Rollover)
- S Alternative Protection Shear Off Valves Applied per 49 CFR §179.102(a)(2)
- T Equipped with Top Skids
- Y Equipped with other than M-1002, Appendix E, paragraph 9.2.1
- Z Unknown, built prior to 7/1/1997

**Validation Rule for A264**

- Top Fittings Protection is required for tank cars with a Built/Rebuilt (Birth) Date on or after July 1, 1997
- Tank cars built on or after July 1, 1997 cannot have a Top Fittings Protection value of Z (unknown)

-Top Fittings Protection cannot be reported as A, E, F, N, or Z for Tank Major Classes of 37 - 62, 64 - 65, 67, 80 - 81, 86 - 97 if the Built/Rebuilt Date is on or after July 1, 1997

-If Stenciled Shipping Specification (A237) begins with 117R, the Top Fittings Protection must be E or F.

-If Stenciled Shipping Specification (A237) begins with 117J or 117P, the Top Fittings Protection must be E.

-Tank cars built on or after December 1, 2015 cannot have a Top Fittings Protection value of Y.

**NOTES:**

- This element is used in determining if the tank car meets CPC-1232 Compliance (B522). See CPC-1232 Compliant (B522) for explanation.
- This element is used in determining tank major class 17. See Appendix N for explanation.
- This element is used in determining if the tank car meets DOT117.
- This element is used in determining if the tank car meets HM-246.
- Permissible value N is intended for tank cars unequipped with top fittings protection or as described by 49 CFR 179.200-16(g). which are only for weather protection.
- Permissible value R is intended for pressure tank cars built on or after March 16, 2009 used for the transportation of PIH materials and marked in accordance with 49 CFR 179.22(e). (Example: DOT105J600I).
- Refer specifically to 49 CFR Part 179, AAR Specification M-1002, and the approved Certificate of Construction to identify the type of top fitting protection appropriate to the tank class.

**Safety Relief Device Cnt****A181**

The number of safety relief devices applied to the tank.

**Range of Values for A181**

| Minimum | Maximum |
|---------|---------|
| 0       | 9       |

**Validation Rule for A181**

- Safety Relief Device Count is required for Tanks with a Built/Rebuilt (Birth) Date on or after July 1, 1997

**Safety Relief Device Type Mandatory****A230**

Describes the design of the safety relief device.

**Permissible Values for A230**

- C Combination (Valve & Vent)
- D Vent
- P Fusible Plug
- S Special Relief Device (for handling Carbon Dioxide AND Hydrogen Peroxide)
- U Unequipped
- V Valve
- Z Unknown, built prior to 7/1/1997

**Validation Rule for A230**

- Safety Relief Device Type is required for Tanks with a Built/Rebuilt (Birth) Date on or after July 1, 1997
- Safety Relief Device Type must be reported, if Safety Relief Device Count is reported
- Safety Relief Device Count (A181) must be greater than 0 unless the Safety Relief Device Type is reported as Unequipped (U) or Unknown (Z)
- Safety Relief Device Count (A181) must be 0 if Safety Relief Device Type (A230) is Unequipped (U)

**NOTES:**

- This element is used in determining if the tank car meets DOT117.
- This element is used in determining if the tank car meets HM-246.

**Safety Vent w/Surge Prot Mandatory****A231**

Indicates the equipment has a safety vent that is equipped with a surge protector

**Permissible Values for A231**

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- N No  
Y Yes  
Z Unknown, built prior to 7/1/1997

**Validation Rule for B231**

- Tank Safety Vent with Surge Protector is required for Tanks with a Built/Rebuilt (Birth) Date on or after July 1, 1997

**Year Tank Qualified *Mandatory* B240**

The year the tank car tank was last qualified. ●

Data is Confidential.

**Validation Rule for B240**

- The Year the Tank was Qualified cannot be prior to the Year the Tank was Built or Rebuilt
- The Year the Tank was Qualified cannot be prior to 1998
- Year Tank Qualified must be reported when the Year Tank Qualification Due is reported
- Year Tank Qualified must not be reported if Year Tank Qualification Due is not reported

**NOTES:**

- Year tank qualified must match the Qualification Stencil on the tank car. See figure below:

|                      | STATION/STENCIL | QUALIFIED   | DUE         |
|----------------------|-----------------|-------------|-------------|
| TANK QUALIFICATION   | ABC-1           | 1999 (B240) | 2009 (B241) |
| THICKNESS TEST       | ABC-1           | 2000        | 2010        |
| SERVICE EQUIPMENT    | ABC-1           | 1999        | 2004        |
| PRD VALVE 175 PSI    | DEF-1           | 1999        | 2004        |
| INT HTR ISPGR        | EGL-1           | 1999        | 2004        |
| LINING               | ABC-1           | pp          | NONE        |
| 88 B 2 INSPECTION    | ABC-1           | 1999        | 2009        |
| STUB SILL INSPECTION | ABC-1           | 1999        | 2009        |

Qualification stencil-sample of completed form

**Tank Qualification Due B241**

The year the tank car tank is due for next qualification.

Data is Confidential.

**Validation Rule for B241**

- Year Tank Qualification Due cannot be before or equal to Year Tank Qualified

**NOTES:**

- The tank qualification due must match the Qualification Stencil on the tank car. See figure below:

|                      | STATION/STENCIL | QUALIFIED   | DUE         |
|----------------------|-----------------|-------------|-------------|
| TANK QUALIFICATION   | ABC-1           | 1999 (B240) | 2009 (B241) |
| THICKNESS TEST       | ABC-1           | 2000        | 2010        |
| SERVICE EQUIPMENT    | ABC-1           | 1999        | 2004        |
| PRD VALVE 175 PSI    | DEF-1           | 1999        | 2004        |
| INT HTR ISPGR        | EGL-1           | 1999        | 2004        |
| LINING               | ABC-1           | pp          | NONE        |
| 88 B 2 INSPECTION    | ABC-1           | 1999        | 2009        |
| STUB SILL INSPECTION | ABC-1           | 1999        | 2009        |

Qualification stencil-sample of completed form

**Service Equip Qualified B242**

The year the service equipment is inspected

Data is Confidential.

**Validation Rule for B242**

- The Year Service Equipment Qualified cannot be prior to the Year the equipment was Built or Rebuilt
- The Year Service Equipment Qualified cannot be prior to 1998
- Year Service Equipment Qualified must be reported when the Year Service Equipment Qualification Due is reported
- Year Service Equipment Qualified must not be reported if Year Service Equipment Qualification Due is not reported

**NOTES:**

- Service equip qualified year must match the qualification stencil on the tank car.

**Service Equipment Due B243**

The year the service equipment is due for next qualification.

Data is Confidential.

**Validation Rule for B243**

- Year Service Equipment Due cannot be before or equal to Year Service Equipment Qualified

**NOTES:**

- Service equip qualified year must match the qualification stencil on the tank car.

**Pressure Relief Vlv Qualified B244**

The year the pressure relief valve was last qualified.

Data is Confidential.

**Validation Rule for B244**

- The year the Pressure Relief Valve was Qualified cannot be prior to the year the car was built
- The year the Pressure Relief Valve was Qualified must be on or after the year 1998
- Pressure Relief Valve Qualification Year is required when Year Pressure Relief Valve Qualification Due is reported
- Pressure Relief Valve Qualification Year must not be reported if Year Pressure Relief Valve Qualification Due is not reported

**NOTES:**

- Pressure relief valve qualified must match the qualification stencil on the tank car.

**Pressure Relief Valve Due B245**

The year the pressure relief valve is due for next qualification.

Data is Confidential.

**Validation Rule for B245**

- Year Pressure Relief Valve Due cannot be before or equal to Pressure Relief Valve Qualification year

**NOTES:**

- Pressure relief valve due must match the qualification stencil on the tank car.

**Thickness Qualified Year B246**

The year the service equipment is inspected was last qualified.

Data is Confidential.

**Validation Rule for B246**

- Tank Thickness Qualified Year cannot be prior to year car was built
- Tank Thickness Qualified Year must be on or after the year 1998
- Year Tank Thickness Valve Qualified is required when Year Tank Qualification Due reported
- Year Tank Thickness Valve Qualified can only be reported if Year Tank Qualification Due is reported

**NOTES:**

- Thickness qualified year must match the qualification stencil on the tank car.

**Thickness Qualified Due B247**

The year the tank car tank thickness is due for next qualification.

Data is Confidential.

**Validation Rule for B247**

- Year Thickness Qualified Due cannot be before or equal to Thickness Qualified year

**NOTES:**

- Thickness qualified due must match the qualification stencil on the tank car.
- Report the year '9999' for next thickness qualification at the time of lining removal/replacement (LNG RMVL).

**Air Hose Arrangement B524**

The type of trainline air hose arrangement

**Permissible Values for B524**

- A S-424 Angle Cock Location
- B S-425 Angle Cock Location on Cars Equipped with AAR Type F Coupler

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|   |                                                                                                                       |
|---|-----------------------------------------------------------------------------------------------------------------------|
| C | S-426 Angle Cock Location on Cars with Floating Sills                                                                 |
| D | S-427 Angle Cock and Air Brake Hose Location on Cars with Excessive Overhang Preventing Compliance with AAR Standards |
| E | S-428 Angle Cock Location on Cars Equipped with AAR Type F Coupler and Cushioned Underframe                           |
| F | S-4003 (Former Standard)                                                                                              |
| G | S-4003x (Former Standard Retrofitted to Meet All Dimensions Except Height)                                            |
| H | S-4003-05 (Current Standard Train Line Arrangement for Cars with F-Shank Couplers)                                    |
| I | S-4021 Angle Cock and Brake Hose Location on Cars with EOCC (E and F)                                                 |
| J | S-4021 Coupler Mounted Bracket End Arrangement                                                                        |
| K | S-4028 Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Not Exceeding 45 in. in Length   |
| L | S-4029 Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Exceeding 45 in. in Length       |
| M | S-4030 Trolley Arrangement on Cars with EOCC and E-Shank Couplers                                                     |
| N | S-4031 Trainline Arrangement for Cars with E-Type Couplers and Draft System Buff Travel of 6 to 10 inches             |
| O | S-4032 Trainline Arrangement for Cars with E/F-Type Couplers and Draft System Buff Travel of 6 to 10 inches           |

**Validation Rule for B524**

-Air Hose Arrangement must be reported for this equipment if it is Built or Rebuilt on or after April 22, 2014.

**NOTES:**

- If any of the following conditions apply, Air Hose Arrangement (B524) must be reported for cars Built or Rebuilt on or after April 22, 2014:
  - Draft Gear Type (B073) at any location is C or E.
  - Connected Unit Count (A020) is reported.
  - Outside Length (OSLG) is greater than or equal to 70 feet (840 inches).
  - The overhang is greater than 5 feet 6 inches (66 inches). Overhang is calculated as follows:
    - $0.5 * (\text{Outside Length, in inches, minus Truck Center Length, in inches, minus 31 inches})$
  - For all other equipment, reporting Air Hose Arrangement is optional.

**4-Pressure ABT Receiver Eqpd****B539**

Identifies if the equipment is equipped with a 4-pressure air brake test receiver

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B539**

|   |              |
|---|--------------|
| E | Equipped     |
| N | Not Equipped |

**NOTES:**

- An "E" will be system generated if a 4-Pressure ABT is reported on the equipment.

**Jacket Thickness****B541**

The nominal thickness for the jacket in inches

**Range of Values for B541**

| Minimum | Maximum |
|---------|---------|
| 0.1196  | 1.3     |

**Validation Rule for B541**

-Jacket Thickness is required for tank cars built or rebuilt on or after July 1, 2015 when Tank Jacket Material (B204) equals N or S

**NOTES:**

- DOT117 jacket thickness requirement (49 CFR §179.202-7)
- This element is used in determining if the tank car meets DOT117.
- This element is used in determining if the tank car meets HM-246.
- For Stenciled Shipping Specifications beginning with 113, 115, 204, or 206 this element represents the material thickness of the outer jacket (shell).

**Thermal Protection System****B555**

Identifies the existence of a Thermal Protection System that meets 49 CFR

179.18 (a), (b), or (c).

System Generated Field. This element is not eligible for input.

**Permissible Values for B555**

E Equipped

**Validation Rule for B555**

- Thermal Protection System is mandatory if the 4th character of the Stencil Shipping Specification (A237) is equal to H, J, T, P, or R
- Remove Thermal Protection System = 'E' if the 4th character of the Stencil Shipping Specification (A237) is not equal to H, J, T, P, or R

**NOTES:**

- When the fourth character of the Stencil Shipping Specification (A237) is equal to J, T, P, or R the system will generate a value of 'E'.
- This element is used to identify when a tank car is equipped with a thermal protection system that meets the requirements of 49 CFR 179.18.
- The applicability of the element is mandatory when specified by one of the following subparts of 49 CFR.
  - § 173.31(b)(4) (Thermal protection requirements for pressure tank cars)
  - § 173.314(k) (Special requirements for chlorine)
  - § 179.202-6 (DOT117J)
  - § 179.202-12 (DOT117P)
  - § 179.202-13 (DOT117R)
- This element is used in determining tank major class 17. See Appendix N for explanation.
- This element is used in determining if the tank car meets DOT117.

**Cost****Original Cost****A184**

The original manufacturer selling price

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A184**

| Minimum | Maximum |
|---------|---------|
| 0       | 9999999 |

**Validation Rule for A184**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Original Cost must be equal to the Ledger Value if Additions & Betterments Indicator is not reported.
- Railroad marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost
- Private marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost if Built Date (BLDT) is on or after January 1, 2015

**NOTES:**

- Original Cost is never altered. It is the cost of the equipment to the original owner.
- For railroad-marked cars, report in US dollars the original ledger value of the original owner For cars rebuilt, report the cost prescribed in MR Interchange Rule 88 and Circular Letter OT-24
- The original cost is used in the settlement of AAR Interchange Rule 107 Office Manual.
- For connected unit cars report the total original cost for all units in the set.
- Numeric, applicable to all railroad-marked cars Also, applicable to privately marked covered hopper (LO) cars.
- Raise all cents to the next dollar, e.g. \$5,501.02 = 0005502

**Ledger Value****A150**

The sum of original cost and additions & betterments

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A150**

| Minimum | Maximum |
|---------|---------|
| 0       | 9999999 |

**Validation Rule for A150**



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- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Ledger Value must equal the Original Cost (A184) plus the additions & betterments, if Total A&B (A003) has been reported. Otherwise Ledger Value should equal Original Cost (A184).

| Total A&B                                                                        | A003 |
|----------------------------------------------------------------------------------|------|
| System generated sum of all reported amounts in A&B Amount (A317), in US dollars |      |

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A003**

| Minimum | Maximum  |
|---------|----------|
| 0       | 99999999 |

**NOTES:**

- For railroad-marked cars, report the sum of all additions and betterments applied to the car. This value is for record keeping purposes only and will not be used to report Ledger Value.
- For private Cars report the additions and betterments as qualified under AAR interchange Rule 107 for determination of settlement value.
  - Additions are costs of all new components applied subsequent to the date the car was built or rebuilt and carried in the capital investment account.
  - Betterments are costs of all improvements of components of existing equipment through the substitution of superior parts for inferior parts subsequent to the date the car was built or rebuilt.
- For connected unit cars report the total Truck Location A for all units in the set

| Ind for Pos/Neg Total A&B                                                                   | A128 |
|---------------------------------------------------------------------------------------------|------|
| A code indicating the positive or negative adjustment to the original cost of the equipment |      |

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A128**

N Negative P Positive

| A&B Pos/Neg Ind                                                                                 | A316 |
|-------------------------------------------------------------------------------------------------|------|
| A code indicating the positive or negative adjustment to the individual addition and betterment |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A316**

N Negative P Positive

**Validation Rule for A316**

-When entering an individual Addition & Betterment, you must enter a value in all 4 fields.

-The A&B Indicator is required when Additions & Betterments are reported.

-The A&B Indicator must not be reported if Additions & Betterments are not reported.

| A&B Amount                                                                                                          | A317 |
|---------------------------------------------------------------------------------------------------------------------|------|
| The amount of the individual addition and betterment added to or subtracted from the original cost of the equipment |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A317**

| Minimum | Maximum |
|---------|---------|
| 1       | 999999  |

**Validation Rule for A317**

-When entering an individual addition & betterment; A&B Date Done (A319), A&B Type (A318), A&B Pos/Neg Ind (A316), and A&B Amount (A317) must be reported

| A&B Date Done                                      | A319 |
|----------------------------------------------------|------|
| The date of the individual addition and betterment |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A319**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for A319**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- Addition and Betterment Date Done cannot be earlier than Built Date (BLDT).
- Additions & Betterments Date Done cannot be later than today's date.

| A&B Type                                                              | A318 |
|-----------------------------------------------------------------------|------|
| The type of individual addition and betterment as defined by Rule 107 |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A318**

|      |                                                                                                                             |
|------|-----------------------------------------------------------------------------------------------------------------------------|
| COIL | Outside heater coils applied to tank shell by fusion welding. Includes renewal in damaged car.                              |
| GNRL | General - Capitalized Additions and Betterments                                                                             |
| INIT | Initial load of historical A&B amount as of Umler 4.6 implementation date                                                   |
| JTHR | Jacketed thermal shield with integral headshield                                                                            |
| NTHR | Non-jacketed thermal protection system. Includes renewal in damaged cars.                                                   |
| RUBB | Rubber, polyvinyl chloride and polyurethane elastomeric linings applied to inside of tank. Includes renewal in damaged car. |
| SPAR | Any type Sparger system applied. Includes renewal of lining in damaged cars.                                                |
| STNS | Stainless steel inner shell, heater coils of other than ordinary steel pipe.                                                |
| TKLI | Protective coating to inside of tank. Includes renewal of lining in damaged car.                                            |

**Validation Rule for A318**

- For each equipment, only one Individual A&B Type can have a value of INIT.
- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.

## Special Permit

| Regulatory Agency                                                           | B595 |
|-----------------------------------------------------------------------------|------|
| The regulatory agency that issued the special permit or equivalency permit. |      |

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B595**

|     |                              |
|-----|------------------------------|
| DOT | Department of Transportation |
| TC  | Transport Canada             |

**Validation Rule for B595**

- Regulatory Agency must be selected when adding a Number (B595)

**NOTES:**

- A special permit from DOT or equivalency certificate from Transport Canada that waives or modifies compliance with a regulatory requirement, related only to the tank construction, interior lining/coating, or service equipment.
- Example Format: SP-xxxxxx for special permit or SR-xxxxxxxxxxx for equivalency certificate.
- If the special permit or equivalency certificate requires the tank car to be stenciled, this element can be reported.
- If the special permit or equivalency certificate does not require the tank car to be stenciled, this element can be reported.
- Does not apply to AAR Service Trial (ST) stenciling or Alternate Inspection Program (AIP) or changes in commodity.

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| Permit Number                                                                       | B596 |
|-------------------------------------------------------------------------------------|------|
| Matches special permit or equivalency certificate number stenciled on the tank car. |      |

Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B596**

- Regulatory Agency (B595) must be selected when adding special permit Number

**NOTES:**

- A special permit from DOT or equivalency certificate from Transport Canada that waives or modifies compliance with a regulatory requirement, related only to the tank construction, interior lining/coating, or service equipment.
- Example Format: SP-xxxxxx for special permit or SR-xxxxxxxxxxx for equivalency certificate.
- If the special permit or equivalency certificate requires the tank car to be stenciled, this element can be reported.
- If the special permit or equivalency certificate does not require the tank car to be stenciled, this element can be reported.
- Does not apply to AAR Service Trial (ST) stenciling or Alternate Inspection Program (AIP) or changes in commodity.

## Car Management

| Pool Number                                                                       | P001 |
|-----------------------------------------------------------------------------------|------|
| Unique number used to indicate the grouping of equipment for a particular purpose |      |

Used for Transportation Codes. This element is not eligible for Input. Value does not carry forward for Equipment Group Change / Add Back.

| Pool Control | TCPC |
|--------------|------|
| Pool Control |      |

System Generated Field. Used for Transportation Codes. This element is not eligible for Input, Output or Query.

**NOTES:**

- For further explanation reference Appendices C and E.

| User Routing Instructions                    | TCUR |
|----------------------------------------------|------|
| The routing instruction reported by the user |      |

Used for Transportation Codes.

**Permissible Values for TCUR**

- 2 Trailer Service Rule 2
- G Contaminated commodity service
- M Mark canceled
- O Owner requested return
- U Unassigned equipment

**NOTES:**

- For further explanation reference Appendix E.

| Umler Transportation Code                                                   | TCOD |
|-----------------------------------------------------------------------------|------|
| The type of assigned service, empty routing or restriction of the equipment |      |

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

| Transportation Cond Code                    | TCCD |
|---------------------------------------------|------|
| The AAR or FRA interchange restriction code |      |

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

| Mechanical Restriction | TCME |
|------------------------|------|
|------------------------|------|

| User reported or system generated type of mechanical restriction |
|------------------------------------------------------------------|
|------------------------------------------------------------------|

Used for Transportation Codes.

**Permissible Values for TCME**

- S Scrap
- X AAR Interchange Restriction
- Y FRA Interchange Prohibited

**NOTES:**

- For further explanation reference Appendix D.1

| Mech Restriction Reason                              | TCMR |
|------------------------------------------------------|------|
| The explanation of the Mechanical Restriction (TCME) |      |

Used for Transportation Codes.

**Permissible Values for TCMR**

- A Restricted Due to Age (Over 40-AAR, Over 50-FRA)
- B Restricted Due to Air Brakes
- C Restricted Due to Axles
- D Restricted Due to Couplers and Couplers Parts
- F Restricted Due to Couplers Yokes
- G Restricted Due to Draft Gears
- J Restricted Due to Journal Bearing and Journal Lubrication
- N Restricted Due to Trucks
- P Restricted Due to Truck Side Frames
- T Restricted Due to Trucks Bolsters
- U Restricted by AAR or Owner
- W Restricted Due to Wheels
- X Restricted Due to Scrap or Early Warning
- Z Restricted Due to Umler Conflict (Not Valid for User Input)

**NOTES:**

- For further explanation reference Appendix D.2.
- The assignment of the Transportation Codes S, SX, XA, XZ and YA generate the Rate Indicator Code 6 to the CHARM file to zero (0) rate the car hire and mileage rate.

| Sys Gen Routing Inst                            | TCGR |
|-------------------------------------------------|------|
| The routing instruction generated by the system |      |

System Generated Field. Used for Transportation Codes. Affects Rating. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.5.

| Loading Authority Fleet Status                                                  | B597 |
|---------------------------------------------------------------------------------|------|
| Identifies when a car is listed on a fleet in the Loading Authority application |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B597**

- Y Yes
- S Suspended

**NOTES:**

- When equipment is on a fleet the Loading Authority (LA) application will update the flag to 'Y – Yes'. When equipment is removed from a fleet the LA application will remove the 'Y – Yes'.
- When equipment is on a LA fleet that is suspended the LA application will update the flag to 'S – Suspended'. When the equipment is on a LA fleet that is no longer suspended the LA application will update the flag to 'Y – Yes'.

## Train Service

| 286K Aprvd COC/FRA Waiver                                                                                  | B098 |
|------------------------------------------------------------------------------------------------------------|------|
| Indicates Tank Car has a valid FRA waiver, or has specifically an AAR-approved Certificate of Construction |      |

**Permissible Values for B098**

- Y Yes - Tank car approved for GRL 286,000 pounds. Has a valid FRA waiver or specifically an AAR-approved Certificate of Construction

**Validation Rule for B098**

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-Car must be stenciled with AAR specification if Gross Rail Load > 263,000 and the FRA/COC Waiver Allowing > 263,000 GRL is not set to YES

- If Built Date (BLDT) or Rebuilt Date (RBDT) is greater than or equal to 1/1/2004, then Loaded Net Braking Ratio is 11.0%.

**Restricted Speed Empty** **B180**

Describes the maximum restricted speed the equipment can travel when empty

**Range of Values for B180**

| Minimum | Maximum |
|---------|---------|
| 5       | 95      |

**Restricted Speed Loaded** **B181**

Describes the maximum restricted speed the equipment can travel when loaded

**Range of Values for B181**

| Minimum | Maximum |
|---------|---------|
| 5       | 95      |

**Shove Car to Rest** **B189**

Identifies the car must be moved to rest by locomotive

**Permissible Values for B189**

Y Yes

**Shove Adj. Car to Rest** **B188**

Identifies the adjacent car must be shoved to rest by locomotive

**Permissible Values for B188**

Y Yes

**Train Position Sensitive** **B211**

Indicates there is a physical reason, limiting its position on a train

**Permissible Values for B211**

Y Yes

**End of Train Only** **B277**

Indicates the equipment must be placed at the end of the train (including per AAR RP-2001)

**Permissible Values for B277**

Y Yes

**Check Trailing Tonnage** **B044**

Indicates the equipment has restrictions on trailing tonnage

**Permissible Values for B044**

Y Yes

**Curve Negotiate Exception** **B178**

Describes the requirement for negotiating a curve

**Permissible Values for B178**

- A Restrictive Curve Negotiability, Section 2.1.4 of M-1001
- B Does not meet all Chapter XI Curving Requirements

**Loaded Net Braking Ratio** **B551**

Indicates calculated minimum loaded net braking ratio per AAR Specifications in place on built or rebuilt date (in percent).  
System Generated Field. This element is not eligible for input.

**Permissible Values for B551**

– 11.0

– 8.5

**NOTES:**

- Loaded Net Braking Ratio is determined as follows:
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is less than 1/1/1972, then Loaded Net Braking Ratio will be set to blank.
  - If Built Date (BLDT) is greater than or equal to 1/1/1972 and less than 1/1/2004, then loaded Net Braking Ratio is 8.5%.

**Owner-Provided Loaded Net Braking Ratio** **B552**

Indicates an alternate minimum loaded net braking ratio provided by owner (in percent).

**Range of Values for B552**

| Minimum | Maximum |
|---------|---------|
| 8.5     | 14.0    |

**NOTES:**

- Owner may enter a documented alternative minimum loaded net braking ratio in this field that is greater than the system calculated Loaded Net Braking Ratio (B551).
- When reported, the Owner-Provided Loaded Net Braking Ratio will be used in PTC stopping distance calculations.
- A change in value for the following elements will cause the Owner-Provided Loaded Net Braking Ratio to reset to blank:
  - Rebuilt Date (RBDT)
  - Gross Rail Load/Weight (A266)
  - Equipment Type Code (UMET)
  - Empty/Load Device Eqpd (B075)

**Empty Braking Ratio** **B553**

Indicates calculated empty braking ratio per AAR Specifications in place on built or rebuilt date (in percent).  
System Generated Field. This element is not eligible for input.

**Range of Values for B553**

| Minimum | Maximum |
|---------|---------|
| 15.0    | 38.0    |

**NOTES:**

- Empty Braking Ratio is determined as follows:
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is less than 1/1/1972, then Empty Braking Ratio will be set to blank.

**Owner-Provided Empty Braking Ratio** **B554**

Indicates an owner supplied alternate empty braking ratio (in percent).

**Range of Values for B554**

| Minimum | Maximum |
|---------|---------|
| 15.0    | 38.0    |

**NOTES:**

- Owner may enter a documented alternative minimum loaded net braking ratio in this field that is greater than the system calculated Loaded Net Braking Ratio (B551).
- When reported, the Owner-Provided Loaded Net Braking Ratio will be used in PTC stopping distance calculations.
- A change in value for the following elements will cause the Owner-Provided Loaded Net Braking Ratio to reset to blank:
  - Rebuilt Date (RBDT)
  - Gross Rail Load/Weight (A266)
  - Equipment Type Code (UMET)
  - Empty/Load Device Eqpd (B075)

**Truck Components****Axle Spacing Distance** **B020**

The distance between axle centers on the same truck

Affects Rating.

**Permissible Values for B020**

|    |           |
|----|-----------|
| 53 | 53 Inches |
| 54 | 54 Inches |
| 55 | 55 Inches |
| 60 | 60 Inches |
| 61 | 61 Inches |
| 62 | 62 Inches |
| 63 | 63 Inches |

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|    |                    |
|----|--------------------|
| 64 | 64 Inches          |
| 65 | 65 Inches          |
| 66 | 66 Inches          |
| 68 | 68 Inches          |
| 70 | 70 Inches          |
| 71 | 71 Inches          |
| 72 | 72 Inches          |
| 73 | 73 Inches          |
| 74 | 74 Inches          |
| 76 | 76 Inches          |
| 78 | 78 Inches          |
| 99 | Axle Space Unknown |

| Truck Axle Count <span style="float: right;">B252</span> |         |
|----------------------------------------------------------|---------|
| The number of axles per truck                            |         |
| Range of Values for B252                                 |         |
| Minimum                                                  | Maximum |
| 2                                                        | 4       |
| Validation Rule for B252                                 |         |
| - Sum of Truck Axle Count must equal Axle Count (A024)   |         |

| Journal Size <span style="color: red;">Mandatory</span> <span style="float: right;">A147</span> |            |
|-------------------------------------------------------------------------------------------------|------------|
| The size of the journal bearing <span style="float: right;">● ●</span>                          |            |
| Affects Rating.                                                                                 |            |
| Permissible Values for A147                                                                     |            |
| A                                                                                               | 3-3/4 X 7  |
| B                                                                                               | 4-1/4 X 8  |
| C                                                                                               | 5 X 9      |
| D                                                                                               | 5-1/2 X 10 |
| E                                                                                               | 6X11       |
| F                                                                                               | 6-1/2 X 12 |
| G                                                                                               | 7 X 12     |
| H                                                                                               | 7 X 14     |
| K                                                                                               | 6-1/2 X 9  |
| M                                                                                               | 7 X 9      |

**Validation Rule for A147**

- 4-axle equipment with Journal Size B and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 103,000 lbs.
- Journal Size B (4 1/4 x 8) requires a Gross Weight of 154,000 lbs. for 6-axle cars unless the car is Star Coded
- 4-axle equipment with Journal Size C and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 142,000 lbs.
- Journal Size C (5 x 9) requires a Gross Weight of 213,000 lbs. for 6-axle cars unless the car is Star Coded
- 4-axle equipment with Journal Size D and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 177,000 lbs.
- Journal Size D (5 1/2 x 10) requires a Gross Weight of 265,000 lbs. for 6-axle cars unless the car is Star Coded
- 4-axle equipment with Journal Size E and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 220,000 lbs.
- Journal Size E (6 x 11) requires a Gross Weight of 179,000 lbs. for 4-axes ETC P---, Q---, V--- cars only (cars with 28 inch wheels) unless the car is Star Coded
- Journal Size E (6 x 11) requires a Gross Weight of 330,000 lbs. for 6-axes
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) is not populated, must have Gross Rail Load (A266) of 263,000 lbs.
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 1 or 2, must have Gross Rail Load (A266) of 286,000 lbs.
- Journal Size F requires a Gross Weight of 394,500 lbs. or 429,000 lbs. for 6-axle cars unless the car is Star Coded.
- 4-axle equipment with Journal Size G or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) is not populated, must have Gross Rail Load (A266) of 315,000 lbs.
- 4-axle equipment with Journal Size G, K, or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 1, must have Gross Rail Load (A266) of 286,000 lbs.
- Journal Size G (7 x 12) requires a Gross Weight of 472,000 lbs. for 6-axle cars unless the car is Star Coded
- Journal Size H (7 x 14) requires a Gross Weight of 315,000 lbs. for 4-axle cars unless the car is Star Coded

- Journal Size H (7 x 14) requires a Gross Weight of 472,000 lbs. for 6-axle cars unless the car is Star Coded
- Journal Size I (6 x 11 and 6 1/2 x 12) or J (6 x 11 and 7 x 12) are only applicable to articulated or draw-bar cars
- Journal Size Code M (7 x 9) requires a Gross Weight of 472,000 lbs. for 6-axles
- Unstarred 4 Axle Cars with GRL of 315,000 and no IGRL reported and Unstarred cars with Journal Size of G or M must have a Wheel Size of 38 inches
- Gross Weight must be 394,000 lbs. for 6 -axle cars with Journal Size K

**NOTES:**

- A, B and C Journal Classes are prohibited in Interchange per Rule 90.B.4

| Wheel Diameter <span style="color: red;">Mandatory</span> <span style="float: right;">A294</span>                                         |           |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| The diameter of the wheels <span style="float: right;">● ●</span>                                                                         |           |
| Affects Rating.                                                                                                                           |           |
| Permissible Values for A294                                                                                                               |           |
| 28                                                                                                                                        | 28 Inches |
| 30                                                                                                                                        | 30 Inches |
| 33                                                                                                                                        | 33 Inches |
| 36                                                                                                                                        | 36 Inches |
| 38                                                                                                                                        | 38 Inches |
| Validation Rule for A294                                                                                                                  |           |
| -UnStarred Cars with Gross Weight of 286,000 lbs. and Increased Gross Rail Load of 2 must have a Wheel Diameter of 36 inches              |           |
| -UnStarred Cars with Gross Weight of 286,000 lbs. and Increased Gross Rail Load of 2 must have a Wheel Diameter of either 36 or 38 inches |           |
| -Cars with an Increased Gross Rail Load of 1 and Journal of G or M must have a Wheel Diameter of 38 inches                                |           |
| -If Connected Unit Count (A020) is not reported, different Wheel Diameters cannot be reported                                             |           |

| Stability Device Equipped <span style="float: right;">B199</span>                         |     |
|-------------------------------------------------------------------------------------------|-----|
| Indicates a stability device is present on the truck <span style="float: right;">●</span> |     |
| Affects Rating.                                                                           |     |
| Permissible Values for B199                                                               |     |
| Y                                                                                         | Yes |

| Bolster Component ID <span style="float: right;">B351</span>                                                               |  |
|----------------------------------------------------------------------------------------------------------------------------|--|
| Bolster Component ID from Component Registry                                                                               |  |
| Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone. |  |

| Sideframe Component ID <span style="float: right;">B352</span>                                                             |  |
|----------------------------------------------------------------------------------------------------------------------------|--|
| Side Frame Component ID from Component Registry                                                                            |  |
| Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone. |  |

| Wheelset Component ID <span style="float: right;">B350</span>                                                              |  |
|----------------------------------------------------------------------------------------------------------------------------|--|
| Component ID from Component Registry                                                                                       |  |
| Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone. |  |

**Draft System Components**

| Coupler Code <span style="float: right;">A057</span> |  |
|------------------------------------------------------|--|
| Defines the equipment coupler type                   |  |

**Permissible Values for A057**

|         |                                     |
|---------|-------------------------------------|
| 1997UNK | Unknown, built prior to 7/1/1997    |
| BE60AHT | Type E (Rule 16) - BE60AHT          |
| BE60BHT | Type E Obsolete (Rule 16) - BE60BHT |
| BE63AHT | Type E Obsolete (Rule 16) - BE63AHT |
| BE63HT  | Type E (Rule 16) - BE63HT           |
| BE67HT  | Type E (Rule 16) - BE67HT           |
| E42BEX  | Type E/F (Rule 17) - E42BEX         |
| E50ARE  | Type E/F (Rule 17) - E50ARE         |
| E50BEX  | Type E/F (Rule 17) - E50BEX         |

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|          |                                       |           |                                                         |
|----------|---------------------------------------|-----------|---------------------------------------------------------|
| E60CC    | Type E (Rule 16) - E60CC              | F79DE     | Type F (Rule 18) - F79DE                                |
| E60CE    | Type E (Rule 16) - E60CE              | FF218AE   | Type F (Rule 18) - FF218AE                              |
| E60CHT   | Type E (Rule 16) - E60CHT             | FR201E    | Type F (Rule 18) Rotary - FR201E                        |
| E60CHTE  | Type E (Rule 16) - E60CHTE            | FR205AE   | Type F (Rule 18) Rotary - FR205AE                       |
| E60DC    | Type E (Rule 16) - E60DC              | FR205BE   | Type F (Rule 18) Rotary - FR205BE                       |
| E60DE    | Type E (Rule 16) - E60DE              | FR205E    | Type F (Rule 18) Rotary - FR205E                        |
| E60EE    | Type E (Rule 16) - E60EE              | FR206E    | Type F (Rule 18) Rotary - FR206E                        |
| E61      | Type E Obsolete (Rule 16) - E61       | FR207AE   | Type F (Rule 18) Rotary - FR207AE                       |
| E67AHT   | Type E (Rule 16) - E67AHT             | FR207E    | Type F (Rule 18) Rotary - FR207E                        |
| E67BC    | Type E (Rule 16) - E67BC              | FR208AE   | Type F (Rule 18) Rotary - FR208AE (without wear insert) |
| E67BE    | Type E (Rule 16) - E67BE              | FR208E    | Type F (Rule 18) Rotary - FR208E (with wear insert)     |
| E67BHT   | Type E (Rule 16) - E67BHT             | FR209E    | Type F (Rule 18) Rotary - FR209E                        |
| E67BHTE  | Type E (Rule 16) - E67BHTE            | FR301E    | Type F (Rule 18) Rotary - FR301E                        |
| E67CC    | Type E (Rule 16) - E67CC              | FR304E    | Type F (Rule 18) Rotary - FR304E (with wear plate)      |
| E67CE    | Type E (Rule 16) - E67CE              | FR304WE   | Type F (Rule 18) Rotary - FR304WE (without wear plate)  |
| E68AHT   | Type E/F Obsolete (Rule 17) - E68AHT  | FROTARY   | Type E/F Rotary - FROTARY                               |
| E68AHTE  | Type E/F Obsolete (Rule 17) - E68AHTE | FSPEC     | Type F Special - FSPEC                                  |
| E68BC    | Type E/F (Rule 17) - E68BC            | FUNK      | Type F Unknown - FUNK                                   |
| E68BE    | Type E/F (Rule 17) - E68BE            | S700AE    | Type E (Rule 16) - S700AE                               |
| E68BHT   | Type E/F (Rule 17) - E68BHT           | SBE60CC   | Type E (Rule 16) - SBE60CC                              |
| E68BHTE  | Type E/F (Rule 17) - E68BHTE          | SBE60CE   | Type E (Rule 16) - SBE60CE                              |
| E68CE    | Type E/F (Rule 17) - E68CE            | SBE60DC   | Type E (Rule 16) - SBE60DC                              |
| E69AE    | Type E/F (Rule 17) - E69AE            | SBE60DE   | Type E (Rule 16) - SBE60DE                              |
| E69AHTE  | Type E/F (Rule 17) - E69AHTE          | SBE60DREX | Type E (Rule 16) - SBE60DREX                            |
| E69BE    | Type E/F (Rule 17) - E69BE            | SBE60EE   | Type E (Rule 16) - SBE60EE                              |
| E69CE    | Type E/F (Rule 17) - E69CE            | SBE67BC   | Type E (Rule 16) - SBE67BC                              |
| E69CEX   | Type E/F (Rule 17) - E69CEX           | SBE67BE   | Type E (Rule 16) - SBE67BE                              |
| E69HTE   | Type E/F (Rule 17) - E69HTE           | SBE67CC   | Type E (Rule 16) - SBE67CC                              |
| E69LCE   | Type E/F (Rule 17) - E69LCE           | SBE67CE   | Type E (Rule 16) - SBE67CE                              |
| EB7AHT   | Type E (Rule 16) - EB7AHT             | SBE67CREX | Type E (Rule 16) - SBE67CREX                            |
| EF204CE  | Type E/F (Rule 17) - EF204CE          | SBE67DE   | Type E (Rule 16) - SBE67DE                              |
| EF306CE  | Type E/F (Rule 17) - EF306CE          | SBE68BC   | Type E/F (Rule 17) - SBE68BC                            |
| EF511AE  | Type E/F (Rule 17) - EF511AE          | SBE68BE   | Type E/F (Rule 17) - SBE68BE                            |
| EF511BE  | Type E/F (Rule 17) - EF511BE          | SBE68CE   | Type E/F (Rule 17) - SBE68CE                            |
| EF511CE  | Type E/F (Rule 17) - EF511CE          | SBE68CREX | Type E/F (Rule 17) - SBE68CREX                          |
| EF511DE  | Type E/F (Rule 17) - EF511DE          | SBE68DE   | Type E/F (Rule 17) - SBE68DE                            |
| EF511LCE | Type E/F (Rule 17) - EF511LCE         | SBE68WEX  | Type E/F (Rule 17) - SBE68WEX                           |
| EF511WE  | Type E/F (Rule 17) - EF511WE          | SBE69AE   | Type E/F (Rule 17) - SBE69AE                            |
| EF512CE  | Type E/F (Rule 17) - EF512CE          | SBE69BE   | Type E/F (Rule 17) - SBE69BE                            |
| EF512WE  | Type E/F (Rule 17) - EF512WE          | SBE69BREX | Type E/F (Rule 17) - SBE69BREX                          |
| EF528WE  | Type E/F (Rule 17) - EF528WE          | SBE69CE   | Type E/F (Rule 17) - SBE69CE                            |
| EFROTARY | Type E/F Rotary - EFROTARY            | SE60CC    | Type E (Rule 16) - SE60CC                               |
| EFSPEC   | Type E/F Special - EFSPEC             | SE60CE    | Type E (Rule 16) - SE60CE                               |
| EFUNK    | Type E/F Unknown - EFUNK              | SE60CHT   | Type E (Rule 16) - SE60CHT                              |
| ESPEC    | Type E Special - ESPEC                | SE60CHTE  | Type E (Rule 16) - SE60CHTE                             |
| EUNK     | Type E Unknown - EUNK                 | SE60DC    | Type E (Rule 16) - SE60DC                               |
| F70BHT   | Type F Obsolete (Rule 18) - F70BHT    | SE60DE    | Type E (Rule 16) - SE60DE                               |
| F70BHTE  | Type F Obsolete (Rule 18) - F70BHTE   | SE60EE    | Type E (Rule 16) - SE60EE                               |
| F70CC    | Type F (Rule 18) - F70CC              | SE67BC    | Type E (Rule 16) - SE67BC                               |
| F70CE    | Type F (Rule 18) - F70CE              | SE67BE    | Type E (Rule 16) - SE67BE                               |
| F70CHT   | Type F (Rule 18) - F70CHT             | SE67BHT   | Type E (Rule 16) - SE67BHT                              |
| F70CHTE  | Type F (Rule 18) - F70CHTE            | SE67BHTE  | Type E (Rule 16) - SE67BHTE                             |
| F70DE    | Type F (Rule 18) - F70DE              | SE67CC    | Type E (Rule 16) - SE67CC                               |
| F70HT    | Type F Obsolete (Rule 18) - F70HT     | SE67CE    | Type E (Rule 16) - SE67CE                               |
| F71CHT   | Type F (Rule 18) - F71CHT             | SE68BC    | Type E/F (Rule 17) - SE68BC                             |
| F72HT    | Type F (Rule 18) - F72HT              | SE68BE    | Type E/F (Rule 17) - SE68BE                             |
| F73AC    | Type F (Rule 18) - F73AC              | SE68BHT   | Type E/F (Rule 17) - SE68BHT                            |
| F73AE    | Type F (Rule 18) - F73AE              | SE68BHTE  | Type E/F (Rule 17) - SE68BHTE                           |
| F73AHT   | Type F (Rule 18) - F73AHT             | SE68CE    | Type E/F (Rule 17) - SE68CE                             |
| F73AHTE  | Type F (Rule 18) - F73AHTE            | SE69AE    | Type E/F (Rule 17) - SE69AE                             |
| F73BE    | Type F (Rule 18) - F73BE              | SE69BE    | Type E/F (Rule 17) - SE69BE                             |
| F73HTE   | Type F Obsolete (Rule 18) - F73HTE    | SE69CE    | Type E/F (Rule 17) - SE69CE                             |
| F79BHT   | Type F Obsolete (Rule 18) - F79BHT    | SF70CC    | Type F (Rule 18) - SF70CC                               |
| F79BHTE  | Type F Obsolete (Rule 18) - F79BHTE   | SF70CE    | Type F (Rule 18) - SF70CE                               |
| F79CC    | Type F (Rule 18) - F79CC              | SF70CHT   | Type F (Rule 18) - SF70CHT                              |
| F79CE    | Type F (Rule 18) - F79CE              | SF70CHTE  | Type F (Rule 18) - SF70CHTE                             |
| F79CHT   | Type F (Rule 18) - F79CHT             | SF70DE    | Type F (Rule 18) - SF70DE                               |
| F79CHTE  | Type F (Rule 18) - F79CHTE            | SF79CC    | Type F (Rule 18) - SF79CC                               |



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SF79CE Type F (Rule 18) - SF79CE  
 SF79CHT Type F (Rule 18) - SF79CHT  
 SF79CHTE Type F (Rule 18) - SF79CHTE  
 SF79DE Type F (Rule 18) - SF79DE

**Validation Rule for A057**

- If Rotary Coupler Style is reported, then Coupler Code must be a rotary coupler.
- If Coupler Code is a rotary coupler, then Coupler Style must be R (Rotary).
- Coupler Code of Type E Obsolete (Rule 16) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of Type E/F Obsolete (Rule 17) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of Type F Obsolete (Rule 18) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of FROTARY or EFROTARY cannot be reported for cars Built or Rebuilt on or after August 12, 2014.

**NOTES:**

- Obsolete: All Type D couplers are obsolete and should report code DOBS; cars with this coupler code will be restricted in interchange as discussed below.
- Unknown: If the coupler code is unknown or if the code stamped on the coupler is illegible, the code BUNK FUNK, EFUNK, or LOCOUNK should be reported.
- Special: Codes ESPEC, FSPEC, and EFSPEC have been created to decline coupler bodies that have been manufactured specifically for the equipment owner and are not listed in the attached table.
- The codes FROTARY and EFROTARY cannot be reported for equipment Built or Rebuilt since August 12, 2014.

|                                                     |             |
|-----------------------------------------------------|-------------|
| <b>Coupler Style</b> <i>Mandatory</i>               | <b>B058</b> |
| Describes the basic coupler design of the equipment |             |

Affects Rating.

**Permissible Values for B058**

|   |              |   |              |
|---|--------------|---|--------------|
| B | Bottom Shelf | D | Double Shelf |
| P | Plain        | R | Rotary       |

**Validation Rule for B058**

- If Draft System Type (B073) is H (Hydraulic) then Coupler Style cannot be reported as M (Solid Drawbar) or L (Rotary Drawbar)
- If Draft System Type (B073) is not Center Of Car or End Of Car, Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) of Center Of Car or End Of Car is reported then Inches of Travel (B061) must also be reported

|                                                 |             |
|-------------------------------------------------|-------------|
| <b>Inches of Travel</b>                         | <b>B061</b> |
| The number of inches a draft system will travel |             |

Affects Rating.

**Range of Values for B061**

| Minimum | Maximum |
|---------|---------|
| 1       | 36      |

**Validation Rule for B061**

- If Draft System Type (B073) is not Center Of Car or End Of Car, Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) of Center Of Car or End Of Car is reported then Inches of Travel (B061) must also be reported

|                                                  |             |
|--------------------------------------------------|-------------|
| <b>Draft System Type</b> <i>Mandatory</i>        | <b>B073</b> |
| Describes the draft gear/underframe cushion type |             |

Affects Rating.

**Permissible Values for B073**

|   |                                                                               |
|---|-------------------------------------------------------------------------------|
| C | Cushioning Center of Car                                                      |
| E | Cushioning End of Car                                                         |
| S | Standard                                                                      |
| X | Devices with less than 6 inches buff travel approved under AAR Standard S-060 |

Y Devices with 6 to 10 inches of buff travel approved under AAR Standard S-060

**Validation Rule for B073**

- If Draft System Type (B073) is Standard Draft Gear (S), Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) is reported as C, E, X, or Y then Inches of Travel (B061) must also be reported
- If Draft System Type (B073) of X, or Y is reported then Draft Gear Group/Cushion Unit Pocket (B562) cannot be reported
- If Draft System Type (B073) X is reported, the Inches of Travel (B061) value must be greater than or equal to 1 and less than 6
- If Draft System Type (B073) Y is reported, the Inches of Travel (B061) value must be greater than or equal to 6 and less than or equal to 10
- If Draft System Type (B073) is S then Draft Gear Group/Cushion Unit Pocket (B562) may only be A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z (AAR Rule 21)
- If Draft System Type (B073) is E then Draft Gear Group/Cushion Unit Pocket (B562) may only be EOC-1,EOC-1D, EOC-1B, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B,EOC-4, EOC-4B, EOC-5, EOC-5D, EOC-5B, EOC-6, EOC-6D, EOC-6B, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-8F, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10, EOC-10D, EOC-10B, EOC-10F, EOC-11, EOC-11D, EOC-11B,EOC-12, EOC-12D, EOC-12B, EOC-13, EOC-13B, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16, EOC-16D, EOC-16B, EOC-17, EOC-17D, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-23, EOC-23B, EOC-24, EOC-24B, EOC-25E, EOC-26B, EOC-26F, or EOC-27D, or EOC-27E (AAR Rule 59)

|                                                                                                     |             |
|-----------------------------------------------------------------------------------------------------|-------------|
| <b>Draft Gear Group/Cushion Unit Pocket</b>                                                         | <b>B562</b> |
| Draft Gear Group/Cushion Unit Pocket value as listed in AAR Field Manual Interchange Rule 21 and 59 |             |

Carry forward for Single Clone / Multi-Clone / Restencil / Add-Back / Equipment Group Change.

**Permissible Values for B562**EOC-1,EOC-1D, EOC-1B, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B,EOC-4, EOC-4B, EOC-5, EOC-5D, EOC-5B, EOC-6, EOC-6D, EOC-6B, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-8F, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10, EOC-10D, EOC-10B, EOC-10F, EOC-11, EOC-11D, EOC-11B,EOC-12, EOC-12D, EOC-12B, EOC-13, EOC-13B, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16, EOC-16D, EOC-16B, EOC-17, EOC-17D, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-23, EOC-23B, EOC-24, EOC-24B, EOC-25E, EOC-26B, EOC-26F, EOC-27D, EOC-27E, COC-1, COC-2, COC-3, COC-4, COC-5, COC-6, COC-7, COC-8 (AAR Rule 59).

A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, Z (AAR Rule 21).

**Validation Rule(s) for B562**

- Draft Gear Group/Cushion Unit Pocket (B562) is mandatory for equipment built on or after June 13, 2019, unless Draft System Type (B073) is reported as X or Y
- If Draft Gear Group/Cushion Unit Pocket (B562) is not equal to A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z, then Cushion Unit Type (B563) must be populated
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-6, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-9, EOC-9B, EOC-9D, EOC-10, EOC-10B, EOC-10D, EOC-14, EOC-14B, EOC-18D, EOC-23, EOC-23B, EOC-24, EOC-25E, EOC-26B, or EOC-27D then the Cushion Unit Type (B563) must be 1
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-9E, EOC-26F, or EOC-27E, then the Cushion Unit Type (B563) must be 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-11, EOC-12, EOC-13, EOC-13B, EOC-15, EOC-15B, EOC-15D, EOC-17, EOC-17B, EOC-17D, EOC-18, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-24B, COC-3, COC-5, or COC-7 then the Cushion Unit Type (B563) must be 1 or 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-8F or EOC-10F then the Cushion Unit Type (B563) must be 2 or 3
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-5, EOC-5B, EOC-5D, EOC-6, EOC-6B, EOC-6D EOC-11B, EOC-11D, EOC-12B, EOC-12D, or COC-4 then the Cushion Unit Type (B563) must be 1, 2, or 3
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-16D, or COC-1 then the Cushion Unit Type (B563) must be 1, 2, or 4
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-2B, EOC-2D, EOC-3, EOC-3B, EOC-4, EOC-4B, or COC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, or 4

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- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1, EOC-1B, EOC-1D, or EOC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-8 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1D, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B, EOC-5, EOC-5D, EOC-5B, EOC-6D, EOC-7, EOC-7B, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10D, EOC-11, EOC-11B, EOC-11D, EOC-12D, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16D, EOC-17D, EOC-23, EOC-23B, EOC-27D, or EOC-27E then the Inches of Travel (B061) must be 10
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-19, EOC-19B, EOC-22, EOC-22B, or EOC-25E then the inches of travel must be 12
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-20 or EOC-20B then the Inches of Travel (B061) must be 14
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1B, EOC-4, EOC-4B, EOC-6, EOC-6B, EOC-8, EOC-8B, EOC-8F, EOC-10, EOC-10B, EOC-10F, EOC-12, EOC-12B, EOC-13, EOC-13B, EOC-17, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-21, EOC-21B, EOC-24, or EOC-24B then the Inches of Travel (B061) must be 15
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-2, COC-3, COC-4, COC-5, COC-6, or COC-8 then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 1 or 2, then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 4, then the Inches of Travel (B061) must be 18
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 2, then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 1, then the Inches of Travel (B061) must be 30
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1 then the Inches of Travel (B061) must be 10, 12, or 15
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-26, then the Inches of Travel (B061) must be 18

**Note:**

Reference AAR Field Manual Interchange Rule(s) 21 and 59.

| Cushion Unit Type                                                                | B563 |
|----------------------------------------------------------------------------------|------|
| Cushion Unit Type value as listed in AAR Field Manual Interchange Rule 21 and 59 | ★    |

Carry forward for Single Clone / Multi-Clone / Restencil / Add-Back / Equipment Group Change.

**Permissible Values for B563**

- 1 – Type 1
- 2 – Type 2
- 3 – Type 3
- 4 – Type 4
- 5 – Type 5
- S – Type S

**Validation Rule(s) for B563**

- Cushion Unit Type (B563) is mandatory for equipment built on or after June 13, 2019.
- If Draft Gear Group/Cushion Unit Pocket (B562) is not equal to A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z, then Cushion Unit Type (B563) must be populated.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-6, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-9, EOC-9B, EOC-9D, EOC-10, EOC-10B, EOC-10D, EOC-14, EOC-14B, EOC-18D, EOC-23, EOC-23B, EOC-24, EOC-25E, or EOC-26B then the Cushion Unit Type (B563) must be 1.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-9E, EOC-26F, or EOC-27E, then the Cushion Unit Type (B563) must be 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-11, EOC-12, EOC-13, EOC-13B, EOC-15, EOC-15B, EOC-15D, EOC-17, EOC-17B, EOC-17D, EOC-18, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-24B, COC-3, COC-5, or COC-7 then the Cushion Unit Type (B563) must be 1 or 2.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-8F or EOC-10F then the Cushion Unit Type (B563) must be 2 or 3.

- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-5, EOC-5B, EOC-5D, EOC-6, EOC-6B, EOC-6D EOC-11B, EOC-11D, EOC-12B, EOC-12D, or COC-4 then the Cushion Unit Type (B563) must be 1, 2, or 3.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-16D, or COC-1 then the Cushion Unit Type (B563) must be 1, 2, or 4.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-2B, EOC-2D, EOC-3, EOC-3B, EOC-4, EOC-4B, or COC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, or 4.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1, EOC-1B, EOC-1D, or EOC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-8 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 1 or 2, then the Inches of Travel (B061) must be 20.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 4, then the Inches of Travel (B061) must be 18.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 2, then the Inches of Travel (B061) must be 20.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 1, then the Inches of Travel (B061) must be 30.

**Note:**

Reference AAR Field Manual Interchange Rule(s) 21 and 59.

| Coupler Component ID                         | B353 |
|----------------------------------------------|------|
| Coupler Component ID from Component Registry |      |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

| Cushioning Unit Component ID         | B361 |
|--------------------------------------|------|
| Component ID from Component Registry |      |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## Unit Segment Components

| Unit Equipment Group                         | A307 |
|----------------------------------------------|------|
| Describes the equipment type of the platform | ★    |

Affects Rating.

**Permissible Values for A307**

|      |                 |      |          |
|------|-----------------|------|----------|
| BOXC | Box Car         | FLAT | Flat Car |
| GOND | Gondola         | HOPP | Hopper   |
| IFLT | Intermodal Flat | TANK | Tank Car |
| VFLT | Vehicular Flat  |      |          |

**Validation Rule for A307**

- Unit Equipment Group cannot be reported if the Connected Unit Count (A020) is not reported
- Unit Equipment Group must be reported if Connected Unit Count (A020) is reported

| Unit Tare Weight                                                                                      | A299 |
|-------------------------------------------------------------------------------------------------------|------|
| The unit segment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds |      |

**Range of Values for A299**

| Minimum | Maximum |
|---------|---------|
| 10000   | 500000  |

**Validation Rule for A299**

- Unit Tare Weight must not be reported if the Connected Unit Count (A020) is not reported
- Unit Tare Weight must be reported if Connected Unit Count (A020) is reported

## Data Specification Manual

- Unit Tare Weight for Boxcars must be less than or equal 160,000 lbs.
- Unit Tare Weight for Refrigerators must be less than or equal 140,000 lbs.
- Unit Tare Weight for Gondolas must be greater than or equal 30,000 lbs.
- Unit Tare Weight for Gondolas must be less than or equal 110,000 lbs.
- Unit Tare Weight for Hoppers must be greater than or equal 23,000 lbs.
- Unit Tare Weight for Hoppers must be less than 120,000 lbs.
- Unit Tare Weight for Tanks must be greater than 31,000 lbs.
- Unit Tare Weight for Tanks must be less than 200,000 lbs.
- Unit Tare Weight for VFlats must be greater than 55,000 lbs.
- Unit Tare Weight for VFlats must be less than 136,000 lbs.
- Unit Tare Weight for IFLTs must be greater than 10,000 lbs.
- Unit Tare Weight for IFLTs must be less than 72,000 lbs.
- Unit Tare Weight for all flats other than VFlats with ETC Q\_\_\_ must be greater than 23,000 lbs.
- Unit Tare Weight for all flats other than VFlats with ETC Q\_\_\_ must be less than 500,000 lbs.
- Unit Segment Tare Weights must add up to the Total Tare Weight (A259)
- Unit Tare Weight (A299) value must be reported to the nearest 100 pounds

**Unit Load Limit** **A300**

The maximum permissible weight of the commodity that can be loaded into the unit segment, reported in pounds

**Range of Values for A300**

| Minimum | Maximum |
|---------|---------|
| 20000   | 500000  |

**Validation Rule for A300**

- Unit Load Limit must not be reported if the Connected Unit Count (A020) is not reported
- Unit Load Limit must be reported if Connected Unit Count (A020) is reported
- Unit Segment Load Limits must add up to the Load Limit (LDLT)

**Brake System Components****Emergency Brake Valve CID** **B354**

Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Emergency Valve COTS Date** **B567**

Brake valve emergency portion recondition date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve COTS Date is system-generated from a Emergency Brake Valve Inspection.

**Emergency Valve OEM Warranty Date** **B568**

Brake valve emergency portion Original Equipment Manufacturer warranty date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve OEM Date is system-generated from a Emergency Brake Valve Inspection.

**Emergency Valve Part Number** **B569**

Brake valve emergency portion part number

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve Part Number is system-generated from a Emergency Brake Valve Inspection.

**Service Brake Valve CID** **B357****Component ID from Component Registry**

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Service Valve COTS Date** **B564**

Brake valve service portion recondition date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve COTS Date is system-generated from a Service Brake Valve Inspection.

**Service Valve OEM Warranty Date** **B565**

Brake valve service portion Original Equipment Manufacturer warranty date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve OEM Date is system-generated from a Service Brake Valve Inspection.

**Service Valve Part Number** **B566**

Brake valve service portion part number

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve Part Number is system-generated from a Service Brake Valve Inspection.

**Slack Adjuster CID** **B359**

Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Tank Car Components****Pressure Relief Valve CID** **B360**

Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Miscellaneous****Commercial Owner CIF** **B049**

The Customer Identification File (CIF) number for a commercial owner at a specific location

**Commercial Lessee CIF** **B048**

The Customer Identification File (CIF) number for a commercial lessee at a specific location

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Validation Rule for DTDN**

-The inspection date must not be 60 days before the Build Date

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Umler Effective Date** **EFDT**

The date the rating activity (pre-registration, modification, etc.) is expected to occur

This element is not eligible for Query. Does not Carry Forward.

**Validation Rule for EFDT**

-Effective Date cannot be set to more than 13 months in the future.

**NOTES:**

- Effective Date will default to the 1st of the following month that equipment is registered

## Data Specification Manual

## Inspection

**ABT Due Date (Repair Track)****DU13**

The due date of the air brake test per AAR Field Manual Rule 3

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Inspection Reporter****REPT**

The SCAC that reported the inspection; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Location/SPLC****SPLC**

The SPLC of the inspecting location; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Air Brake Test Device****B523**

Indicates the type of test device used to perform the Air Brake Test

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Permissible Values for B523**

- A Automatic (Non 4-Pressure)
- M Manual
- P Automatic (4-Pressure)

**Validation Rule for B523**

-Air Brake Test Device (B523) must be reported for Air Brake Test inspection reported on or after December 10, 2020

**Insp Service Valve COTS Date****B570**

Brake valve service portion recondition date

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**NOTES:**

- Reports of 9999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMY

**Insp Service Valve OEM Warranty Date****B571**

Brake valve service portion Original Equipment Manufacturer warranty date

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Insp Service Valve Part Number****B572**

Brake valve service portion part number

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**ABT 5-8 Year Due Date****DU58**

The 5-8 year due date for the air brake test (ABT) after the ABT Due Date (Repair Track)

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Inspection Date Done****DTDN**

The date the inspection was completed; used for all inspection types reported on equipment

**NOTES:**

- Reports of 999999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMYYYY

**Insp Emergency Valve COTS Date****B573**

Brake valve emergency portion recondition date

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**NOTES:**

- Reports of 9999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMY

**Insp Emergency Valve OEM Warranty Date****B574**

Brake valve emergency portion Original Equipment Manufacturer warranty date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Reports of 999999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMYYYY

**Insp Emergency Valve Part Number****B575**

Brake valve emergency portion part number

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Insp Service Valve Location *Mandatory*****B576**

Brake valve service portion location

Value does not carry forward for Single Clone / Multi-Clone.

**Insp Emergency Valve Location *Mandatory*****B577**

Brake valve emergency portion location reported on an emergency brake valve inspection

Value does not carry forward for Single Clone / Multi-Clone.



## Data Specification Manual

## Flat Cars

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| Mechanical Designation (UMMD).....    | 136        | Floor Cradle/Trough Eqpd (A103).....                | 145        |
| Equipment Type Code (UMET).....       | 136        | Non-Fish Belly (B136).....                          | 145        |
| Dedicated Service (B346).....         | 136        | Connected Unit Count (A020).....                    | 145        |
| Maint of Way Service Type (B403)..... | 136        | Intermediate Conn Style (B115).....                 | 146        |
| Built Date (BLDT).....                | 136        | Operating Brakes (A182).....                        | 146        |
| Rebuilt / ILS Date (RBDT).....        | 136        | ECP Brake Type (B327).....                          | 146        |
| Rebuilt Flag (RBFL).....              | 137        | ECP Brake Builder (B328).....                       | 146        |
| Owner (UMOW).....                     | 137        | Slack Adjuster Group (B538).....                    | 146        |
| Lessee (LESE).....                    | 137        | Brake Cylinder Mount Type (B540).....               | 146        |
| Equipment Group (0002).....           | 137        | Equipment Builder (A035).....                       | 146        |
| Maintenance Party (MNPT).....         | 137        | Builder Lot Code (B030).....                        | 147        |
| Mark Owner Category (B201).....       | 137        | Built Country (B031).....                           | 147        |
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| Status Change Reason (USCR).....      | 137        | 4-Pressure ABT Receiver Eqpd (B539).....            | 147        |
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| Conflict Status (B050).....           | 138        | Chains and Binders Eqpd (B267).....                 | 148        |
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| Notice Indicator (B137).....          | 138        | Spring Tensioning Device (B198).....                | 148        |
| Conflict Status Next Date (B062)..... | 138        | Steel Riser Equipped (B200).....                    | 148        |
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| Private Zero Rate (B150).....         | 138        | Stake Pockets (side/end) (B190).....                | 148        |
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## Data Specification Manual

## General

**Status Code** *Mandatory* **USCD**

Identifies the current operational state

Does not Carry Forward.

**Permissible Values for USCD**

A ACTIVE I INACTIVE  
P PRE-REGISTERED

**NOTES:**

- For Restencil and Clone process the initial Status of a car should be Pre-Registered.
- All Add-Back processes should initially set the Status to Pre-Registered
- A Pre-registered car will automatically have its Status changed to Active for the initial change when TRAIN detects three (3) movements on the car
- If the Status changes to Active due to movement and the car was created from a Restencil, the Prior Equipment ID (PRID) or source car will have its status changed to Inactive automatically by Umler

**Equipment ID** **0001**

The equipment stenciled number

**Validation Rule for 0001**

-Equipment Number must not be larger than 6 digits (i.e., 999999)

**NOTES:**

- Equipment ID includes the mark and number stenciled on the equipment. Marks can be up to 4 characters and number up to 6 digits (i.e., ABCD999999).
- Up to 500 cars can be added or updated in a transaction.
- When adding an equipment record, ensure that Prior Equipment ID (PRID) is reported, unless the equipment is new.

**Mechanical Designation** *Mandatory* **UMMD**

Equipment description without physical dimensions

Used for Transportation Codes.

**Permissible Values for UMMD**

FB Flat-Bulkhead  
FBC Flat-Bulkhead Center Beam  
FBS Flat-Bulkhead, Specially Equipped  
FD Flat-Depressed (Heavy Duty)  
FDC Flat-Depressed Center Beam  
FL Flat-Fitted with Cross Supports for Longitudinal Loading  
FM Flat-Straight Deck  
FMS Flat-Straight Deck, Specially Equipped  
FW Flat-Well (Heavy Duty)  
LF Flat-Special Design for demountable containers  
LP Flat-Special Design  
LS Flat-Special Design with two interlocking units  
MWF MoW - Flats  
MWG MoW - Section Gang or Track Inspection Car  
MWRC MoW - Remote Control Equipment

**Equipment Type Code** **UMET**

An alpha numeric code that describes the physical attributes of equipment

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Please Refer to Appendix I for More information Regarding ETC Generation

**Dedicated Service** **B346**

Indicates the type of dedicated service car is equipped to handle

Value does not carry forward for Equipment Group Change.

**Permissible Values for B346**

A Aluminum Ingot  
B Airplane Wings / Fuselage  
C Coiled Rod

D Coiled Steel  
E Hot Reinforcement Bars  
F Frames  
G Logs  
H Utility Poles  
I Pipe  
J Plate Steel  
K Steel Rail  
L Wind Turbine

**Validation Rule for B346**

-Dedicated Service Type can only be reported if Mechanical Designation (UMMD) is FMS

**Maint of Way Service Type** **B403**

Identifies equipment Maintenance Of Way function

Value does not carry forward for Equipment Group Change.

**Permissible Values for B403**

C2 Crane / Boom Support Car  
F4 Flat-Wheel Sets  
T4 Training Car  
T8 Track Geometry Car

**Validation Rule for B403**

- Maint of Way Service Type can only be listed on records where the Equipment Group (0002) or Pseudo Equipment Group (B547) is listed as MISC

**Built Date** *Mandatory* **BLDT**

The date the construction of the equipment is complete

Data is Confidential. Used for Transportation Codes. Affects Rating. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for BLDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for BLDT**

- Built Date must be within the last 99 years
- Built Date must not be in the future for equipment in Active Status
- Prior and target equipment's Built Date (BLDT) must match for restenciling
- Built Date cannot be updated within 30 days of the End of Service Date (B078)

**NOTES:**

- Data is public for railroad marked equipment.
- For connected unit cars report the oldest car in the set.

**Rebuilt / ILS Date** **RBDT**

The date the re-construction of the equipment is complete

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for RBDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for RBDT**

- Rebuilt/Increased Life Service Date must be after the Built Date (BLDT)
- Rebuilt Date must not be more than 70 years after the Built Date (BLDT)
- Rebuilt Date is required for Extended Service Code (A096) 1, 2, or 3 for Increased Life Service
- Rebuilt Date is required for Extended Service Code (A096) R for Rebuilt, or V for 65 years of service
- If Rebuilt Date is reported then the Extended Service Code (A096) must be reported as R for Rebuilt, V, 1, 2, or 3 for Increased Life Service

**NOTES:**

- Railroad cars -- applicable only to cars meeting status as provided in both STB Accounting Rules, and the AAR Mechanical Interchange Rule 88, Office Manual.
- Private cars -- applicable to all cars meeting AAR Mechanical Interchange Rule 88, Section C, Office Manual and Sections A and B of the Field Manual.
- For connected unit cars report the oldest car in the set. Do not report Rebuilt

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Date unless car has been approved by the AAR.

| Rebuilt Flag                                              | RBFL |
|-----------------------------------------------------------|------|
| Identifies the equipment is nearing its end of life cycle |      |

Data is Confidential. System Generated Field. This element is not eligible for Input.

**Permissible Values for RBFL**

N No Y Yes

| Owner <i>Mandatory</i>                                                     | UMOW |
|----------------------------------------------------------------------------|------|
| Primary reporting mark of the railroad or private company owning the car ● |      |

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**NOTES:**

- Report the primary reporting mark of the railroad or private company owning the car. When car's lease or lien is held by a bank, trust holder, capital lease company, etc. not having an assigned mark, report the primary reporting mark affiliated with the stenciled reporting mark.

| Lessee                                                  | LESE |
|---------------------------------------------------------|------|
| The reporting mark of the company leasing the equipment |      |

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**Validation Rule for LESE**

- Umler Owner (UMOW) and Lessee are not allowed to be equal
- Lessee cannot be a child reporting mark

**NOTES:**

- In order to assign privately marked cars to a pool, a railroad reporting mark must be reported.

| Equipment Group <i>Mandatory</i>          | 0002 |
|-------------------------------------------|------|
| Identifies the various major car types ●● |      |

Used for Transportation Codes. Affects Rating.

| Maintenance Party                                                                                     | MNPT |
|-------------------------------------------------------------------------------------------------------|------|
| The parent reporting mark of the company responsible for the maintenance and repairs of the equipment |      |

Does not Carry Forward.

| Mark Owner Category                                 | B201 |
|-----------------------------------------------------|------|
| The company that owns the stenciled mark on the car |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**Permissible Values for B201**

B US Private  
 C Canadian Private  
 F Foreign Private  
 H Canadian Class II  
 I Canadian Class I  
 J Mexican Class I  
 K Canadian Class III  
 M Mexican Private  
 N US Private Steamship  
 O Canadian Private Steamship  
 P Mexican Private Steamship  
 Q Foreign Private Steamship  
 R US Class II Railroad  
 U US Class I Railroad  
 V US Class III Railroad  
 W Mexican Class II Railroad  
 Y Mexican Class III Railroad

**NOTES:**

- This value is stored in the Umler Database for informational purposes and is retrieved from the Roadmark Registry.

| Prior Equipment ID                                      | PRID |
|---------------------------------------------------------|------|
| The previous reporting mark and number of the equipment |      |

Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for PRID**

- Prior and target equipment's Built Date (BLDT) must match
- The Prior Equipment ID (0001) must belong to the same or comparable Equipment Group (0002) as the current car initial and number

**NOTES:**

- Prior ID enables equipment records to share the same historical lineage. Equipment Identification Number (EIN) is a generated id that enables these equipment records to share inspections and transaction history.

| Last Update Date                      | B122 |
|---------------------------------------|------|
| Date of the last Umler element change |      |

System Generated Field. This element is not eligible for Input.

| Equipment Add Date                                               | B082 |
|------------------------------------------------------------------|------|
| Date the reporting mark and number was added to the Umler system |      |

System Generated Field. This element is not eligible for Input.

| Status Change Reason                                    | USCR |
|---------------------------------------------------------|------|
| Identifies the reason for the current operational state |      |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for USCR**

I Initial Load  
 M Movement  
 O Status Changed Manually  
 R Restencil

**NOTES:**

- If movement is detected on equipment, status is changed to Active.
- If an equipment record is changed to Active, any prior equipment record is placed in Inactive status.

| Status Change Date                                             | USCT |
|----------------------------------------------------------------|------|
| Identifies the effective date of the current operational state |      |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

| Extended Service <i>Mandatory</i>                                    | A096 |
|----------------------------------------------------------------------|------|
| A code indicating the eligibility of an increase to the life cycle ● |      |

Used for Transportation Codes. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A096**

1 1st ILS Inspection, additional 5 years of Service  
 2 2nd ILS Inspection, additional 5 years of service (10 years total)  
 3 3rd ILS Inspection, additional 5 years of service (15 years total)  
 C Built New between January 1, 1964 - June 30, 1974, Certified for 50 Years of Service, Built New Before July 1, 1974 & Received AAR Waiver  
 E Built new from July 1, 1974, Qualified for 50 Years Service  
 N Built Before January 1, 1964, Qualified for 40 Years Service  
 R Rule 88, Rebuilt cars  
 U Built between January 1, 1964 - June 30, 1974, Qualified for 40 Years & eligible for certification for 50 Years Service  
 V Car is certified (FRA Waiver & AAR) for 65 years of service from date built new from January 1, 1964

**Validation Rule for A096**

- If Rebuilt Date (RBDT) is reported, then the Extended Service Code (A096) must be reported as R for Rebuilt, V, 1, 2, or 3 for Increased Life Service
- Extended Service Code of C cannot be reported if the car was built before January 1, 1964 or on/after July 1, 1974
- Extended Service Code of E cannot be reported if the car was built before July 1, 1974

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- Extended Service Code of N cannot be reported if the car was built on/after January 1, 1964
- Extended Service Code of U cannot be reported if the car was built before January 1, 1964 or on/after July 1, 1974

**NOTES:**

- Value is used to calculate End of Service Date (B078).
- Rebuilt Date (RBDT) is required for Extended Service Code (A096) R for Rebuilt, or V for 65 years service.
- Rebuilt Date (RBDT) is required for Extended Service Code (A096) 1, 2, 3, and V for Increased Life Service.

| End of Service Date                             | B078 |
|-------------------------------------------------|------|
| Indicates the date of the end of equipment life |      |

Data is Confidential. System Generated Field. This element is not eligible for Input.

**NOTES:**

- Data becomes non-confidential two years prior to End of Service Date.

| Do Not Load After                                              | B590 |
|----------------------------------------------------------------|------|
| Equipment should not be loaded after date shown in the element |      |

Data is Confidential.

**Validation Rules for B590**

- Do Not Load After (B590) cannot be updated thirty days prior to the date shown in the element.
- Do Not Load After (B590) cannot be updated within thirty days of the End of Service Date (B078).
- Do Not Load After (B590) date cannot be on or after the End of Service (B078) date.

**NOTES:**

- The element will be initially populated by End of Service (B078) minus 30 days.
- Data becomes non-confidential thirty days prior to the Do Not Load After (B590) date.

| Equipment Identification                                 | EINN |
|----------------------------------------------------------|------|
| Unique equipment identifier regardless of stenciled mark |      |

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Specify the Prior ID (PRID) on equipment records to ensure the historical lineage is preserved. Equipment with the same EIN share history and inspections.

| Info Conflict Status                                                    | B355 |
|-------------------------------------------------------------------------|------|
| Indicates that an Informational Conflict exists on the Equipment record |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

| Conflict Status                                                 | B050 |
|-----------------------------------------------------------------|------|
| Identifies the escalation level of equipment in active conflict |      |

System Generated Field. Affects Rating. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B050**

- 1 Subject to Zero-Rating
- 2 Subject to Restricted in Interchange
- 3 Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

| Date of Original Conflict                                            | B063 |
|----------------------------------------------------------------------|------|
| The date the equipment was originally placed in the current conflict |      |

System Generated Field. This element is not eligible for Input.

| Next Conflict Status                                                    | B135 |
|-------------------------------------------------------------------------|------|
| Identifies the next escalation level of an equipment in active conflict |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B135**

- 1 Subject to Zero-Rating
- 2 Subject to Restricted in Interchange
- 3 Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

| Notice Indicator                                         | B137 |
|----------------------------------------------------------|------|
| Identifies equipment in error in Umler Notice Management |      |

System Generated Field. This element is not eligible for Input.

| Conflict Status Next Date                      | B062 |
|------------------------------------------------|------|
| The date the conflict status will be escalated |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

| Rate Indicator                                 | A070 |
|------------------------------------------------|------|
| Indicates the rate type applicable to the unit |      |

System Generated Field. Used for Transportation Codes. Affects Rating. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for A070**

- 0 Zero-Rated Due to Conflict Errors
- 2 Private Mileage Rate
- 4 Private Car Owner Designated Rate
- 6 Zero-Rated - Scrap (S\_,SX), AAR Overage (XA), FRA Overage (YA), Umler Conflict - CHR 1/Tariff 6007 (XZ). Zero-Rated Private Owner Election to Zero Rate [See Private Zero Rate (B150)].
- M Railroad Market Rate
- Q Zero-Rated Railroad Market Rate Due to Conflict Errors

**NOTES:**

- If unit is zero-rated, correction of conflicts will reinstate the appropriate rate indicator code.

| Private Zero Rate                                                                     | B150 |
|---------------------------------------------------------------------------------------|------|
| Indicates a private car is subject to contractual agreement, nullifying mileage rates |      |

Affects Rating.

**Permissible Values for B150**

- Y Yes

**NOTES:**

- Reporting "Y" generates Rate Indicator (A070) value 6 and a zero rate.

| TTX Hourly Rate                                   | B212 |
|---------------------------------------------------|------|
| Time Charge-The TTX hourly rate for the equipment |      |

Data is Confidential. This element is not eligible for Query.

**Range of Values for B212**

| Minimum | Maximum |
|---------|---------|
| 0       | 9       |

**Validation Rule for B212**

-TTX Hourly rate can only be set on TTX owned Equipment.

| TTX Mileage Rate                                      | B213 |
|-------------------------------------------------------|------|
| Mileage Charge-The TTX mileage rate for the equipment |      |

Data is Confidential. This element is not eligible for Query.

**Range of Values for B213**

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| Minimum | Maximum |
|---------|---------|
| 0       | 1       |

**Validation Rule for B213**

-TTX Mileage rate can only be set on TTX owned Equipment.

**First Movement Date** **USAT**

The first movement date under the stenciled mark of the equipment

This element is not eligible for Input. Does not Carry Forward.

**Equipment Add Company** **B083**

The reporting mark of the company that added the equipment

System Generated Field. This element is not eligible for Input.

**Registration Reason** **B174**

The code indicating the reason this equipment is added

Does not Carry Forward.

**Permissible Values for B174**

|   |                   |   |           |
|---|-------------------|---|-----------|
| A | Add-Back          | N | New       |
| P | Pending Restencil | R | Restencil |

**Restencil Program Ind** **B177**

Identifies the equipment is under a restencil program

**Permissible Values for B177**

|   |     |
|---|-----|
| Y | Yes |
|---|-----|

**Delete Reason Code** **B064**

A code that designates the reason the equipment has been deleted

Value does not carry forward for Add Back.

**Permissible Values for B064**

|   |                                              |
|---|----------------------------------------------|
| A | Restenciled                                  |
| D | Destroyed or wrecked                         |
| L | Lease terminated, removed from fleet         |
| P | Retired unserviceable beyond economic repair |
| R | Rebuilt                                      |
| S | Sold Serviceable                             |
| T | Lost                                         |
| W | Over age retired for dismantling             |
| Y | Error, reporting did not exist               |
| Z | Other                                        |

**Non-Compliant Wheelsets** **B544**

Equipment record is incomplete and has a missing wheelset component ID association. Refer to AAR Field Manual Rule 44 for industry requirements

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B544**

- A Wheelset Component ID is required for each applicable location on equipment built on or after January 1, 2016
- A Wheelset Component ID is required for each applicable location on equipment rebuilt on or after January 1, 2016 and Gross Rail Load (A266) is greater than 268,000 lbs

**NOTES:**

- A "Y" will be system generated if the equipment is active and the number of Wheelset CID's required is not equal to the Axle Count (A024) on the equipment
- Validation rule applies to equipment that has been in Active status for 60 days

**Pseudo Equipment Group** **B547**

Equipment needs to be identified as a miscellaneous record while maintaining all elements linked to the original equipment group

System Generated Field.

**Permissible Values for B547**

MISC Miscellaneous

**Weight****Gross Rail Load/Weight** **Mandatory****A266**

The maximum permissible weight on rail of the equipment and the load, reported in pounds

Affects Rating.

**Range of Values for A266**

| Minimum | Maximum |
|---------|---------|
| 108000  | 2835000 |

**Validation Rule for A266**

-Gross Rail Load must be equal to the Load Limit (LDLT) plus the Tare Weight (A259)

**NOTES:**

Use Table 1 below to determine Gross Rail Load, if Qualification for Increased Gross Rail Load (B344) does not exist.

TABLE 1 -

| Journal Size                    | Load per Axle | Gross Rail Load for 4-axle Equipment |
|---------------------------------|---------------|--------------------------------------|
| B - 4 1/2" x 8"                 | 25,750 lbs.   | 103,000 lbs.                         |
| C - 5" x 9"                     | 35,500 lbs.   | 142,000 lbs.                         |
| D - 5 1/2" x 10"                | 44,250 lbs.   | 177,000 lbs.                         |
| E - 6" x 11"                    | 55,000 lbs.   | 220,000 lbs.                         |
| E - 6" x 11" (w/ 28" 1W wheels) | 48,750 lbs.   | 195,000 lbs.                         |
| F - 6 1/2" x 12"                | 65,750 lbs.   | 263,000 lbs.                         |
| G - 7" x 12"                    | 78,750 lbs.   | 315,000 lbs.                         |
| K - 6 1/2" x 9"                 | 71,500 lbs.   | 263,000 lbs.                         |
| M - 7" x 9"                     | 78,750 lbs.   | 315,000 lbs.                         |

Use Table 2 below to determine Gross Rail Load for 4-axle equipment if Qualification for Increased Gross Rail Load (B344) exists.

TABLE 2 -

| Qualification for Increased Gross Rail Load (B344) | Journal Size     | Gross Rail Load |
|----------------------------------------------------|------------------|-----------------|
| 1                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 1                                                  | G - 7" x 12"     | 286,000 lbs.    |
| 1                                                  | M - 7" x 9"      | 286,000 lbs.    |
| 2                                                  | F - 6 1/2" x 12" | 286,000 lbs.    |
| 2                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 3                                                  | F - 6 1/2" x 12" | 268,000 lbs.    |
| 3                                                  | K - 6 1/2" x 9"  | 268,000 lbs.    |

- For multi-unit equipment, report the total gross rail load for the entire set.
- Refer to Field Manual Rule 70 if additional information is required.

A Gross Rail Load less than the listed or calculated values may be entered if:

- Star Code (A247) is R or S, and
- Load Limit (LDLT) must also be reduced, ensuring Tare Weight (A259) plus Load Limit (LDLT) equals the reported Gross Rail Load.

For equipment having two or more different journal sizes, see following examples:

Example for Drawbar Connected:

- A 3-unit drawbar connected car has 12 axles.
- The end units (Locations A and B) each have 4 axles with E - 6" x 11" journals.
- The intermediate unit (Locations C) has 4 axles with F - 6 1/2" x 12" journals

Using TABLE 1, the Gross Rail Load would be:



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8 ea. E-6" x 11" journal axles X 55,000 lbs. per axle = 440,000 lbs.  
 + 4 ea. F-6 1/2" x 12" journal axles X 65,750 lbs. per axle = 263,000 lbs.  
 Gross Rail Load = 703,000 lbs.

Example for Articulated Connected:

A 5-unit articulated car has 6 trucks (12 axles).

The end trucks (Locations A and B) each have 2 axles with E - 6" x 11" journals.

The intermediate trucks (Locations C, D, E, and F) each have 2 axles with G - 7" x 12" journals

Using TABLE 1, the Gross Rail Load would be:

- 4 ea. E-6" x 11" journal axles X 55,000 lbs. per axle = 220,000 lbs.
- + 8 ea. G-7" x 12" journal axles X 78,750 lbs. per axle = 630,000 lbs.
- Gross Rail Load = 850,000 lbs.

#### Tare Weight *Mandatory* A259

The equipment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds

Affects Rating.

##### Range of Values for A259

| Minimum | Maximum |
|---------|---------|
| 34300   | 1287000 |

##### Validation Rule for A259

- Tare Weight (A259) value must be reported to the nearest 100 pounds

##### NOTES:

- Do not report an average Tare Weight for car series, except for Pre-Registered cars
- When cars are made active, the actual Tare Weight must be recorded
- For current single-unit FLATs, lowest tare is 34,320 lbs. (Round down to 34,300). Largest tare weight for 4-axle car is approx. 143,000 lbs. Maximum permissible value shown is 143,000 lbs. X 9 = 1,287,000.

#### Load Limit *Mandatory* LDLT

The maximum permissible weight of the commodity that can be loaded into the equipment, reported in pounds

Used in ETC Generation. Affects Rating.

##### Range of Values for LDLT

| Minimum | Maximum |
|---------|---------|
| 35000   | 2225000 |

##### NOTES:

- For connected unit cars report the sum of the load limits for all units in the set.
- For current single-unit FLATs, lowest load limit is 35,000 lbs. Largest tare weight for a 4-axle car is approx. 250,000 lbs. Maximum permissible value shown is 250,000 lbs. x 9 = 2,225,000 lbs.

#### Weighing Status *Mandatory* A289

Indicates the weight information is an estimate or an actual measurement

Value does not carry forward for Single Clone / Multi-Clone.

##### Permissible Values for A289

- A Actual
- E Estimated
- V Verified correct Tare Weight
- X Tare Weight subject to verification (System Generated)

##### Validation Rule for A289

- Equipment cannot be within a series of 10 with identical Tare Weights (A259), refer to Appendix P for further information on resolving tare weight conflicts
- When Status Code changes to Active or Inactive Weighing Status must be reported as Actual (A) or Verified (V) within 60 days of Status Code change

#### Weighing Date A288

#### The date the equipment was actually weighed

Value does not carry forward for Single Clone / Multi-Clone.

##### Range of Values for A288

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

##### Validation Rule for A288

- If Weighing Date is reported the Tare Weight (A259) must be reported
- When Weighing Date is reported then Weighing Status (A289) must be A (Actual) or V (Verified)
- If Weighing Status (A289) is A (Actual) or V (Verified correct Tare Weight) then Weighing Date must be reported
- Weighing Date must be on or before the current date
- Weighing Date cannot be before Built / Rebuilt date

#### Cubic Feet Capacity A067

The maximum interior cubic feet capacity of the equipment

##### Range of Values for A067

| Minimum | Maximum |
|---------|---------|
| 2400    | 8000    |

##### Validation Rule for A067

- Cubic Feet Capacity can only be reported on Flat Cars having a Permanent Container

##### NOTES:

- For connected unit cars report the sum of all units cubic capacity.

#### Star Code A247

Indicates a reduction of the Load Limit (LDLT) of the equipment per AAR Rule 70

Affects Rating.

##### Permissible Values for A247

- R Body Capacity less than Truck Capacity
- S Reduced Load Limit

##### NOTE:

- Star Code must be reported if Gross Rail Load (A266) is less than the maximum gross rail allowed for the reported combination of Axle Count (A024) and Journal Size (A147)

#### Qual for Inc GRL B344

Code designating AAR approval for operating 4-axle equipment at a gross rail load greater than 263,000 lbs. per AAR Rule 88

##### Permissible Values for B344

- 1 Rule 88 IGRL Code 1 (> 263,000 lbs. and <= 286,000 lbs. GRL per AAR Specification S-286)
- 2 Rule 88 IGRL Code 2 (> 263,000 lbs. and <= 286,000 lbs. GRL)
- 3 Rule 88 IGRL Code 3 (> 263,000 lbs. and <= 268,000 lbs. GRL)

##### Validation Rules for B344

- Equipment having Qualification for Increased Gross Rail Load of 1 or 2 must have a Gross Rail Load (A266) that does not exceed 286,000 lbs.
- Equipment having Qualification for Increased Gross Rail Load of 3 must have a Gross Rail Load (A266) that does not exceed 268,000 lbs.
- Equipment having Qualification for Increased Gross Rail Load of 1 must have a Journal Size (A147) of K, G, or M
- Equipment having Qualification for Increased Rail Load of 2 or 3 must have a Journal Size (A147) of F or K
- Equipment having Qualification for Increased Gross Rail Load of 1, 2, or 3 must have a Wheel Diameter (A294) of 36 or 38
- Equipment having Qualification for Increased Gross Rail Load (B344) of 3 and a Gross Rail Load (A266) less than 268,000 lbs., must have Star Code of S

##### NOTES:

- Qualification for Increased Gross Rail Load must be granted by the AAR, and applies only to 4-axle equipment approved for gross rail loads greater than 263,000 lbs. and less than or equal to 286,000 lbs. It does NOT apply to 4-axle, 315,000 lbs. gross rail load equipment operating with a Star Code.

## Dimension

Plate Code *Mandatory*

A046

Indicates the extreme height and width clearance of the equipment

Affects Rating.

## Permissible Values for A046

- B Plate Code B
- C Plate Code C
- E Plate Code E
- F Plate Code F
- G Clearance Code G
- N Plate Code N

## NOTES:

- For a description of Plate Codes, please see Appendix J at the back of this manual.
  - Report B: If clearance does not exceed Plate B
  - Report C: If clearance is greater than Plate B, but does not exceed Plate C
  - Report E: If clearance is greater than Plates B and C, but does not exceed Plate E.
  - Report F: If clearance is greater than Plates B, C and E, but does not exceed Plate F
  - Report G: If clearance exceeds Plates B, C, E, F, and N.
  - Report N: If clearance is greater than Plates B, C, E, and F, but does not exceed Plate N.
- There is no AAR Plate G. Clearance Code G is included in Umler to represent equipment that does not fit any existing AAR clearance plates.
- For ARTICULATED/MULTI-UNIT SET report the most restrictive clearance plate of UNIT in the set.

Outside Length *Mandatory*

OSLG

The outside length over pulling faces of couplers in normal position

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

## Range of Values for OSLG

| Minimum        | Maximum          |
|----------------|------------------|
| 24 ft 0 inches | 2330 ft 0 inches |

## Validation Rule for OSLG

- Non-Articulated Flat Cars cannot have an Outside Length greater than 124 feet
- Outside Length (OSLG) on freight cars must exceed the Inside Length (A135) by 2 feet or more
- If Axle Count (A024) is 4, then Outside Length must not exceed Inside Length (A135) by more than 24 feet

## NOTES:

- For connected unit cars report the maximum coupled length of the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

Outside Extreme Width *Mandatory*

A186

The outside extreme width of the equipment

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

## Range of Values for A186

| Minimum       | Maximum        |
|---------------|----------------|
| 7 ft 0 inches | 12 ft 7 inches |

## Validation Rule for A186

- Outside Extreme Width must not exceed 10 feet 8 inches for Plate Codes B, C, E, F, or N
- Outside Extreme Width (A186) for Plate Code A must not be less than 10 feet 8 inches.
- Outside Extreme Width (A186) for Plate Code A must not exceed 10 feet 10 inches.

## NOTES:

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

Outside Extreme Height *Mandatory*

A185

Height from top of rail to extreme projecting height

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

## Range of Values for A185

| Minimum       | Maximum        |
|---------------|----------------|
| 2 ft 0 inches | 22 ft 6 inches |

## Validation Rule for A185

- Flat Cars with Plate Code B must not exceed a Maximum Outside Extreme Height of 15 feet 1 inches
- Flat Cars without (Canopy and (Plate Code C or I)) must not exceed Outside Extreme Height of 15 feet 6 inches
- Flat Cars without (Canopy and (Plate Code E or J)) must not exceed Outside Extreme Height of 15 feet 9 inches
- Flat Cars without (Canopy and (Plate Code F or K)) must not exceed Outside Extreme Height of 17 feet 0 inches
- Flat Cars (UMMD = FMS) without (Canopy and (Plate Code B or H)) must not exceed Outside Extreme Height of 15 feet 1 inches
- Flat Cars (UMMD = FMS) without (Canopy and (Plate Code C or I)) must not exceed Outside Extreme Height of 15 feet 6 inches
- Flat Cars (UMMD = FMS) without Canopy and with Plate Code E or J must have Outside Extreme Height of less than or equal to 15 feet 9 inches
- Flat Cars (UMMD = FMS) without Canopy and with Plate Code F or K must have Outside Extreme Height of less than or equal to 17 feet 0 inches
- Flat Cars (UMMD = FMS) with Canopy must have Outside Extreme Height of less than or equal to 22 feet 6 inches
- Flat Cars (UMMD = FMS) with Canopy must have Outside Extreme Height greater than or equal to 17 feet 0 inches
- Outside Extreme Height for Plate Code N must be less than or equal to 17 feet 1 inch

## NOTES:

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

Outside Height Extr Width *Mandatory*

A187

The highest point at which the extreme width of the equipment occurs

Displayed in feet and inches on the Web. Stored in inches.

## Range of Values for A187

| Minimum       | Maximum        |
|---------------|----------------|
| 1 ft 0 inches | 20 ft 0 inches |

## Validation Rule for A187

- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 8 inches if Outside Height Extreme Width is 13 feet 10 inches or less
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 7 inches if Outside Height Extreme Width is 13 feet 11 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 6 inches if Outside Height Extreme Width is 14 feet 0 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 4 inches if Outside Height Extreme Width is 14 feet 1 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 3 inches if Outside Height Extreme Width is 14 feet 2 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 2 inches if Outside Height Extreme Width is 14 feet 3 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 0 inches if Outside Height Extreme Width is 14 feet 4 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 9 feet 9 inches if Outside Height Extreme Width is 14 feet 5 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 9 feet 5 inches if Outside Height Extreme Width is 14 feet 6 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 9 feet 2 inches if Outside Height Extreme Width is 14 feet 7 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 8 feet 10 inches if Outside Height Extreme Width is 14 feet 8 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 8 feet 6 inches if Outside Height Extreme Width is 14 feet 9 inches

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- Outside Extreme Width (A186) for Plate Codes B must not exceed 8 feet 3 inches if Outside Height Extreme Width is 14 feet 10 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 7 feet 11 inches if Outside Height Extreme Width is 14 feet 11 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 7 feet 6 inches if Outside Height Extreme Width is 15 feet 0 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 7 feet 4 inches if Outside Height Extreme Width is 15 feet 1 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 8 inches if Outside Height Extreme Width is 14 feet 3 inches or less
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 7 inches if Outside Height Extreme Width is 14 feet 4 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 6 inches if Outside Height Extreme Width is 14 feet 5 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 4 inches if Outside Height Extreme Width is 14 feet 6 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 3 inches if Outside Height Extreme Width is 14 feet 7 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 2 inches if Outside Height Extreme Width is 14 feet 8 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 0 inches if Outside Height Extreme Width is 14 feet 9 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 9 feet 9 inches if Outside Height Extreme Width is 14 feet 10 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 9 feet 5 inches if Outside Height Extreme Width is 14 feet 11 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 9 feet 2 inches if Outside Height Extreme Width is 15 feet 0 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 8 feet 10 inches if Outside Height Extreme Width is 15 feet 1 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 8 feet 6 inches if Outside Height Extreme Width is 15 feet 2 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 8 feet 3 inches if Outside Height Extreme Width is 15 feet 3 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 7 feet 11 inches if Outside Height Extreme Width is 15 feet 4 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 7 feet 8 inches if Outside Height Extreme Width is 15 feet 5 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 7 feet 4 inches if Outside Height Extreme Width is 15 feet 6 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 8 inches if Outside Height Extreme Width is 15 feet 2 inches or less
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 6 inches if Outside Height Extreme Width is 15 feet 3 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 3 inches if Outside Height Extreme Width is 15 feet 4 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 9 feet 6 inches if Outside Height Extreme Width is 15 feet 5 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 8 feet 8 inches if Outside Height Extreme Width is 15 feet 6 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 7 feet 11 inches if Outside Height Extreme Width is 15 feet 7 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 7 feet 1 inches if Outside Height Extreme Width is 15 feet 8 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 6 feet 3 inches if Outside Height Extreme Width is 15 feet 9 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 8 inches if Outside Height Extreme Width is 16 feet 3 inches or less
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 7 inches if Outside Height Extreme Width is between 16 feet 4 inches and 16 feet 6 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 6 inches if Outside Height Extreme Width is 16 feet 7 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 3 inches if Outside Height Extreme Width is 16 feet 8 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 0 inches if Outside Height Extreme Width is 16 feet 9 inches

- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 8 inches if Outside Height Extreme Width is 16 feet 10 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 5 inches if Outside Height Extreme Width is 16 feet 11 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 2 inches if Outside Height Extreme Width is 17 feet 0 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 8 inches if Outside Height Extreme Width (A187) is 16 feet 9 inches or less
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 6 inches if Outside Height Extreme Width (A187) is 16 feet 10 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 4 inches if Outside Height Extreme Width (A187) is 16 feet 11 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 2 inches if Outside Height Extreme Width (A187) is 17 feet 0 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 9 feet 11 inches if Outside Height Extreme Width (A187) is 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Inside Length Mandatory****A135**

The inside length of the equipment from end to end inside walls, linings, and permanent bulkheads

Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A135**

| Minimum        | Maximum        |
|----------------|----------------|
| 20 ft 0 inches | 99 ft 3 inches |

**Validation Rule for A135**

- Inside Length/Inside Platform Length must be less than or equal to Outside Length (OSLG)

**NOTES:**

- Round fraction to the lower inch, e.g., 05 1/4" = 05"
- For connected unit cars report the shortest dimension of a unit in the set.

**Inside Width****A138**

The inside width of the equipment from side walls and linings

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A138**

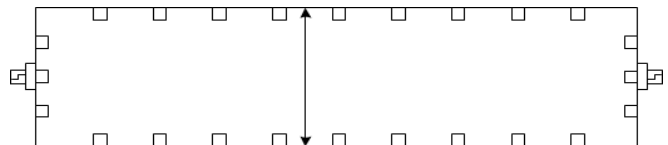
| Minimum       | Maximum        |
|---------------|----------------|
| 4 ft 0 inches | 12 ft 6 inches |

**Validation Rule for A138**

- Inside Width/Inside Platform Width must not exceed Outside Extreme Width

**NOTES:**

- For connected unit cars report the shortest dimension of a unit in the set.
- For the inside width of multi-level (FA) flat cars report the most restrictive deck width. Articulated (FA) flat cars report the most restrictive deck width for single unit of the consist. If articulated and the platforms are different widths, report the most restrictive width dimension.

**Truck Center Length****A276**

The length between the centers of the two truck systems

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A276**

| Minimum        | Maximum         |
|----------------|-----------------|
| 15 ft 0 inches | 76 ft 11 inches |

**Validation Rule for A276**

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- Truck Center Length is required for cars with an Outside Length of greater than 62 feet 6 inches
- Truck Center Length must be a minimum of 15 feet for cars with an Outside Length greater than 62 feet 6 inches

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.

**Inset Stake Pkts Plat Len** **A131**

Inset Stake Pockets - Platform Length-Describes the length of platform in inches

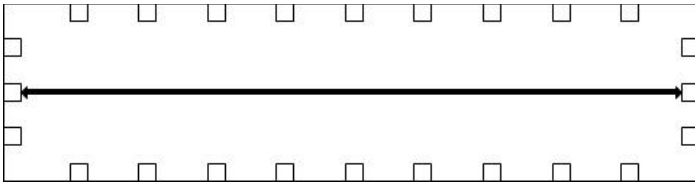
Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A131**

| Minimum        | Maximum         |
|----------------|-----------------|
| 20 ft 0 inches | 99 ft 11 inches |

**NOTES:**

- Measurement between stake pockets:

**Inset Stake Pkts Plat Wdt** **A132**

Describes the width of platform in inches

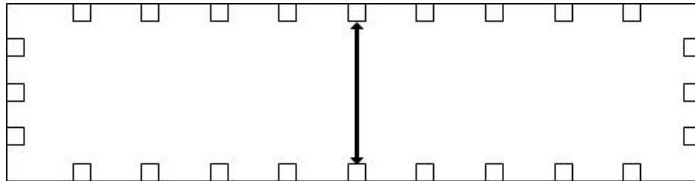
Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A132**

| Minimum       | Maximum        |
|---------------|----------------|
| 4 ft 0 inches | 11 ft 6 inches |

**NOTES:**

- Measurement between stake pockets:

**Platform Hght Above Rail** **Mandatory** **A192**

Describes the platform height above the rail in inches

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A192**

| Minimum       | Maximum        |
|---------------|----------------|
| 2 ft 0 inches | 8 ft 10 inches |

**Validation Rule for A192**

- Flat Cars (UMMD = FM, FMS, FB, FBS, FL, or FBC) must be less than or equal Platform Height Above Rail of 5 feet 11 inches
- Platform Height cannot be greater than Outside Height

**NOTES:**

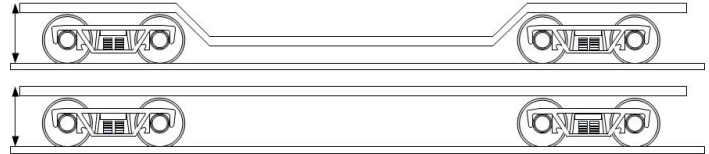
- EXCEPTIONS: For bi-level and tri-level flat cars, measurement is from top of rail to top of floor of lower deck. Feet in Pos. 45-46, inches in Pos. 47-48. Round fraction to the higher inch, e.g., 05 1/4" = 06". This field must agree relationally for V\_\_\_ Equipment Type Codes and P\_\_\_.

|                               |                                 |
|-------------------------------|---------------------------------|
| P___                          | MINIMUM—1ft 1in MAXIMUM—4ft 9in |
| Q___                          | MINIMUM—10in MAXIMUM—4ft        |
| S___                          | MINIMUM—10in MAXIMUM—4ft        |
| All F___ except F_3_ and F_6_ | MINIMUM—2ft MAXIMUM—5ft 11in    |
| All F_3_, F_6_ and F_9_       | MINIMUM—2ft MAXIMUM—8ft 11in    |

|                        |                                  |
|------------------------|----------------------------------|
| Q8__                   | MINIMUM—2ft 6in MAXIMUM—5ft      |
| P1__, P2__, P5__, P6__ | MINIMUM—2ft MAXIMUM—3ft 3in      |
| P3__, P4__, P7__, P8__ | MINIMUM—3ft 4in MAXIMUM—5ft 11in |
| P9__                   | MINIMUM—3ft 2in MAXIMUM—3ft 2in  |
| Q_1_                   | MINIMUM—2ft MAXIMUM—2ft 8in      |

- See diagram below for place of measurement on depressed cars (Equipment Type Code F\_3\_, F\_9) and well cars (Equipment Type Code F\_6\_).

- Side view of car.

**Height of Platform** **B239**

Describes the height of the lowest point of the platform above the rail in inches

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for B239**

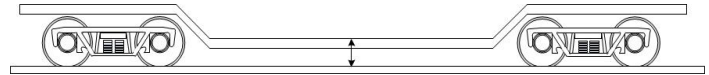
| Minimum       | Maximum        |
|---------------|----------------|
| 0 ft 6 inches | 5 ft 11 inches |

**Validation Rule for B239**

- Height of Depressed Platform above Rail can only be reported for cars with Mechanical Designations of FD, FDC, or FW

**NOTES:**

- Side view of car.

**Bulkhead Top Width** **B038**

Describes the width of the bulkhead

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for B038**

| Minimum       | Maximum        |
|---------------|----------------|
| 2 ft 1 inches | 11 ft 7 inches |

**Validation Rule for B038**

- Bulkhead Top Width requires Bulkheads on cars
- Cars with Plate Codes of B, C, E, F, H, or I can only report a maximum Bulkhead Top Width of 10 feet 8 inches
- Bulkhead Top Width with Plate Code B, E, F, or H must have a Bulkhead Top Width greater than or equal 6 feet
- Bulkhead Top Width must be reported for Mechanical Designations (UMMD) FB, FBC, FBS, FDC, or LP

**Bulkhd Height Abov Pltfrm** **B035**

Describes the height of the bulkhead

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for B035**

| Minimum       | Maximum        |
|---------------|----------------|
| 3 ft 0 inches | 16 ft 3 inches |

**Validation Rule for B035**

- Bulkhead Height Above Platform must be reported for Mechanical Designations (UMMD) FB, FBC, FBS, FDC, or LP

**Depressed/Well Bot Width** **B066**

Describes the platform width at the lowest point

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Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for B066**

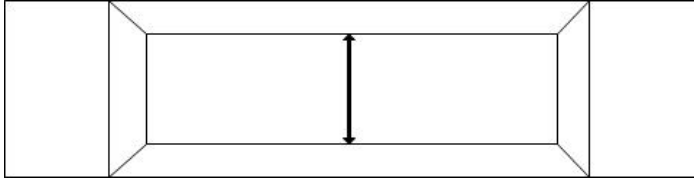
| Minimum        | Maximum         |
|----------------|-----------------|
| 3 ft 10 inches | 10 ft 10 inches |

**Validation Rule for B066**

- Depressed or Well Flat Bottom Width used only for Mechanical Designation of FD, FDC, or FW
- Depressed or Well Flat Bottom Length can only be reported for cars with Mechanical Designation of FD, FDC, or FW

**NOTES:**

- Measurement at top of depression/well:

**Depressed/Well Bot Length****B065****Well Or Depressed Flat--Bottom Length**

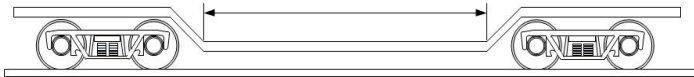
Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for B065**

| Minimum       | Maximum         |
|---------------|-----------------|
| 7 ft 6 inches | 56 ft 10 inches |

**NOTES:**

- Measurement at bottom of depression/well:

**Depressed/Well Top Width****B068****Well Or Depressed Flat--Top Width**

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for B068**

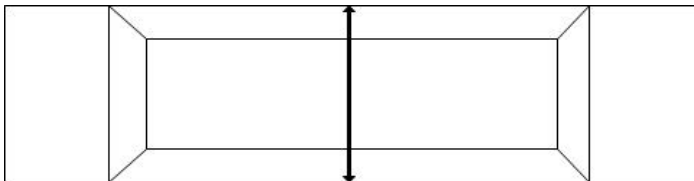
| Minimum       | Maximum         |
|---------------|-----------------|
| 3 ft 7 inches | 11 ft 10 inches |

**Validation Rule for B068**

- Depressed or Well Flat Top Width can only be reported for cars with Mechanical Designation of FD, FDC, or FW

**NOTES:**

- Measurement at top view of depression/well:

**Depressed/Well Top Length****B067****Well Or Depressed Flat--Top Length**

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for B067**

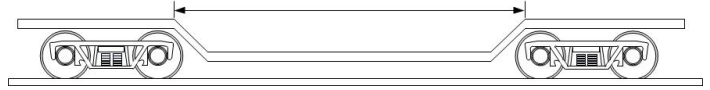
| Minimum        | Maximum         |
|----------------|-----------------|
| 14 ft 0 inches | 61 ft 10 inches |

**Validation Rule for B067**

- Depressed or Well Flat Top Length can only be reported for cars with Mechanical Designation of FD, FDC, or FW

**NOTES:**

- Measurement at top view of depression/well:

**Mid-ordinate Offset (MOO)****A167****Mid-Ordinate Offset (MOO)****Range of Values for A167**

| Minimum | Maximum            |
|---------|--------------------|
| 0       | 9.9990000000000006 |

**Validation Rule for A167**

- Mid-Ordinate Offset (MOO) can only be reported for Mechanical Designations of (LS, FD, FW, FM, and FMS) with GRL greater than or equal 200,000 pounds and axle count greater than or equal 6
- Mid-Ordinate Offset (MOO) can only be reported for Flat Cars having an axle count equal to or greater than 6

**End-Swing Offset (ESO)****A084****End-Swing Offset (ESO)****Range of Values for A084**

| Minimum | Maximum            |
|---------|--------------------|
| 0       | 9.9990000000000006 |

**Validation Rule for A084**

- End-Swing Offset (ESO) can only be reported for Mechanical Designation of (LS, FD, FW, FMS, and FM) with GRL greater than or equal 200,000 pounds and axle count greater than or equal 6
- End-Swing Offset (ESO) is only applicable to Flat Cars having GRL of 200,000 pounds or greater
- End-Swing Offset (ESO) is only applicable to Flat Cars having an axle count equal to or greater than 6

**Perm Cont Platform Height****B052****Bulkhead Or Container - Hgt. Above Plat. Well Or Depressed Flat - Height Of Platform**

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for B052**

| Minimum       | Maximum        |
|---------------|----------------|
| 3 ft 0 inches | 17 ft 6 inches |

**Validation Rule for B052**

- Bulkhead Height Above Platform and Height of Depressed Platform above Rail are mutually exclusive, either one or the other can be reported but not both
- Permanent Container Top Height Above Platform can only be reported on car having Permanent Containers
- Permanent Container Top Height Above Platform can only be set for cars that have Permanent Containers

**Permanent Cont Top Width****B056****Bulkhead Or Container - Top Width**

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for B056**

| Minimum       | Maximum        |
|---------------|----------------|
| 6 ft 0 inches | 99 ft 6 inches |

**Validation Rule for B056**

- Permanent Container Top Width can only be set for cars with a permanently mounted container (B054)
- Permanent Container Top Width with Plate Code B, C, E, F, H, or I must be less than or equal 10 feet 8 inches



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- Permanent Container Top Width with Plate Code B, E, or F must be greater than or equal 6 feet

## Specification

## Truck Count

B256

The total number of trucks on the equipment

System Generated Field. This element is not eligible for Input.

## Range of Values for B256

| Minimum | Maximum |
|---------|---------|
| 2       | 18      |

Axle Count *Mandatory*

A024

The total number of axles on the equipment

Affects Rating.

## Range of Values for A024

| Minimum | Maximum |
|---------|---------|
| 4       | 36      |

## Validation Rule for A024

- Axle Count must be greater than or equal to 4
- Axle Count for an articulated car must be greater than or equal to ((Connected Unit Count (A020) x 2) + 2)
- Axle Count for a draw bar connected car must be greater than or equal to (Connected Unit Count (A020) x 4)
- Total Axle Count must match sum of truck axle counts

## NOTES:

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

Wheel Bearing Type *Mandatory*

B191

Indicates the wheel bearing journal design for the equipment

Affects Rating.

## Permissible Values for B191

P Plain R Roller

## Validation Rule for B191

- Cars with Plain Bearings will have a Transportation Code (TCOD) and Transportation Condition Code (TCCD) of either YA, S, SX, or XJ
- Equipment cannot have Plain Bearings if Built Date (BLDT) is on or after January 1, 1993

## NOTES:

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

## Bearing Shielded From HBD

B021

Indicates the wheel bearings are shielded from wayside hot box detectors

## Permissible Values for B021

Y Yes

Brake Shoe Type *Mandatory*

B026

Indicates the type of brake shoe on the equipment

## Permissible Values for B026

C Tread Conditioning  
H High Friction Composite  
L Low Friction Composite/Cast Iron

## CC Side Bearing Type

A146

Indicates the travel range of the constant contact side bearings installed on the equipment

## Permissible Values for A146

LC Long Travel Constant Contact  
SC Short Travel Constant Contact

## Validation Rule for A146

- Equipment having Qualification for Increased Gross Rail Load (B344) of 1 must have Constant Contact Side Bearing Type of LC

## NOTES:

- For Mechanical Designation (UMMD) FB, FBC, FBS, Constant Contact Side Bearing Type is mandatory. If not reported, Mechanical Restriction "X" and Mechanical Restriction Reason "N" will be applied to car

## Empty/Load Device Eqpd

B075

Indicates that the air brake system includes a device to determine if the equipment is empty or loaded, and then varies the braking forces accordingly

## Permissible Values for B075

Y Yes

## Center of Gravity Empty

A045

When empty, indicates the height from Top of Rail to the Center of Gravity

Affects Rating.

## Range of Values for A045

| Minimum | Maximum |
|---------|---------|
| 22      | 63      |

## Validation Rule for A045

- All cars that exceed Plate Code (A046) C must report Center of Gravity Empty except for cars with Equipment Type Code (UMET) of J\_ \_ \_
- All Flat Cars with an Equipment Type Code (UMET) of F\_ \_ \_ must report Center of Gravity Empty

## Remote Monitoring Device

B176

Indicates the equipment has a device that transmits a signal or records data

## Permissible Values for B176

Y Yes  
N No

## AEI High Temperature Tag

B006

Indicates the equipment is equipped with a high temperature AEI tag

## Permissible Values for B006

Y High Temperature Tag

## Floor Cradle/Trough Eqpd

A103

Indicates the equipment has a floor cradle or trough

## Permissible Values for A103

Y Yes

## Validation Rule for A103

- If Dedicated Service Type (B346) is set to Coiled Steel then Floor Cradle/Trough must be reported

## Non-Fish Belly

B136

Indicates that the center sill does not have an increased section depth between the two trucks

## Permissible Values for B136

Y Yes

## Validation Rule for B136

- Non-Fish Belly is only applicable to cars with Flat Mechanical Designation of FM, FMS, FB, FBC, or FBS

## Connected Unit Count

A020

Indicates the number of units within an articulated or multi-unit equipment

Affects Rating.

## Range of Values for A020

| Minimum | Maximum |
|---------|---------|
| 2       | 9       |

## Validation Rule for A020

- Connected Unit Count must equal the number of Unit Segments

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- Unit Segment Component elements must not be reported if the Connected Unit Count is not reported
- Unit Segment Component elements must be reported if Connected Unit Count is reported

**Intermediate Conn Style****B115**

Indicates the method by which two or more pieces of equipment are connected

**Permissible Values for B115**

- A Articulated Connector
- D Drawbar Connector

**Validation Rule for B115**

- Intermediate Connector Style is required for multi-unit equipment
- Intermediate Connector Style must not be reported for single unit equipment

**Operating Brakes Mandatory****A182**

The number of air brake control valves on the equipment (excludes hand brakes). One control valve consists of a service portion, emergency portion, and pipe bracket. Example: DB-60 control valve

**Permissible Values for A182**

- |   |   |   |   |   |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 |   |

**Validation Rule for A182**

- Operating Brakes can only be reported for articulated equipment
- Operating Brakes are required for articulated equipment
- Operating Brakes are required for Heavy Capacity Flat Cars (Mechanical Designation of FD, FM, FMS, FW, or LS) with 6 Unit Axles or More
- Operating Brakes (A182) must be 1 for non-articulated equipment with an Axle Count (A024) equal to 4

**NOTES:**

- Excludes empty/load device, number 8 vent valve, and proportion valve.

**ECP Brake Type****B327**

Indicates the type of electronic controlled pneumatic brake used on the equipment

**Permissible Values for B327**

- N Not Equipped
- O Overlay - Both ECP & Air Brake
- S Stand Alone - ECP Only

**Validation Rule for B327**

- Equipment must have a value entered for ECP Brake Type if built or rebuilt after June 28, 2012

**ECP Brake Builder****B328**

The manufacturer of the electronic controlled pneumatic brake used on the equipment

**Permissible Values for B328**

- NYAB New York Air Brake
- WABT WABTEC

**Validation Rule for B328**

- If ECP Brake Type (B327) is Stand Alone or Overlay then a value must be entered for ECP Brake Builder
- If ECP Brake Type (B327) is Not Equipped then ECP Brake Builder is not reportable

**Slack Adjuster Group****B538**

The slack adjuster group on the equipment per AAR Field Manual Rule #8

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B538**

- |   |          |   |            |   |         |   |         |
|---|----------|---|------------|---|---------|---|---------|
| A | Group A  | B | Group B    | C | Group C | D | Group D |
| E | Group E  | F | Group F    | G | Group G | H | Group H |
| J | Group J  | L | Group L    | M | Group M | N | Group N |
| O | Group O  | P | Group P    | Q | Group Q | R | Group R |
| 1 | Internal | 2 | Unequipped |   |         |   |         |

**Validation Rule for B538**

- Slack Adjuster Group is mandatory for all equipment built or rebuilt on or after January 1, 2016
- If Slack Adjuster Group is reported as "1" then Brake Cylinder Mount Type (B540) must be reported as "T"
- If Slack Adjuster Group is "1" or "2", then Slack Adjuster CID (B359) must not be reported.

**NOTES:**

- Permissible value of "1 – Internal" identifies special truck mounted internal slack adjuster within brake cylinder.

**Brake Cylinder Mount Type****B540**

Identifies the location of the brake cylinder

**Permissible Values for B540**

- B Body Mounted
- T Truck Mounted

**Validation Rule for B540**

- Brake Cylinder Mount Type is mandatory for all equipment built or rebuilt on or after January 1, 2016

**Equipment Builder****A035**

Identifies the original manufacturer of the equipment

**Permissible Values for A035**

- |      |                                                  |
|------|--------------------------------------------------|
| ACF  | American Car & Foundry                           |
| ACFX | ACF Industries                                   |
| ARI  | ARI Industries                                   |
| BERW | Berwick Forge                                    |
| BETH | Bethlehem Car Works                              |
| BSP  | Bethlehem Steel Corporation                      |
| CFX  | Liberty Rail Services                            |
| CONC | Concarrill                                       |
| CURR | Curry Rail Service                               |
| DIFC | Difco                                            |
| EDSP | ESTRATEGIAS DUL S. DE R.L.                       |
| ERSB | Ebenezer Railcar                                 |
| EVAN | Evans Products                                   |
| FCA  | Freight Car America                              |
| FMC  | FMC Corporation                                  |
| GENS | General Steel                                    |
| GMB  | Greenbrier                                       |
| GSC  | Greenville Steel Car                             |
| GUN4 | Gunderson - Trenton Works                        |
| GUND | Gunderson Inc                                    |
| HARS | Harsco                                           |
| HST  | Hawker Siddeley                                  |
| HYUN | Hyundai                                          |
| HZGX | Herzog Railroad Services Inc.                    |
| ITEL | ITEL Rail Corporation                            |
| JAC  | Johnstown America Corporation                    |
| JKFO | JK-CO LLC                                        |
| KASG | Kasgro Railcar                                   |
| MCDW | McDowell Wellman                                 |
| MRNE | Marine Industries                                |
| MULT | Multiple                                         |
| NACA | National Alabama Corporation                     |
| NSC  | National Steel Car                               |
| ORTN | Ortner                                           |
| PCF  | Pacific Car & Foundry                            |
| PS   | Pullman-Standard                                 |
| PSP  | Pullman-Standard, Division of Trinity Industries |
| SLC  | Saint Louis Car Company                          |
| SLRX | Saint Louis Refrigerator Car Company             |
| THRL | Thrall                                           |
| TREN | Trenton Works                                    |
| TRIN | Trinity                                          |
| UNKN | Unknown                                          |
| V    | OWNER RAILROAD                                   |

**Validation Rule for A035**

## Data Specification Manual

- Equipment Builder must be populated if the Built Date (BLDT) is July 1, 2010 or newer
- Equipment built or rebuilt on or after July 1, 2010 cannot have a Equipment Builder of Unknown
- Equipment with a Built Date (BLDT) on or after July 1, 2010 cannot have an Equipment Builder of OWNER RAILROAD.
- Equipment Builder can have a value of MULT only if the equipment has multiple units.

| Builder Lot Code                                                                                            | B030 |
|-------------------------------------------------------------------------------------------------------------|------|
| A unique identifier for a group of equipment built by one manufacturer under the same builder specification |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B030**

- Equipment built or rebuilt on or after June 28, 2012 must have a value for Builder Lot Code

**NOTES:**

- If the value is unknown, enter six zeroes (000000).

| Built Country                                   | B031 |
|-------------------------------------------------|------|
| The country where the equipment was constructed |      |

Data is Confidential.

**Permissible Values for B031**

|    |               |    |        |
|----|---------------|----|--------|
| CA | Canada        | MX | Mexico |
| US | United States |    |        |

| Rebuilt Country                                    | B170 |
|----------------------------------------------------|------|
| The country where the equipment was re-constructed |      |

**Permissible Values for B170**

|    |               |    |        |
|----|---------------|----|--------|
| CA | Canada        | MX | Mexico |
| US | United States |    |        |

| FRA ReflectORIZATION                                                                    | B096 |
|-----------------------------------------------------------------------------------------|------|
| Indicates the equipment owner assumes responsibility for applying reflectorization tape |      |

**Permissible Values for B096**

|   |                         |
|---|-------------------------|
| P | Reflectorization Plan   |
| W | Reflectorization Waiver |

**Validation Rule for B096**

- Reflectorization is mandatory for all equipment after November 28, 2015.

| Air Hose Arrangement                       | B524 |
|--------------------------------------------|------|
| The type of trainline air hose arrangement |      |

**Permissible Values for B524**

|   |                                                                                                                       |
|---|-----------------------------------------------------------------------------------------------------------------------|
| A | S-424 Angle Cock Location                                                                                             |
| B | S-425 Angle Cock Location on Cars Equipped with AAR Type F Coupler                                                    |
| C | S-426 Angle Cock Location on Cars with Floating Sills                                                                 |
| D | S-427 Angle Cock and Air Brake Hose Location on Cars with Excessive Overhang Preventing Compliance with AAR Standards |
| E | S-428 Angle Cock Location on Cars Equipped with AAR Type F Coupler and Cushioned Underframe                           |
| F | S-4003 (Former Standard)                                                                                              |
| G | S-4003x (Former Standard Retrofitted to Meet All Dimensions Except Height)                                            |
| H | S-4003-05 (Current Standard Train Line Arrangement for Cars with F-Shank Couplers)                                    |
| I | S-4021 Angle Cock and Brake Hose Location on Cars with EOCC (E and F)                                                 |
| J | S-4021 Coupler Mounted Bracket End Arrangement                                                                        |
| K | S-4028 Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Not Exceeding 45 in. in Length   |
| L | S-4029 Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Exceeding 45 in. in Length       |
| M | S-4030 Trolley Arrangement on Cars with EOCC and E-Shank Couplers                                                     |

- N S-4031 Trainline Arrangement for Cars with E-Type Couplers and Draft System Buff Travel of 6 to 10 inches
- O S-4032 Trainline Arrangement for Cars with E/F-Type Couplers and Draft System Buff Travel of 6 to 10 inches

**Validation Rule for B524**

- Air Hose Arrangement must be reported for this equipment if it is Built or Rebuilt on or after April 22, 2014.

**NOTES:**

- If any of the following conditions apply, Air Hose Arrangement (B524) must be reported for cars Built or Rebuilt on or after April 22, 2014:
  - Draft Gear Type (B073) at any location is C or E.
  - Connected Unit Count (A020) is reported.
  - Outside Length (OSLG) is greater than or equal to 70 feet (840 inches).
  - The overhang is greater than 5 feet 6 inches (66 inches). Overhang is calculated as follows:
    - 0.5 \* (Outside Length, in inches, minus Truck Center Length, in inches, minus 31 inches)
      - For all other equipment, reporting Air Hose Arrangement is optional.

| 4-Pressure ABT Receiver Eqpd                                                      | B539 |
|-----------------------------------------------------------------------------------|------|
| Identifies if the equipment is equipped with a 4-pressure air brake test receiver |      |

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B539**

|   |              |
|---|--------------|
| E | Equipped     |
| N | Not Equipped |

**NOTES:**

- An "E" will be system generated if a 4-Pressure ABT is reported on the equipment.

## Feature

| Floor Material                                                           | A104 |
|--------------------------------------------------------------------------|------|
| Describes the type of construction material used for the equipment floor |      |

**Permissible Values for A104**

|    |                                                                                  |
|----|----------------------------------------------------------------------------------|
| 05 | Composite Nailable (considered same as wood)                                     |
| 06 | Composite Nailable, Reinforced (considered same as wood)                         |
| 14 | Other                                                                            |
| 19 | Standard Steel                                                                   |
| 21 | Steel Floor, (straight deck) without risers (F-8-)                               |
| 22 | Steel Floor, permanently mounted steel risers (F-8-)                             |
| 23 | Steel Nailable (includes alternate wood and steel floor)                         |
| 24 | Steel Nailable, Reinforced (includes alternate wood and steel floor)             |
| 25 | Standard Steel, Reinforced                                                       |
| 27 | Unknown (Flats only)                                                             |
| 30 | Wood                                                                             |
| 33 | Wood, Double, Reinforced                                                         |
| 34 | Wood Floor with Steel Protective Plates (includes perforated steel)              |
| 35 | Wood Floor, Reinforced, with Steel Protective Plates (includes perforated steel) |
| 36 | Wood Floor, Reinforced                                                           |

**Validation Rule for A104**

- Floor Material for Center Beam Flats with Mechanical Designation (UMMD) of (FBC or FDC) must be options 21 (Steel), 22 (Steel w/ Risers), 25 (Steel Reinforced), 27 (Undetermined), 30 (Wood).
- Equipment built or rebuilt on or after June 15, 2023 cannot report a value of Other or Unknown

**NOTES:**

- If Mechanical Designation (UMMD) is FBC and Floor material is 22 (Steel w/Risers), Steel Riser Equipped (B200) in not reportable.

| Bulkhead Type                                             | B034 |
|-----------------------------------------------------------|------|
| Identifies the type of bulkhead attached to the equipment |      |

**Permissible Values for B034**

|   |       |   |          |
|---|-------|---|----------|
| F | Fixed | M | Moveable |
|---|-------|---|----------|

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**Validation Rule for B034**

- Bulkhead Type can only be reported on Flat cars with Mechanical Designations (UMMD) of FL, FB, or FBS
- Bulkhead Type on a Flat car with Mechanical Designation (UMMD) of FL can only be reported as Fixed

**Canopy Equipped****B266**

Car is equipped with large, permanent rigid cover with end doors, suitable for transporting large airplane and other components

**Permissible Values for B266**

Y Yes

**Validation Rule for B266**

- Canopy Equipped can only be reported on Flat car with Mechanical Designations (UMMD) of FBS or FMS
- If Dedicated Service Type (B346) is set to Airplane Wings/Fuselage then Canopy Equipped must be set to Y

**Interior Rack****B114**

Indicates the equipment is interior rack equipped

**Permissible Values for B114**

Y Yes

**Lading Strap Anchor Eqpd****B121**

Indicates the equipment has fixed devices or design features which provide connection points for straps or bands securing the lading

**Permissible Values for B121**

Y Yes

**Chains and Binders Eqpd****B267**

Car is equipped with attached chains and binders for load securement

**Permissible Values for B267**

Y Yes

**Validation Rule for B267**

- Chains and Binders Equipped can only be reported on Flat cars with Mechanical Designation (UMMD) of (FB, FC, FMS, FBS, FBC, or FL)

**Tie Down Non Nylon Web****B271**

Identifies equipment having a non nylon web securement

**Permissible Values for B271**

Y Yes

**Validation Rule for B271**

- Non Nylon Web Securement is only applicable to cars with Flat Mechanical Designation (UMMD) of FB, FBC, FBS, FD, FDC, FL, FM, FMS, FW, or LP

**Tie-Down Strap Equipped****B282**

Identifies equipment having securement straps

**Permissible Values for B282**

Y Yes

**Validation Rule for B282**

- Tie Down Strap Equipped is only applicable to cars with Flat Mechanical Designations of (FDC, FBC, FL, FM, or FMS)

**Spring Tensioning Device****B198**

Identifies equipment with permanent securement method of spring anchored tie downs

**Permissible Values for B198**

Y Yes

**Validation Rule for B198**

- Spring Tensioning Devices (B198) are only applicable to cars with Flat Mechanical Designation of (FB, FBC, FBS, or FMS)

**Steel Riser Equipped****B200**

Equipment has steel risers mounted on the flat deck of the unit to support the

**load****Permissible Values for B200**

Y Yes

**Validation Rule for B200**

- Steel Riser Equipped (B200) is only applicable to Flat cars with Mechanical Designations (UMMD) of (FB, FBS, FMS, MW, MWG, or MWRC).

**NOTES:**

- If Mechanical Designation (UMMD) is FBC and Steel Risers are present, then report Floor material (A104) as 22 (Steel floor, permanently mounted steel risers).

**Blocking Timbers Equipped****B270**

Identifies equipment with blocking timbers

**Permissible Values for B270**

Y Yes

**Validation Rule for B270**

- Blocking Timbers Equipped can only be reported on Flat cars with the Mechanical Designation of FMS

**Stake Pocket Locations****B190**

The locations of pockets for the installation of temporary vertical side stakes used to confine the lading

**Permissible Values for B190**

C Center  
S Side/End  
B Both  
Side/End  
and Center

**Validation Rule for B190:**

- All Flat Cars built after January 1, 2002 with Mechanical Designation (UMMD) of FM with 4 axles must report Stake Pocket Locations of S or B. (Per Field Manual Rule 88, A, 15, b, (2))

**Permanent Container****B054**

Identifies that the equipment has a permanently attached container

**Permissible Values for B054**

Y Yes

**Validation Rule for B054**

- Height of Depressed Platform above Rail can only be reported on cars with no Permanent Container

**Permanent Cont Material****A055**

The material of which the container is made

**Permissible Values for A055**

01 Aluminum  
19 Standard Steel

**Validation Rule for A055**

- Permanent Container Material can only be reported if Permanent Container (B054) is Y

**Chain Equipped****B402**

Identifies the flat car is equipped with chain tie downs

Value does not carry forward for Equipment Group Change.

**Permissible Values for B402**

Y Yes

**Cost****Original Cost****A184**

The original manufacturer selling price

Data is Confidential. Value does not carry forward for Single Clone / Multi-

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Clone.

**Range of Values for A184**

| Minimum | Maximum |
|---------|---------|
| 0       | 9999999 |

**Validation Rule for A184**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Original Cost must be equal to the Ledger Value if Additions & Betterments Indicator is not reported.
- Railroad marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost
- Private marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost if Built Date (BLDT) is on or after January 1, 2015

**NOTES:**

- Original Cost is never altered. It is the cost of the equipment to the original owner.
- For railroad-marked cars, report in US dollars the original ledger value of the original owner. For cars rebuilt, report the cost prescribed in MR Interchange Rule 88 and Circular Letter OT-24
- The original cost is used in the settlement of AAR Interchange Rule 107 Office Manual.
- For connected unit cars report the total original cost for all units in the set.
- Numeric, applicable to all railroad-marked cars Also, applicable to privately marked covered hopper (LO) cars.
- Raise all cents to the next dollar, e.g. \$5,501.02 = 0005502

**Ledger Value****A150**

The sum of original cost and additions &amp; betterments

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A150**

| Minimum | Maximum |
|---------|---------|
| 0       | 9999999 |

**Validation Rule for A150**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Ledger Value must equal the Original Cost (A184) plus the additions & betterments, if Total A&B (A003) has been reported. Otherwise Ledger Value should equal Original Cost (A184).

**Total A&B****A003**

System generated sum of all reported amounts in A&amp;B Amount (A317), in US dollars

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A003**

| Minimum | Maximum  |
|---------|----------|
| 0       | 99999999 |

**NOTES:**

- For railroad-marked cars, report the sum of all additions and betterments applied to the car. This value is for record keeping purposes only and will not be used to report Ledger Value.
- For private Cars report the additions and betterments as qualified under AAR interchange Rule 107 for determination of settlement value.
  - Additions are costs of all new components applied subsequent to the date the car was built or rebuilt and carried in the capital investment account.
  - Betterments are costs of all improvements of components of existing equipment through the substitution of superior parts for inferior parts subsequent to the date the car was built or rebuilt.
- For connected unit cars report the total Truck Location A for all units in the set

**Ind for Pos/Neg Total A&B****A128**

A code indicating the positive or negative adjustment to the original cost of the equipment

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A128**

N Negative P Positive

**A&B Pos/Neg Ind****A316**

A code indicating the positive or negative adjustment to the individual addition and betterment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A316**

N Negative P Positive

**Validation Rule for A316**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- The A&B Indicator is required when Additions & Betterments are reported.
- The A&B Indicator must not be reported if Additions & Betterments are not reported.

**A&B Amount****A317**

The amount of the individual addition and betterment added to or subtracted from the original cost of the equipment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A317**

| Minimum | Maximum |
|---------|---------|
| 1       | 999999  |

**Validation Rule for A317**

- When entering an individual addition & betterment; A&B Date Done (A319), A&B Type (A318), A&B Pos/Neg Ind (A316), and A&B Amount (A317) must be reported

**A&B Date Done****A319**

The date of the individual addition and betterment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A319**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for A319**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- Addition and Betterment Date Done cannot be earlier than Built Date (BLDT).
- Additions & Betterments Date Done cannot be later than today's date.

**A&B Type****A318**

The type of individual addition and betterment as defined by Rule 107

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A318**

FLLD Other permanently installed loading equipment used on flat cars  
 GNRL General - Capitalized Additions and Betterments  
 INIT Initial load of historical A&B amount as of Umler 4.6 implementation date

**Validation Rule for A318**

- For each equipment, only one Individual A&B Type can have a value of INIT.
- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.



## Data Specification Manual

## Car Management

**Pool Number** P001

Unique number used to indicate the grouping of equipment for a particular purpose

Used for Transportation Codes. Affects Rating. This element is not eligible for Input. Value does not carry forward for Equipment Group Change / Add Back.

**Pool Control** TCPC

Pool Control

System Generated Field. Used for Transportation Codes. This element is not eligible for Input, Output or Query.

**NOTES:**

- For further explanation reference Appendices C and E.

**User Routing Instructions** TCUR

The routing instruction reported by the user

Used for Transportation Codes.

**Permissible Values for TCUR**

- 2 Trailer Service Rule 2
- G Contaminated commodity service
- M Mark canceled
- O Owner requested return
- U Unassigned equipment

**NOTES:**

- For further explanation reference Appendix E.

**Umler Transportation Code** TCOD

The type of assigned service, empty routing or restriction of the equipment

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

**Transportation Cond Code** TCCD

The AAR or FRA interchange restriction code

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

**Mechanical Restriction** TCME

User reported or system generated type of mechanical restriction

Used for Transportation Codes.

**Permissible Values for TCME**

- S Scrap
- X AAR Interchange Restriction
- Y FRA Interchange Prohibited

**NOTES:**

- For further explanation reference Appendix D.1

**Mech Restriction Reason** TCMR

The explanation of the Mechanical Restriction (TCME)

Used for Transportation Codes.

**Permissible Values for TCMR**

- A Restricted Due to Age (Over 40-AAR, Over 50-FRA)
- B Restricted Due to Air Brakes
- C Restricted Due to Axles
- D Restricted Due to Couplers and Couplers Parts
- F Restricted Due to Couplers Yokes
- G Restricted Due to Draft Gears
- J Restricted Due to Journal Bearing and Journal Lubrication

- N Restricted Due to Trucks
- P Restricted Due to Truck Side Frames
- T Restricted Due to Trucks Bolsters
- U Restricted by AAR or Owner
- W Restricted Due to Wheels
- X Restricted Due to Scrap or Early Warning
- Z Restricted Due to Umler Conflict (Not Valid for User Input)

**NOTES:**

- For further explanation reference Appendix D.2.
- The assignment of the Transportation Codes S, SX, XA, XZ and YA generate the Rate Indicator Code 6 to the CHARM file to zero (0) rate the car hire and mileage rate.

**Loading Authority Fleet Status** B597

Identifies when a car is listed on a fleet in the Loading Authority application

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B597**

- Y Yes
- S Suspended

**NOTES:**

- When equipment is on a fleet the Loading Authority (LA) application will update the flag to 'Y – Yes'. When equipment is removed from a fleet the LA application will remove the 'Y – Yes'.
- When equipment is on a LA fleet that is suspended the LA application will update the flag to 'S – Suspended'. When the equipment is on a LA fleet that is no longer suspended the LA application will update the flag to 'Y – Yes'.

**Sys Gen Routing Inst** TCGR

The routing instruction generated by the system

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.5.

## Train Service

**Restricted Speed Empty** B180

Describes the maximum restricted speed the equipment can travel when empty

**Range of Values for B180**

| Minimum | Maximum |
|---------|---------|
| 5       | 95      |

**Restricted Speed Loaded** B181

Describes the maximum restricted speed the equipment can travel when loaded

**Range of Values for B181**

| Minimum | Maximum |
|---------|---------|
| 5       | 95      |

**Shove Car to Rest** B189

Identifies the car must be moved to rest by locomotive

**Permissible Values for B189**

- Y Yes

**Shove Adj. Car to Rest** B188

Identifies the adjacent car must be shoved to rest by locomotive

**Permissible Values for B188**

- Y Yes

**Train Position Sensitive** B211

Indicates there is a physical reason, limiting its position on a train

**Permissible Values for B211**

## Data Specification Manual

Y Yes

**End of Train Only****B277**

Indicates the equipment must be placed at the end of the train (including per AAR RP-2001) **Permissible Values for B277**

Y Yes

**Check Trailing Tonnage****B044**

Indicates the equipment has restrictions on trailing tonnage

**Permissible Values for B044**

Y Yes

**Curve Negotiate Exception****B178**

Describes the requirement for negotiating a curve

**Permissible Values for B178**

- A Restrictive Curve Negotiability, Section 2.1.4 of M-1001
- B Does not meet all Chapter XI Curving Requirements

**Cooper Rating Exception****B273**

Describes the cooper rating (weight distribution model of the equipment), for use in movement across bridges

**Permissible Values for B273**

- A Excessive Cooper Rating
- B Cooper Rating in Excess of E66

**Clearance Exception****B275**

Describes equipment containing nonstandard dimension

**Permissible Values for B275**

- A Excessive Outside Extreme Height (A185)
- B Excessive Outside Extreme Width (A186)
- C Lower Guides for Loading High Cube Containers
- D All other unique clearance issues

**Loaded Net Braking Ratio****B551**

Indicates calculated minimum loaded net braking ratio per AAR Specifications in place on built or rebuilt date (in percent).  
System Generated Field. This element is not eligible for input.

**Permissible Values for B551**

– 11.0

– 8.5

**NOTES:**

- Loaded Net Braking Ratio is determined as follows:
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is less than 1/1/1972, then Loaded Net Braking Ratio will be set to blank.
  - If Built Date (BLDT) is greater than or equal to 1/1/1972 and less than 1/1/2004, then loaded Net Braking Ratio is 8.5%.
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is greater than or equal to 1/1/2004, then Loaded Net Braking Ratio is 11.0%.

**Owner-Provided Loaded Net Braking Ratio****B552**

Indicates an alternate minimum loaded net braking ratio provided by owner (in percent).

**Range of Values for B552**

| Minimum | Maximum |
|---------|---------|
| 8.5     | 14.0    |

**NOTES:**

- Owner may enter a documented alternative minimum loaded net braking ratio in this field that is greater than the system calculated Loaded Net Braking Ratio (B551).
- When reported, the Owner-Provided Loaded Net Braking Ratio will be used

in PTC stopping distance calculations.

- A change in value for the following elements will cause the Owner-Provided Loaded Net Braking Ratio to reset to blank:
  - Rebuilt Date (RBDT)
  - Gross Rail Load/Weight (A266)
  - Equipment Type Code (UMET)
  - Empty/Load Device Eqpd (B075)

**Empty Braking Ratio****B553**

Indicates calculated empty braking ratio per AAR Specifications in place on built or rebuilt date (in percent).  
System Generated Field. This element is not eligible for input.

**Range of Values for B553**

| Minimum | Maximum |
|---------|---------|
| 15.0    | 38.0    |

**NOTES:**

- Empty Braking Ratio is determined as follows:
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is less than 1/1/1972, then Empty Braking Ratio will be set to blank.

**Owner-Provided Empty Braking Ratio****B554**

Indicates an owner supplied alternate empty braking ratio (in percent).

**Range of Values for B554**

| Minimum | Maximum |
|---------|---------|
| 15.0    | 38.0    |

**NOTES:**

- Owner may enter a documented alternative minimum loaded net braking ratio in this field that is greater than the system calculated Loaded Net Braking Ratio (B551).
- When reported, the Owner-Provided Loaded Net Braking Ratio will be used in PTC stopping distance calculations.
- A change in value for the following elements will cause the Owner-Provided Loaded Net Braking Ratio to reset to blank:
  - Rebuilt Date (RBDT)
  - Gross Rail Load/Weight (A266)
  - Equipment Type Code (UMET)
  - Empty/Load Device Eqpd (B075)

**Truck Components****Axle Spacing Distance *Mandatory*****B020**

The distance between adjacent axle centers within the same truck system ●●

Affects Rating.

**Permissible Values for B020**

|    |                    |
|----|--------------------|
| 53 | 53 Inches          |
| 54 | 54 Inches          |
| 60 | 60 Inches          |
| 61 | 61 Inches          |
| 62 | 62 Inches          |
| 63 | 63 Inches          |
| 64 | 64 Inches          |
| 65 | 65 Inches          |
| 66 | 66 Inches          |
| 68 | 68 Inches          |
| 70 | 70 Inches          |
| 71 | 71 Inches          |
| 72 | 72 Inches          |
| 73 | 73 Inches          |
| 74 | 74 Inches          |
| 76 | 76 Inches          |
| 78 | 78 Inches          |
| 99 | Axle Space Unknown |

**Validation Rule:**

- Axle Space Unknown is not a permissible value for equipment with a Built Date (BLDT) on or after January 1, 1980

## Data Specification Manual

| Truck Axle Count <span style="float: right;">B252</span> |         |
|----------------------------------------------------------|---------|
| The number of axles per truck                            |         |
| <b>Range of Values for B252</b>                          |         |
| Minimum                                                  | Maximum |
| 2                                                        | 4       |
| <b>Validation Rule for B252</b>                          |         |
| - Sum of Truck Axle Count must equal Axle Count (A024)   |         |

| Journal Size <span style="color: red;">Mandatory</span> <span style="float: right;">A147</span>                                                                                                                                                   |              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| The size of the journal bearing <span style="color: red;">●</span>                                                                                                                                                                                |              |
| Affects Rating.                                                                                                                                                                                                                                   |              |
| <b>Permissible Values for A147</b>                                                                                                                                                                                                                |              |
| A 3-3/4 X 7                                                                                                                                                                                                                                       | B 4-1/4 X 8  |
| D 5-1/2 X 10                                                                                                                                                                                                                                      | E 6X11       |
| G 7 X 12                                                                                                                                                                                                                                          | K 6-1/ 2X 9  |
| C 5 X 9                                                                                                                                                                                                                                           | F 6-1/2 X 12 |
| M 7 X 9                                                                                                                                                                                                                                           |              |
| <b>NOTES:</b>                                                                                                                                                                                                                                     |              |
| <ul style="list-style-type: none"> <li>A, B and C Journal Classes are prohibited in Interchange per Rule 90.B.4</li> <li>4-axle equipment with 28 inch diameter, 1-wear wheels, are limited to a Gross Rail Load (A266) of 195,000 lbs</li> </ul> |              |

| Wheel Diameter <span style="color: red;">Mandatory</span> <span style="float: right;">A294</span>                                                                                                                                                                                                                                                                                  |              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| The diameter of the wheels <span style="color: red;">●</span>                                                                                                                                                                                                                                                                                                                      |              |
| <b>Permissible Values for A294</b>                                                                                                                                                                                                                                                                                                                                                 |              |
| 28 28 Inches                                                                                                                                                                                                                                                                                                                                                                       | 33 33 Inches |
| 36 36 Inches                                                                                                                                                                                                                                                                                                                                                                       | 38 38 Inches |
| <b>Validation Rule for A294</b>                                                                                                                                                                                                                                                                                                                                                    |              |
| -Equipment with a Qualification for Increased Gross Rail Load (B344) of 1 and Journal Size (A147) of G or M must have a Wheel Diameter of 38<br>-Equipment with Qualification for Increased Rail Load (B344) of 1, and Journal Size (A147) of K, must have a Wheel Diameter of 36<br>-If Connected Unit Count (A020) is not reported, different Wheel Diameters cannot be reported |              |

| Stability Device Equipped <span style="float: right;">B199</span>                          |     |
|--------------------------------------------------------------------------------------------|-----|
| Indicates a stability device is present on the truck <span style="color: yellow;">■</span> |     |
| Affects Rating.                                                                            |     |
| <b>Permissible Values for B199</b>                                                         |     |
| Y                                                                                          | Yes |

| Bolster Component ID <span style="float: right;">B351</span>                                                               |  |
|----------------------------------------------------------------------------------------------------------------------------|--|
| Bolster Component ID from Component Registry                                                                               |  |
| Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone. |  |

| Sideframe Component ID <span style="float: right;">B352</span>                                                             |  |
|----------------------------------------------------------------------------------------------------------------------------|--|
| Side Frame Component ID from Component Registry                                                                            |  |
| Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone. |  |

| Wheelset Component ID <span style="float: right;">B350</span>                                                              |  |
|----------------------------------------------------------------------------------------------------------------------------|--|
| Component ID from Component Registry                                                                                       |  |
| Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone. |  |

| Draft System Components                              |                                     |
|------------------------------------------------------|-------------------------------------|
| Coupler Code <span style="float: right;">A057</span> |                                     |
| Defines the equipment coupler type                   |                                     |
| <b>Permissible Values for A057</b>                   |                                     |
| BE60AHT                                              | Type E (Rule 16) - BE60AHT          |
| BE60BHT                                              | Type E Obsolete (Rule 16) - BE60BHT |
| BE63AHT                                              | Type E Obsolete (Rule 16) - BE63AHT |

|          |                                       |
|----------|---------------------------------------|
| BE63HT   | Type E (Rule 16) - BE63HT             |
| BE67HT   | Type E (Rule 16) - BE67HT             |
| E42BEX   | Type E/F (Rule 17) - E42BEX           |
| E50ARE   | Type E/F (Rule 17) - E50ARE           |
| E50BEX   | Type E/F (Rule 17) - E50BEX           |
| E60CC    | Type E (Rule 16) - E60CC              |
| E60CE    | Type E (Rule 16) - E60CE              |
| E60CHT   | Type E (Rule 16) - E60CHT             |
| E60CHTE  | Type E (Rule 16) - E60CHTE            |
| E60DC    | Type E (Rule 16) - E60DC              |
| E60DE    | Type E (Rule 16) - E60DE              |
| E60EE    | Type E (Rule 16) - E60EE              |
| E61      | Type E Obsolete (Rule 16) - E61       |
| E67AHT   | Type E (Rule 16) - E67AHT             |
| E67BC    | Type E (Rule 16) - E67BC              |
| E67BE    | Type E (Rule 16) - E67BE              |
| E67BHT   | Type E (Rule 16) - E67BHT             |
| E67BHTE  | Type E (Rule 16) - E67BHTE            |
| E67CC    | Type E (Rule 16) - E67CC              |
| E67CE    | Type E (Rule 16) - E67CE              |
| E68AHT   | Type E/F Obsolete (Rule 17) - E68AHT  |
| E68AHTe  | Type E/F Obsolete (Rule 17) - E68AHTe |
| E68BC    | Type E/F (Rule 17) - E68BC            |
| E68BE    | Type E/F (Rule 17) - E68BE            |
| E68BHT   | Type E/F (Rule 17) - E68BHT           |
| E68BHTE  | Type E/F (Rule 17) - E68BHTE          |
| E68CE    | Type E/F (Rule 17) - E68CE            |
| E69AE    | Type E/F (Rule 17) - E69AE            |
| E69AHTe  | Type E/F (Rule 17) - E69AHTe          |
| E69BE    | Type E/F (Rule 17) - E69BE            |
| E69CE    | Type E/F (Rule 17) - E69CE            |
| E69CEX   | Type E/F (Rule 17) - E69CEX           |
| E69HTE   | Type E/F (Rule 17) - E69HTE           |
| E69LCE   | Type E/F (Rule 17) - E69LCE           |
| EB7AHT   | Type E (Rule 16) - EB7AHT             |
| EF204CE  | Type E/F (Rule 17) - EF204CE          |
| EF306CE  | Type E/F (Rule 17) - EF306CE          |
| EF511AE  | Type E/F (Rule 17) - EF511AE          |
| EF511BE  | Type E/F (Rule 17) - EF511BE          |
| EF511CE  | Type E/F (Rule 17) - EF511CE          |
| EF511DE  | Type E/F (Rule 17) - EF511DE          |
| EF511LCE | Type E/F (Rule 17) - EF511LCE         |
| EF511WE  | Type E/F (Rule 17) - EF511WE          |
| EF512CE  | Type E/F (Rule 17) - EF512CE          |
| EF512WE  | Type E/F (Rule 17) - EF512WE          |
| EF528WE  | Type E/F (Rule 17) - EF528WE          |
| EF60BWE  | Type E/F (Rule 17) - EF60BWE          |
| EFROTARY | Type E/F Rotary - EFROTARY            |
| EFSPEC   | Type E/F Special - EFSPEC             |
| EFUNK    | Type E/F Unknown - EFUNK              |
| ESPEC    | Type E Special - ESPEC                |
| EUNK     | Type E Unknown - EUNK                 |
| F70BHT   | Type F Obsolete (Rule 18) - F70BHT    |
| F70BHTE  | Type F Obsolete (Rule 18) - F70BHTE   |
| F70CC    | Type F (Rule 18) - F70CC              |
| F70CE    | Type F (Rule 18) - F70CE              |
| F70CHT   | Type F (Rule 18) - F70CHT             |
| F70CHTE  | Type F (Rule 18) - F70CHTE            |
| F70DE    | Type F (Rule 18) - F70DE              |
| F70HT    | Type F Obsolete (Rule 18) - F70HT     |
| F71CHT   | Type F (Rule 18) - F71CHT             |
| F72HT    | Type F (Rule 18) - F72HT              |
| F73AC    | Type F (Rule 18) - F73AC              |
| F73AE    | Type F (Rule 18) - F73AE              |
| F73AHT   | Type F (Rule 18) - F73AHT             |
| F73AHTe  | Type F (Rule 18) - F73AHTe            |
| F73BE    | Type F (Rule 18) - F73BE              |
| F73HTE   | Type F Obsolete (Rule 18) - F73HTE    |

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|           |                                                         |
|-----------|---------------------------------------------------------|
| F79BHT    | Type F Obsolete (Rule 18) - F79BHT                      |
| F79BHTE   | Type F Obsolete (Rule 18) - F79BHTE                     |
| F79CC     | Type F (Rule 18) - F79CC                                |
| F79CE     | Type F (Rule 18) - F79CE                                |
| F79CHT    | Type F (Rule 18) - F79CHT                               |
| F79CHTE   | Type F (Rule 18) - F79CHTE                              |
| F79DE     | Type F (Rule 18) - F79DE                                |
| FF205E    | Type F (Rule 18) - FF205E                               |
| FF218AE   | Type F (Rule 18) - FF218AE                              |
| FR201E    | Type F (Rule 18) Rotary - FR201E                        |
| FR205AE   | Type F (Rule 18) Rotary - FR205AE                       |
| FR205BE   | Type F (Rule 18) Rotary - FR205BE                       |
| FR205E    | Type F (Rule 18) Rotary - FR205E                        |
| FR206E    | Type F (Rule 18) Rotary - FR206E                        |
| FR207AE   | Type F (Rule 18) Rotary - FR207AE                       |
| FR207E    | Type F (Rule 18) Rotary - FR207E                        |
| FR208AE   | Type F (Rule 18) Rotary - FR208AE (without wear insert) |
| FR208E    | Type F (Rule 18) Rotary - FR208E (with wear insert)     |
| FR209E    | Type F (Rule 18) Rotary - FR209E                        |
| FR301E    | Type F (Rule 18) Rotary - FR301E                        |
| FR304E    | Type F (Rule 18) Rotary - FR304E (with wear plate)      |
| FR304WE   | Type F (Rule 18) Rotary - FR304WE (without wear plate)  |
| FROTARY   | Type E/F Rotary - FROTARY                               |
| FSPEC     | Type F Special - FSPEC                                  |
| FUNK      | Type F Unknown - FUNK                                   |
| S700AE    | Type E (Rule 16) - S700AE                               |
| SBE60CC   | Type E (Rule 16) - SBE60CC                              |
| SBE60CE   | Type E (Rule 16) - SBE60CE                              |
| SBE60DC   | Type E (Rule 16) - SBE60DC                              |
| SBE60DE   | Type E (Rule 16) - SBE60DE                              |
| SBE60DREX | Type E (Rule 16) - SBE60DREX                            |
| SBE60EE   | Type E (Rule 16) - SBE60EE                              |
| SBE67BC   | Type E (Rule 16) - SBE67BC                              |
| SBE67BE   | Type E (Rule 16) - SBE67BE                              |
| SBE67CC   | Type E (Rule 16) - SBE67CC                              |
| SBE67CE   | Type E (Rule 16) - SBE67CE                              |
| SBE67CREX | Type E (Rule 16) - SBE67CREX                            |
| SBE67DE   | Type E (Rule 16) - SBE67DE                              |
| SBE68BC   | Type E/F (Rule 17) - SBE68BC                            |
| SBE68BE   | Type E/F (Rule 17) - SBE68BE                            |
| SBE68CE   | Type E/F (Rule 17) - SBE68CE                            |
| SBE68CREX | Type E/F (Rule 17) - SBE68CREX                          |
| SBE68DE   | Type E/F (Rule 17) - SBE68DE                            |
| SBE68WEX  | Type E/F (Rule 17) - SBE68WEX                           |
| SBE69AE   | Type E/F (Rule 17) - SBE69AE                            |
| SBE69BE   | Type E/F (Rule 17) - SBE69BE                            |
| SBE69BREX | Type E/F (Rule 17) - SBE69BREX                          |
| SBE69CE   | Type E/F (Rule 17) - SBE69CE                            |
| SE60CC    | Type E (Rule 16) - SE60CC                               |
| SE60CE    | Type E (Rule 16) - SE60CE                               |
| SE60CHT   | Type E (Rule 16) - SE60CHT                              |
| SE60CHTE  | Type E (Rule 16) - SE60CHTE                             |
| SE60DC    | Type E (Rule 16) - SE60DC                               |
| SE60DE    | Type E (Rule 16) - SE60DE                               |
| SE60EE    | Type E (Rule 16) - SE60EE                               |
| SE67BC    | Type E (Rule 16) - SE67BC                               |
| SE67BE    | Type E (Rule 16) - SE67BE                               |
| SE67BHT   | Type E (Rule 16) - SE67BHT                              |
| SE67BHTE  | Type E (Rule 16) - SE67BHTE                             |
| SE67CC    | Type E (Rule 16) - SE67CC                               |
| SE67CE    | Type E (Rule 16) - SE67CE                               |
| SE68BC    | Type E/F (Rule 17) - SE68BC                             |
| SE68BE    | Type E/F (Rule 17) - SE68BE                             |
| SE68BHT   | Type E/F (Rule 17) - SE68BHT                            |
| SE68BHTE  | Type E/F (Rule 17) - SE68BHTE                           |
| SE68CE    | Type E/F (Rule 17) - SE68CE                             |
| SE69AE    | Type E/F (Rule 17) - SE69AE                             |
| SE69BE    | Type E/F (Rule 17) - SE69BE                             |

|          |                             |
|----------|-----------------------------|
| SE69CE   | Type E/F (Rule 17) - SE69CE |
| SF70CC   | Type F (Rule 18) - SF70CC   |
| SF70CE   | Type F (Rule 18) - SF70CE   |
| SF70CHT  | Type F (Rule 18) - SF70CHT  |
| SF70CHTE | Type F (Rule 18) - SF70CHTE |
| SF70DE   | Type F (Rule 18) - SF70DE   |
| SF79CC   | Type F (Rule 18) - SF79CC   |
| SF79CE   | Type F (Rule 18) - SF79CE   |
| SF79CHT  | Type F (Rule 18) - SF79CHT  |
| SF79CHTE | Type F (Rule 18) - SF79CHTE |
| SF79DE   | Type F (Rule 18) - SF79DE   |

**Validation Rule for A057**

- If Rotary Coupler Style is reported, then Coupler Code must be a rotary coupler.
- If Coupler Code is a rotary coupler, then Coupler Style must be R (Rotary).
- Coupler Code of Type E Obsolete (Rule 16) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of Type E/F Obsolete (Rule 17) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of Type F Obsolete (Rule 18) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of FROTARY or EFROTARY cannot be reported for cars Built or Rebuilt on or after August 12, 2014.

**NOTES:**

- Obsolete: All Type D couplers are obsolete and should report code DOBS; cars with this coupler code will be restricted in interchange as discussed below.
- Unknown: If the coupler code is unknown or if the code stamped on the coupler is illegible, the code BUNK FUNK, EFUNK, or LOCOUNK should be reported.
- Special: Codes ESPEC, FSPEC, and EFSPEC have been created to decline coupler bodies that have been manufactured specifically for the equipment owner and are not listed in the attached table.
- The codes FROTARY and EFROTARY cannot be reported for equipment Built or Rebuilt since August 12, 2014.

|                                                     |             |
|-----------------------------------------------------|-------------|
| <b>Coupler Style</b> <i>Mandatory</i>               | <b>B058</b> |
| Describes the basic coupler design of the equipment |             |

Used in ETC Generation. Affects Rating.

**Permissible Values for B058**

|   |              |   |              |
|---|--------------|---|--------------|
| B | Bottom Shelf | D | Double Shelf |
| P | Plain        | R | Rotary       |

**Validation Rule for B058**

- If Draft System Type (B073) is not Center Of Car or End Of Car, Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) is reported as C, E, X, or Y then Inches of Travel (B061) must also be reported

|                                                 |             |
|-------------------------------------------------|-------------|
| <b>Inches of Travel</b>                         | <b>B061</b> |
| The number of inches a draft system will travel |             |

Used in ETC Generation. Affects Rating.

**Range of Values for B061**

| Minimum | Maximum |
|---------|---------|
| 1       | 36      |

**Validation Rule for B061**

- If Draft System Type (B073) is not Center Of Car or End Of Car, Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) is reported as Center Of Car or End Of Car is reported then Inches of Travel (B061) must also be reported

|                                                  |             |
|--------------------------------------------------|-------------|
| <b>Draft System Type</b> <i>Mandatory</i>        | <b>B073</b> |
| Describes the draft gear/underframe cushion type |             |

Used in ETC Generation. Affects Rating.

**Permissible Values for B073**

|   |                          |
|---|--------------------------|
| C | Cushioning Center of Car |
| E | Cushioning End of Car    |

## Data Specification Manual

- S Standard  
 X Devices with less than 6 inches buff travel approved under AAR Standard S-060  
 Y Devices with 6 to 10 inches of buff travel approved under AAR Standard S-060

**Validation Rule for B073**

- If Draft System Type (B073) is Standard Draft Gear (S), Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) is reported as C, E, X, or Y then Inches of Travel (B061) must also be reported
- If Draft System Type (B073) of X, or Y is reported then Draft Gear Group/Cushion Unit Pocket (B562) cannot be reported
- If Draft System Type (B073) X is reported, the Inches of Travel (B061) value must be greater than or equal to 1 and less than 6
- If Draft System Type (B073) Y is reported, the Inches of Travel (B061) value must be greater than or equal to 6 and less than or equal to 10
- If Draft System Type (B073) is S then Draft Gear Group/Cushion Unit Pocket (B562) may only be A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z (AAR Rule 21)
- If Draft System Type (B073) is E then Draft Gear Group/Cushion Unit Pocket (B562) may only be EOC-1, EOC-1D, EOC-1B, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B, EOC-4, EOC-4B, EOC-5, EOC-5D, EOC-5B, EOC-6, EOC-6D, EOC-6B, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-8F, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10, EOC-10D, EOC-10B, EOC-10F, EOC-11, EOC-11D, EOC-11B, EOC-12, EOC-12D, EOC-12B, EOC-13, EOC-13B, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16, EOC-16D, EOC-16B, EOC-17, EOC-17D, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-23, EOC-23B, EOC-24, EOC-24B, EOC-25E, EOC-26B, EOC-26F, or EOC-27D, or EOC-27E (AAR Rule 59)

**Draft Gear Group/Cushion Unit Pocket** **B562**

Draft Gear Group/Cushion Unit Pocket value as listed in AAR Field Manual Interchange Rule 21 and 59

Carry forward for Single Clone / Multi-Clone / Restencil / Add-Back / Equipment Group Change.

**Permissible Values for B562** EOC-1, EOC-1D, EOC-1B, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B, EOC-4, EOC-4B, EOC-5, EOC-5D, EOC-5B, EOC-6, EOC-6D, EOC-6B, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-8F, EOC-9, EOC-9D, EOC-9E, EOC-9B, EOC-10, EOC-10D, EOC-10B, EOC-10F, EOC-11, EOC-11D, EOC-11B, EOC-12, EOC-12D, EOC-12B, EOC-13, EOC-13B, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16, EOC-16D, EOC-16B, EOC-17, EOC-17D, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-23, EOC-23B, EOC-24, EOC-24B, EOC-25E, EOC-26B, EOC-26F, EOC-27D, EOC-27E, COC-1, COC-2, COC-3, COC-4, COC-5, COC-6, COC-7, COC-8 (AAR Rule 59).

A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, Z (AAR Rule 21).

**Validation Rule(s) for B562**

- Draft Gear Group/Cushion Unit Pocket (B562) is mandatory for equipment built on or after June 13, 2019, unless Draft System Type (B073) is reported as X or Y
- If Draft Gear Group/Cushion Unit Pocket (B562) is not equal to A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z, then Cushion Unit Type (B563) must be populated
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-6, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-9, EOC-9B, EOC-9D, EOC-10, EOC-10B, EOC-10D, EOC-14, EOC-14B, EOC-18D, EOC-23, EOC-23B, EOC-24, EOC-25E, EOC-26B, or EOC-27D then the Cushion Unit Type (B563) must be 1
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-9E, EOC-26F, or EOC-27E, then the Cushion Unit Type (B563) must be 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-11, EOC-12, EOC-13, EOC-13B, EOC-15, EOC-15B, EOC-15D, EOC-17, EOC-17B, EOC-17D, EOC-18, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-24B, COC-3, COC-5, or COC-7 then the Cushion Unit Type (B563) must be 1 or 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-8F or EOC-10F then the Cushion Unit Type (B563) must be 2 or 3
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-5, EOC-5B, EOC-5D, EOC-6, EOC-6B, EOC-6D, EOC-11B, EOC-11D, EOC-12B, EOC-12D, or COC-4 then the Cushion Unit Type (B563) must be 1, 2, or 3
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-16D, or COC-1 then the Cushion Unit Type (B563) must be 1, 2, or 4

- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-2B, EOC-2D, EOC-3, EOC-3B, EOC-4, EOC-4B, or COC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, or 4
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1, EOC-1B, EOC-1D, or EOC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-8 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1D, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B, EOC-5, EOC-5D, EOC-5B, EOC-6D, EOC-7, EOC-7B, EOC-9, EOC-9B, EOC-9D, EOC-10D, EOC-11, EOC-11B, EOC-11D, EOC-12D, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16D, EOC-17D, EOC-23, EOC-23B, or EOC-27D then the Inches of Travel (B061) must be 10
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-19, EOC-19B, EOC-22, EOC-22B, or EOC-25E then the inches of travel must be 12
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-20 or EOC-20B then the Inches of Travel (B061) must be 14
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1B, EOC-4, EOC-4B, EOC-6, EOC-6B, EOC-8, EOC-8B, EOC-8F, EOC-10, EOC-10B, EOC-10F, EOC-12, EOC-12B, EOC-13, EOC-13B, EOC-17, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-21, EOC-21B, EOC-24, or EOC-24B then the Inches of Travel (B061) must be 15
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-2, COC-3, COC-4, COC-5, COC-6, or COC-8 then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 1 or 2, then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 4, then the Inches of Travel (B061) must be 18
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 2, then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 1, then the Inches of Travel (B061) must be 30
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1 then the Inches of Travel (B061) must be 10, 12, or 15
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-26, then the Inches of Travel (B061) must be 18

**Note:**

Reference AAR Field Manual Interchange Rule(s) 21 and 59.

**Cushion Unit Type** **B563**

Cushion Unit Type value as listed in AAR Field Manual Interchange Rule 21 and 59

Carry forward for Single Clone / Multi-Clone / Restencil / Add-Back / Equipment Group Change.

**Permissible Values for B563**

- 1 – Type 1
- 2 – Type 2
- 3 – Type 3
- 4 – Type 4
- 5 – Type 5
- S – Type S

**Validation Rule(s) for B563**

- Cushion Unit Type (B563) is mandatory for equipment built on or after June 13, 2019.
- If Draft Gear Group/Cushion Unit Pocket (B562) is not equal to A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z, then Cushion Unit Type (B563) must be populated.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-6, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-9, EOC-9B, EOC-9D, EOC-10, EOC-10B, EOC-10D, EOC-14, EOC-14B, EOC-18D, EOC-23, EOC-23B, EOC-24, EOC-25E, or EOC-26B then the Cushion Unit Type (B563) must be 1.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-9E, EOC-26F, or EOC-27E, then the Cushion Unit Type (B563) must be 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-11, EOC-12, EOC-13, EOC-13B, EOC-15, EOC-15B, EOC-15D, EOC-17, EOC-17B, EOC-17D, EOC-18, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-24B, COC-3, COC-5, or COC-7 then the Cushion Unit Type (B563) must be 1 or 2.



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- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-8F or EOC-10F then the Cushion Unit Type (B563) must be 2 or 3.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-5, EOC-5B, EOC-5D, EOC-6, EOC-6B, EOC-6D EOC-11B, EOC-11D, EOC-12B, EOC-12D, or COC-4 then the Cushion Unit Type (B563) must be 1, 2, or 3.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-16D, or COC-1 then the Cushion Unit Type (B563) must be 1, 2, or 4.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-2B, EOC-2D, EOC-3, EOC-3B, EOC-4, EOC-4B, or COC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, or 4.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1, EOC-1B, EOC-1D, or EOC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-8 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 1 or 2, then the Inches of Travel (B061) must be 20.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 4, then the Inches of Travel (B061) must be 18.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 2, then the Inches of Travel (B061) must be 20.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 1, then the Inches of Travel (B061) must be 30.

**Note:**

Reference AAR Field Manual Interchange Rule(s) 21 and 59.

**Coupler Component ID** B353

## Coupler Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Cushioning Unit Component ID** B361

## Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## Unit Segment Components

**Unit Equipment Group** A307

Describes the equipment type of the platform

Affects Rating.

**Permissible Values for A307**

|      |                 |      |          |
|------|-----------------|------|----------|
| BOXC | Box Car         | FLAT | Flat Car |
| GOND | Gondola         | HOPP | Hopper   |
| IFLT | Intermodal Flat | TANK | Tank Car |
| VFLT | Vehicular Flat  |      |          |

**Validation Rule for A307**

- Unit Equipment Group cannot be reported if the Connected Unit Count (A020) is not reported
- Unit Equipment Group must be reported if Connected Unit Count (A020) is reported

**Unit Tare Weight** A299

The unit segment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds

**Range of Values for A299**

| Minimum | Maximum |
|---------|---------|
| 10000   | 500000  |

**Validation Rule for A299**

- Unit Tare Weight must not be reported if the Connected Unit Count (A020) is not reported

-Unit Tare Weight must be reported if Connected Unit Count (A020) is reported

- Unit Tare Weight for Boxcars must be less than or equal 160,000 lbs.
- Unit Tare Weight for Refrigerators must be less than or equal 140,000 lbs.
- Unit Tare Weight for Gondolas must be greater than or equal 30,000 lbs.
- Unit Tare Weight for Gondolas must be less than or equal 110,000 lbs.
- Unit Tare Weight for Hoppers must be greater than or equal 23,000 lbs.
- Unit Tare Weight for Hoppers must be less than 120,000 lbs.
- Unit Tare Weight for Tanks must be greater than 31,000 lbs.
- Unit Tare Weight for Tanks must be less than 200,000 lbs.
- Unit Tare Weight for Vflats must be greater than 55,000 lbs.
- Unit Tare Weight for VFlats must be less than 136,000 lbs.
- Unit Tare Weight for IFLT must be greater than 10,000 lbs.
- Unit Tare Weight for IFLT must be less than 72,000 lbs.
- Unit Tare Weight for all flats other than VFlats with ETC Q\_\_\_ must be greater than 23,000 lbs.
- Unit Tare Weight for all flats other than VFlats with ETC Q\_\_\_ must be less than 500,000 lbs.
- Unit Segment Tare Weights must add up to the Total Tare Weight (A259)
- Unit Tare Weight (A299) value must be reported to the nearest 100 pounds

**Unit Load Limit** A300

The maximum permissible weight of the commodity that can be loaded into the unit segment, reported in pounds

**Range of Values for A300**

| Minimum | Maximum |
|---------|---------|
| 20000   | 500000  |

**Validation Rule for A300**

- Unit Load Limit must not be reported if the Connected Unit Count (A020) is not reported
- Unit Load Limit must be reported if Connected Unit Count (A020) is reported
- Unit Segment Load Limits must add up to the Load Limit (LDLT)

**Unit Inside Length** A301

The inside length of each unit segment

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A301**

| Minimum        | Maximum        |
|----------------|----------------|
| 20 ft 0 inches | 99 ft 3 inches |

**Validation Rule for A301**

- Unit Inside Length can only be reported if Connected Unit Count (A020) is reported
- Unit Inside Length must be reported if Connected Unit Count (A020) is reported
- Unit Inside Length for Flats other than Vflats must be greater than or equal to 20 feet.
- Unit Inside Length for Flats and IFlats must be less than or equal to 99 feet 4 inches.

## Brake System Components

**Emergency Brake Valve CID** B354

## Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Emergency Valve COTS Date** B567

Brake valve emergency portion recondition date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve COTS Date is system-generated from a Emergency Brake Valve Inspection.

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|                                                                                                                                            |             |
|--------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Emergency Valve OEM Warranty Date</b>                                                                                                   | <b>B568</b> |
| Brake valve emergency portion Original Equipment Manufacturer warranty date                                                                |             |
| System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.             |             |
| <b>NOTES:</b>                                                                                                                              |             |
| <ul style="list-style-type: none"> <li>Emergency Valve OEM Date is system-generated from a Emergency Brake Valve Inspection.</li> </ul>    |             |
| <b>Emergency Valve Part Number</b>                                                                                                         | <b>B569</b> |
| Brake valve emergency portion part number                                                                                                  |             |
| System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.             |             |
| <b>NOTES:</b>                                                                                                                              |             |
| <ul style="list-style-type: none"> <li>Emergency Valve Part Number is system-generated from a Emergency Brake Valve Inspection.</li> </ul> |             |
| <b>Service Brake Valve CID</b>                                                                                                             | <b>B357</b> |
| Component ID from Component Registry                                                                                                       |             |
| Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.                 |             |
| <b>Service Valve COTS Date</b>                                                                                                             | <b>B564</b> |
| Brake valve service portion recondition date                                                                                               |             |
| System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.             |             |
| <b>NOTES:</b>                                                                                                                              |             |
| <ul style="list-style-type: none"> <li>Service Valve COTS Date is system-generated from a Service Brake Valve Inspection.</li> </ul>       |             |
| <b>Service Valve OEM Warranty Date</b>                                                                                                     | <b>B565</b> |
| Brake valve service portion Original Equipment Manufacturer warranty date                                                                  |             |
| System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.             |             |
| <b>NOTES:</b>                                                                                                                              |             |
| <ul style="list-style-type: none"> <li>Service Valve OEM Date is system-generated from a Service Brake Valve Inspection.</li> </ul>        |             |
| <b>Service Valve Part Number</b>                                                                                                           | <b>B566</b> |
| Brake valve service portion part number                                                                                                    |             |
| System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.             |             |
| <b>NOTES:</b>                                                                                                                              |             |
| <ul style="list-style-type: none"> <li>Service Valve Part Number is system-generated from a Service Brake Valve Inspection.</li> </ul>     |             |
| <b>Slack Adjuster CID</b>                                                                                                                  | <b>B359</b> |
| Component ID from Component Registry                                                                                                       |             |
| Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.                 |             |

## Miscellaneous

|                                                                                                                                              |             |
|----------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Umler Effective Date</b>                                                                                                                  | <b>EFDT</b> |
| The date the rating activity (pre-registration, modification, etc.) is expected to occur                                                     |             |
| This element is not eligible for Query. Does not Carry Forward.                                                                              |             |
| <b>Validation Rule for EFDT</b>                                                                                                              |             |
| -Effective Date cannot be set to more than 13 months in the future.                                                                          |             |
| <b>NOTES:</b>                                                                                                                                |             |
| <ul style="list-style-type: none"> <li>Effective Date will default to the 1st of the following month that equipment is registered</li> </ul> |             |

## Inspection

|                                                                                                                                                                                               |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>ABT Due Date (Repair Track)</b>                                                                                                                                                            | <b>DU13</b> |
| The due date of the air brake test per AAR Field Manual Rule 3                                                                                                                                |             |
| System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.                                                                                    |             |
| <b>ABT 5-8 Year Due Date</b>                                                                                                                                                                  | <b>DU58</b> |
| The 5-8 year due date for the air brake test (ABT) after the ABT Due Date (Repair Track)                                                                                                      |             |
| System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.                                                                                    |             |
| <b>Inspection Date Done</b>                                                                                                                                                                   | <b>DTDN</b> |
| The date the inspection was completed; used for all inspection types reported on equipment                                                                                                    |             |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                       |             |
| <b>Validation Rule for DTDN</b>                                                                                                                                                               |             |
| -The inspection date must not be 60 days before the Build Date                                                                                                                                |             |
| <b>Inspection Due Date</b>                                                                                                                                                                    | <b>INDD</b> |
| The due date of the next inspection; used for all inspection types reported on equipment                                                                                                      |             |
| System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.                                                                                    |             |
| <b>Inspection Performer</b>                                                                                                                                                                   | <b>PERF</b> |
| The SCAC that completed the inspection; used for all inspection types reported on equipment                                                                                                   |             |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                       |             |
| <b>Inspection Reporter</b>                                                                                                                                                                    | <b>REPT</b> |
| The SCAC that reported the inspection; used for all inspection types reported on equipment                                                                                                    |             |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                       |             |
| <b>Location/SPLC</b>                                                                                                                                                                          | <b>SPLC</b> |
| The SPLC of the inspecting location; used for all inspection types reported on equipment                                                                                                      |             |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                       |             |
| <b>Air Brake Test Device</b>                                                                                                                                                                  | <b>B523</b> |
| Indicates the type of test device used to perform the Air Brake Test                                                                                                                          |             |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                       |             |
| <b>Permissible Values for B523</b>                                                                                                                                                            |             |
| A Automatic (Non 4-Pressure)                                                                                                                                                                  |             |
| M Manual                                                                                                                                                                                      |             |
| P Automatic (4-Pressure)                                                                                                                                                                      |             |
| <b>Validation Rule for B523</b>                                                                                                                                                               |             |
| -Air Brake Test Device (B523) must be reported for Air Brake Test inspection reported on or after December 10, 2020                                                                           |             |
| <b>Insp Service Valve COTS Date</b>                                                                                                                                                           | <b>B570</b> |
| Brake valve service portion recondition date                                                                                                                                                  |             |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                       |             |
| <b>NOTES:</b>                                                                                                                                                                                 |             |
| <ul style="list-style-type: none"> <li>Reports of 9999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.</li> <li>Valid date format: MMY</li> </ul> |             |
| <b>Insp Service Valve OEM Warranty Date</b>                                                                                                                                                   | <b>B571</b> |
| Brake valve service portion Original Equipment Manufacturer warranty date                                                                                                                     |             |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                       |             |

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**NOTES:**

- Reports of 999999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMYYYY

| Insp Service Valve Part Number          | B572 |
|-----------------------------------------|------|
| Brake valve service portion part number |      |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

| Insp Emergency Valve COTS Date                 | B573 |
|------------------------------------------------|------|
| Brake valve emergency portion recondition date |      |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

| Insp Emergency Valve Part Number          | B575 |
|-------------------------------------------|------|
| Brake valve emergency portion part number |      |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

| Insp Service Valve Location <i>Mandatory</i> | B576 |
|----------------------------------------------|------|
| Brake valve service portion location         | ●    |

. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Reports of 9999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMYYY

| Insp Emergency Valve OEM Warranty Date                                      | B574 |
|-----------------------------------------------------------------------------|------|
| Brake valve emergency portion Original Equipment Manufacturer warranty date |      |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Reports of 999999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMYYYY

| Insp Emergency Valve Location <i>Mandatory</i>                                         | B577 |
|----------------------------------------------------------------------------------------|------|
| Brake valve emergency portion location reported on an emergency brake valve inspection | ●    |

Value does not carry forward for Single Clone / Multi-Clone.

## Intermodal Flat

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## Data Specification Manual

## General

**Status Code** *Mandatory* USCDIdentifies the current operational state ●

Does not Carry Forward.

**Permissible Values for USCD**

A ACTIVE I INACTIVE  
P PRE-REGISTERED

**NOTES:**

- For Restencil and Clone process the initial Status of a car should be Pre-Registered.
- All Add-Back processes should initially set the Status to Pre-Registered
- A Pre-registered car will automatically have its Status changed to Active for the initial change when TRAIN detects three (3) movements on the car
- If the Status changes to Active due to movement and the car was created from a Restencil, the Prior Equipment ID (PRID) or source car will have its status changed to Inactive automatically by Umler

**Equipment ID** 0001

The equipment stenciled number

**Validation Rule for 0001**

-Equipment Number must not be larger than 6 digits (i.e., 999999)

**NOTES:**

- Equipment ID includes the mark and number stenciled on the equipment. Marks can be up to 4 characters and number up to 6 digits (i.e., ABCD999999).
- Up to 500 cars can be added or updated in a transaction.
- When adding an equipment record, ensure that Prior Equipment ID (PRID) is reported, unless the equipment is new.

**Mechanical Designation** *Mandatory* UMMDEquipment description without physical dimensions ●

Used for Transportation Codes.

**Permissible Values for UMMD**

FC Flat-Intermodal (Standard, Low Profile, Stack)  
FCA Flat-Intermodal Articulated (Standard, Low Profile, Stack)  
MWIF MoW - IFlat

**Equipment Descriptor** *Mandatory* B341Additional information about the type of equipment used in conjunction with the Mechanical Designation to generate the Equipment Type Code (ETC) for Intermodal Flat, Locomotive, Chassis, Container, and Trailer equipment groups ●

Value does not carry forward for Equipment Group Change.

**Permissible Values for B341**

FCC Standard Intermodal  
FCL Low Profile Intermodal  
FCLA Low Profile Intermodal (Articulated)  
FCM Standard Intermodal Multi-Segment  
FCW Well/Stack Intermodal  
FCWA Well/Stack Intermodal (Articulated)

**Validation Rule for B341**

- If Mechanical Designation is FC, then Equipment Descriptor must be FCC, FCL, or FCW. (These are all of the single-segment cars.)
- If Mechanical Designation is FCA, the Equipment Descriptor must be FCM, FCLA, or FCWA. (These are all of the multi-segment cars.)
- If Mechanical Designation is MWIF, there is no restriction on the Equipment Descriptor

**Equipment Type Code** UMET

An alpha numeric code that describes the physical attributes of equipment

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Please Refer to Appendix I for More information Regarding ETC Generation

**Maint of Way Service Type**B403

Identifies equipment Maintenance Of Way function

Value does not carry forward for Equipment Group Change.

**Permissible Values for B403**

C2 Crane / Boom Support Car  
F4 Flat-Wheel Sets  
T4 Training Car  
T8 Track Geometry Car

**Validation Rule for B403**

- Maint of Way Service Type can only be listed on records where the Equipment Group (0002) or Pseudo Equipment Group (B547) is listed as MISC

**Built Date** *Mandatory* BLDTThe date the construction of the equipment is complete ● ●

Data is Confidential. Used for Transportation Codes. Affects Rating. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for BLDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for BLDT**

- Built Date must be within the last 99 years
- Built Date must not be in the future for equipment in Active Status
- Prior and target equipment's Built Date (BLDT) must match for restenciling
- Built Date cannot be updated within 30 days of the End of Service Date (B078)

**NOTES:**

- Data is public for railroad marked equipment.
- For connected unit cars report the oldest car in the set.

**Rebuilt / ILS Date**RBDT

The date the re-construction of the equipment is complete

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for RBDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for RBDT**

- Rebuilt/Increased Life Service Date must be after the Built Date (BLDT)
- Rebuilt Date must not be more than 70 years after the Built Date (BLDT)
- Rebuilt Date is required for Extended Service Code (A096) 1, 2, or 3 for Increased Life Service
- Rebuilt Date is required for Extended Service Code (A096) R for Rebuilt, or V for 65 years of service
- If Rebuilt Date is reported then the Extended Service Code (A096) must be reported as R for Rebuilt, V, 1, 2, or 3 for Increased Life Service

**NOTES:**

- Railroad cars -- applicable only to cars meeting status as provided in both STB Accounting Rules, and the AAR Mechanical Interchange Rule 88, Office Manual.
- Private cars -- applicable to all cars meeting AAR Mechanical Interchange Rule 88, Section C, Office Manual and Sections A and B of the Field Manual.
- For connected unit cars report the oldest car in the set. Do not report Rebuilt Date unless car has been approved by the AAR.

**Rebuilt Flag**RBFL

Identifies the equipment is nearing its end of life cycle

Data is Confidential. System Generated Field. This element is not eligible for Input.

**Permissible Values for RBFL**

N No Y Yes

## Data Specification Manual

| <b>Owner <i>Mandatory</i></b>                                                                                                                                                                                                                                                                                                             | <b>UMOW</b>                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| Primary reporting mark of the railroad or private company owning the car ●                                                                                                                                                                                                                                                                |                            |
| Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.                                                                                                                                                                                                                                         |                            |
| <b>NOTES:</b>                                                                                                                                                                                                                                                                                                                             |                            |
| <ul style="list-style-type: none"> <li>Report the primary reporting mark of the railroad or private company owning the car. When car's lease or lien is held by a bank, trust holder, capital lease company, etc. not having an assigned mark, report the primary reporting mark affiliated with the stenciled reporting mark.</li> </ul> |                            |
| <b>Equipment Group <i>Mandatory</i></b>                                                                                                                                                                                                                                                                                                   | <b>0002</b>                |
| Identifies the various major car types ●●                                                                                                                                                                                                                                                                                                 |                            |
| Used for Transportation Codes. Affects Rating.                                                                                                                                                                                                                                                                                            |                            |
| <b>Lessee</b>                                                                                                                                                                                                                                                                                                                             | <b>LESE</b>                |
| The reporting mark of the company leasing the equipment                                                                                                                                                                                                                                                                                   |                            |
| Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.                                                                                                                                                                                                                                         |                            |
| <b>Validation Rule for LESE</b>                                                                                                                                                                                                                                                                                                           |                            |
| -Umler Owner (UMOW) and Lessee are not allowed to be equal                                                                                                                                                                                                                                                                                |                            |
| -Lessee cannot be a child reporting mark                                                                                                                                                                                                                                                                                                  |                            |
| <b>NOTES:</b>                                                                                                                                                                                                                                                                                                                             |                            |
| <ul style="list-style-type: none"> <li>In order to assign privately marked cars to a pool, a railroad reporting mark must be reported.</li> </ul>                                                                                                                                                                                         |                            |
| <b>Maintenance Party</b>                                                                                                                                                                                                                                                                                                                  | <b>MNPT</b>                |
| The parent reporting mark of the company responsible for the maintenance and repairs of the equipment                                                                                                                                                                                                                                     |                            |
| Does not Carry Forward.                                                                                                                                                                                                                                                                                                                   |                            |
| <b>Mark Owner Category</b>                                                                                                                                                                                                                                                                                                                | <b>B201</b>                |
| The company that owns the stenciled mark on the car                                                                                                                                                                                                                                                                                       |                            |
| System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.                                                                                                                                                                  |                            |
| <b>Permissible Values for B201</b>                                                                                                                                                                                                                                                                                                        |                            |
| B                                                                                                                                                                                                                                                                                                                                         | US Private                 |
| C                                                                                                                                                                                                                                                                                                                                         | Canadian Private           |
| F                                                                                                                                                                                                                                                                                                                                         | Foreign Private            |
| H                                                                                                                                                                                                                                                                                                                                         | Canadian Class II          |
| I                                                                                                                                                                                                                                                                                                                                         | Canadian Class I           |
| J                                                                                                                                                                                                                                                                                                                                         | Mexican Class I            |
| K                                                                                                                                                                                                                                                                                                                                         | Canadian Class III         |
| M                                                                                                                                                                                                                                                                                                                                         | Mexican Private            |
| N                                                                                                                                                                                                                                                                                                                                         | US Private Steamship       |
| O                                                                                                                                                                                                                                                                                                                                         | Canadian Private Steamship |
| P                                                                                                                                                                                                                                                                                                                                         | Mexican Private Steamship  |
| Q                                                                                                                                                                                                                                                                                                                                         | Foreign Private Steamship  |
| R                                                                                                                                                                                                                                                                                                                                         | US Class II Railroad       |
| U                                                                                                                                                                                                                                                                                                                                         | US Class I Railroad        |
| V                                                                                                                                                                                                                                                                                                                                         | US Class III Railroad      |
| W                                                                                                                                                                                                                                                                                                                                         | Mexican Class II Railroad  |
| Y                                                                                                                                                                                                                                                                                                                                         | Mexican Class III Railroad |
| <b>NOTES:</b>                                                                                                                                                                                                                                                                                                                             |                            |
| <ul style="list-style-type: none"> <li>This value is stored in the Umler Database for informational purposes and is retrieved from the Roadmark Registry.</li> </ul>                                                                                                                                                                      |                            |
| <b>Prior Equipment ID</b>                                                                                                                                                                                                                                                                                                                 | <b>PRID</b>                |
| The previous reporting mark and number of the equipment                                                                                                                                                                                                                                                                                   |                            |
| Value does not carry forward for Single Clone / Multi-Clone.                                                                                                                                                                                                                                                                              |                            |
| <b>Validation Rule for PRID</b>                                                                                                                                                                                                                                                                                                           |                            |
| -Prior and target equipment's Built Date (BLDT) must match                                                                                                                                                                                                                                                                                |                            |

-The Prior Equipment ID (0001) must belong to the same or comparable Equipment Group (0002) as the current car initial and number

**NOTES:**

- Prior ID enables equipment records to share the same historical lineage. Equipment Identification Number (EIN) is a generated id that enables these equipment records to share inspections and transaction history.

| <b>Last Update Date</b>                                         | <b>B122</b> |
|-----------------------------------------------------------------|-------------|
| Date of the last Umler element change                           |             |
| System Generated Field. This element is not eligible for Input. |             |

| <b>Equipment Add Date</b>                                        | <b>B082</b> |
|------------------------------------------------------------------|-------------|
| Date the reporting mark and number was added to the Umler system |             |
| System Generated Field. This element is not eligible for Input.  |             |

| <b>Status Change Reason</b>                                                             | <b>USCR</b> |
|-----------------------------------------------------------------------------------------|-------------|
| Identifies the reason for the current operational state                                 |             |
| System Generated Field. This element is not eligible for Input. Does not Carry Forward. |             |

**Permissible Values for USCR**

|   |                         |
|---|-------------------------|
| I | Initial Load            |
| M | Movement                |
| O | Status Changed Manually |
| R | Restencil               |

**NOTES:**

- If movement is detected on equipment, status is changed to Active.
- If an equipment record is changed to Active, any prior equipment record is placed in Inactive status.

| <b>Status Change Date</b>                                                               | <b>USCT</b> |
|-----------------------------------------------------------------------------------------|-------------|
| Identifies the effective date of the current operational state                          |             |
| System Generated Field. This element is not eligible for Input. Does not Carry Forward. |             |

| <b>Extended Service <i>Mandatory</i></b>                                                    | <b>A096</b> |
|---------------------------------------------------------------------------------------------|-------------|
| A code indicating the eligibility of an increase to the life cycle ●                        |             |
| Used for Transportation Codes. Value does not carry forward for Single Clone / Multi-Clone. |             |

**Permissible Values for A096**

|   |                                                                                                                                           |
|---|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | 1st ILS Inspection, additional 5 years of Service                                                                                         |
| 2 | 2nd ILS Inspection, additional 5 years of service (10 years total)                                                                        |
| 3 | 3rd ILS Inspection, additional 5 years of service (15 years total)                                                                        |
| C | Built New between January 1, 1964 - June 30, 1974, Certified for 50 Years of Service, Built New Before July 1, 1974 & Received AAR Waiver |
| E | Built new from July 1, 1974, Qualified for 50 Years Service                                                                               |
| N | Built Before January 1, 1964, Qualified for 40 Years Service                                                                              |
| R | Rule 88, Rebuilt cars                                                                                                                     |
| U | Built between January 1, 1964 - June 30, 1974, Qualified for 40 Years & eligible for certification for 50 Years Service                   |
| V | Car is certified (FRA Waiver & AAR) for 65 years of service from date built new from January 1, 1964                                      |

**Validation Rule for A096**

- If Rebuilt Date (RBDT) is reported, then the Extended Service Code (A096) must be reported as R for Rebuilt, V, 1, 2, or 3 for Increased Life Service
- Extended Service Code of C cannot be reported if the car was built before January 1, 1964 or on/after July 1, 1974
- Extended Service Code of E cannot be reported if the car was built before July 1, 1974
- Extended Service Code of N cannot be reported if the car was built on/after January 1, 1964
- Extended Service Code of U cannot be reported if the car was built before January 1, 1964 or on/after July 1, 1974

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**NOTES:**

- Value is used to calculate End of Service Date (B078).
- Rebuilt Date (RBDT) is required for Extended Service Code (A096) R for Rebuilt, or V for 65 years service.
- Rebuilt Date (RBDT) is required for Extended Service Code (A096) 1, 2, 3, and V for Increased Life Service.

|                                                 |             |
|-------------------------------------------------|-------------|
| <b>End of Service Date</b>                      | <b>B078</b> |
| Indicates the date of the end of equipment life |             |

Data is Confidential. System Generated Field. This element is not eligible for Input.

**NOTES:**

- Data becomes non-confidential two years prior to End of Service Date.

|                                                                |             |
|----------------------------------------------------------------|-------------|
| <b>Do Not Load After</b>                                       | <b>B590</b> |
| Equipment should not be loaded after date shown in the element |             |

Data is Confidential.

**Validation Rules for B590**

- Do Not Load After (B590) cannot be updated thirty days prior to the date shown in the element.
- Do Not Load After (B590) cannot be updated within thirty days of the End of Service Date (B078).
- Do Not Load After (B590) date cannot be on or after the End of Service (B078) date.

**NOTES:**

- The element will be initially populated by End of Service (B078) minus 30 days.
- Data becomes non-confidential thirty days prior to the Do Not Load After (B590) date.

|                                                          |             |
|----------------------------------------------------------|-------------|
| <b>Equipment Identification</b>                          | <b>EINN</b> |
| Unique equipment identifier regardless of stenciled mark |             |

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Specify the Prior ID (PRID) on equipment records to ensure the historical lineage is preserved. Equipment with the same EIN share history and inspections.

|                                                                         |             |
|-------------------------------------------------------------------------|-------------|
| <b>Info Conflict Status</b>                                             | <b>B355</b> |
| Indicates that an Informational Conflict exists on the Equipment record |             |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

|                                                                 |             |
|-----------------------------------------------------------------|-------------|
| <b>Conflict Status</b>                                          | <b>B050</b> |
| Identifies the escalation level of equipment in active conflict |             |

System Generated Field. Affects Rating. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B050**

- Subject to Zero-Rating
- Subject to Restricted in Interchange
- Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

|                                                                      |             |
|----------------------------------------------------------------------|-------------|
| <b>Date of Original Conflict</b>                                     | <b>B063</b> |
| The date the equipment was originally placed in the current conflict |             |

System Generated Field. This element is not eligible for Input.

|                                                                         |             |
|-------------------------------------------------------------------------|-------------|
| <b>Next Conflict Status</b>                                             | <b>B135</b> |
| Identifies the next escalation level of an equipment in active conflict |             |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B135**

- Subject to Zero-Rating
- Subject to Restricted in Interchange
- Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

|                                                          |             |
|----------------------------------------------------------|-------------|
| <b>Notice Indicator</b>                                  | <b>B137</b> |
| Identifies equipment in error in Umler Notice Management |             |

System Generated Field. This element is not eligible for Input.

|                                                |             |
|------------------------------------------------|-------------|
| <b>Conflict Status Next Date</b>               | <b>B062</b> |
| The date the conflict status will be escalated |             |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

|                                                |             |
|------------------------------------------------|-------------|
| <b>Rate Indicator</b>                          | <b>A070</b> |
| Indicates the rate type applicable to the unit |             |

System Generated Field. Used for Transportation Codes. Affects Rating. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for A070**

- Zero-Rated Due to Conflict Errors
- Private Mileage Rate
- Private Car Owner Designated Rate
- Zero-Rated - Scrap (S\_,SX), AAR Overage (XA), FRA Overage (YA), Umler Conflict - CHR 1/Tariff 6007 (XZ). Zero-Rated Private Owner Election to Zero Rate [See Private Zero Rate (B150)].
- Railroad Market Rate
- Zero-Rated Railroad Market Rate Due to Conflict Errors

**NOTES:**

- If unit is zero-rated, correction of conflicts will reinstate the appropriate rate indicator code.

|                                                                                       |             |
|---------------------------------------------------------------------------------------|-------------|
| <b>Private Zero Rate</b>                                                              | <b>B150</b> |
| Indicates a private car is subject to contractual agreement, nullifying mileage rates |             |

Affects Rating.

**Permissible Values for B150**

- Y Yes

**NOTES:**

- Reporting "Y" generates Rate Indicator (A070) value 6 and a zero rate.

|                                                   |             |
|---------------------------------------------------|-------------|
| <b>TTX Hourly Rate</b>                            | <b>B212</b> |
| Time Charge-The TTX hourly rate for the equipment |             |

Data is Confidential. This element is not eligible for Query.

**Range of Values for B212**

| Minimum | Maximum |
|---------|---------|
| 0       | 9       |

**Validation Rule for B212**

- TTX Hourly rate can only be set on TTX owned Equipment.

|                                                       |             |
|-------------------------------------------------------|-------------|
| <b>TTX Mileage Rate</b>                               | <b>B213</b> |
| Mileage Charge-The TTX mileage rate for the equipment |             |

Data is Confidential. This element is not eligible for Query.

**Range of Values for B213**

| Minimum | Maximum |
|---------|---------|
| 0       | 1       |

**Validation Rule for B213**

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-TTX Mileage rate can only be set on TTX owned Equipment.

| First Movement Date                                               | USAT |
|-------------------------------------------------------------------|------|
| The first movement date under the stenciled mark of the equipment |      |

This element is not eligible for Input. Does not Carry Forward.

| Equipment Add Company                                      | B083 |
|------------------------------------------------------------|------|
| The reporting mark of the company that added the equipment |      |

System Generated Field. This element is not eligible for Input.

| Registration Reason                                    | B174 |
|--------------------------------------------------------|------|
| The code indicating the reason this equipment is added |      |

Does not Carry Forward.

**Permissible Values for B174**

|   |                   |   |           |
|---|-------------------|---|-----------|
| A | Add-Back          | N | New       |
| P | Pending Restencil | R | Restencil |

| Restencil Program Ind                                 | B177 |
|-------------------------------------------------------|------|
| Identifies the equipment is under a restencil program |      |

**Permissible Values for B177**

|   |     |
|---|-----|
| Y | Yes |
|---|-----|

| Delete Reason Code                                               | B064 |
|------------------------------------------------------------------|------|
| A code that designates the reason the equipment has been deleted |      |

Value does not carry forward for Add Back.

**Permissible Values for B064**

|   |                                              |
|---|----------------------------------------------|
| A | Restenciled                                  |
| D | Destroyed or wrecked                         |
| L | Lease terminated, removed from fleet         |
| P | Retired unserviceable beyond economic repair |
| R | Rebuilt                                      |
| S | Sold Serviceable                             |
| T | Lost                                         |
| W | Over age retired for dismantling             |
| Y | Error, reporting did not exist               |
| Z | Other                                        |

| Non-Compliant Wheelsets                                                                                                                         | B544 |
|-------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Equipment record is incomplete and has a missing wheelset component ID association. Refer to AAR Field Manual Rule 44 for industry requirements |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B544**

- A Wheelset Component ID is required for each applicable location on equipment built on or after January 1, 2016
- A Wheelset Component ID is required for each applicable location on equipment rebuilt on or after January 1, 2016 and Gross Rail Load (A266) is greater than 268,000 lbs

**NOTES:**

- A "Y" will be system generated if the equipment is active and the number of Wheelset CID's required is not equal to the Axle Count (A024) on the equipment
- Validation rule applies to equipment that has been in Active status for 60 days

| Pseudo Equipment Group                                                                                                           | B547 |
|----------------------------------------------------------------------------------------------------------------------------------|------|
| Equipment needs to be identified as a miscellaneous record while maintaining all elements linked to the original equipment group |      |

System Generated Field.

**Permissible Values for B547**

|      |               |
|------|---------------|
| MISC | Miscellaneous |
|------|---------------|

**Weight**

| Gross Rail Load/Weight                                                                   | Mandatory | A266 |
|------------------------------------------------------------------------------------------|-----------|------|
| The maximum permissible weight on rail of the equipment and the load, reported in pounds |           |      |

Affects Rating.

**Range of Values for A266**

| Minimum | Maximum |
|---------|---------|
| 113000  | 2835000 |

**Validation Rule for A266**

- Gross Rail Load must be equal to the Load Limit (LDLT) plus the Tare Weight (A259)

**NOTES:**

- For current single-unit IFLT's, lowest GRL is 113,000 lbs. Maximum GRL for 36 axles with 7" bearings is 2,835,000 lbs.

Use Table 1 below to determine Gross Rail Load, if Qualification for Increased Gross Rail Load (B344) does not exist.

TABLE 1 -

| Journal Size                      | Load per Axle | Gross Rail Load for 4-axle Equipment |
|-----------------------------------|---------------|--------------------------------------|
| B - 4 1/2" x 8"                   | 25,750 lbs.   | 103,000 lbs.                         |
| C - 5" x 9"                       | 35,500 lbs.   | 142,000 lbs.                         |
| D - 5 1/2" x 10"                  | 44,250 lbs.   | 177,000 lbs.                         |
| E - 6" x 11" (w/28" 1W wheels)    | 48,750 lbs.   | 195,000 lbs.                         |
| E - 6" x 11" (w/all other wheels) | 55,000 lbs.   | 220,000 lbs.                         |
| F - 6 1/2" x 12"                  | 65,750 lbs.   | 263,000 lbs.                         |
| G - 7" x 12"                      | 78,750 lbs.   | 315,000 lbs.                         |
| K - 6 1/2" x 9"                   | 71,500 lbs.   | 263,000 lbs.                         |
| M - 7" x 9"                       | 78,750 lbs.   | 315,000 lbs.                         |

Use Table 2 below to determine Gross Rail Load for 4-axle equipment if Qualification for Increased Gross Rail Load (B344) exists.

TABLE 2 -

| Qualification for Increased Gross Rail Load (B344) | Journal Size     | Gross Rail Load |
|----------------------------------------------------|------------------|-----------------|
| 1                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 1                                                  | G - 7" x 12"     | 286,000 lbs.    |
| 1                                                  | M - 7" x 9"      | 286,000 lbs.    |
| 2                                                  | F - 6 1/2" x 12" | 286,000 lbs.    |
| 2                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 3                                                  | F - 6 1/2" x 12" | 268,000 lbs.    |
| 3                                                  | K - 6 1/2" x 9"  | 268,000 lbs.    |

- For multi-unit equipment, report the total gross rail load for the entire set.
- Refer to Field Manual Rule 70 if additional information is required.

A Gross Rail Load less than the listed or calculated values may be entered; however:

- Star Code (A247) must be R or S, and
- Load Limit (LDLT) must also be reduced, ensuring Tare Weight (A259) plus Load Limit (LDLT) equals the reported Gross Rail Load.

For equipment having two or more different journal sizes, see following examples:

Example for Drawbar Connected:

- A 3-unit drawbar connected car has 12 axles.
- The end units (Locations A and B) each have 4 axles with E - 6" x 11" journals.
- The intermediate unit (Locations C) has 4 axles with F - 6 1/2" x 12" journals

Using TABLE 1, the Gross Rail Load would be:

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8 ea. E-6" x 11" journal axles X 55,000 lbs. per axle = 440,000 lbs.  
 + 4 ea. F-6 1/2" x 12" journal axles X 65,750 lbs. per axle = 263,000 lbs.  
 Gross Rail Load = 703,000 lbs.

Example for Articulated Connected:

A 5-unit articulated car has 6 trucks (12 axles).

The end trucks (Locations A and B) each have 2 axles with E - 6" x 11" journals.

The intermediate trucks (Locations C, D, E, and F) each have 2 axles with G - 7" x 12" journals

Using TABLE 1, the Gross Rail Load would be:

- 4 ea. E-6" x 11" journal axles X 55,000 lbs. per axle = 220,000 lbs.
- + 8 ea. G-7" x 12" journal axles X 78,750 lbs. per axle = 630,000 lbs.
- Gross Rail Load = 850,000 lbs.

| <b>Tare Weight Mandatory</b>                                                                       | <b>A259</b> |
|----------------------------------------------------------------------------------------------------|-------------|
| The equipment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds |             |

Affects Rating.

#### Range of Values for A259

| Minimum | Maximum |
|---------|---------|
| 43000   | 918000  |

#### Validation Rule for A259

- Tare Weight (A259) of IFLT with a blank Connected Unit Count (A020) must contain values between 43000 lbs. and 102000 lbs.
- Tare Weight (A259) of IFLT where Connected Unit Count (A020) is 2, must contain values between 86000 lbs. and 204000 lbs.
- Tare Weight (A259) of IFLT where Connected Unit Count (A020) is 3, must contain values between 96000 lbs. and 306000 lbs.
- Tare Weight (A259) of IFLT where Connected Unit Count (A020) is 4, must contain values between 141000 lbs. and 408000 lbs.
- Tare Weight (A259) of IFLT where Connected Unit Count (A020) is 5, must contain values between 152000 lbs. and 510000 lbs.
- Tare Weight (A259) of IFLT where Connected Unit Count (A020) is 6, must contain values between 258000 lbs. and 612000 lbs.
- Tare Weight (A259) of IFLT where Connected Unit Count (A020) is 7, must contain values between 301000 lbs. and 714000 lbs.
- Tare Weight (A259) of IFLT where Connected Unit Count (A020) is 8, must contain values between 344000 lbs. and 816000 lbs.
- Tare Weight (A259) of IFLT where Connected Unit Count (A020) is 9, must contain values between 387000 lbs. and 918000 lbs.
- IFlat Cars of ETC Q\_1\_ can only have a maximum Tare Weight of 70,000 lbs.
- IFlat Cars of ETC Q\_2\_ to Q\_0\_ and S\_3\_ to S\_8\_ can only have a maximum Tare Weight of 360,000 lbs.
- Tare Weight (A259) value must be reported to the nearest 100 pounds

#### NOTES:

- Do not report an average Tare Weight for car series, except for Pre-Registered cars
- When cars are made active, the actual Tare Weight must be recorded

| <b>Load Limit Mandatory</b>                                                                               | <b>LDLT</b> |
|-----------------------------------------------------------------------------------------------------------|-------------|
| The maximum permissible weight of the commodity that can be loaded into the equipment, reported in pounds |             |

Affects Rating.

#### Range of Values for LDLT

| Minimum | Maximum |
|---------|---------|
| 69000   | 2061000 |

#### Validation Rule for LDLT

- Load Limit (LDLT) of IFLT with a blank Connected Unit Count (A020) must contain values between 69000 lbs. and 229000 lbs.
- Load Limit (LDLT) of IFLT where Connected Unit Count (A020) is 2, must contain values between 138000 lbs. and 458000 lbs.

- Load Limit (LDLT) of IFLT where Connected Unit Count (A020) is 3, must contain values between 207000 lbs. and 687000 lbs.
- Load Limit (LDLT) of IFLT where Connected Unit Count (A020) is 4, must contain values between 276000 lbs. and 916000 lbs.
- Load Limit (LDLT) of IFLT where Connected Unit Count (A020) is 5, must contain values between 336000 lbs. and 1145000 lbs.
- Load Limit (LDLT) of IFLT where Connected Unit Count (A020) is 6, must contain values between 414000 lbs. and 1374000 lbs.
- Load Limit (LDLT) of IFLT where Connected Unit Count (A020) is 7, must contain values between 483000 lbs. and 1603000 lbs.
- Load Limit (LDLT) of IFLT where Connected Unit Count (A020) is 8, must contain values between 552000 lbs. and 1832000 lbs.
- Load Limit (LDLT) of IFLT where Connected Unit Count (A020) is 9, must contain values between 621000 lbs. and 2061000 lbs.
- IFlat Cars of Equipment Type codes Q-2- to Q-9- and S-3- to S-8- can only have a max Load Limit of 200000 lbs.

#### NOTES:

- For connected unit cars report the sum of the load limits for all units in the set.
- For current single-unit IFLTs, lowest load limit is 69,200 lbs. (rounded down to 69000). Largest load limit is 228,900 lbs. (rounded up to 229,000). Maximum permissible value shown above is 229,000 lbs. X 9 = 2,061,000 lbs.]

| <b>Weighing Status Mandatory</b>                                         | <b>A289</b> |
|--------------------------------------------------------------------------|-------------|
| Indicates the weight information is an estimate or an actual measurement |             |

Value does not carry forward for Single Clone / Multi-Clone.

#### Permissible Values for A289

- A Actual
- E Estimated
- V Verified correct Tare Weight
- X Tare Weight subject to verification (System Generated)

#### Validation Rule for A289

- Equipment cannot be within a series of 10 with identical Tare Weights (A259), refer to Appendix P for further information on resolving tare weight conflicts
- When Status Code changes to Active or Inactive Weighing Status must be reported as Actual (A) or Verified (V) within 60 days of Status Code change

| <b>Weighing Date</b>                        | <b>A288</b> |
|---------------------------------------------|-------------|
| The date the equipment was actually weighed |             |

Value does not carry forward for Single Clone / Multi-Clone.

#### Range of Values for A288

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

#### Validation Rule for A288

- If Weighing Date is reported the Tare Weight (A259) must be reported
- When Weighing Date is reported then Weighing Status (A289) must be A (Actual) or V (Verified)
- If Weighing Status (A289) is A (Actual) or V (Verified correct Tare Weight) then Weighing Date must be reported
- Weighing Date must be on or before the current date
- Weighing Date cannot be before Built / Rebuilt date

| <b>Star Code</b>                                                                | <b>A247</b> |
|---------------------------------------------------------------------------------|-------------|
| Indicates a reduction of the Load Limit (LDLT) of the equipment per AAR Rule 70 |             |

Affects Rating.

#### Permissible Values for A247

- R Body Capacity less than Truck Capacity
- S Reduced Load Limit

#### NOTES:

- Star Code must be reported if Gross Rail Load (A266) is less than the maximum gross rail load allowed for the reported combination of Axle Count (A024) and Journal Size (A147).



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| Qual for Inc GRL                                                                                                           | B344 |
|----------------------------------------------------------------------------------------------------------------------------|------|
| Code designating AAR approval for operating 4-axle equipment at a gross rail load greater than 263,000 lbs per AAR Rule 88 |      |

**Permissible Values for B344**

- Rule 88 IGRL Code 1 (> 263,000 lbs. and ≤ 286,000 lbs. GRL per AAR Specification S-286)
- Rule 88 IGRL Code 2 (> 263,000 lbs. and ≤ 286,000 lbs. GRL)
- Rule 88 IGRL Code 3 (> 263,000 lbs. and ≤ 268,000 lbs. GRL)

**Validation Rule for B344**

- Equipment having Qualification for Increased Gross Rail Load of 1 or 2 must have a Gross Rail Load (A266) that does not exceed 286,000 lbs.
- Equipment having Qualification for Increased Gross Rail Load of 3 must have a Gross Rail Load (A266) that does not exceed 268,000 lbs.
- Equipment having Qualification for Increased Gross Rail Load of 1 must have a Journal Size (A147) of K, G, or M
- Equipment having Qualification for Increased Gross Rail Load of 2 or 3 must have a Journal Size (A147) of F or K
- Equipment having Qualification for Increased Gross Rail Load of 1, 2, or 3 must have a Wheel Diameter (A294) of 36 or 38
- Equipment having Qualification for Increased Gross Rail Load (B344) of 3, and a Gross Rail Load (A266) less than 268,000 lbs., must have Star Code of S
- Equipment having Qualification for Increased Gross Rail Load of 1 or 2 must have a Gross Rail Load (A266) that does not exceed 286,000 lbs.

**NOTES:**

- Qualification for Increased Gross Rail Load must be granted by the AAR, and applies only to 4-axle equipment approved for gross rail loads greater than 263,000 lbs. and less than or equal to 286,000 lbs. It does NOT apply to 4-axle, 315,000 lbs. gross rail load equipment operating with a Star Code.

## Dimension

| Plate Code Mandatory                                              | A046 |
|-------------------------------------------------------------------|------|
| Indicates the extreme height and width clearance of the equipment |      |

Affects Rating.

**Permissible Values for A046**

- B Plate Code B
- C Plate Code C
- E Plate Code E
- F Plate Code F
- G Clearance Code G
- H Plate Code H
- N Plate Code N

**NOTES:**

- For a description of Plate Codes, please see Appendix J at the back of this manual.
  - Report B: If clearance does not exceed Plate B
  - Report C: If clearance is greater than Plate B. but does not exceed Plate C
  - Report E: If clearance is greater than Plates B and C, but does not exceed Plate E.
  - Report F: If clearance is greater than Plates B, C and E, but does not exceed Plate F
  - Report G: If clearance exceeds Plates B, C, E, F, H, and N.
  - Report H: If clearance is greater than Plates B, C, E, and F, but does not exceed Plate H
  - Report N: If clearance is greater than Plates B, C, E, and F, but does not exceed Plate N.
- There is no AAR Plate G. Clearance Code G is included in Umler to represent equipment that does not fit any existing AAR clearance plates.
- For ARTICULATED/MULTI-UNIT SET report the most restrictive clearance plate of UNIT in the set. (For ARTICULATION see Section VII).

| Outside Length Mandatory                                             | OSLG |
|----------------------------------------------------------------------|------|
| The outside length over pulling faces of couplers in normal position |      |

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for OSLG**

| Minimum        | Maximum         |
|----------------|-----------------|
| 24 ft 0 inches | 720 ft 0 inches |

**Validation Rule for OSLG**

- Non-Articulated I-Flats cannot have an Outside Length greater than 124 feet
- If Axle Count (A024) is 4, then Outside Length must not exceed Inside Length (A135) by more than 24 feet

**NOTES:**

- For connected unit cars report the maximum coupled length of the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

| Outside Extreme Width Mandatory            | A186 |
|--------------------------------------------|------|
| The outside extreme width of the equipment |      |

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A186**

| Minimum       | Maximum        |
|---------------|----------------|
| 7 ft 0 inches | 12 ft 7 inches |

**Validation Rule for A186**

- Outside Extreme Width must not exceed 10 feet 8 inches for Plate Codes B, C, E, F, or N
- Outside Extreme Width (A186) for Plate Code A must not be less than 10 feet 8 inches.
- Outside Extreme Width (A186) for Plate Code A must not exceed 10 feet 10 inches.

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

| Outside Extreme Height Mandatory                     | A185 |
|------------------------------------------------------|------|
| Height from top of rail to extreme projecting height |      |

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A185**

| Minimum       | Maximum        |
|---------------|----------------|
| 2 ft 0 inches | 22 ft 6 inches |

**Validation Rule for A185**

- Outside Extreme Height for Plate Code B must be less than or equal to 15 feet 1 inch
- Outside Extreme Height for Plate Codes C or I must be less than or equal to 15 feet 6 inches
- Outside Extreme Height for Plate Code E must be less than or equal to 15 feet 9 inches
- Outside Extreme Height for Plate Code F must be less than or equal to 17 feet 0 inch
- Outside Extreme Height for Plate Code H must be less than or equal to 20 feet 3 inches
- Outside Extreme Height for Plate Code N must be less than or equal to 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

| Outside Height Extr Width Mandatory                                  | A187 |
|----------------------------------------------------------------------|------|
| The highest point at which the extreme width of the equipment occurs |      |

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A187**

| Minimum       | Maximum        |
|---------------|----------------|
| 1 ft 0 inches | 20 ft 0 inches |

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**Validation Rule for A187**

- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 8 inches if Outside Height Extreme Width is 13 feet 10 inches or less
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 7 inches if Outside Height Extreme Width is 13 feet 11 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 6 inches if Outside Height Extreme Width is 14 feet 0 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 4 inches if Outside Height Extreme Width is 14 feet 1 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 3 inches if Outside Height Extreme Width is 14 feet 2 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 2 inches if Outside Height Extreme Width is 14 feet 3 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 0 inches if Outside Height Extreme Width is 14 feet 4 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 9 feet 9 inches if Outside Height Extreme Width is 14 feet 5 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 9 feet 5 inches if Outside Height Extreme Width is 14 feet 6 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 9 feet 2 inches if Outside Height Extreme Width is 14 feet 7 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 8 feet 10 inches if Outside Height Extreme Width is 14 feet 8 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 8 feet 6 inches if Outside Height Extreme Width is 14 feet 9 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 8 feet 3 inches if Outside Height Extreme Width is 14 feet 10 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 7 feet 11 inches if Outside Height Extreme Width is 14 feet 11 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 7 feet 6 inches if Outside Height Extreme Width is 15 feet 0 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 7 feet 4 inches if Outside Height Extreme Width is 15 feet 1 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 8 inches if Outside Height Extreme Width is 14 feet 3 inches or less
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 7 inches if Outside Height Extreme Width is 14 feet 4 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 6 inches if Outside Height Extreme Width is 14 feet 5 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 4 inches if Outside Height Extreme Width is 14 feet 6 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 3 inches if Outside Height Extreme Width is 14 feet 7 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 2 inches if Outside Height Extreme Width is 14 feet 8 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 0 inches if Outside Height Extreme Width is 14 feet 9 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 9 feet 9 inches if Outside Height Extreme Width is 14 feet 10 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 9 feet 5 inches if Outside Height Extreme Width is 14 feet 11 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 9 feet 2 inches if Outside Height Extreme Width is 15 feet 0 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 8 feet 10 inches if Outside Height Extreme Width is 15 feet 1 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 8 feet 6 inches if Outside Height Extreme Width is 15 feet 2 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 8 feet 3 inches if Outside Height Extreme Width is 15 feet 3 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 7 feet 11 inches if Outside Height Extreme Width is 15 feet 4 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 7 feet 8 inches if Outside Height Extreme Width is 15 feet 5 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 7 feet 4 inches if Outside Height Extreme Width is 15 feet 6 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 8 inches if Outside Height Extreme Width is 15 feet 2 inches or less

- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 6 inches if Outside Height Extreme Width is 15 feet 3 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 3 inches if Outside Height Extreme Width is 15 feet 4 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 9 feet 6 inches if Outside Height Extreme Width is 15 feet 5 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 8 feet 8 inches if Outside Height Extreme Width is 15 feet 6 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 7 feet 11 inches if Outside Height Extreme Width is 15 feet 7 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 7 feet 1 inches if Outside Height Extreme Width is 15 feet 8 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 6 feet 3 inches if Outside Height Extreme Width is 15 feet 9 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 8 inches if Outside Height Extreme Width is 16 feet 3 inches or less
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 7 inches if Outside Height Extreme Width is between 16 feet 4 inches and 16 feet 6 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 6 inches if Outside Height Extreme Width is 16 feet 7 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 3 inches if Outside Height Extreme Width is 16 feet 8 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 0 inches if Outside Height Extreme Width is 16 feet 9 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 8 inches if Outside Height Extreme Width is 16 feet 10 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 5 inches if Outside Height Extreme Width is 16 feet 11 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 2 inches if Outside Height Extreme Width is 17 feet 0 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 8 inches if Outside Height Extreme Width (A187) is 16 feet 9 inches or less
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 6 inches if Outside Height Extreme Width (A187) is 16 feet 10 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 4 inches if Outside Height Extreme Width (A187) is 16 feet 11 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 2 inches if Outside Height Extreme Width (A187) is 17 feet 0 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 9 feet 11 inches if Outside Height Extreme Width (A187) is 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

| Inside Length                                                                                     | A135 |
|---------------------------------------------------------------------------------------------------|------|
| The inside length of the equipment from end to end inside walls, linings, and permanent bulkheads |      |

Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A135**

| Minimum        | Maximum        |
|----------------|----------------|
| 20 ft 0 inches | 99 ft 3 inches |

**Validation Rule for A135**

- Inside Length/Inside Platform Length must be less than or equal to Outside Length (OSLG)

**NOTES:**

- Round fraction to the lower inch, e.g., 05 1/4" = 05"
- For connected unit cars report the shortest dimension of a unit in the set.

| Inside Width                                                  | A138 |
|---------------------------------------------------------------|------|
| The inside width of the equipment from side walls and linings |      |

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A138**

| Minimum | Maximum |
|---------|---------|
|---------|---------|

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4 ft 0 inches | 10 ft 6 inches

**Validation Rule for A138**

- IFlat Cars of ETC S and Q can only have a minimum Inside Platform Width of 8 feet 0 inches
- IFlat Cars of ETC S and Q can only have a maximum Inside Platform Width of 10 feet 6 inches
- Inside Width/Inside Platform Width must not exceed Outside Extreme Width

**NOTES:**

- For connected unit cars report the shortest dimension of a unit in the set.

**Inside Height****A133**

The inside height of the equipment from the floor to the top of the side, or to the lowest point of the interior ceiling

**Range of Values for A133**

| Minimum | Maximum |
|---------|---------|
| 12      | 169     |

**NOTES:**

- For connected unit cars report the shortest dimension of a unit in the set.

**Dimension Unit Segment Components****Side Wall Height****B195**Measurement from top face of loading pad to top of inside wall on well cars.  
Component of Unit Segment (ICPSC)**Range of Values for B195**

| Minimum              | Maximum             |
|----------------------|---------------------|
| 0.100000000000000001 | 99.9000000000000006 |

**NOTES:**

- For connected unit cars report the dimension of the smallest side door height of a unit in the set.

**Truck Center Length****A276**

The length between the centers of the two truck systems

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A276**

| Minimum        | Maximum        |
|----------------|----------------|
| 15 ft 0 inches | 64 ft 0 inches |

**Validation Rule for A276**

- Truck Center Length is required for cars with an Outside Length (OSLG) of greater than 62 feet 6 inches

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.

**Platform Hght Above Rail *Mandatory*****A192**

Describes the platform height above the rail in inches

Used in ETC Generation. Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A192**

| Minimum        | Maximum       |
|----------------|---------------|
| 0 ft 10 inches | 6 ft 0 inches |

**Validation Rule for A192**

- IFlat Cars of ETC Q and S can only have a maximum Platform Height Above Rail/Deck Height Above Ground of 4 feet 0 inches
- IFlat Cars of ETC Q\_1\_ can only have a minimum Platform Height Above Rail/Deck Height Above Ground of 2 feet 0 inches
- IFlat Cars of ETC Q\_1\_ can only have a maximum Platform Height Above Rail/Deck Height Above Ground of 2 feet 8 inches
- IFlat Cars of Equipment Type codes Q1, Q2, Q3, Q4, Q5, Q6, Q7, Q9 and S, can only have a minimum Platform Height Above Rail/Deck Height Above Ground of 10 feet
- IFlat Cars with Equipment Type codes P1\_\_, P2\_\_, P5\_\_, or P6\_\_ can only have a minimum Platform Height Above Rail/Deck Height Above Ground of 2 feet

- IFlat Cars with Equipment Type codes P1\_\_, P2\_\_, P5\_\_, or P6\_\_ can only have a maximum Platform Height Above Rail/Deck Height Above Ground of 3 feet 3 inches

- IFlat Cars with Equipment Type codes P3\_\_, P4\_\_, P7\_\_, or P8\_\_ can only have a minimum Platform Height Above Rail/Deck Height Above Ground of 3 feet 4 inches

- IFlat Cars of Equipment Type codes P3\_\_, P4\_\_, P7\_\_, P8\_\_, can only have a Max Platform Height Above Rail/Deck Height Above Ground of 05 feet 11 inches

- IFlat Cars of Equipment Type codes P9\_\_ can only have Platform Height Above Rail/Deck Height Above Ground of 03 feet 02 inches

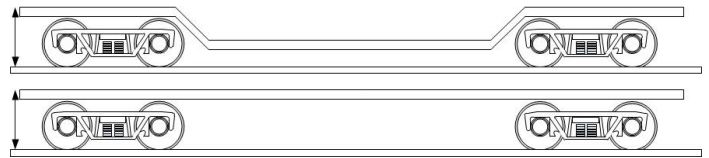
- Platform Height cannot be greater than Outside Height

**NOTES:**

- EXCEPTIONS: For bi-level and tri-level flat cars, measurement is from top of rail to top of floor of lower deck. Feet in Pos. 45-46, inches in Pos. 47-48. Round fraction to the higher inch, e.g., 05 1/4" = 06". This field must agree relationally for V\_\_\_ Equipment Type Codes and P\_\_\_.

|                               |                                  |
|-------------------------------|----------------------------------|
| P___                          | MINIMUM—1ft 1in MAXIMUM—4ft 9in  |
| Q___                          | MINIMUM—10in MAXIMUM—4ft         |
| S___                          | MINIMUM—10in MAXIMUM—4ft         |
| All F___ except F_3_ and F_6_ | MINIMUM—2ft MAXIMUM—5ft 11in     |
| All F_3_, F_6_ and F_9_       | MINIMUM—2ft MAXIMUM—8ft 11in     |
| Q8__                          | MINIMUM—2ft 6in MAXIMUM—5ft      |
| P1__, P2__, P5__, P6__        | MINIMUM—2ft MAXIMUM—3ft 3in      |
| P3__, P4__, P7__, P8__        | MINIMUM—3ft 4in MAXIMUM—5ft 11in |
| P9__                          | MINIMUM—3ft 2in MAXIMUM—3ft 2in  |
| Q_1_                          | MINIMUM—2ft MAXIMUM—2ft 8in      |

- See diagram below for place of measurement on depressed cars (Equipment Type Code F\_3\_, F\_9\_) and well cars (Equipment Type Code F\_6\_).

**Bulkhead Top Width****B038**

Describes the width of the bulkhead

Value does not carry forward for Equipment Group Change.

**Range of Values for B038**

| Minimum | Maximum |
|---------|---------|
| 25      | 139     |

**Validation Rule for B038**

- If Bulkhead Type is set then Bulkhead Top Width must be set
- If Bulkhead Height Above Platform is set then Bulkhead Top Width must be set

**Bulkhd Height Abov Pltfrm****B035**

Describes the height of the bulkhead

Value does not carry forward for Equipment Group Change.

**Range of Values for B035**

| Minimum | Maximum |
|---------|---------|
| 36      | 195     |

**Validation Rule for B035**

- If Bulkhead Type is set then Bulkhead Height Above Platform must be set
- If Bulkhead Top Width is set then Bulkhead Height Above Platform must be set

**Well Interior Width****B226**

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| Most Restrictive Width in Well. |         |
|---------------------------------|---------|
| Range of Values for B226        |         |
| Minimum                         | Maximum |
| 96                              | 114     |

| Well Interior Length <span style="float: right;">B229</span> |         |
|--------------------------------------------------------------|---------|
| Most Restrictive Length in Well.                             |         |
| Range of Values for B229                                     |         |
| Minimum                                                      | Maximum |
| 480                                                          | 720     |

| Well Length Not Defined <span style="float: right;">B301</span>       |     |
|-----------------------------------------------------------------------|-----|
| Stack Well Length Not Classified <span style="float: right;">▲</span> |     |
| Used in ETC Generation.                                               |     |
| Permissible Values for B301                                           |     |
| Y                                                                     | Yes |

| Width Between Ext. Rub Rail <span style="float: right;">B209</span> |                     |
|---------------------------------------------------------------------|---------------------|
| Measurement between rub rails; Component of Unit Segment (ICPSC)    |                     |
| Range of Values for B209                                            |                     |
| Minimum                                                             | Maximum             |
| 0.10000000000000001                                                 | 99.9000000000000006 |

## Specification

| Truck Count <span style="float: right;">B256</span>             |         |
|-----------------------------------------------------------------|---------|
| The total number of trucks on the equipment                     |         |
| System Generated Field. This element is not eligible for Input. |         |
| Range of Values for B256                                        |         |
| Minimum                                                         | Maximum |
| 2                                                               | 18      |

| Axle Count <i>Mandatory</i> <span style="float: right;">A024</span>                                                                                                                                                                                                                                                                                                                                       |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| The total number of axles on the equipment <span style="float: right;">●●</span>                                                                                                                                                                                                                                                                                                                          |         |
| Affects Rating.                                                                                                                                                                                                                                                                                                                                                                                           |         |
| Range of Values for A024                                                                                                                                                                                                                                                                                                                                                                                  |         |
| Minimum                                                                                                                                                                                                                                                                                                                                                                                                   | Maximum |
| 4                                                                                                                                                                                                                                                                                                                                                                                                         | 36      |
| Validation Rule for A024                                                                                                                                                                                                                                                                                                                                                                                  |         |
| <ul style="list-style-type: none"> <li>-Axle Count must be greater than or equal to 4</li> <li>-Axle Count for an articulated car must be greater than or equal to ((Connected Unit Count (A020) x 2) + 2)</li> <li>-Axle Count for a draw bar connected car must be greater than or equal to (Connected Unit Count (A020) x 4)</li> <li>-Total Axle Count must match sum of truck axle counts</li> </ul> |         |
| NOTES:                                                                                                                                                                                                                                                                                                                                                                                                    |         |
| <ul style="list-style-type: none"> <li>This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.</li> </ul>                                                                                                                                                                                                                      |         |

| Wheel Bearing Type <i>Mandatory</i> <span style="float: right;">B191</span>                                                                                                                                                                                                                           |        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Indicates the wheel bearing journal design for the equipment <span style="float: right;">●●</span>                                                                                                                                                                                                    |        |
| Affects Rating.                                                                                                                                                                                                                                                                                       |        |
| Permissible Values for B191                                                                                                                                                                                                                                                                           |        |
| P                                                                                                                                                                                                                                                                                                     | Plain  |
| R                                                                                                                                                                                                                                                                                                     | Roller |
| Validation Rule for B191                                                                                                                                                                                                                                                                              |        |
| <ul style="list-style-type: none"> <li>-Cars with Plain Bearings will have a Transportation Code (TCOD) and Transportation Condition Code (TCCD) of either YA, S<sub>2</sub>, SX, or XJ</li> <li>-Equipment cannot have Plain Bearings if Built Date (BLDT) is on or after January 1, 1993</li> </ul> |        |
| NOTES:                                                                                                                                                                                                                                                                                                |        |
| <ul style="list-style-type: none"> <li>This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.</li> </ul>                                                                                                                  |        |

| Connector Manufacturer <span style="float: right;">B545</span>                                                                              |  |
|---------------------------------------------------------------------------------------------------------------------------------------------|--|
| The connector manufacturer, based on the Intermediate Connector Style (B115) of the intermodal flatcar <span style="float: right;">●</span> |  |

## Permissible Values for B545

|    |                                 |
|----|---------------------------------|
| AS | ASF                             |
| CC | Columbus Castings (AKA Buckeye) |
| NA | National                        |
| SA | Cardwell Westinghouse           |

## Validation Rule for B545

- Connector Manufacturer is mandatory for equipment with a Built Date (BLDT) or Rebuilt Date (RBDT) on or after April 1, 2016
- Connector Manufacturer must not be reported if the Intermediate Connector Style (B115) is not reported
- The Connector Manufacturer must be AS, NA, or SA when the Intermediate Connector Style (B115) is Articulated
- The Connector Manufacturer must be AS, NA, or CC when the Intermediate Connector Style (B115) is Drawbar
- The Connector Manufacturer NA can only be reported on cars built or rebuilt prior to January 1, 2003

| Deck Container Securement <span style="float: right;">B546</span> |  |
|-------------------------------------------------------------------|--|
| The type of deck container securement of the intermodal flatcar   |  |

## Permissible Values for B546

|    |                                          |
|----|------------------------------------------|
| NE | Not Equipped                             |
| PA | Pedestal Lock Adjustable                 |
| PB | Pedestal Lock Adjustable and Retractable |
| PF | Pedestal Lock Fixed                      |
| PR | Pedestal Lock Retractable                |
| TL | Twist Lock                               |

## Validation Rule for B546

- Light Weight and Conventional Intermodal Cars, with Equipment Type Codes (UMET) of Q\_\_\_ and P\_\_\_, that have a Built Date (BLDT) or Rebuilt Date (RBDT) on or after April 1, 2016 must report the type of Deck Container Securement
- Deck Container Securement cannot be reported for Stack Cars with an Equipment Type Code (UMET) of S\_\_\_

| Bearing Shielded From HBD <span style="float: right;">B021</span>        |  |
|--------------------------------------------------------------------------|--|
| Indicates the wheel bearings are shielded from wayside hot box detectors |  |

## Permissible Values for B021

|   |     |
|---|-----|
| Y | Yes |
|---|-----|

| Brake Shoe Type <i>Mandatory</i> <span style="float: right;">B026</span>               |  |
|----------------------------------------------------------------------------------------|--|
| Indicates the type of brake shoe on the equipment <span style="float: right;">●</span> |  |

## Permissible Values for B026

|   |                                  |
|---|----------------------------------|
| C | Tread Conditioning               |
| H | High Friction Composite          |
| L | Low Friction Composite/Cast Iron |

| CC Side Bearing Type <span style="float: right;">A146</span>                                |  |
|---------------------------------------------------------------------------------------------|--|
| Indicates the travel range of the constant contact side bearings installed on the equipment |  |

## Permissible Values for A146

|    |                               |
|----|-------------------------------|
| LC | Long Travel Constant Contact  |
| SC | Short Travel Constant Contact |

## Validation Rule for A146

- Equipment having Qualification for Increased Gross Rail Load (B344) of 1 must have Constant Contact Side Bearing Type of LC

| Empty/Load Device Eqpd <span style="float: right;">B075</span>                                                                                         |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Indicates that the air brake system includes a device to determine if the equipment is empty or loaded, and then varies the braking forces accordingly |  |

## Permissible Values for B075

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Y Yes

|                                                                            |             |
|----------------------------------------------------------------------------|-------------|
| <b>Center of Gravity Empty</b>                                             | <b>A045</b> |
| When empty, indicates the height from Top of Rail to the Center of Gravity |             |

**Range of Values for A045**

| Minimum | Maximum |
|---------|---------|
| 22      | 98      |

**Validation Rule for A045**

- All cars that exceed Plate Code (A046) C must report Center of Gravity Empty except for cars with Equipment Type Code (UMET) of J \_ \_ \_

|                                                                              |             |
|------------------------------------------------------------------------------|-------------|
| <b>Remote Monitoring Device</b>                                              | <b>B176</b> |
| Indicates the equipment has a device that transmits a signal or records data |             |

**Permissible Values for B176**

Y Yes  
N No

**NOTES:**

- Per AAR S-2045, This may be data related to ride quality, geographic location, temperature/condition of the load, load/empty status, etc.

**Unit Segment Components**

|                                             |             |
|---------------------------------------------|-------------|
| <b>Intermodal Loading Method</b>            | <b>B286</b> |
| Intermodal Flat Loading Method LOLO (ICPSC) |             |

Used in ETC Generation.

**Permissible Values for B286**

CL Circus and Lift On-Lift Off  
LO Lift On-Lift Off  
Y Yes  
N No

|                                |             |
|--------------------------------|-------------|
| <b>TOFC/COFC Load Wdth Cde</b> | <b>B283</b> |
| TOFC/COFC Loading Width Code   |             |

Used in ETC Generation.

**Permissible Values for B283**

1 8 feet  
2 8 feet 6 inches  
3 8 feet and 8 feet 6 inches

|                                   |             |
|-----------------------------------|-------------|
| <b>Intermodal Transport Serv</b>  | <b>B287</b> |
| Intermodal Flat Transport Service |             |

Used in ETC Generation.

**Permissible Values for B287**

CO Container Only  
TC Trailer or Container  
TO Trailer Only

|                                            |             |
|--------------------------------------------|-------------|
| <b>Single Lngth Load Config</b>            | <b>B288</b> |
| Umler Intermodal ETC Loading Configuration |             |

Used in ETC Generation.

**Permissible Values for B288**

DB0 DBL BOTH Cars not otherwise classified--contact car owner  
DB1 DBL BOTH Trailers and/or containers as follows -- 1-40 ft trailer without and 1-45ft trailer with nose mounted reefer, or 2-40 ft trailers with nose mounted reefer, or various combinations of 20ft and 40ft containers and/or trailers, or 1-45ft container with one other container up to 35 ft long  
DB2 DBL BOTH Trailers and/or containers as follows -- 2-45ft trailers without nose mounted reefers or various combinations of 20ft and 40ft containers and/or trailers, or 1-45ft container with one other container up to 35ft long  
DB3 DBL BOTH Trailers or Containers as follows -- 2-40 ft. trailers or 2-45 ft. trailers or 3-28 ft. trailers, all without front mounted

refrigeration units. Cars equipped with container pedestals for carrying various length containers ranging from 20 ft. to 45 ft

DC0 DBL CNTR Cars not otherwise classified--contact car owner  
DC1 DBL CNTR 2-40ft containers only  
DC2 DBL CNTR 2-40ft or 4-20ft containers and various combinations  
DC3 DBL CNTR 2-40ft or 4-20ft containers and various combinations or 1-45ft container with one other container up to 35ft long  
DT0 DBL TRLR Cars not otherwise classified, contact owner  
DT1 DBL TRLR 2-40ft trailers with or without nose mounted reefers (If 1st Numeric equals 9, car will not handle nose mounted reefers)  
DT2 DBL TRLR 1-40ft trailer without and 1-45ft trailer with nose mounted reefer, or 2-40ft trailers with nose mounted reefer  
DT3 DBL TRLR 2-45ft trailers  
DT4 DBL TRLR Any two trailers with aggregate length up to 90ft  
DT5 DBL TRLR 1-40ft trailer without and 1-45ft trailer with nose mounted reefer, or 3-28ft Pups or 2-40ft trailers with nose mounted reefer  
DT6 DBL TRLR Any two trailers with aggregate length up to 90ft or 3-28ft Pups  
PBO SGL BOTH All cars  
PC0 SGL CNTR Cars not otherwise classified, contact owner  
PC1 SGL CNTR 1-40ft and 1-20ft container or 3-20ft containers  
PC2 SGL CNTR 1-40ft or 1-40ft 03in container  
PT0 SGL TRLR Cars not otherwise classified, contact owner  
PT1 SGL TRLR Trailer up to 40ft long  
PT2 SGL TRLR Trailer up to 45ft long  
PT3 SGL TRLR Trailer up to 48ft long  
PT4 SGL TRLR Trailer up to 50ft long  
PT5 SGL TRLR Trailer up to 53ft long  
PT6 SGL TRLR Trailer up to 57ft long  
QB0 Q BOTH Cars not otherwise classified--contact car owner  
QB1 Q BOTH One 28ft through 48ft trailer on all platforms or one 40ft through 48ft by 96in or 102in container on all platforms, or two 20ft by 96in or 102in containers on A and B platforms Only  
QB2 Q BOTH One 28ft through 53ft trailer on all platforms or one 40ft through 53ft by 96in or 102in container on all platforms, or two 20ft by 96in or 102in containers on A and B platforms Only  
QB3 Q BOTH 1-28ft, 1-40ft, 1-45ft, 1-48ft, 1-53ft Trailer on each segment or 1-40ft, 1-45ft, 1-48ft, 1-53ft Container on each segment  
QB4 Q BOTH 2-28ft trailer, or 1-40ft or 1-45ft or 1-48ft or 1-53ft or 1-57ft trailer on all platforms, or 1-40ft or 1-45ft or 1-48ft or 1-53ft by 96in or 102in container on all platforms  
QB5 Q BOTH 1-20ft, 1-40ft, 1-53ft trailer; 2-20-ft, 2-40ft, 2-53ft containers  
QC0 Q CNTR Cars not otherwise classified--contact car owner  
QC1 Q CNTR Two 20ft or one 40ft, 45ft or 48ft by 96in by 96in or 102in container(s) on A, B, and D platforms and one 40ft, 45ft or 48ft by 96in or 102in container on C and E platforms  
QC2 Q CNTR Two 20ft or one 40ft, 45ft or 48ft by 96in or 102in container(s) on all platforms  
QT0 Q TRLR Cars not otherwise classified--contact car owner  
QT1 Q TRLR One 40ft-45ft trailer per platform  
QT2 Q TRLR One 40ft-48ft trailer per platform  
QT3 Q TRLR One 40ft-53ft trailer per platform  
QT4 Q TRLR One 40ft-57ft trailer per platform  
QT5 Q TRLR One 40ft-45ft trailer per platform with nose mounted reefer units on trailers on A and B platforms Only  
QT6 Q TRLR One 28ft-48ft trailer per platform  
QT7 Q TRLR Four trailers up to 45ft long, without nose-mounted reefer units per car, or three trailers, up to 56ft long per car, where the center trailer must be 48ft long or longer and Only the center trailer may be equipped with nose-mounted reefer unit and/or 42in king pin settings (deck height is 3ft6in ATR)  
QT8 Q TRLR Three trailers up to 56ft long per car, with up to 42in king pin settings and/or nose-mounted reefer units per car. The center trailer must be 48ft long or longer (deck height is 3ft6in ATR)  
SA0 IBC Cars not otherwise classified--contact car owner



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|     |                                                                                                                                                                                                                                                                            |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SA1 | IBC 1-40ft, 45ft or 48ft container in well and 1-40, 45ft, 48ft or 53ft container stacked on top of well                                                                                                                                                                   |
| SA2 | IBC 2-20ft, 1-40ft, 45ft or 48ft container in well and 1-40ft, 45ft, 48ft or 53ft container stacked on top of well                                                                                                                                                         |
| SA3 | IBC 2-20ft, 1-40ft, 45ft or 48ft container in well and 1-40ft, 48ft or 53ft container stacked on top of well or 2-28ft trailers or 1-40ft through 53ft trailer in well. Trailers can be either 96in or 102in wide and can be equipped with nose-mounted refrigerator units |
| SA4 | IBC 2-20ft or 28ft containers or 1-40ft, 45ft, 48ft or 53ft container in well and 2-28ft containers, 1-40ft, 45ft, 48ft or 53ft container stacked on top of well                                                                                                           |
| SA5 | IBC 2-20ft, 1-40ft, 45ft, 48ft or 53ft container in well and 1-40ft, 45ft, 48ft or 53ft container stacked on top of well                                                                                                                                                   |
| SA6 | IBC Container only, Bottom: 2-20ft or 1-40ft; Top: 1 - 40ft, 45ft, 48ft or 53ft container                                                                                                                                                                                  |
| SA7 | IBC Container only, Bottom: 2-20ft or 1-40ft; Top: 1 - 40ft, 45ft, or 48ft container; 53ft container can be loaded in the A and B units if the C unit has a 40ft or 45ft container loaded in it                                                                            |
| SA8 | IBC Container and Trailer capability, Bottom: 2-20ft or 1-40ft container or 1-28ft trailer; Top: 1 - 40ft, 45ft, or 48ft container; 53ft container can be loaded in the A and B units if the C unit has a 40ft container                                                   |
| SA9 | IBC Container and trailer capability, Bottom: 2-20ft, 1-40ft, 45ft, 48ft or 53ft container; Top: 1 - 40ft, 45ft, 48ft, or 53ft container. Trailer: 2-28ft, 1-40ft, 1-45ft, 1-48ft, 1-53ft or 1-57ft                                                                        |
| SB0 | 5Well IBC Cars not otherwise classified--contact car owner                                                                                                                                                                                                                 |
| SB1 | 5Well IBC 2-20ft or 1-40ft container(s) in end wells and 1-40ft container only in intermediate wells with 1-40ft, 45ft or 48ft container stacked on top of all wells                                                                                                       |
| SB2 | 5Well IBC 2-20ft or 1-40ft container(s) in all wells and 1-40ft, 45ft or 48ft container stacked on top of all wells                                                                                                                                                        |
| SB3 | 5Well IBC 1-40ft or 45ft container in all wells and 1-40ft, 45ft, 48ft or 53ft container stacked on top of all wells                                                                                                                                                       |
| SB4 | 5Well IBC 1-40ft, 45ft or 48ft container in all wells and 1-40ft, 45ft, 48ft or 53ft container stacked on top of all wells                                                                                                                                                 |
| SB5 | 5 Well IBC 2-20ft or 1-40ft container(s) in end wells and 1-40ft or 45ft container in intermediate wells with 1-40ft, 45ft or 48ft container stacked on top of all wells and 53ft on A, B, D units if 40ft on C & E units                                                  |
| SB6 | 5Well IBC 2-20ft or 1-40ft container(s) in end wells and 1-40ft, 45ft or 48ft container in intermediate wells with 1-40ft, 45ft or 48ft container stacked on top of all wells and 53ft containers stacked only on top of intermediate wells                                |
| SB7 | 5Well IBC 2-20ft or 2-24ft or 1-40ft or 1-45ft or 1-48ft container(s) in all wells with 1-40ft or 1-45ft or 1-48ft or 1-53ft container stacked on top of all wells                                                                                                         |
| SB8 | 5Well IBC 2-20ft or 24ft or 1-40ft or 1-45ft or 1-48ft container(s) in the end wells and 1-40ft or 1-45ft or 1-48ft container in the intermediate wells with 1-40ft or 1-45ft or 1-48ft or 1-53ft stacked on top of all wells                                              |
| SB9 | 5Well IBC Container only, Bottom: 2-20ft or 1-40ft container; Top: 1 - 40ft, 45ft, or 48ft container; a 53ft container could be loaded in the A, B, and D units if the C and E unit has a 40ft container                                                                   |
| SC0 | 5Well BLK Cars not otherwise classified--contact car owner                                                                                                                                                                                                                 |
| SC1 | 5Well BLK 2-20ft or 1-40ft container(s) in end wells and 40ft containers only in intermediate wells with 40ft or 48ft containers stacked on top of all wells                                                                                                               |
| SC2 | 5Well BLK 2-20ft or 1-40ft container(s) in end wells and 40ft containers only in intermediate wells with 40ft, 45ft or 48ft containers stacked on top of all wells                                                                                                         |
| SC3 | 5Well BLK 2-20ft or 1-40ft container(s) in end wells and 40ft containers only in intermediate wells with 40ft containers stacked on end wells and 40ft or 45ft containers stacked on intermediate wells                                                                    |
| SC4 | 5Well BLK 2-20ft or 1-40ft container(s) in all wells with 40ft or 48ft containers stacked on top of all wells                                                                                                                                                              |
| SC5 | 5Well BLK 2-20ft or 1-40ft container(s) in all wells with 40ft, 45ft or 48ft containers stacked on top of all wells                                                                                                                                                        |

|     |                                                                                                                                                                                                                                                                        |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SC6 | 5Well BLK 1-40ft container only in end wells and 2-20ft or 1-40ft container(s) in intermediate wells with 40ft or 48ft containers stacked on top of all wells                                                                                                          |
| SC7 | 5Well BLK 1-40ft container only in end wells and 2-20ft or 1-40ft container(s) in intermediate wells with 40ft, 45ft or 48ft containers stacked on top of all wells                                                                                                    |
| SC8 | 5Well BLK 1-40ft container in all wells with 1-40ft or 1-45ft container stacked on top of all wells                                                                                                                                                                    |
| SC9 | 5Well BLK 2-20ft or 1-40ft container(s) in all wells with 1-40ft or 1-45ft container stacked on top of all wells                                                                                                                                                       |
| SD1 | 5Well, IBC Container, Bottom: 1-40ft container; Top: 1 - 40ft, 45ft, or 48ft container; 53ft container can be loaded on A, B, D units when 40ft containers are in C & E units. No 20ft containers, no Trailers                                                         |
| SD2 | 5Well, IBC Container, Bottom: End Units: 2-20ft, 1-40ft, 45ft container in well; Intermediate Units: 1-40ft or 45ft; Top: 1 - 40ft, 45ft, or 48ft container; 53ft container can be loaded on A, B, D units when 40ft containers are in C & E units                     |
| SD3 | IBC Container, Bottom: 1-40ft, 45ft, 48ft or 53ft container; Top: 1 - 40ft, 45ft, 48ft, or 53ft container. No 20ft containers, no Trailers                                                                                                                             |
| SD4 | 5Well IBC 2-20ft or 1-40ft container(s) in end wells and 1-40ft container only in intermediate wells with 1-40ft, 45ft, or 48ft container stacked on top of all wells. 53ft on A, B, D units if 40ft on C & E units                                                    |
| SD5 | 5Well IBC 2-20ft or 1-40ft container(s) in A Unit; 1-40ft container(s) in B Unit, 1-40ft or 1-45ft container in intermediate wells with 1-40ft, 45ft or 48ft container stacked on top of all wells. 53ft on A, B, D units if 40ft on C & E units                       |
| SD6 | 5 Well BLK 2-20ft or 1-40ft container(s) in end wells and 40ft containers only in intermediate wells, with 40ft containers stacked on top of intermediate wells and 40ft or 45ft containers stacked on top of end wells                                                |
| SD7 | 5Well IBC 2-20ft or 1-40ft or 1-45ft or 1-48ft container(s) in the end wells and 1-40ft or 1-45ft or 1-48ft container in the intermediate wells with 1-40ft or 1-45ft or 1-48ft or 1-53ft stacked on top of all wells, with SGL TRLR trailer up to 53 ft long, hitched |

**Validation Rule for B288**

- Equipment with Mechanical Designation of FCC can only have Single Length Load Configurations of PT#, PB#, PC#, DT#, DB#, or DC#
- Equipment with Equipment Descriptors of FCW or FCWA can only have Single Length Load Configurations of SA#, SB#, SC# or SD#
- Equipment with Equipment Descriptors of FCL or FLCA can only have Single Length Load Configuration of QT#, QB#, or QC#

|                                               |             |
|-----------------------------------------------|-------------|
| <b>Stack Design Not Defined</b>               | <b>B299</b> |
| <b>Stack Connection/Design Not Classified</b> |             |

Used in ETC Generation.

**Permissible Values for B299**

Y Yes

|                                           |             |
|-------------------------------------------|-------------|
| <b>Truck Tonnage Capacity</b>             | <b>B300</b> |
| <b>Truck Capacity For Stack Cars Only</b> |             |

Used in ETC Generation.

**Permissible Values for B300**

70 70 Ton 100 100 Ton 125 125 Ton

**Validation Rule for B300**

- Intermodal Truck Tonnage Capacity must equal 70 when the Connected Unit Count (A020) is blank and the Wheel Diameter (A294) equals 33 or less
- Intermodal Truck Tonnage Capacity must equal 100 when the Connected Unit Count (A020) is blank and the Wheel Diameter (A294) equals 36
- Intermodal Truck Tonnage Capacity must equal 125 when the Connected Unit Count (A020) is blank and the Wheel Diameter (A294) equals 38

|                                    |             |
|------------------------------------|-------------|
| <b>Securement Type ETC Gen</b>     | <b>B302</b> |
| <b>Securement Type For ETC Gen</b> |             |

Used in ETC Generation.

**Permissible Values for B302**

## Data Specification Manual

BLK Bulkhead IBC

**AEI High Temperature Tag** B006

Indicates the equipment is equipped with a high temperature AEI tag

**Permissible Values for B006**

Y High Temperature Tag

**Connected Unit Count** A020

Indicates the number of units within an articulated or multi-unit equipment

Used in ETC Generation. Affects Rating.

**Range of Values for A020**

| Minimum | Maximum |
|---------|---------|
| 1       | 9       |

**Validation Rule for A020**

- Connected Unit Count must equal the number of Unit Segments
- Connected Unit Count must be reported for equipment with equipment descriptors of FCLA or FCWA
- Unit Segment Component elements must not be reported if the Connected Unit Count is not reported
- Connected Unit Count cannot be reported for equipment with equipment descriptors of FCL, FCW, or FCC
- Unit Segment Component elements must be reported if Connected Unit Count is reported
- Equipment Type Codes P---, Q-1-, and S-1- cannot have a Connected Unit Count

**Intermediate Conn Style** B115

Indicates the method by which two or more pieces of equipment are connected

**Permissible Values for B115**A Articulated Connector  
D Drawbar Connector**Validation Rule for B115**

- Intermediate Connector Style is required for multi-unit equipment
- Intermediate Connector Style must not be reported for single unit equipment

**Operating Brakes** *Mandatory* A182

The number of air brake control valves on the equipment (excludes hand brakes). One control valve consists of a service portion, emergency portion, and pipe bracket. Example: DB-60 control valve

**Permissible Values for A182**

|   |   |   |   |   |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 |   |

**Validation Rule for A182**

- Operating Brakes must be reported for all equipment
- Operating Brakes (A182) must be 1 for non-articulated equipment with an Axle Count (A024) equal to 4

**NOTES:**

- Excludes empty/load device, number 8 vent valve, and proportion valve.

**ECP Brake Type** B327

Indicates the type of electronic controlled pneumatic brake used on the equipment

**Permissible Values for B327**N Not Equipped  
O Overlay - Both ECP & Air Brake  
S Stand Alone - ECP Only**Validation Rule for B327**

- Equipment must have a value entered for ECP Brake Type if built or rebuilt after June 28, 2012

**equipment****Permissible Values for B328**NYAB New York Air Brake  
WABT WABTEC**Validation Rule for B328**

- If ECP Brake Type (B327) is Stand Alone or Overlay then a value must be entered for ECP Brake Builder
- If ECP Brake Type (B327) is Not Equipped then ECP Brake Builder is not reportable

**Slack Adjuster Group** B538

The slack adjuster group on the equipment per AAR Field Manual Rule #8

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B538**

|   |          |   |            |   |         |   |         |
|---|----------|---|------------|---|---------|---|---------|
| A | Group A  | B | Group B    | C | Group C | D | Group D |
| E | Group E  | F | Group F    | G | Group G | H | Group H |
| J | Group J  | L | Group L    | M | Group M | N | Group N |
| O | Group O  | P | Group P    | Q | Group Q | R | Group R |
| 1 | Internal | 2 | Unequipped |   |         |   |         |

**Validation Rule for B538**

- Slack Adjuster Group is mandatory for all equipment built or rebuilt on or after January 1, 2016
- If Slack Adjuster Group is reported as "1" then Brake Cylinder Mount Type (B540) must be reported as "T"
- If Slack Adjuster Group is "1" or "2", then Slack Adjuster CID (B359) must not be reported.

**NOTES:**

- Permissible value of "1 – Internal" identifies special truck mounted internal slack adjuster within brake cylinder.

**Brake Cylinder Mount Type** B540

Identifies the location of the brake cylinder

**Permissible Values for B540**B Body Mounted  
T Truck Mounted**Validation Rule for B540**

- Brake Cylinder Mount Type is mandatory for all equipment built or rebuilt on or after January 1, 2016

**Equipment Builder** A035

Identifies the original manufacturer of the equipment

**Permissible Values for A035**

|      |                               |
|------|-------------------------------|
| ACF  | American Car & Foundry        |
| ACFX | ACF Industries                |
| ARI  | ARI Industries                |
| BETH | Bethlehem Car Works           |
| BSP  | Bethlehem Steel Corporation   |
| CONC | Concarrill                    |
| CURR | Curry Rail Service            |
| DIFC | Difco                         |
| EDSP | ESTRATEGIAS DUL S. DE R.L.    |
| ERSB | Ebenezer Railcar              |
| FCA  | Freight Car America           |
| FMC  | FMC Corporation               |
| GMB  | Greenbrier                    |
| GSC  | Greenville Steel Car          |
| GUN4 | Gunderson - Trenton Works     |
| GUND | Gunderson Inc                 |
| GUNM | Gunderson - Mexico            |
| HST  | Hawker Siddeley               |
| HYUN | Hyundai                       |
| JAC  | Johnstown America Corporation |
| KASG | Kasgro Railcar                |
| MRNE | Marine Industries             |
| NACA | National Alabama Corporation  |

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|      |                    |
|------|--------------------|
| NSC  | National Steel Car |
| PS   | Pullman-Standard   |
| THRL | Thrall             |
| TREN | Trenton Works      |
| TRIN | Trinity            |
| UNKN | Unknown            |
| V    | OWNER RAILROAD     |
| WABN | Wabash National    |

**Validation Rule for A035**

- Equipment Builder must be populated if the Built Date (BLDT) is July 1, 2010 or newer
- Equipment built or rebuilt on or after July 1, 2010 cannot have a Equipment Builder of Unknown
- Equipment with a Built Date (BLDT) on or after July 1, 2010 cannot have an Equipment Builder of OWNER RAILROAD.
- Equipment Builder can have a value of MULT only if the equipment has multiple units.

**Builder Lot Code** **B030**

A unique identifier for a group of equipment built by one manufacturer under the same builder specification

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B030**

- Equipment built or rebuilt on or after June 28, 2012 must have a value for Builder Lot Code

**NOTES:**

- If the value is unknown, enter six zeroes (000000).

**Built Country** **B031**

The country where the equipment was constructed

Data is Confidential.

**Permissible Values for B031**

|    |               |    |        |
|----|---------------|----|--------|
| CA | Canada        | MX | Mexico |
| US | United States |    |        |

**Rebuilt Country** **B170**

The country where the equipment was re-constructed

**Permissible Values for B170**

|    |               |    |        |
|----|---------------|----|--------|
| CA | Canada        | MX | Mexico |
| US | United States |    |        |

**FRA ReflectORIZATION** **B096**

Indicates the equipment owner assumes responsibility for applying reflectorization tape

**Permissible Values for B096**

|   |                         |
|---|-------------------------|
| P | Reflectorization Plan   |
| W | Reflectorization Waiver |

**Validation Rule for B096**

- Reflectorization is mandatory for all equipment after November 28, 2015.

**Air Hose Arrangement** **B524**

The type of trainline air hose arrangement

**Permissible Values for B524**

|   |                                                                                                                       |
|---|-----------------------------------------------------------------------------------------------------------------------|
| A | S-424 Angle Cock Location                                                                                             |
| B | S-425 Angle Cock Location on Cars Equipped with AAR Type F Coupler                                                    |
| C | S-426 Angle Cock Location on Cars with Floating Sills                                                                 |
| D | S-427 Angle Cock and Air Brake Hose Location on Cars with Excessive Overhang Preventing Compliance with AAR Standards |
| E | S-428 Angle Cock Location on Cars Equipped with AAR Type F Coupler and Cushioned Underframe                           |
| F | S-4003 (Former Standard)                                                                                              |
| G | S-4003x (Former Standard Retrofitted to Meet All Dimensions Except Height)                                            |

|   |                                                                                                                     |
|---|---------------------------------------------------------------------------------------------------------------------|
| H | S-4003-05 (Current Standard Train Line Arrangement for Cars with F-Shank Couplers)                                  |
| I | S-4021 Angle Cock and Brake Hose Location on Cars with EOCC (E and F)                                               |
| J | S-4021 Coupler Mounted Bracket End Arrangement                                                                      |
| K | S-4028 Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Not Exceeding 45 in. in Length |
| L | S-4029 Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Exceeding 45 in. in Length     |
| M | S-4030 Trolley Arrangement on Cars with EOCC and E-Shank Couplers                                                   |
| N | S-4031 Trainline Arrangement for Cars with E-Type Couplers and Draft System Buff Travel of 6 to 10 inches           |
| O | S-4032 Trainline Arrangement for Cars with E/F-Type Couplers and Draft System Buff Travel of 6 to 10 inches         |

**Validation Rule for B524**

- Air Hose Arrangement must be reported for this equipment if it is Built or Rebuilt on or after April 22, 2014.

**NOTES:**

- If any of the following conditions apply, Air Hose Arrangement (B524) must be reported for cars Built or Rebuilt on or after April 22, 2014:
  - Draft Gear Type (B073) at any location is C or E.
  - Connected Unit Count (A020) is reported.
  - Outside Length (OSLG) is greater than or equal to 70 feet (840 inches).
  - The overhang is greater than 5 feet 6 inches (66 inches). Overhang is calculated as follows:
    - $0.5 * (\text{Outside Length, in inches, minus Truck Center Length, in inches, minus 31 inches})$
    - For all other equipment, reporting Air Hose Arrangement is optional.

**4-Pressure ABT Receiver Eqpd** **B539**

Identifies if the equipment is equipped with a 4-pressure air brake test receiver

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B539**

|   |              |
|---|--------------|
| E | Equipped     |
| N | Not Equipped |

**NOTES:**

- An "E" will be system generated if a 4-Pressure ABT is reported on the equipment.

**Feature****Floor Material** **A104**

Describes the type of construction material used for the equipment floor

**Permissible Values for A104**

|    |                                                                                  |
|----|----------------------------------------------------------------------------------|
| 05 | Composite Nailable (considered same as wood)                                     |
| 06 | Composite Nailable, Reinforced (considered same as wood)                         |
| 14 | Other                                                                            |
| 15 | Other, Reinforced                                                                |
| 19 | Standard Steel                                                                   |
| 21 | Steel Floor, (straight deck) without risers (F-8-)                               |
| 23 | Steel Nailable (includes alternate wood and steel floor)                         |
| 24 | Steel Nailable, Reinforced (includes alternate wood and steel floor)             |
| 25 | Standard Steel, Reinforced                                                       |
| 27 | Unknown                                                                          |
| 30 | Wood                                                                             |
| 33 | Wood, Double, Reinforced                                                         |
| 34 | Wood Floor with Steel Protective Plates (includes perforated steel)              |
| 35 | Wood Floor, Reinforced, with Steel Protective Plates (includes perforated steel) |
| 36 | Wood Floor, Reinforced                                                           |

**Bridge Plate Type** **B029**

Component (ICPSC)

Used in ETC Generation.

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**Permissible Values for B029**

- B Both Stub Bridge Plate & Portable Bridge Plate  
P Portable

**Portable Bridge Plate Cap. B284**

Portable Bridge Plate Capable ▲

Used in ETC Generation.

**Permissible Values for B284**

- Y Yes

**Bulkhead Type B034**

Identifies the type of bulkhead attached to the equipment

Value does not carry forward for Equipment Group Change.

**Permissible Values for B034**

- F Fixed L Fixed with Flipper

**Validation Rule for B034**

- If Bulkhead Height Above Platform is set then Bulkhead Type must be set
- If Bulkhead Top Width is set then Bulkhead Type must be set

**Cost****Original Cost A184**

The original manufacturer selling price ●

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A184**

| Minimum | Maximum |
|---------|---------|
| 0       | 9999999 |

**Validation Rule for A184**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Original Cost must be equal to the Ledger Value if Additions & Betterments Indicator is not reported.
- Railroad marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost
- Private marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost if Built Date (BLDT) is on or after January 1, 2015

**NOTES:**

- Original Cost is never altered. It is the cost of the equipment to the original owner.
- For railroad-marked cars, report in US dollars the original ledger value of the original owner. For cars rebuilt, report the cost prescribed in MR Interchange Rule 88 and Circular Letter OT-24
- The original cost is used in the settlement of AAR Interchange Rule 107 Office Manual.
- For connected unit cars report the total original cost for all units in the set. Numeric, applicable to all railroad-marked cars. Also, applicable to privately marked covered hopper (LO) cars.
- Raise all cents to the next dollar, e.g. \$5,501.02 = 0005502

**Ledger Value A150**

The sum of original cost and additions &amp; betterments

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A150**

| Minimum | Maximum |
|---------|---------|
| 0       | 9999999 |

**Validation Rule for A150**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Ledger Value must equal the Original Cost (A184) plus the additions & betterments, if Total A&B (A003) has been reported. Otherwise Ledger Value should equal Original Cost (A184).

**Total A&B A003**

System generated sum of all reported amounts in A&amp;B Amount (A317), in US dollars

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A003**

| Minimum | Maximum  |
|---------|----------|
| 0       | 99999999 |

**NOTES:**

- For railroad-marked cars, report the sum of all additions and betterments applied to the car. This value is for record keeping purposes only and will not be used to report Ledger Value.
- For private Cars report the additions and betterments as qualified under AAR interchange Rule 107 for determination of settlement value.
  - Additions are costs of all new components applied subsequent to the date the car was built or rebuilt and carried in the capital investment account.
  - Betterments are costs of all improvements of components of existing equipment through the substitution of superior parts for inferior parts subsequent to the date the car was built or rebuilt.
- For connected unit cars report the total Truck Location A for all units in the set

**Ind for Pos/Neg Total A&B A128**

A code indicating the positive or negative adjustment to the original cost of the equipment

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A128**

- N Negative P Positive

**A&B Pos/Neg Ind A316**

A code indicating the positive or negative adjustment to the individual addition and betterment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A316**

- N Negative P Positive

**Validation Rule for A316**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- The A&B Indicator is required when Additions & Betterments are reported.
- The A&B Indicator must not be reported if Additions & Betterments are not reported.

**A&B Amount A317**

The amount of the individual addition and betterment added to or subtracted from the original cost of the equipment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A317**

| Minimum | Maximum |
|---------|---------|
| 1       | 999999  |

**Validation Rule for A317**

- When entering an individual addition & betterment; A&B Date Done (A319), A&B Type (A318), A&B Pos/Neg Ind (A316), and A&B Amount (A317) must be reported

**A&B Date Done A319**

The date of the individual addition and betterment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A319**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for A319**

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- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- Addition and Betterment Date Done cannot be earlier than Built Date (BLDT).
- Additions & Betterments Date Done cannot be later than today's date.

| A&B Type                                                                                    | A318                                                                      |
|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| The type of individual addition and betterment as defined by Rule 107                       |                                                                           |
| Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.          |                                                                           |
| <b>Permissible Values for A318</b>                                                          |                                                                           |
| FLLD                                                                                        | Other permanently installed loading equipment used on flat cars           |
| GNRL                                                                                        | General - Capitalized Additions and Betterments                           |
| INIT                                                                                        | Initial load of historical A&B amount as of Umler 4.6 implementation date |
| <b>Validation Rule for A318</b>                                                             |                                                                           |
| -For each equipment, only one Individual A&B Type can have a value of INIT.                 |                                                                           |
| -When entering an individual Addition & Betterment, you must enter a value in all 4 fields. |                                                                           |

## Car Management

| Pool Number                                                                                                                                | P001 |
|--------------------------------------------------------------------------------------------------------------------------------------------|------|
| Unique number used to indicate the grouping of equipment for a particular purpose                                                          |      |
| Used for Transportation Codes. This element is not eligible for Input. Value does not carry forward for Equipment Group Change / Add Back. |      |

| Pool Control                                                                                                    | TCPC |
|-----------------------------------------------------------------------------------------------------------------|------|
| Pool Control                                                                                                    |      |
| System Generated Field. Used for Transportation Codes. This element is not eligible for Input, Output or Query. |      |
| <b>NOTES:</b>                                                                                                   |      |
| <ul style="list-style-type: none"> <li>For further explanation reference Appendices C and E.</li> </ul>         |      |

| User Routing Instructions                                                                       | TCUR                           |
|-------------------------------------------------------------------------------------------------|--------------------------------|
| The routing instruction reported by the user                                                    |                                |
| Used for Transportation Codes.                                                                  |                                |
| <b>Permissible Values for TCUR</b>                                                              |                                |
| 2                                                                                               | Trailer Service Rule 2         |
| G                                                                                               | Contaminated commodity service |
| M                                                                                               | Mark canceled                  |
| O                                                                                               | Owner requested return         |
| U                                                                                               | Unassigned equipment           |
| <b>NOTES:</b>                                                                                   |                                |
| <ul style="list-style-type: none"> <li>For further explanation reference Appendix E.</li> </ul> |                                |

| Umler Transportation Code                                                                       | TCOD |
|-------------------------------------------------------------------------------------------------|------|
| The type of assigned service, empty routing or restriction of the equipment                     |      |
| System Generated Field. Used for Transportation Codes. This element is not eligible for Input.  |      |
| <b>NOTES:</b>                                                                                   |      |
| <ul style="list-style-type: none"> <li>For further explanation reference Appendix E.</li> </ul> |      |

| Transportation Cond Code                                                                        | TCCD |
|-------------------------------------------------------------------------------------------------|------|
| The AAR or FRA interchange restriction code                                                     |      |
| System Generated Field. Used for Transportation Codes. This element is not eligible for Input.  |      |
| <b>NOTES:</b>                                                                                   |      |
| <ul style="list-style-type: none"> <li>For further explanation reference Appendix E.</li> </ul> |      |

| Mechanical Restriction                                           | TCME |
|------------------------------------------------------------------|------|
| User reported or system generated type of mechanical restriction |      |

Used for Transportation Codes.

**Permissible Values for TCME**

- S Scrap
- X AAR Interchange Restriction
- Y FRA Interchange Prohibited

**NOTES:**

- For further explanation reference Appendix D.1

| Mech Restriction Reason                              | TCMR |
|------------------------------------------------------|------|
| The explanation of the Mechanical Restriction (TCME) |      |

Used for Transportation Codes.

**Permissible Values for TCMR**

- A Restricted Due to Age (Over 40-AAR, Over 50-FRA)
- B Restricted Due to Air Brakes
- C Restricted Due to Axles
- D Restricted Due to Couplers and Couplers Parts
- F Restricted Due to Couplers Yokes
- G Restricted Due to Draft Gears
- J Restricted Due to Journal Bearing and Journal Lubrication
- N Restricted Due to Trucks
- P Restricted Due to Truck Side Frames
- T Restricted Due to Trucks Bolsters
- U Restricted by AAR or Owner
- W Restricted Due to Wheels
- X Restricted Due to Scrap or Early Warning
- Z Restricted Due to Umler Conflict (Not Valid for User Input)

**NOTES:**

- For further explanation reference Appendix D.2.
- The assignment of the Transportation Codes S, SX, XA, XZ and YA generate the Rate Indicator Code 6 to the CHARM file to zero (0) rate the car hire and mileage rate.

| Sys Gen Routing Inst                            | TCGR |
|-------------------------------------------------|------|
| The routing instruction generated by the system |      |

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.5.

| Loading Authority Fleet Status                                                  | B597 |
|---------------------------------------------------------------------------------|------|
| Identifies when a car is listed on a fleet in the Loading Authority application |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B597**

- Y Yes
- S Suspended

**NOTES:**

- When equipment is on a fleet the Loading Authority (LA) application will update the flag to 'Y – Yes'. When equipment is removed from a fleet the LA application will remove the 'Y – Yes'.
- When equipment is on a LA fleet that is suspended the LA application will update the flag to 'S – Suspended'. When the equipment is on a LA fleet that is no longer suspended the LA application will update the flag to 'Y – Yes'.

## Train Service

| Restricted Speed Empty                                                     | B180 |
|----------------------------------------------------------------------------|------|
| Describes the maximum restricted speed the equipment can travel when empty |      |

**Range of Values for B180**

| Minimum | Maximum |
|---------|---------|
| 5       | 95      |

| Restricted Speed Loaded                                                     | B181 |
|-----------------------------------------------------------------------------|------|
| Describes the maximum restricted speed the equipment can travel when loaded |      |



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**Range of Values for B181**

| Minimum | Maximum |
|---------|---------|
| 5       | 95      |

**Shove Car to Rest****B189**

Identifies the car must be moved to rest by locomotive

**Permissible Values for B189**

Y Yes

**Shove Adj. Car to Rest****B188**

Identifies the adjacent car must be shoved to rest by locomotive

**Permissible Values for B188**

Y Yes

**Train Position Sensitive****B211**

Indicates there is a physical reason, limiting its position on a train

**Permissible Values for B211**

Y Yes

**End of Train Only****B277**

Indicates the equipment must be placed at the end of the train (including per AAR RP-2001)

**Permissible Values for B277**

Y Yes

**Check Trailing Tonnage****B044**

Indicates the equipment has restrictions on trailing tonnage

**Permissible Values for B044**

Y Yes

**Curve Negotiate Exception****B178**

Describes the requirement for negotiating a curve

**Permissible Values for B178**

- A Restrictive Curve Negotiability, Section 2.1.4 of M-1001
- B Does not meet all Chapter XI Curving Requirements

**Cooper Rating Exception****B273**

Describes the cooper rating (weight distribution model of the equipment), for use in movement across bridges

**Permissible Values for B273**

- A Excessive Cooper Rating
- B Cooper Rating in Excess of E66

**Clearance Exception****B275**

Describes equipment containing nonstandard dimension

**Permissible Values for B275**

- A Excessive Outside Extreme Height (A185)
- B Excessive Outside Extreme Width (A186)
- C Lower Guides for Loading High Cube Containers
- D All other unique clearance issues

**Loaded Net Braking Ratio****B551**

Indicates calculated minimum loaded net braking ratio per AAR Specifications in place on built or rebuilt date (in percent).  
System Generated Field. This element is not eligible for input.

**Permissible Values for B551**

– 11.0  
– 8.5

**NOTES:**

- Loaded Net Braking Ratio is determined as follows:
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is less than 1/1/1972, then

Loaded Net Braking Ratio will be set to blank.

- If Built Date (BLDT) is greater than or equal to 1/1/1972 and less than 1/1/2004, then loaded Net Braking Ratio is 8.5%.
- If Built Date (BLDT) or Rebuilt Date (RBDT) is greater than or equal to 1/1/2004, then Loaded Net Braking Ratio is 11.0%.

**Owner-Provided Loaded Net Braking Ratio****B552**

Indicates an alternate minimum loaded net braking ratio provided by owner (in percent).

**Range of Values for B552**

| Minimum | Maximum |
|---------|---------|
| 8.5     | 14.0    |

**NOTES:**

- Owner may enter a documented alternative minimum loaded net braking ratio in this field that is greater than the system calculated Loaded Net Braking Ratio (B551).
- When reported, the Owner-Provided Loaded Net Braking Ratio will be used in PTC stopping distance calculations.
- A change in value for the following elements will cause the Owner-Provided Loaded Net Braking Ratio to reset to blank:
  - Rebuilt Date (RBDT)
  - Gross Rail Load/Weight (A266)
  - Equipment Type Code (UMET)
  - Empty/Load Device Eqpd (B075)

**Empty Braking Ratio****B553**

Indicates calculated empty braking ratio per AAR Specifications in place on built or rebuilt date (in percent).  
System Generated Field. This element is not eligible for input.

**Range of Values for B553**

| Minimum | Maximum |
|---------|---------|
| 15.0    | 38.0    |

**NOTES:**

- Empty Braking Ratio is determined as follows:
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is less than 1/1/1972, then Empty Braking Ratio will be set to blank.

**Owner-Provided Empty Braking Ratio****B554**

Indicates an owner supplied alternate empty braking ratio (in percent).

**Range of Values for B554**

| Minimum | Maximum |
|---------|---------|
| 15.0    | 38.0    |

**NOTES:**

- Owner may enter a documented alternative minimum loaded net braking ratio in this field that is greater than the system calculated Loaded Net Braking Ratio (B551).
- When reported, the Owner-Provided Loaded Net Braking Ratio will be used in PTC stopping distance calculations.
- A change in value for the following elements will cause the Owner-Provided Loaded Net Braking Ratio to reset to blank:
  - Rebuilt Date (RBDT)
  - Gross Rail Load/Weight (A266)
  - Equipment Type Code (UMET)
  - Empty/Load Device Eqpd (B075)

**Truck Components****Axle Spacing Distance *Mandatory*****B020**

The distance between axle centers on the same truck

Affects Rating.

**Permissible Values for B020**

53 53 Inches  
54 54 Inches

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|    |                    |
|----|--------------------|
| 55 | 55 Inches          |
| 60 | 60 Inches          |
| 61 | 61 Inches          |
| 62 | 62 Inches          |
| 63 | 63 Inches          |
| 64 | 64 Inches          |
| 65 | 65 Inches          |
| 66 | 66 Inches          |
| 68 | 68 Inches          |
| 70 | 70 Inches          |
| 71 | 71 Inches          |
| 72 | 72 Inches          |
| 73 | 73 Inches          |
| 74 | 74 Inches          |
| 76 | 76 Inches          |
| 78 | 78 Inches          |
| 99 | Axle Space Unknown |

**Truck Axle Count** **B252**

The number of axles per truck

**Range of Values for B252**

| Minimum | Maximum |
|---------|---------|
| 1       | 4       |

**Validation Rule for B252**

- Sum of Truck Axle Counts must equal Axle Count (A024)

**Journal Size *Mandatory*** **A147**

The size of the journal bearing

Affects Rating.

**Permissible Values for A147**

|   |            |   |           |   |            |
|---|------------|---|-----------|---|------------|
| A | 3-3/4 X 7  | B | 4-1/4 X 8 | C | 5 X 9      |
| D | 5-1/2 X 10 | E | 6X11      | F | 6-1/2 X 12 |
| G | 7 X 12     | H | 7 X 14    | K | 6-1/ 2X 9  |
| M | 7 X 9      |   |           |   |            |

**Validation Rule for A147**

- 4-axle equipment with Journal Size B and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 103,000 lbs.
- 4-axle equipment with Journal Size C and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 142,000 lbs.
- 4-axle equipment with Journal Size D and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 177,000 lbs.
- 4-axle equipment with Journal Size E and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 220,000 lbs.
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) is not populated, must have Gross Rail Load (A266) of 263,000 lbs.
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 2, must have Gross Rail Load (A266) of 286,000 lbs.
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 3, must have Gross Rail Load (A266) of 286,000 lbs.
- 4-axle equipment with Journal Size G, K, or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 1, must have Gross Rail Load (A266) of 286,000 lbs.
- 4-axle equipment with Journal Size G, K, or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) is not populated, must have Gross Rail Load (A266) of 315,000 lbs.
- 4-axle equipment with Journal Size G, K, or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 1, must have Gross Rail Load (A266) of 286,000 lbs.
- 4-axle equipment with Journal Size B and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 103,000 lbs.
- 4-axle equipment with Journal Size C and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 142,000 lbs.

- 4-axle equipment with Journal Size D and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 177,000 lbs.
- 4-axle equipment with Journal Size E and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 220,000 lbs.
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) is not populated, must have Gross Rail Load (A266) of 263,000 lbs.
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 2, must have Gross Rail Load (A266) of 286,000 lbs.
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 3, must have Gross Rail Load (A266) of 286,000 lbs.
- 4-axle equipment with Journal Size G, K, or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 1, must have Gross Rail Load (A266) of 286,000 lbs.
- 4-axle equipment with Journal Size G, K, or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) is not populated, must have Gross Rail Load (A266) of 315,000 lbs.

**NOTES:**

- A, B and C Journal Classes are prohibited in Interchange per Rule 90.B.4
- A, B, and C Journal Sizes are restricted from interchange and will receive the Mechanical Restriction XJ

**Wheel Diameter *Mandatory*** **A294**

The diameter of the wheels

**Permissible Values for A294**

|    |           |    |           |    |           |
|----|-----------|----|-----------|----|-----------|
| 33 | 33 Inches | 36 | 36 Inches | 38 | 38 Inches |
|----|-----------|----|-----------|----|-----------|

**Validation Rule for A294**

- Equipment with a Qualification for Increased Gross Rail Load of 1 and Journal Size (A147) of G or M must have a Wheel Diameter of 38
- Equipment with Qualification for Increased Gross Rail Load (B344) of 1, and Journal Size (A147) of K, must have Wheel Diameter of 36
- If Connected Unit Count (A020) is not reported, different Wheel Diameters cannot be reported

**Stability Device Equipped** **B199**

Indicates a stability device is present on the truck

Affects Rating.

**Permissible Values for B199**

|   |     |
|---|-----|
| Y | Yes |
|---|-----|

**Bolster Component ID** **B351**

Bolster Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Sideframe Component ID** **B352**

Side Frame Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Wheelset Component ID** **B350**

Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Draft System Components****Coupler Code** **A057**

Defines the equipment coupler type

**Permissible Values for A057**

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|          |                                          |           |                                                         |
|----------|------------------------------------------|-----------|---------------------------------------------------------|
| BE60AHT  | Type E (Rule 16) - BE60AHT               | F70HT     | Type F Obsolete (Rule 18) - F70HT                       |
| BE60BHT  | Type E Obsolete (Rule 16) - BE60BHT      | F71CHT    | Type F (Rule 18) - F71CHT                               |
| BE63AHT  | Type E Obsolete (Rule 16) - BE63AHT      | F72HT     | Type F (Rule 18) - F72HT                                |
| BE63HT   | Type E (Rule 16) - BE63HT                | F73AC     | Type F (Rule 18) - F73AC                                |
| BE67HT   | Type E (Rule 16) - BE67HT                | F73AE     | Type F (Rule 18) - F73AE                                |
| E42BEX   | Type E/F (Rule 17) - E42BEX              | F73AHT    | Type F (Rule 18) - F73AHT                               |
| E50ARE   | Type E/F (Rule 17) - E50ARE              | F73AHTE   | Type F (Rule 18) - F73AHTE                              |
| E50BEX   | Type E/F (Rule 17) - E50BEX              | F73BE     | Type F (Rule 18) - F73BE                                |
| E60CC    | Type E (Rule 16) - E60CC                 | F73HTE    | Type F Obsolete (Rule 18) - F73HTE                      |
| E60CE    | Type E (Rule 16) - E60CE                 | F79BHT    | Type F Obsolete (Rule 18) - F79BHT                      |
| E60CEX   | Type E (Rule 16) - E60CEX                | F79BHTE   | Type F Obsolete (Rule 18) - F79BHTE                     |
| E60CHT   | Type E (Rule 16) - E60CHT                | F79CC     | Type F (Rule 18) - F79CC                                |
| E60CHTE  | Type E (Rule 16) - E60CHTE               | F79CE     | Type F (Rule 18) - F79CE                                |
| E60CHTQ  | Type E (Rule 16) - E60CHTQ               | F79CHT    | Type F (Rule 18) - F79CHT                               |
| E60DC    | Type E (Rule 16) - E60DC                 | F79CHTE   | Type F (Rule 18) - F79CHTE                              |
| E60DE    | Type E (Rule 16) - E60DE                 | F79DE     | Type F (Rule 18) - F79DE                                |
| E60EE    | Type E (Rule 16) - E60EE                 | FF205E    | Type F (Rule 18) - FF205E                               |
| E61      | Type E Obsolete (Rule 16) - E61          | FF218AE   | Type F (Rule 18) - FF218AE                              |
| E67AHT   | Type E (Rule 16) - E67AHT                | FR201E    | Type F (Rule 18) Rotary - FR201E                        |
| E67BC    | Type E (Rule 16) - E67BC                 | FR205AE   | Type F (Rule 18) Rotary - FR205AE                       |
| E67BE    | Type E (Rule 16) - E67BE                 | FR205BE   | Type F (Rule 18) Rotary - FR205BE                       |
| E67BHT   | Type E (Rule 16) - E67BHT                | FR205E    | Type F (Rule 18) Rotary - FR205E                        |
| E67BHTE  | Type E (Rule 16) - E67BHTE               | FR206E    | Type F (Rule 18) Rotary - FR206E                        |
| E68BHTQ  | Type E/F (Rule 17) - E68BHTQ             | FR206EA   | Type F (Rule 18) Rotary - FR206EA                       |
| E67CC    | Type E (Rule 16) - E67CC                 | FR207AE   | Type F (Rule 18) Rotary - FR207AE                       |
| E67CE    | Type E (Rule 16) - E67CE                 | FR207E    | Type F (Rule 18) Rotary - FR207E                        |
| E68AHT   | Type E/F Obsolete (Rule 17) - E68AHT     | FR208AE   | Type F (Rule 18) Rotary - FR208AE (without wear insert) |
| E68AHTE  | Type E/F Obsolete (Rule 17) - E68AHTE    | FR208E    | Type F (Rule 18) Rotary - FR208E (with wear insert)     |
| E68BC    | Type E/F (Rule 17) - E68BC               | FR209E    | Type F (Rule 18) Rotary - FR209E                        |
| E68BE    | Type E/F (Rule 17) - E68BE               | FR301E    | Type F (Rule 18) Rotary - FR301E                        |
| E68BHT   | Type E/F (Rule 17) - E68BHT              | FR304E    | Type F (Rule 18) Rotary - FR304E (with wear plate)      |
| E68BHTE  | Type E/F (Rule 17) - E68BHTE             | FR304WE   | Type F (Rule 18) Rotary - FR304WE (without wear plate)  |
| E68CE    | Type E/F (Rule 17) - E68CE               | FROTARY   | Type E/F Rotary - FROTARY                               |
| E68DE    | Type E/F Obsolete (Rule 17) - E68DE      | FSPEC     | Type F Special - FSPEC                                  |
| E69AE    | Type E/F (Rule 17) - E69AE               | FUNK      | Type F Unknown - FUNK                                   |
| E69AHTE  | Type E/F (Rule 17) - E69AHTE             | S700AE    | Type E (Rule 16) - S700AE                               |
| E69BE    | Type E/F (Rule 17) - E69BE               | SBE60CC   | Type E (Rule 16) - SBE60CC                              |
| E69CE    | Type E/F (Rule 17) - E69CE               | SBE60CE   | Type E (Rule 16) - SBE60CE                              |
| E69CEX   | Type E/F (Rule 17) - E69CEX              | SBE60DC   | Type E (Rule 16) - SBE60DC                              |
| E69HTE   | Type E/F (Rule 17) - E69HTE              | SBE60DE   | Type E (Rule 16) - SBE60DE                              |
| E69LCE   | Type E/F (Rule 17) - E69LCE              | SBE60DREX | Type E (Rule 16) - SBE60DREX                            |
| EB7AHT   | Type E (Rule 16) - EB7AHT                | SBE60EE   | Type E (Rule 16) - SBE60EE                              |
| EF204CE  | Type E/F (Rule 17) - EF204CE             | SBE60EEX  | Type E (Rule 16) - SBE60EEX                             |
| EF306CE  | Type E/F (Rule 17) - EF306CE             | SBE67BC   | Type E (Rule 16) - SBE67BC                              |
| EF511AE  | Type E/F (Rule 17) - EF511AE             | SBE67BE   | Type E (Rule 16) - SBE67BE                              |
| EF511BE  | Type E/F (Rule 17) - EF511BE             | SBE67CC   | Type E (Rule 16) - SBE67CC                              |
| EF511CE  | Type E/F (Rule 17) - EF511CE             | SBE67CE   | Type E (Rule 16) - SBE67CE                              |
| EF511DE  | Type E/F (Rule 17) - EF511DE             | SBE67CREX | Type E (Rule 16) - SBE67CREX                            |
| EF511LCE | Type E/F (Rule 17) - EF511LCE            | SBE67DE   | Type E (Rule 16) - SBE67DE                              |
| EF511WE  | Type E/F (Rule 17) - EF511WE             | SBE68BC   | Type E/F (Rule 17) - SBE68BC                            |
| EF512CE  | Type E/F (Rule 17) - EF512CE             | SBE68BE   | Type E/F (Rule 17) - SBE68BE                            |
| EF512WE  | Type E/F (Rule 17) - EF512WE             | SBE68CE   | Type E/F (Rule 17) - SBE68CE                            |
| EF528WE  | Type E/F (Rule 17) - EF528WE             | SBE68CREX | Type E/F (Rule 17) - SBE68CREX                          |
| EF60BWE  | Type E/F (Rule 17) - EF60BWE             | SBE68DE   | Type E/F (Rule 17) - SBE68DE                            |
| EFROTARY | Type E/F Rotary - EFROTARY               | SBE68WEX  | Type E/F (Rule 17) - SBE68WEX                           |
| EF60BWE  | Type E/F (Rule 17) - EF60BWE             | SBE69AE   | Type E/F (Rule 17) - SBE69AE                            |
| EFSPEC   | Type E/F Special - EFSPEC                | SBE69BE   | Type E/F (Rule 17) - SBE69BE                            |
| EFUNK    | Type E/F Unknown - EFUNK                 | SBE69BREX | Type E/F (Rule 17) - SBE69BREX                          |
| EK323CE  | Type E (Rule 16) - EK323CE (Long Travel) | SBE69CE   | Type E/F (Rule 17) - SBE69CE                            |
| ESPEC    | Type E Special - ESPEC                   | SE60CC    | Type E (Rule 16) - SE60CC                               |
| EUNK     | Type E Unknown - EUNK                    | SE60CE    | Type E (Rule 16) - SE60CE                               |
| F70BHT   | Type F Obsolete (Rule 18) - F70BHT       | SE60CHT   | Type E (Rule 16) - SE60CHT                              |
| F70BHTE  | Type F Obsolete (Rule 18) - F70BHTE      | SE60CHTE  | Type E (Rule 16) - SE60CHTE                             |
| F70CC    | Type F (Rule 18) - F70CC                 | SE60DC    | Type E (Rule 16) - SE60DC                               |
| F70CE    | Type F (Rule 18) - F70CE                 | SE60DE    | Type E (Rule 16) - SE60DE                               |
| F70CHT   | Type F (Rule 18) - F70CHT                | SE60DEX   | Type E (Rule 16) - SE60DEX                              |
| F70CHTE  | Type F (Rule 18) - F70CHTE               | SE60EE    | Type E (Rule 16) - SE60EE                               |
| F70DE    | Type F (Rule 18) - F70DE                 | SE67BC    | Type E (Rule 16) - SE67BC                               |

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|          |                               |
|----------|-------------------------------|
| SE67BE   | Type E (Rule 16) - SE67BE     |
| SE67BHT  | Type E (Rule 16) - SE67BHT    |
| SE67BHTE | Type E (Rule 16) - SE67BHTE   |
| SE67CC   | Type E (Rule 16) - SE67CC     |
| SE67CE   | Type E (Rule 16) - SE67CE     |
| SE68BC   | Type E/F (Rule 17) - SE68BC   |
| SE68BE   | Type E/F (Rule 17) - SE68BE   |
| SE68BHT  | Type E/F (Rule 17) - SE68BHT  |
| SE68BHTE | Type E/F (Rule 17) - SE68BHTE |
| SE68CE   | Type E/F (Rule 17) - SE68CE   |
| SE69AE   | Type E/F (Rule 17) - SE69AE   |
| SE69BE   | Type E/F (Rule 17) - SE69BE   |
| SE69CE   | Type E/F (Rule 17) - SE69CE   |
| SF70CC   | Type F (Rule 18) - SF70CC     |
| SF70CE   | Type F (Rule 18) - SF70CE     |
| SF70CHT  | Type F (Rule 18) - SF70CHT    |
| SF70CHTE | Type F (Rule 18) - SF70CHTE   |
| SF70DE   | Type F (Rule 18) - SF70DE     |
| SF79CC   | Type F (Rule 18) - SF79CC     |
| SF79CE   | Type F (Rule 18) - SF79CE     |
| SF79CHT  | Type F (Rule 18) - SF79CHT    |
| SF79CHTE | Type F (Rule 18) - SF79CHTE   |
| SF79DE   | Type F (Rule 18) - SF79DE     |

**Validation Rule for A057**

- If Rotary Coupler Style is reported, then Coupler Code must be a rotary coupler.
- If Coupler Code is a rotary coupler, then Coupler Style must be R (Rotary).
- Coupler Code of Type E Obsolete (Rule 16) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of Type E/F Obsolete (Rule 17) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of Type F Obsolete (Rule 18) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of FROTARY or EFROTARY cannot be reported for cars Built or Rebuilt on or after August 12, 2014.

**NOTES:**

- Obsolete: All Type D couplers are obsolete and should report code DOBS; cars with this coupler code will be restricted in interchange as discussed below.
- Unknown: If the coupler code is unknown or if the code stamped on the coupler is illegible, the code BUNK FUNK, EFUNK, or LOCOUNK should be reported.
- Special: Codes ESPEC, FSPEC, and EFSPEC have been created to decline coupler bodies that have been manufactured specifically for the equipment owner and are not listed in the attached table.
- The codes FROTARY and EFROTARY cannot be reported for equipment Built or Rebuilt since August 12, 2014.

|                                                     |             |
|-----------------------------------------------------|-------------|
| <b>Coupler Style</b> <i>Mandatory</i>               | <b>B058</b> |
| Describes the basic coupler design of the equipment |             |

Affects Rating.

**Permissible Values for B058**

|   |              |   |              |
|---|--------------|---|--------------|
| B | Bottom Shelf | D | Double Shelf |
| P | Plain        | R | Rotary       |

**Validation Rule for B058**

- If Draft System Type (B073) is H (Hydraulic) then Coupler Style (B058) cannot be reported as M (Solid Drawbar) or L (Rotary Drawbar)
- If Draft System Type (B073) is not Center Of Car or End Of Car, Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) of Center Of Car or End Of Car is reported then Inches of Travel (B061) must also be reported
- If Draft System Type (B073) is E then Coupler Style (B058) cannot be reported as L or R

|                                                 |             |
|-------------------------------------------------|-------------|
| <b>Inches of Travel</b>                         | <b>B061</b> |
| The number of inches a draft system will travel |             |

Affects Rating.

**Range of Values for B061**

Minimum | Maximum

1 | 30

**Validation Rule for B061**

- If Draft System Type (B073) is not Center Of Car or End Of Car, Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) of Center Of Car or End Of Car is reported then Inches of Travel (B061) must also be reported
- Inches of Travel cannot be greater than 20 for equipment with a Built Date (BLDT) on or after January 1, 1974

|                                                  |             |
|--------------------------------------------------|-------------|
| <b>Draft System Type</b> <i>Mandatory</i>        | <b>B073</b> |
| Describes the draft gear/underframe cushion type |             |

Affects Rating.

**Permissible Values for B073**

- C Cushioning at Center of Car (COC)
- E Cushioning at End of Car (EOC)
- S Standard Draft Gear
- X Devices with less than 6 inches buff travel approved under AAR Standard S-060
- Y Devices with 6 to 10 inches of buff travel approved under AAR Standard S-060

**Validation Rule for B073**

- If Draft System Type (B073) is Standard Draft Gear (S), Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) is reported as C, E, X, or Y then Inches of Travel (B061) must also be reported
- If Draft System Type (B073) of X, or Y is reported then Draft Gear Group/Cushion Unit Pocket (B562) cannot be reported
- If Draft System Type (B073) X is reported, the Inches of Travel (B061) value must be greater than or equal to 1 and less than 6
- If Draft System Type (B073) Y is reported, the Inches of Travel (B061) value must be greater than or equal to 6 and less than or equal to 10
- If Draft System Type (B073) is S then Draft Gear Group/Cushion Unit Pocket (B562) may only be A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z (AAR Rule 21)
- If Draft System Type (B073) is E then Draft Gear Group/Cushion Unit Pocket (B562) may only be EOC-1,EOC-1D, EOC-1B, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B,EOC-4, EOC-4B, EOC-5, EOC-5D, EOC-5B, EOC-6, EOC-6D, EOC-6B, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-8F, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10, EOC-10D, EOC-10B, EOC-10F, EOC-11, EOC-11D, EOC-11B,EOC-12, EOC-12D, EOC-12B, EOC-13, EOC-13B, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16, EOC-16D, EOC-16B, EOC-17, EOC-17D, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-23, EOC-23B, EOC-24, EOC-24B, EOC-25E, EOC-26B, EOC-26F, or EOC-27D, or EOC-27E (AAR Rule 59)

|                                                                                                     |             |
|-----------------------------------------------------------------------------------------------------|-------------|
| <b>Draft Gear Group/Cushion Unit Pocket</b>                                                         | <b>B562</b> |
| Draft Gear Group/Cushion Unit Pocket value as listed in AAR Field Manual Interchange Rule 21 and 59 |             |

Carry forward for Single Clone / Multi-Clone / Restencil / Add-Back / Equipment Group Change.

**Permissible Values for B562**EOC-1,EOC-1D, EOC-1B, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B,EOC-4, EOC-4B, EOC-5, EOC-5D, EOC-5B, EOC-6, EOC-6D, EOC-6B, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-8F, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10, EOC-10D, EOC-10B, EOC-10F, EOC-11, EOC-11D, EOC-11B,EOC-12, EOC-12D, EOC-12B, EOC-13, EOC-13B, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16, EOC-16D, EOC-16B, EOC-17, EOC-17D, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-23, EOC-23B, EOC-24, EOC-24B, EOC-25E, EOC-26B, EOC-26F, EOC-27D, EOC-27E, COC-1, COC-2, COC-3, COC-4, COC-5, COC-6, COC-7, COC-8 (AAR Rule 59).

A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, Z (AAR Rule 21).

**Validation Rule(s) for B562**

- Draft Gear Group/Cushion Unit Pocket (B562) is mandatory for equipment built on or after June 13, 2019, unless Draft System Type (B073) is reported as X or Y
- If Draft Gear Group/Cushion Unit Pocket (B562) is not equal to A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z, then Cushion Unit Type (B563) must be populated



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- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-6, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-9, EOC-9B, EOC-9D, EOC-10, EOC-10B, EOC-10D, EOC-14, EOC-14B, EOC-18D, EOC-23, EOC-23B, EOC-24, EOC-25E, EOC-26B, or EOC-27D then the Cushion Unit Type (B563) must be 1
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-9E, EOC-26F, or EOC-27E, then the Cushion Unit Type (B563) must be 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-11, EOC-12, EOC-13, EOC-13B, EOC-15, EOC-15B, EOC-15D, EOC-17, EOC-17B, EOC-17D, EOC-18, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-24B, COC-3, COC-5, or COC-7 then the Cushion Unit Type (B563) must be 1 or 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-8F or EOC-10F then the Cushion Unit Type (B563) must be 2 or 3
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-5, EOC-5B, EOC-5D, EOC-6, EOC-6B, EOC-6D EOC-11B, EOC-11D, EOC-12B, EOC-12D, or COC-4 then the Cushion Unit Type (B563) must be 1, 2, or 3
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-16D, or COC-1 then the Cushion Unit Type (B563) must be 1, 2, or 4
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-2B, EOC-2D, EOC-3, EOC-3B, EOC-4, EOC-4B, or COC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, or 4
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1, EOC-1B, EOC-1D, or EOC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-8 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1D, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B, EOC-5, EOC-5D, EOC-5B, EOC-6D, EOC-7, EOC-7B, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10D, EOC-11, EOC-11B, EOC-11D, EOC-12D, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16D, EOC-17D, EOC-23, EOC-23B, EOC-27D, or EOC-27E then the Inches of Travel (B061) must be 10
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-19, EOC-19B, EOC-22, EOC-22B, or EOC-25E then the inches of travel must be 12
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-20 or EOC-20B then the Inches of Travel (B061) must be 14
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1B, EOC-4, EOC-4B, EOC-6, EOC-6B, EOC-8, EOC-8B, EOC-8F, EOC-10, EOC-10B, EOC-10F, EOC-12, EOC-12B, EOC-13, EOC-13B, EOC-17, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-21, EOC-21B, EOC-24, or EOC-24B then the Inches of Travel (B061) must be 15
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-2, COC-3, COC-4, COC-5, COC-6, or COC-8 then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 1 or 2, then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 4, then the Inches of Travel (B061) must be 18
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 2, then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 1, then the Inches of Travel (B061) must be 30
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1 then the Inches of Travel (B061) must be 10, 12, or 15
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-26, then the Inches of Travel (B061) must be 18

**Note:**

Reference AAR Field Manual Interchange Rule(s) 21 and 59.

| Cushion Unit Type                                                                | B563 |
|----------------------------------------------------------------------------------|------|
| Cushion Unit Type value as listed in AAR Field Manual Interchange Rule 21 and 59 | ★    |

Carry forward for Single Clone / Multi-Clone / Restencil / Add-Back / Equipment Group Change.

**Permissible Values for B563**

- 1 – Type 1
- 2 – Type 2
- 3 – Type 3
- 4 – Type 4
- 5 – Type 5
- S – Type S

**Validation Rule(s) for B563**

- Cushion Unit Type (B563) is mandatory for equipment built on or after June 13, 2019.
- If Draft Gear Group/Cushion Unit Pocket (B562) is not equal to A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z, then Cushion Unit Type (B563) must be populated.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-6, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-9, EOC-9B, EOC-9D, EOC-10, EOC-10B, EOC-10D, EOC-14, EOC-14B, EOC-18D, EOC-23, EOC-23B, EOC-24, EOC-25E, or EOC-26B then the Cushion Unit Type (B563) must be 1.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-9E, EOC-26F, or EOC-27E, then the Cushion Unit Type (B563) must be 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-11, EOC-12, EOC-13, EOC-13B, EOC-15, EOC-15B, EOC-15D, EOC-17, EOC-17B, EOC-17D, EOC-18, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-24B, COC-3, COC-5, or COC-7 then the Cushion Unit Type (B563) must be 1 or 2.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-8F or EOC-10F then the Cushion Unit Type (B563) must be 2 or 3.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-5, EOC-5B, EOC-5D, EOC-6, EOC-6B, EOC-6D EOC-11B, EOC-11D, EOC-12B, EOC-12D, or COC-4 then the Cushion Unit Type (B563) must be 1, 2, or 3.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-16D, or COC-1 then the Cushion Unit Type (B563) must be 1, 2, or 4.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-2B, EOC-2D, EOC-3, EOC-3B, EOC-4, EOC-4B, or COC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, or 4.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1, EOC-1B, EOC-1D, or EOC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-8 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 1 or 2, then the Inches of Travel (B061) must be 20.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 4, then the Inches of Travel (B061) must be 18.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 2, then the Inches of Travel (B061) must be 20.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 1, then the Inches of Travel (B061) must be 30.

**Note:**

Reference AAR Field Manual Interchange Rule(s) 21 and 59.

| Coupler Component ID                         | B353 |
|----------------------------------------------|------|
| Coupler Component ID from Component Registry |      |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

| Cushioning Unit Component ID         | B361 |
|--------------------------------------|------|
| Component ID from Component Registry |      |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## Unit Segment Components

| Unit Equipment Group                         | A307 |
|----------------------------------------------|------|
| Describes the equipment type of the platform |      |

**Permissible Values for A307**

|      |         |      |          |
|------|---------|------|----------|
| BOXC | Box Car | FLAT | Flat Car |
| GOND | Gondola | HOPP | Hopper   |



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IFLT Intermodal Flat TANK Tank Car  
VFLT Vehicular Flat

**Validation Rule for A307**

- Unit Equipment Group cannot be reported if the Connected Unit Count (A020) is not reported
- Unit Equipment Group can only be reported if Connected Unit Count (A020) is reported

**Unit Tare Weight** **A299**

The unit segment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds

**Range of Values for A299**

| Minimum | Maximum |
|---------|---------|
| 23000   | 120000  |

**Validation Rule for A299**

- Unit Tare Weight must not be reported if the Connected Unit Count (A020) is not reported
- Unit Tare Weight must be reported if Connected Unit Count (A020) is reported
- Unit Segment Tare Weights must add up to the Total Tare Weight (A259)
- Unit Tare Weight (A299) value must be reported to the nearest 100 pounds

**Unit Load Limit** **A300**

The maximum permissible weight of the commodity that can be loaded into the unit segment, reported in pounds

**Range of Values for A300**

| Minimum | Maximum |
|---------|---------|
| 70000   | 300000  |

**Validation Rule for A300**

- Unit Load Limit can not be reported if the Connected Unit Count (A020) is not reported
- Unit Load Limit must be reported if Connected Unit Count (A020) is reported
- Unit Segment Load Limits must add up to the Load Limit (LDLT)

**Lower Load Width** **B506**

Allowable Lower Load Widths (ICPSC-II)

**Permissible Values for B506**

|    |                                    |
|----|------------------------------------|
| 80 | 8 Ft (96 in) Container Only        |
| 86 | 8 Ft 6 in (102 in) Container Only  |
| BB | Both 8 ft and 8 ft 6 in Containers |

**Unit Inside Length** **A301**

The inside length of each unit segment ▲

Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A301**

| Minimum        | Maximum        |
|----------------|----------------|
| 20 ft 0 inches | 99 ft 3 inches |

**Validation Rule for A301**

- Unit Inside Length can only be reported if Connected Unit Count (A020) is reported
- Unit Inside Length must be reported if Connected Unit Count (A020) is reported
- Unit Inside Length for Flats other than Vflats must be greater than or equal to 20 feet.
- Unit Inside Length for Flats and IFlats must be less than or equal to 99 feet 4 inches.

**Cont Load Restrictions** **B509**

Container Load Limit Restrictions (ICPSC-II)

**Flat Rack Capable** **B510****Flat Rack Capable (ICPSC-II)****Permissible Values for B510**

|   |                                               |
|---|-----------------------------------------------|
| 1 | 1 Flat Rack can be Stacked on this Platform   |
| 2 | 2 Flat Racks can be Stacked on this Platform  |
| 3 | 3 Flat Racks can be Stacked on this Platform  |
| 4 | 4 Flat Racks can be Stacked on this Platform  |
| 5 | 5 Flat Racks can be Stacked on this Platform  |
| 6 | 6 Flat Racks can be Stacked on this Platform  |
| 7 | 7 Flat Racks can be Stacked on this Platform  |
| 8 | 8 Flat Racks can be Stacked on this Platform  |
| 9 | 9 Flat Racks can be Stacked on this Platform  |
| N | No Flat Racks can be Stacked on this Platform |

**Lower Clearance Outline****B128**

Three measurements that describe the lower position of the platform that are free of restrictions: 1) from cone point to bottom of restriction, 2) length of restriction, 3) width of restriction; Component of Unit Segment (ICPSC)

**Permissible Values for B128**

|   |                                          |
|---|------------------------------------------|
| N | Well does not meet Standard Clearance    |
| X | MSRP standard not developed              |
| Y | Well meets or exceeds Standard Clearance |

**Hitches per unit****B140**

Number of Trailer Hitches per car?; Component of Unit Segment (ICPSC)

**Permissible Values for B140**

|   |                             |
|---|-----------------------------|
| 0 | No Hitches on this Platform |
| 1 | 1 Hitch on this Platform    |
| 2 | 2 Hitches on this Platform  |
| 3 | 3 Hitches on this Platform  |
| 4 | 4 Hitches on this Platform  |
| 5 | 5 Hitches on this Platform  |
| 6 | 6 Hitches on this Platform  |
| 7 | 7 Hitches on this Platform  |
| 8 | 8 Hitches on this Platform  |
| 9 | 9 Hitches on this Platform  |

**CONT Loading Cap****A054**

Container Loading Capacity C1

**Permissible Values for A054**

|   |                                                                                      |
|---|--------------------------------------------------------------------------------------|
| 1 | One 40 ft Container                                                                  |
| 2 | One 40 ft Container or Two 20 ft Containers                                          |
| 3 | Two 40 ft Containers Stacked                                                         |
| 4 | Two 40 ft Containers Stacked or Two 20 ft Containers and One 40 ft Container Stacked |
| 5 | One 35 FT Container                                                                  |
| 6 | One 45 ft Container                                                                  |
| 7 | One 40 ft and One 45 ft Container Stacked                                            |
| 8 | One 40 ft and One 48 ft Container Stacked                                            |
| 9 | Two 48 ft Containers Stacked                                                         |
| A | Two 45 ft Containers Stacked                                                         |
| B | One 45 ft and One 48 ft Container Stacked                                            |
| C | Two 35 ft Containers Stacked                                                         |
| D | Two 20 ft Containers-Stacked and One 40, 45 or 48 ft Container Stacked               |
| E | Two 20 ft Containers Stacked and One 40 or 48 ft Container Stacked                   |
| F | Two 20 ft or One 40 ft and One 40, 45 or 48 Container Stacked                        |
| G | One 40 ft Container and One 40, 45 or 48 Container Stacked                           |
| H | One 40 ft Container or 45 ft                                                         |
| I | One 40 ft or 45 or 48 ft Container and One 40, 45 or 48 ft Container Stacked         |
| J | One 48 ft Container and One 40, 45, 48 or 53 Container Stacked                       |
| K | Two 20 ft Containers or One 40 or 45 ft and One 40, 45 or 48 ft Container Stacked    |
| L | One 45 ft Container and One 40, 45, 48 or 53 ft Container Stacked                    |

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- M Two 20 ft Containers or One 40 ft and One 40 or 48 ft Container Stacked
- N Two 24 ft Containers and ONE 40, 45, 48 or 53 Container Stacked
- O Two 20 ft Containers or One 40 ft or One 45 ft or One 48 ft and One 40, 45, 48 or 53 ft Container Stacked
- P Two 20 ft Containers or One 40, 45 or 48 Containers Stacked
- Q Two 20 ft or 28 ft Containers or One 40, 45, 48 or 53 ft and TWO 20 ft or 28 ft Containers or One 40, 45, 48 or 53 ft Container Stacked
- R One 40 ft or 45 or 48 ft Container and One 40, 45, 48, or 53 ft Container Stacked

**Validation Rule for A054**

- Unit Container Loading Capacity is only applicable to FCA Equipment
- Unit Container Loading Capacity is only applicable to Articulated cars

**Trailer Loading Capacity****A272****Trailer Loading Capacity C1****Permissible Values for A272**

- 1 One 40 Ft Trailer
- 2 One 40 to 45 Ft Trailer
- 3 One 40 to 48 ft Trailer
- 4 One 40 to 50 ft Trailer
- 5 One 26 to 40 ft Trailer
- 6 26 to 45 ft Trailer
- 7 26 to 48 ft Trailer
- 8 26 to 50 ft Trailer
- 9 40 to 53 ft Trailer
- A 28 to 31 ft Trailer
- B 48 ft Well, Two 28 ft Trailers, up to 53 ft Single with Nose Extended Over Hitches, Intermediate - 53 Ft and Kingpin-Axle Length not Greater than 45 ft

**Validation Rule for A272**

- Unit Trailer Loading Capacity is only applicable to FCA Equipment
- Unit Trailer Loading Capacity is only applicable to Articulated cars

**Number of Handbrakes****B138****Number of Handbrakes (ICPSC)****Permissible Values for B138**

- 1 Car has One Hand Brake
- 2 Car has Two Hand Brakes
- 3 Car has Three Hand Brakes
- 4 Car has Four Hand Brakes
- 5 Car has Five Hand Brakes
- 6 Car has Six Hand Brakes
- 7 Car has Seven Hand Brakes
- 8 Car has Eight Hand Brakes
- 9 Car has Nine Hand Brakes

**Circus Loading Method****B517****Intermodal Flat Loading Method Circus (ICPSC-II)****Permissible Values for B517**

- N No Y Yes

**Side Loading Method****B518****Intermodal Flat Loading Method Side (ICPSC-II)****Permissible Values for B518**

- N No Y Yes

**Inter-Box Securement****B113**

Type of securement device used to connect the upper container to the lower container

**Permissible Values for B113**

- IA IBC Automatic
- IM IBC Manual
- IS IBC Semi-Automatic

**Validation Rule for B113**

- Stack Cars, with an Equipment Type Code (UMET) of S\_\_\_, that have a Built Date (BLDT) or Rebuilt Date (RBDT) on or after April 1, 2016 must report Inter-Box Securement
- Inter-Box Securement cannot not be reported for Light Weight and Conventional Intermodal Cars with Equipment Type Codes (UMET) of Q\_\_\_ and P\_\_\_

**IFLT 20ft Container Lmt****B548**

Indicates the maximum weight 20 foot container that a unit can carry, when all 20 foot container positions on the car are simultaneously loaded with 20 foot containers at their maximum weights

**Permissible Values for B548**

- 0 Not Equipped
- 37500 37,500 lbs.
- 44800 44,800 lbs.
- 52900 52,900 lbs.
- 57500 57,500 lbs.
- 61500 61,500 lbs.
- 64000 64,000 lbs.
- 67200 67,200 lbs.
- 71650 71,650 lbs.
- 75000 75,000 lbs.
- 79370 79,370 lbs.

**Validation Rule for B548**

- IFLT 20 ft Container Lmt must not exceed half the Unit Load Limit (A300) reported.
- IFLT 20 ft Container Lmt should be populated when Single Length Loading Configuration (B288) is listed as DB1, DB2, DB3, DC1, DC2, DC3, DT1, DT2, DT3, DT4, DT5, DT6, PC1, PC2, PT1, PT2, PT3, PT4, PT5, PT6, QB1, QB2, QB3, QC1, QC2, QT1, QT2, QT3, QT4, QT5, QT6, QT7, QT8, SA1, SA2, SA3, SA4, SA5, SA6, SA7, SA8, SA9, SB1, SB2, SB3, SB4, SB5, SB6, SB7, SB8, SB9, SC1, SC2, SC3, SC4, SC5, SC6, SC7, SC8, SC9, SD1, SD2, SD3, SD4, or SD5 and Built/Rebuilt on/after September 20, 2018.

**NOTES:**

- If the desired 20 foot Container Limit is not an available choice, select the closest value that does not exceed your 20 foot Container Limit.
- Listing zero is a permissible value is applicable dependent on the loading configuration
- If your Single Length Load Configuration (B288) states the IFLT is designed to carry 20 foot containers, this element (B548) must be reported using the correct weight value based on equipment owners' specification.

**IFLT 20 Ft Cont Capable****B549**

Identifies if the unit segment is capable of loading 20 foot containers based on the Single Length Loading Configuration (B288)

System Generated Field.

**Permissible Values for B549**

- Y Yes
- N No

**Brake System Components****Emergency Brake Valve CID****B354****Component ID from Component Registry**

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Emergency Valve COTS Date****B567****Brake valve emergency portion recondition date**

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

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**NOTES:**

- Emergency Valve COTS Date is system-generated from a Emergency Brake Valve Inspection.

|                                                                             |             |
|-----------------------------------------------------------------------------|-------------|
| <b>Emergency Valve OEM Warranty Date</b>                                    | <b>B568</b> |
| Brake valve emergency portion Original Equipment Manufacturer warranty date |             |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve OEM Date is system-generated from a Emergency Brake Valve Inspection.

|                                           |             |
|-------------------------------------------|-------------|
| <b>Emergency Valve Part Number</b>        | <b>B569</b> |
| Brake valve emergency portion part number |             |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve Part Number is system-generated from a Emergency Brake Valve Inspection.

|                                      |             |
|--------------------------------------|-------------|
| <b>Service Brake Valve CID</b>       | <b>B357</b> |
| Component ID from Component Registry |             |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

|                                              |             |
|----------------------------------------------|-------------|
| <b>Service Valve COTS Date</b>               | <b>B564</b> |
| Brake valve service portion recondition date |             |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve COTS Date is system-generated from a Service Brake Valve Inspection.

|                                                                           |             |
|---------------------------------------------------------------------------|-------------|
| <b>Service Valve OEM Warranty Date</b>                                    | <b>B565</b> |
| Brake valve service portion Original Equipment Manufacturer warranty date |             |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve OEM Date is system-generated from a Service Brake Valve Inspection.

|                                         |             |
|-----------------------------------------|-------------|
| <b>Service Valve Part Number</b>        | <b>B566</b> |
| Brake valve service portion part number |             |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve Part Number is system-generated from a Service Brake Valve Inspection.

|                                      |             |
|--------------------------------------|-------------|
| <b>Slack Adjuster CID</b>            | <b>B359</b> |
| Component ID from Component Registry |             |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## Miscellaneous

|                                                                                          |             |
|------------------------------------------------------------------------------------------|-------------|
| <b>Umler Effective Date</b>                                                              | <b>EFDT</b> |
| The date the rating activity (pre-registration, modification, etc.) is expected to occur |             |

This element is not eligible for Query. Does not Carry Forward.

**Validation Rule for EFDT**

- Effective Date cannot be set to more than 13 months in the future.

**NOTES:**

- Effective Date will default to the 1st of the following month that equipment is registered

## Inspection

|                                                                |             |
|----------------------------------------------------------------|-------------|
| <b>ABT Due Date (Repair Track)</b>                             | <b>DU13</b> |
| The due date of the air brake test per AAR Field Manual Rule 3 |             |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

|                                                                                          |             |
|------------------------------------------------------------------------------------------|-------------|
| <b>ABT 5-8 Year Due Date</b>                                                             | <b>DU58</b> |
| The 5-8 year due date for the air brake test (ABT) after the ABT Due Date (Repair Track) |             |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

|                                                                                            |             |
|--------------------------------------------------------------------------------------------|-------------|
| <b>Inspection Date Done</b>                                                                | <b>DTDN</b> |
| The date the inspection was completed; used for all inspection types reported on equipment |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Validation Rule for DTDN**

- The inspection date must not be 60 days before the Build Date

|                                                                                          |             |
|------------------------------------------------------------------------------------------|-------------|
| <b>Inspection Due Date</b>                                                               | <b>INDD</b> |
| The due date of the next inspection; used for all inspection types reported on equipment |             |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

|                                                                                             |             |
|---------------------------------------------------------------------------------------------|-------------|
| <b>Inspection Performer</b>                                                                 | <b>PERF</b> |
| The SCAC that completed the inspection; used for all inspection types reported on equipment |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                                            |             |
|--------------------------------------------------------------------------------------------|-------------|
| <b>Inspection Reporter</b>                                                                 | <b>REPT</b> |
| The SCAC that reported the inspection; used for all inspection types reported on equipment |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                                          |             |
|------------------------------------------------------------------------------------------|-------------|
| <b>Location/SPLC</b>                                                                     | <b>SPLC</b> |
| The SPLC of the inspecting location; used for all inspection types reported on equipment |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                             |             |
|-----------------------------|-------------|
| <b>Interior Shear Panel</b> | <b>INSP</b> |
| Interior Shear Panel        |             |

Data is Confidential. This element is not eligible for Input, Output or Query. Does not Carry Forward.

|                                                                      |             |
|----------------------------------------------------------------------|-------------|
| <b>Air Brake Test Device</b>                                         | <b>B523</b> |
| Indicates the type of test device used to perform the Air Brake Test |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Permissible Values for B523**

- A Automatic (Non 4-Pressure)
- M Manual
- P Automatic (4-Pressure)

**Validation Rule for B523**

- Air Brake Test Device (B523) must be reported for Air Brake Test inspection reported on or after December 10, 2020

## Data Specification Manual

|                                              |             |
|----------------------------------------------|-------------|
| <b>Insp Service Valve COTS Date</b>          | <b>B570</b> |
| Brake valve service portion recondition date |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**NOTES:**

- Reports of 9999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMY

|                                                                           |             |
|---------------------------------------------------------------------------|-------------|
| <b>Insp Service Valve OEM Warranty Date</b>                               | <b>B571</b> |
| Brake valve service portion Original Equipment Manufacturer warranty date |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**NOTES:**

- Reports of 999999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMYYY

|                                         |             |
|-----------------------------------------|-------------|
| <b>Insp Service Valve Part Number</b>   | <b>B572</b> |
| Brake valve service portion part number |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                |             |
|------------------------------------------------|-------------|
| <b>Insp Emergency Valve COTS Date</b>          | <b>B573</b> |
| Brake valve emergency portion recondition date |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**NOTES:**

- Reports of 9999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMY

|                                                                             |             |
|-----------------------------------------------------------------------------|-------------|
| <b>Insp Emergency Valve OEM Warranty Date</b>                               | <b>B574</b> |
| Brake valve emergency portion Original Equipment Manufacturer warranty date |             |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Reports of 999999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMYYY

|                                           |             |
|-------------------------------------------|-------------|
| <b>Insp Emergency Valve Part Number</b>   | <b>B575</b> |
| Brake valve emergency portion part number |             |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

|                                                     |             |
|-----------------------------------------------------|-------------|
| <b>Insp Service Valve Location <i>Mandatory</i></b> | <b>B576</b> |
| Brake valve service portion location                | ●           |

. Value does not carry forward for Single Clone / Multi-Clone.

|                                                                                        |             |
|----------------------------------------------------------------------------------------|-------------|
| <b>Insp Emergency Valve Location <i>Mandatory</i></b>                                  | <b>B577</b> |
| Brake valve emergency portion location reported on an emergency brake valve inspection | ●           |

Value does not carry forward for Single Clone / Multi-Clone.

## Data Specification Manual

## Vehicular Flat

|                                  |            |
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Data Specification Manual

## General

**Status Code** *Mandatory* USCD

Identifies the current operational state ●

Does not Carry Forward.

**Permissible Values for USCD**

A ACTIVE I INACTIVE  
P PRE-REGISTERED

**NOTES:**

- For Restencil and Clone process the initial Status of a car should be Pre-Registered.
- All Add-Back processes should initially set the Status to Pre-Registered
- A Pre-registered car will automatically have its Status changed to Active for the initial change when TRAIN detects three (3) movements on the car
- If the Status changes to Active due to movement and the car was created from a Restencil, the Prior Equipment ID (PRID) or source car will have its status changed to Inactive automatically by Umler

**Equipment ID** 0001

The equipment stenciled number

**Validation Rule for 0001**

-Equipment Number must not be larger than 6 digits (i.e., 999999)

**NOTES:**

- Equipment ID includes the mark and number stenciled on the equipment. Marks can be up to 4 characters and number up to 6 digits (i.e., ABCD999999).
- Up to 500 cars can be added or updated in a transaction.
- When adding an equipment record ensure, that Prior Equipment ID (PRID) is reported, unless the equipment is new.

**Mechanical Designation** *Mandatory* UMMD

Equipment description without physical dimensions ●

Used for Transportation Codes.

**Permissible Values for UMMD**

FA Flat-Vehicular  
MWVF MoW - VFlat

**Equipment Type Code** UMET

An alpha numeric code that describes the physical attributes of equipment

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Please Refer to Appendix I for More information Regarding ETC Generation

**Maint of Way Service Type** B403

Identifies equipment Maintenance Of Way function

Value does not carry forward for Equipment Group Change.

**Permissible Values for B403**

C2 Crane / Boom Support Car  
F4 Flat-Wheel Sets  
T4 Training Car  
T8 Track Geometry Car

**Validation Rule for B403**

- Maint of Way Service Type can only be listed on records where the Equipment Group (0002) or Pseudo Equipment Group (B547) is listed as MISC

**Built Date** *Mandatory* BLDT

The date the construction of the equipment is complete ● ●

Data is Confidential. Used for Transportation Codes. Affects Rating. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for BLDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for BLDT**

- Built Date must be within the last 99 years
- Built Date must not be in the future for equipment in Active Status
- Prior and target equipment's Built Date (BLDT) must match for restenciling
- Built Date cannot be updated within 30 days of the End of Service Date (B078)

**NOTES:**

- Data is public for railroad marked equipment.
- For connected unit cars report the oldest car in the set.

**Rebuilt / ILS Date** RBDT

The date the re-construction of the equipment is complete

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for RBDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for RBDT**

- Rebuilt/Increased Life Service Date must be after the Built Date (BLDT)
- Rebuilt Date must not be more than 70 years after the Built Date (BLDT)
- Rebuilt Date is required for Extended Service Code (A096) 1, 2, or 3 for Increased Life Service
- Rebuilt Date is required for Extended Service Code (A096) R for Rebuilt, or V for 65 years of service
- If Rebuilt Date is reported then the Extended Service Code (A096) must be reported as R for Rebuilt, V, 1, 2, or 3 for Increased Life Service

**NOTES:**

- Railroad cars -- applicable only to cars meeting status as provided in both STB Accounting Rules, and the AAR Mechanical Interchange Rule 88, Office Manual.
- Private cars -- applicable to all cars meeting AAR Mechanical Interchange Rule 88, Section C, Office Manual and Sections A and B of the Field Manual.
- For connected unit cars report the oldest car in the set. Do not report Rebuilt Date unless car has been approved by the AAR.

**Rebuilt Flag** RBFL

Identifies the equipment is nearing its end of life cycle

Data is Confidential. System Generated Field. This element is not eligible for Input.

**Permissible Values for RBFL**

N No Y Yes

**Owner** *Mandatory* UMOW

Primary reporting mark of the railroad or private company owning the car ●

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**NOTES:**

- Report the primary reporting mark of the railroad or private company owning the car. When car's lease or lien is held by a bank, trust holder, capital lease company, etc. not having an assigned mark, report the primary reporting mark affiliated with the stenciled reporting mark.

**Equipment Group** *Mandatory* 0002

Identifies the various major car types ● ●

Used for Transportation Codes. Affects Rating.

**Lessee** LESE

The reporting mark of the company leasing the equipment

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**Validation Rule for LESE**

- Umler Owner (UMOW) and Lessee are not allowed to be equal
- Lessee cannot be a reporting child mark

# Data Specification Manual

## NOTES:

- If reported, the reporting mark cannot be equal to the owner or be a family reporting mark.
- In order to assign privately marked cars to a pool, a railroad reporting mark must be reported.

| Maintenance Party                                                                                     | MNPT |
|-------------------------------------------------------------------------------------------------------|------|
| The parent reporting mark of the company responsible for the maintenance and repairs of the equipment |      |
| Does not Carry Forward.                                                                               |      |

| Mark Owner Category                                 | B201 |
|-----------------------------------------------------|------|
| The company that owns the stenciled mark on the car |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

## Permissible Values for B201

|   |                            |
|---|----------------------------|
| B | US Private                 |
| C | Canadian Private           |
| F | Foreign Private            |
| H | Canadian Class II          |
| I | Canadian Class I           |
| J | Mexican Class I            |
| K | Canadian Class III         |
| M | Mexican Private            |
| N | US Private Steamship       |
| O | Canadian Private Steamship |
| P | Mexican Private Steamship  |
| Q | Foreign Private Steamship  |
| R | US Class II Railroad       |
| U | US Class I Railroad        |
| V | US Class III Railroad      |
| W | Mexican Class II Railroad  |
| Y | Mexican Class III Railroad |

## NOTES:

- This value is stored in the Umler Database for informational purposes and is retrieved from the Roadmark Registry.

| Prior Equipment ID                                      | PRID |
|---------------------------------------------------------|------|
| The previous reporting mark and number of the equipment |      |

Value does not carry forward for Single Clone / Multi-Clone.

## Validation Rule for PRID

- Prior and target equipment's Built Date (BLDT) must match
- The Prior Equipment ID (0001) must belong to the same or comparable Equipment Group (0002) as the current car initial and number

## NOTES:

- Prior ID enables equipment records to share the same historical lineage. Equipment Identification Number (EIN) is a generated id that enables these equipment records to share inspections and transaction history.

| Last Update Date                                                | B122 |
|-----------------------------------------------------------------|------|
| Date of the last Umler element change                           |      |
| System Generated Field. This element is not eligible for Input. |      |

| Equipment Add Date                                               | B082 |
|------------------------------------------------------------------|------|
| Date the reporting mark and number was added to the Umler system |      |
| System Generated Field. This element is not eligible for Input.  |      |

| Status Change Reason                                                                    | USCR |
|-----------------------------------------------------------------------------------------|------|
| Identifies the reason for the current operational state                                 |      |
| System Generated Field. This element is not eligible for Input. Does not Carry Forward. |      |

## Permissible Values for USCR

|   |                         |
|---|-------------------------|
| I | Initial Load            |
| M | Movement                |
| O | Status Changed Manually |
| R | Restencil               |

## NOTES:

- If movement is detected on equipment, status is changed to Active.
- If an equipment record is changed to Active, any prior equipment record is placed in Inactive status.

| Status Change Date                                             | USCT |
|----------------------------------------------------------------|------|
| Identifies the effective date of the current operational state |      |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

| Extended Service                                                   | Mandatory | A096 |
|--------------------------------------------------------------------|-----------|------|
| A code indicating the eligibility of an increase to the life cycle |           | ●    |

Used for Transportation Codes. Value does not carry forward for Single Clone / Multi-Clone.

## Permissible Values for A096

|   |                                                                                                                                           |
|---|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | 1st ILS Inspection, additional 5 years of Service                                                                                         |
| 2 | 2nd ILS Inspection, additional 5 years of service (10 years total)                                                                        |
| 3 | 3rd ILS Inspection, additional 5 years of service (15 years total)                                                                        |
| C | Built New between January 1, 1964 - June 30, 1974, Certified for 50 Years of Service, Built New Before July 1, 1974 & Received AAR Waiver |
| E | Built new from July 1, 1974, Qualified for 50 Years Service                                                                               |
| N | Built Before January 1, 1964, Qualified for 40 Years Service                                                                              |
| R | Rule 88, Rebuilt cars                                                                                                                     |
| U | Built between January 1, 1964 - June 30, 1974, Qualified for 40 Years & eligible for certification for 50 Years Service                   |
| V | Car is certified (FRA Waiver & AAR) for 65 years of service from date built new from January 1, 1964                                      |

## Validation Rule for A096

- If Rebuilt Date (RBDT) is reported, then the Extended Service Code (A096) must be reported as R for Rebuilt, V, 1, 2, or 3 for Increased Life Service
- Extended Service Code of C cannot be reported if the car was built before January 1, 1964 or on/after July 1, 1974
- Extended Service Code of E cannot be reported if the car was built before July 1, 1974
- Extended Service Code of N cannot be reported if the car was built on/after January 1, 1964
- Extended Service Code of U cannot be reported if the car was built before January 1, 1964 or on/after July 1, 1974

## NOTES:

- Value is used to calculate End of Service Date (B078).
- Rebuilt Date (RBDT) is required for Extended Service Code (A096) R for Rebuilt, or V for 65 years service.
- Rebuilt Date (RBDT) is required for Extended Service Code (A096) 1, 2, 3, and V for Increased Life Service.

| End of Service Date                             | B078 |
|-------------------------------------------------|------|
| Indicates the date of the end of equipment life |      |

Data is Confidential. System Generated Field. This element is not eligible for Input.

## NOTES:

Data becomes non-confidential two years prior to End of Service Date.

| Do Not Load After                                              | B590 |
|----------------------------------------------------------------|------|
| Equipment should not be loaded after date shown in the element |      |

Data is Confidential.

## Validation Rules for B590

- Do Not Load After (B590) cannot be updated thirty days prior to the date shown in the element.

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- Do Not Load After (B590) cannot be updated within thirty days of the End of Service Date (B078).
- Do Not Load After (B590) date cannot be on or after the End of Service (B078) date.

**NOTES:**

- The element will be initially populated by End of Service (B078) minus 30 days.
- Data becomes non-confidential thirty days prior to the Do Not Load After (B590) date.

| Equipment Identification                                 | EINN |
|----------------------------------------------------------|------|
| Unique equipment identifier regardless of stenciled mark |      |

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Specify the Prior ID (PRID) on equipment records to ensure the historical lineage is preserved. Equipment with the same EIN share history and inspections.

| Info Conflict Status                                                    | B355 |
|-------------------------------------------------------------------------|------|
| Indicates that an Informational Conflict exists on the Equipment record |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

| Conflict Status                                                 | B050 |
|-----------------------------------------------------------------|------|
| Identifies the escalation level of equipment in active conflict |      |

System Generated Field. Affects Rating. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B050**

- 1 Subject to Zero-Rating
- 2 Subject to Restricted in Interchange
- 3 Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

| Date of Original Conflict                                            | B063 |
|----------------------------------------------------------------------|------|
| The date the equipment was originally placed in the current conflict |      |

System Generated Field. This element is not eligible for Input.

| Next Conflict Status                                                    | B135 |
|-------------------------------------------------------------------------|------|
| Identifies the next escalation level of an equipment in active conflict |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B135**

- 1 Subject to Zero-Rating
- 2 Subject to Restricted in Interchange
- 3 Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

| Notice Indicator                                         | B137 |
|----------------------------------------------------------|------|
| Identifies equipment in error in Umler Notice Management |      |

System Generated Field. This element is not eligible for Input.

| Conflict Status Next Date                      | B062 |
|------------------------------------------------|------|
| The date the conflict status will be escalated |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

| Rate Indicator                                 | A070 |
|------------------------------------------------|------|
| Indicates the rate type applicable to the unit |      |

System Generated Field. Used for Transportation Codes. Affects Rating. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for A070**

- 0 Zero-Rated Due to Conflict Errors
- 2 Private Mileage Rate
- 4 Private Car Owner Designated Rate
- 6 Zero-Rated - Scrap (S\_SX), AAR Overage (XA), FRA Overage (YA), Umler Conflict - CHR 1/Tariff 6007 (XZ). Zero-Rated Private Owner Election to Zero Rate [See Private Zero Rate (B150)].
- M Railroad Market Rate
- Q Zero-Rated Railroad Market Rate Due to Conflict Errors

**NOTES:**

- If unit is zero-rated, correction of conflicts will reinstate the appropriate rate indicator code.

| Private Zero Rate                                                                     | B150 |
|---------------------------------------------------------------------------------------|------|
| Indicates a private car is subject to contractual agreement, nullifying mileage rates |      |

Affects Rating.

**Permissible Values for B150**

- Y Yes

**NOTES:**

- Reporting "Y" generates Rate Indicator (A070) value 6 and a zero rate.

| TTX Hourly Rate                                   | B212 |
|---------------------------------------------------|------|
| Time Charge-The TTX hourly rate for the equipment |      |

Data is Confidential. This element is not eligible for Query.

**Range of Values for B212**

| Minimum | Maximum |
|---------|---------|
| 0       | 9       |

**Validation Rule for B212**

-TTX Hourly rate can only be set on TTX owned Equipment.

| TTX Mileage Rate                                      | B213 |
|-------------------------------------------------------|------|
| Mileage Charge-The TTX mileage rate for the equipment |      |

Data is Confidential. This element is not eligible for Query.

**Range of Values for B213**

| Minimum | Maximum |
|---------|---------|
| 0       | 1       |

**Validation Rule for B213**

-TTX Mileage rate can only be set on TTX owned Equipment.

| First Movement Date                                               | USAT |
|-------------------------------------------------------------------|------|
| The first movement date under the stenciled mark of the equipment |      |

This element is not eligible for Input. Does not Carry Forward.

| Equipment Add Company                                      | B083 |
|------------------------------------------------------------|------|
| The reporting mark of the company that added the equipment |      |

System Generated Field. This element is not eligible for Input.

| Registration Reason                                    | B174 |
|--------------------------------------------------------|------|
| The code indicating the reason this equipment is added |      |

Does not Carry Forward.

**Permissible Values for B174**

- |   |                   |   |           |
|---|-------------------|---|-----------|
| A | Add-Back          | N | New       |
| P | Pending Restencil | R | Restencil |

| Restencil Program Ind                                 | B177 |
|-------------------------------------------------------|------|
| Identifies the equipment is under a restencil program |      |

**Permissible Values for B177**

- Y Yes

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| Delete Reason Code                                               | B064 |
|------------------------------------------------------------------|------|
| A code that designates the reason the equipment has been deleted |      |

Value does not carry forward for Add Back.

**Permissible Values for B064**

|   |                                              |
|---|----------------------------------------------|
| A | Restenciled                                  |
| D | Destroyed or wrecked                         |
| L | Lease terminated, removed from fleet         |
| P | Retired unserviceable beyond economic repair |
| R | Rebuilt                                      |
| S | Sold Serviceable                             |
| T | Lost                                         |
| W | Over age retired for dismantling             |
| Y | Error, reporting did not exist               |
| Z | Other                                        |

| Non-Compliant Wheelsets                                                                                                                         | B544 |
|-------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Equipment record is incomplete and has a missing wheelset component ID association. Refer to AAR Field Manual Rule 44 for industry requirements |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B544**

- A Wheelset Component ID is required for each applicable location on equipment built on or after January 1, 2016
- A Wheelset Component ID is required for each applicable location on equipment rebuilt on or after January 1, 2016 and Gross Rail Load (A266) is greater than 268,000 lbs

**NOTES:**

- A "Y" will be system generated if the equipment is active and the number of Wheelset CID's required is not equal to the Axle Count (A024) on the equipment
- Validation rule applies to equipment that has been in Active status for 60 days

| Pseudo Equipment Group                                                                                                           | B547 |
|----------------------------------------------------------------------------------------------------------------------------------|------|
| Equipment needs to be identified as a miscellaneous record while maintaining all elements linked to the original equipment group |      |

System Generated Field.

**Permissible Values for B547**

|      |               |
|------|---------------|
| MISC | Miscellaneous |
|------|---------------|

## Weight

| Gross Rail Load/Weight <i>Mandatory</i>                                                  | A266 |
|------------------------------------------------------------------------------------------|------|
| The maximum permissible weight on rail of the equipment and the load, reported in pounds |      |

Affects Rating.

**Range of Values for A266**

| Minimum | Maximum |
|---------|---------|
| 157000  | 2835000 |

**Validation Rule for A266**

-Gross Rail Load must be equal to the Load Limit (LDLT) plus the Tare Weight (A259)

**NOTES:**

Use Table 1 below to determine Gross Rail Load, if Qualification for Increased Gross Rail Load (B344) does not exist.

TABLE 1 -

| Journal Size                   | Load per Axle | Gross Rail Load for 4-axle Equipment |
|--------------------------------|---------------|--------------------------------------|
| B - 4 1/2" x 8"                | 25,750 lbs.   | 103,000 lbs.                         |
| C - 5" x 9"                    | 35,500 lbs.   | 142,000 lbs.                         |
| D - 5 1/2" x 10"               | 44,250 lbs.   | 177,000 lbs.                         |
| E - 6" x 11" (w/28" 1W wheels) | 48,750 lbs.   | 195,000 lbs.                         |

|                                   |             |              |
|-----------------------------------|-------------|--------------|
| E - 6" x 11" (w/all other wheels) | 55,000 lbs. | 220,000 lbs. |
| F - 6 1/2" x 12"                  | 65,750 lbs. | 263,000 lbs. |
| G - 7" x 12"                      | 78,750 lbs. | 315,000 lbs. |
| K - 6 1/2" x 9"                   | 71,500 lbs. | 263,000 lbs. |
| M - 7" x 9"                       | 78,750 lbs. | 315,000 lbs. |

Use Table 2 below to determine Gross Rail Load for 4-axle equipment if Qualification for Increased Gross Rail Load (B344) exists.

TABLE 2 -

| Qualification for Increased Gross Rail Load (B344) | Journal Size     | Gross Rail Load |
|----------------------------------------------------|------------------|-----------------|
| 1                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 1                                                  | G - 7" x 12"     | 286,000 lbs.    |
| 1                                                  | M - 7" x 9"      | 286,000 lbs.    |
| 2                                                  | F - 6 1/2" x 12" | 286,000 lbs.    |
| 2                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 3                                                  | F - 6 1/2" x 12" | 268,000 lbs.    |
| 3                                                  | K - 6 1/2" x 9"  | 268,000 lbs.    |

- For multi-unit equipment, report the total gross rail load for the entire set.
- Refer to Field Manual Rule 70 if additional information is required.

A Gross Rail Load less than the listed or calculated values may be entered; however:

- Star Code (A247) must be R or S, and
- Load Limit (LDLT) must also be reduced, ensuring Tare Weight (A259) plus Load Limit (LDLT) equals the reported Gross Rail Load.

For equipment having two or more different journal sizes, see following examples:

Example for Drawbar Connected:

- A 3-unit drawbar connected car has 12 axles.
- The end units (Locations A and B) each have 4 axles with E - 6" x 11" journals.
- The intermediate unit (Locations C) has 4 axles with F - 6 1/2" x 12" journals

Using TABLE 1, the Gross Rail Load would be:

$$8 \text{ ea. E-6" x 11" journal axles X } 55,000 \text{ lbs. per axle} = 440,000 \text{ lbs.}$$

$$+ 4 \text{ ea. F-6 1/2" x 12" journal axles X } 65,750 \text{ lbs. per axle} = 263,000 \text{ lbs.}$$

$$\text{Gross Rail Load} = 703,000 \text{ lbs.}$$

Example for Articulated Connected:

- A 5-unit articulated intermodal car has 6 trucks (12 axles).
- The end trucks (Locations A and B) each have 2 axles with E - 6" x 11" journals.
- The intermediate trucks (Locations C, D, E, and F) each have 2 axles with G - 7" x 12" journals

Using TABLE 1, the Gross Rail Load would be:

$$4 \text{ ea. E-6" x 11" journal axles X } 55,000 \text{ lbs. per axle} = 220,000 \text{ lbs.}$$

$$+ 8 \text{ ea. G-7" x 12" journal axles X } 78,750 \text{ lbs. per axle} = 630,000 \text{ lbs.}$$

$$\text{Gross Rail Load} = 850,000 \text{ lbs.}$$

| Tare Weight <i>Mandatory</i>                                                                       | A259 |
|----------------------------------------------------------------------------------------------------|------|
| The equipment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds |      |

Affects Rating.

**Range of Values for A259**

| Minimum | Maximum |
|---------|---------|
| 70000   | 1224000 |

**Validation Rule for A259**



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- Tare Weight (A259) of VFLT with a blank Connected Unit Count (A020) must contain values between 70000 lbs. and 136000 lbs.
- Tare Weight (A259) of VFLT where Connected Unit Count (A020) is 2 must contain values between 130000 lbs. and 272000 lbs.
- Tare Weight (A259) of VFLT where Connected Unit Count (A020) is 3 must contain values between 210000 lbs. and 408000 lbs.
- Tare Weight (A259) of VFLT where Connected Unit Count (A020) is 4 must contain values between 280000 lbs. and 544000 lbs.
- Tare Weight (A259) of VFLT where Connected Unit Count (A020) is 5 must contain values between 350000 lbs. and 680000 lbs.
- Tare Weight (A259) of VFLT where Connected Unit Count (A020) is 6 must contain values between 420000 lbs. and 816000 lbs.
- Tare Weight (A259) of VFLT where Connected Unit Count (A020) is 7 must contain values between 490000 lbs. and 952000 lbs.
- Tare Weight (A259) of VFLT where Connected Unit Count (A020) is 8 must contain values between 560000 lbs. and 1088000 lbs.
- Tare Weight (A259) of VFLT where Connected Unit Count (A020) is 9 must contain values between 630000 lbs. and 1224000 lbs.
- Tare Weight (A259) value must be reported to the nearest 100 pounds

**NOTES:**

- Do not report an average Tare Weight for car series, except for Pre-Registered cars
- When cars are made active, the actual Tare Weight must be recorded
- For current single-unit VFLTs, lowest tare weight is 70,000 lbs. Largest tare weight is 136,000lbs. Maximum permissible value shown above is 136,000 lbs. X 9 = 1,224,000 lbs.

| Load Limit <i>Mandatory</i>                                                                               | LDLT |
|-----------------------------------------------------------------------------------------------------------|------|
| The maximum permissible weight of the commodity that can be loaded into the equipment, reported in pounds |      |

Affects Rating.

**Range of Values for LDLT**

| Minimum | Maximum |
|---------|---------|
| 50000   | 650000  |

**Validation Rules for LDLT**

- Load Limit (LDLT) of VFLT with a blank Connected Unit Count (A020) must contain values between 50000 lbs. and 150000 lbs.
- Load Limit (LDLT) of VFLT where Connected Unit Count (A020) is 2 must contain values between 80000 lbs. and 300000 lbs.
- Load Limit (LDLT) of VFLT where Connected Unit Count (A020) is 3 must contain values between 150000 lbs. and 450000 lbs.
- Load Limit (LDLT) of VFLT where Connected Unit Count (A020) is 4 must contain values between 200000 lbs. and 600000 lbs.
- Load Limit (LDLT) of VFLT where Connected Unit Count (A020) is 5 must contain values between 250000 lbs. and 750000 lbs.
- Load Limit (LDLT) of VFLT where Connected Unit Count (A020) is 6 must contain values between 300000 lbs. and 900000 lbs.
- Load Limit (LDLT) of VFLT where Connected Unit Count (A020) is 7 must contain values between 350000 lbs. and 1050000 lbs.
- Load Limit (LDLT) of VFLT where Connected Unit Count (A020) is 8 must contain values between 400000 lbs. and 1200000 lbs.
- Load Limit (LDLT) of VFLT where Connected Unit Count (A020) is 9 must contain values between 450000 lbs. and 1350000 lbs.

**NOTES:**

- For connected unit cars report the sum of the load limits for all units in the set.
- For current single-unit VFLTs, lowest load limit is 50,500 lbs. (rounded down to 50,000). Largest load limit is 150,000 lbs. Maximum permissible value shown above is 150,000 lbs. X 9 = 1,350,000 lbs.

| Weighing Status <i>Mandatory</i>                                         | A289 |
|--------------------------------------------------------------------------|------|
| Indicates the weight information is an estimate or an actual measurement |      |

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A289**

- A Actual
- E Estimated
- V Verified correct Tare Weight
- X Tare Weight subject to verification (System Generated)

**Validation Rule for A289**

- Equipment cannot be within a series of 10 with identical Tare Weights (A259), refer to Appendix P for further information on resolving tare weight conflicts
- When Status Code changes to Active or Inactive Weighing Status must be reported as Actual (A) or Verified (V) within 60 days of Status Code change

| Weighing Date                               | A288 |
|---------------------------------------------|------|
| The date the equipment was actually weighed |      |

Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A288**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for A288**

- If Weighing Date is reported the Tare Weight (A259) must be reported
- When Weighing Date is reported then Weighing Status (A289) must be A (Actual) or V (Verified)
- If Weighing Status (A289) is A (Actual) or V (Verified correct Tare Weight) then Weighing Date must be reported
- Weighing Date must be on or before the current date
- Weighing Date cannot be before Built / Rebuilt date

| Star Code                                                                       | A247 |
|---------------------------------------------------------------------------------|------|
| Indicates a reduction of the Load Limit (LDLT) of the equipment per AAR Rule 70 |      |

Affects Rating.

**Permissible Values for A247**

- R Body Capacity less than Truck Capacity
- S Reduced Load Limit

**NOTES:**

- Equipment having Qualification for Increased Rail Load of 1 or 2, and a Gross Rail Load (A266) less than 286,000 lbs., must have Star Code (A247) of S.
- Equipment having Qualification for Increased Gross Rail Load (B344) of 3, and a Gross Rail Load (A266) less than 268,000 lbs., must have Star code of S.
- Star Code must be reported if Gross Rail Load (A266) is less than the maximum gross rail load allowed for the reported combination of Axle Count (A024) and Journal Size (A147).

| Qual for Inc GRL                                                                                                           | B344 |
|----------------------------------------------------------------------------------------------------------------------------|------|
| Code designating AAR approval for operating 4-axle equipment at a gross rail load greater than 263,000 lbs per AAR Rule 88 |      |

**Permissible Values for B344**

- Rule 88 IGRL Code 1 (> 263,000 lbs. and <= 286,000 lbs. GRL per AAR Specification S-286)
- Rule 88 IGRL Code 2 (> 263,000 lbs. and <= 286,000 lbs. GRL)
- Rule 88 IGRL Code 3 (> 263,000 lbs. and <= 268,000 lbs. GRL)

**Validation Rules for B344**

- Equipment having Qualification for Increased Gross Rail Load of 1 or 2 must have a Gross Rail Load (A266) that does not exceed 286,000 lbs.
- Equipment having Qualification for Increased Gross Rail Load of 3 must have a Gross Rail Load (A266) that does not exceed 268,000 lbs.
- Equipment having Qualification for Increased Gross Rail Load of 1 must have a Journal Size (A147) of K, G, or M
- Equipment having Qualification for Increased Rail Load of 2 or 3 must have a Journal Size (A147) of F or K

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- Equipment having Qualification for Increased Gross Rail Load of 1, 2, or 3 must have a Wheel Diameter (A294) of 36 or 38
- Equipment having Qualification for Increased Gross Rail Load (B344) of 3 and a Gross Rail Load (A266) less than 268,000 lbs., must have Star Code of S

## Dimension

**Plate Code *Mandatory*** **A046**

Indicates the extreme height and width clearance of the equipment ●●

Affects Rating.

**Permissible Values for A046**

J Plate Code J K Plate Code K  
G Clearance Code G

**NOTES:**

- For ARTICULATED/MULTI-UNIT SET report the most restrictive clearance plate of UNIT in the set.

**Outside Length *Mandatory*** **OSLG**

The outside length over pulling faces of couplers in normal position ●●

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for OSLG**

| Minimum        | Maximum         |
|----------------|-----------------|
| 86 ft 2 inches | 854 ft 3 inches |

**Validation Rule for OSLG**

- Outside Length (OSLG) on freight cars must exceed the Inside Length (A135) by 2 feet or more
- If Axle Count (A024) is 4, then Outside Length must not exceed Inside Length (A135) by more than 24 feet
- Outside Length (OSLG) of VFLT with a blank Connected Unit Count (A020) must contain values between 86 feet 2 inches and 94 feet 11 inches
- Outside Length (OSLG) of VFLT where Connected Unit Count (A020) is 2 must contain values between 172 feet 4 inches and 189 feet 4 inches
- Outside Length (OSLG) of VFLT where Connected Unit Count (A020) is 3 must contain values between 258 feet 6 inches and 284 feet 9 inches
- Outside Length (OSLG) of VFLT where Connected Unit Count (A020) is 4 must contain values between 344 feet 8 inches and 379 feet 8 inches
- Outside Length (OSLG) of VFLT where Connected Unit Count (A020) is 5 must contain values between 430 feet 10 inches and 474 feet 7 inches
- Outside Length (OSLG) of VFLT where Connected Unit Count (A020) is 6 must contain values between 517 feet 0 inches and 569 feet 6 inches
- Outside Length (OSLG) of VFLT where Connected Unit Count (A020) is 7 must contain values between 603 feet 2 inches and 664 feet 5 inches
- Outside Length (OSLG) of VFLT where Connected Unit Count (A020) is 8 must contain values between 689 feet 4 inches and 759 ft 4 inches
- Outside Length (OSLG) of VFLT where Connected Unit Count (A020) is 9 must contain values between 775 feet 6 inches and 854 feet 3 inches

**NOTES:**

- For connected unit cars report the maximum coupled length of the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

**Outside Extreme Width *Mandatory*** **A186**

The outside extreme width of the equipment ●●

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A186**

| Minimum       | Maximum        |
|---------------|----------------|
| 9 ft 6 inches | 10 ft 8 inches |

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Outside Extreme Height *Mandatory*** **A185**

Height from top of rail to extreme projecting height ●●▲

Used in ETC Generation. Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A185**

| Minimum       | Maximum        |
|---------------|----------------|
| 2 ft 0 inches | 22 ft 6 inches |

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Outside Height Extr Width *Mandatory*** **A187**

The highest point at which the extreme width of the equipment occurs ●

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A187**

| Minimum       | Maximum        |
|---------------|----------------|
| 1 ft 0 inches | 20 ft 0 inches |

**Validation Rule for A187**

- Outside Extreme Width (A186) for Plate Code J must not exceed 10 feet 8 inches if Outside Height Extreme Width is 16 feet 4 inches or less
- Outside Extreme Width (A186) for Plate Code K must not exceed 10 feet 8 inches if Outside Height Extreme Width is 18 feet 5 inches or less

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Inside Length** **A135**

The inside length of the equipment from end to end inside walls, linings, and permanent bulkheads

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A135**

| Minimum        | Maximum         |
|----------------|-----------------|
| 69 ft 0 inches | 145 ft 0 inches |

**Validation Rule for A135**

- Inside Length must be at least 42 inches less than Outside Length (OSLG)
- If Connected Unit Count (A020) is not reported, Inside Length of Vehicular Flat must be less than or equal to 99 feet 3 inches
- If Connected Unit Count (A020) is reported, and Intermediate Conn Style (B115) is "A – Articulated", the Inside Length of Vehicular Flat must be greater than or equal to 139 feet 0 inches

**NOTES:**

- Round fraction to the lower inch, e.g., 05 1/4" = 05"
- For connected unit cars report the shortest dimension of a unit in the set.

**Inside Width** **A138**

The inside width of the equipment from side walls and linings

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A138**

| Minimum       | Maximum        |
|---------------|----------------|
| 4 ft 0 inches | 12 ft 6 inches |

**Validation Rule for A138**

-Inside Width/Inside Platform Width must not exceed Outside Extreme Width

**NOTES:**

- For connected unit cars report the shortest dimension of a unit in the set.

**Inside Height** **A133**

The inside height of the equipment from the floor to the top of the side, or to the lowest point of the interior ceiling

Value does not carry forward for Equipment Group Change.

**Range of Values for A133**

| Minimum | Maximum |
|---------|---------|
| 12      | 169     |

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## NOTES:

- For connected unit cars report the shortest dimension of a unit in the set.

|                                                         |             |
|---------------------------------------------------------|-------------|
| <b>Truck Center Length</b>                              | <b>A276</b> |
| The length between the centers of the two truck systems |             |

Affects Rating. Displayed in feet and inches on the Web. Stored in inches.

## Range of Values for A276

| Minimum        | Maximum         |
|----------------|-----------------|
| 15 ft 0 inches | 76 ft 11 inches |

## Validation Rule for A276

- Truck Center Length is required for cars with an Outside Length of greater than 62 feet 6 inches
- Truck Center Length must be a minimum of 15 feet for cars with an Outside Length greater than 62 feet 6 inches

## NOTES:

- For connected unit cars report the dimension of the largest unit in the set.

|                                                        |             |
|--------------------------------------------------------|-------------|
| <b>Platform Hght Above Rail</b> <i>Mandatory</i>       | <b>A192</b> |
| Describes the platform height above the rail in inches |             |

Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

## Range of Values for A192

| Minimum       | Maximum       |
|---------------|---------------|
| 1 ft 3 inches | 6 ft 0 inches |

## Validation Rule for A192

- Platform Height cannot be greater than Outside Height

## NOTES:

- EXCEPTIONS: For bi-level and tri-level flat cars, measurement is from top of rail to top of floor of lower deck. Feet in Pos. 45-46, inches in Pos. 47-48. Round fraction to the higher inch, e.g., 05 1/4" = 06. This field must agree relationally for V\_\_\_ Equipment Type Codes and P\_\_\_.

|                               |                                  |
|-------------------------------|----------------------------------|
| P___                          | MINIMUM—1ft 1in MAXIMUM—4ft 9in  |
| Q___                          | MINIMUM—10in MAXIMUM—4ft         |
| S___                          | MINIMUM—10in MAXIMUM—4ft         |
| All F___ except F_3_ and F_6_ | MINIMUM—2ft MAXIMUM—5ft 11in     |
| All F_3_, F_6_ and F_9_       | MINIMUM—2ft MAXIMUM—8ft 11in     |
| Q8__                          | MINIMUM—2ft 6in MAXIMUM—5ft      |
| P1__, P2__, P5__, P6__        | MINIMUM—2ft MAXIMUM—3ft 3in      |
| P3__, P4__, P7__, P8__        | MINIMUM—3ft 4in MAXIMUM—5ft 11in |
| P9__                          | MINIMUM—3ft 2in MAXIMUM—3ft 2in  |
| Q_1_                          | MINIMUM—2ft MAXIMUM—2ft 8in      |

See diagram below for place of measurement on depressed cars (Equipment Type Code F\_3\_, F\_9\_) and well cars (Equipment Type Code F\_6\_).

## Door

|                                                                             |             |
|-----------------------------------------------------------------------------|-------------|
| <b>Anti-Pilferage Locking</b>                                               | <b>B016</b> |
| Indicates that the doors are equipped with an anti-pilferage locking device |             |

Value does not carry forward for Equipment Group Change.

## Permissible Values for B016

Y Yes

## Specification

|                                             |             |
|---------------------------------------------|-------------|
| <b>Truck Count</b>                          | <b>B256</b> |
| The total number of trucks on the equipment |             |

System Generated Field. This element is not eligible for Input.

## Range of Values for B256

Minimum | Maximum

2 | 18

|                                            |             |
|--------------------------------------------|-------------|
| <b>Axle Count</b> <i>Mandatory</i>         | <b>A024</b> |
| The total number of axles on the equipment |             |

Affects Rating.

## Range of Values for A024

| Minimum | Maximum |
|---------|---------|
| 4       | 36      |

## Validation Rule for A024

- Axle Count must be greater than or equal to 4
- Axle Count for an articulated car must be greater than or equal to ((Connected Unit Count (A020) x 2) + 2)
- Axle Count for a draw bar connected car must be greater than or equal to (Connected Unit Count (A020) x 4)
- Total Axle Count must match sum of truck axle counts

## NOTES:

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

|                                                              |             |
|--------------------------------------------------------------|-------------|
| <b>Wheel Bearing Type</b> <i>Mandatory</i>                   | <b>B191</b> |
| Indicates the wheel bearing journal design for the equipment |             |

Affects Rating.

## Permissible Values for B191

P Plain R Roller

## Validation Rule for B191

- Cars with Plain Bearings will have a Transportation Code (TCOD) and Transportation Condition Code (TCCD) of either YA, S\_, SX, or XJ
- Equipment cannot have Plain Bearings if Built Date (BLDT) is on or after January 1, 1993

## NOTES:

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

|                                                                          |             |
|--------------------------------------------------------------------------|-------------|
| <b>Bearing Shielded From HBD</b>                                         | <b>B021</b> |
| Indicates the wheel bearings are shielded from wayside hot box detectors |             |

## Permissible Values for B021

Y Yes

|                                                   |             |
|---------------------------------------------------|-------------|
| <b>Brake Shoe Type</b> <i>Mandatory</i>           | <b>B026</b> |
| Indicates the type of brake shoe on the equipment |             |

## Permissible Values for B026

C Tread Conditioning  
H High Friction Composite  
L Low Friction Composite/Cast Iron

|                                                                                             |             |
|---------------------------------------------------------------------------------------------|-------------|
| <b>CC Side Bearing Type</b>                                                                 | <b>A146</b> |
| Indicates the travel range of the constant contact side bearings installed on the equipment |             |

## Permissible Values for A146

LC Long Travel Constant Contact  
SC Short Travel Constant Contact

## Validation Rule for A146

- Equipment having Qualification for Increased Gross Rail Load (B344) of 1 must have Constant Contact Side Bearing Type of LC

|                                                                                                                                                        |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Empty/Load Device Eqpd</b>                                                                                                                          | <b>B075</b> |
| Indicates that the air brake system includes a device to determine if the equipment is empty or loaded, and then varies the braking forces accordingly |             |

## Permissible Values for B075

Y Yes

|                                |             |
|--------------------------------|-------------|
| <b>Center of Gravity Empty</b> | <b>A045</b> |
|--------------------------------|-------------|

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|                                                                                                                                                                                                    |   |                       |   |   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------------|---|---|
| When empty, indicates the height from Top of Rail to the Center of Gravity                                                                                                                         |   |                       |   |   |
| Range of Values for A045                                                                                                                                                                           |   |                       |   |   |
| Minimum                                                                                                                                                                                            |   | Maximum               |   |   |
| 22                                                                                                                                                                                                 |   | 98                    |   |   |
| Validation Rule for A045                                                                                                                                                                           |   |                       |   |   |
| -All cars that exceed Plate Code (A046) C must report Center of Gravity Empty except for cars with Equipment Type Code (UMET) of J_ _ _                                                            |   |                       |   |   |
| Remote Monitoring DeviceB176                                                                                                                                                                       |   |                       |   |   |
| Indicates the equipment has a device that transmits a signal or records data                                                                                                                       |   |                       |   |   |
| Permissible Values for B176                                                                                                                                                                        |   |                       |   |   |
| Y                                                                                                                                                                                                  |   | Yes                   |   |   |
| N                                                                                                                                                                                                  |   | No                    |   |   |
| NOTES:                                                                                                                                                                                             |   |                       |   |   |
| • Per AAR S-2045, This may be data related to ride quality, geographic location, temperature/condition of the load, load/empty status, etc.                                                        |   |                       |   |   |
| AEI High Temperature TagB006                                                                                                                                                                       |   |                       |   |   |
| Indicates the equipment is equipped with a high temperature AEI tag                                                                                                                                |   |                       |   |   |
| Permissible Values for B006                                                                                                                                                                        |   |                       |   |   |
| Y                                                                                                                                                                                                  |   | High Temperature Tag  |   |   |
| Connected Unit CountA020                                                                                                                                                                           |   |                       |   |   |
| Indicates the number of units within an articulated or multi-unit equipment                                                                                                                        |   |                       |   |   |
| <div><div></div><div></div></div>                                                                                                                                                                  |   |                       |   |   |
| Used in ETC Generation. Affects Rating.                                                                                                                                                            |   |                       |   |   |
| Range of Values for A020                                                                                                                                                                           |   |                       |   |   |
| Minimum                                                                                                                                                                                            |   | Maximum               |   |   |
| 2                                                                                                                                                                                                  |   | 45                    |   |   |
| Validation Rule for A020                                                                                                                                                                           |   |                       |   |   |
| -Connected Unit Count must equal the number of Unit Segments                                                                                                                                       |   |                       |   |   |
| -Unit Segment Component elements must not be reported if the Connected Unit Count is not reported                                                                                                  |   |                       |   |   |
| -Unit Segment Component elements must be reported if Connected Unit Count is reported                                                                                                              |   |                       |   |   |
| Intermediate Conn StyleB115                                                                                                                                                                        |   |                       |   |   |
| Indicates the method by which two or more pieces of equipment are connected                                                                                                                        |   |                       |   |   |
| Permissible Values for B115                                                                                                                                                                        |   |                       |   |   |
| A                                                                                                                                                                                                  |   | Articulated Connector |   |   |
| D                                                                                                                                                                                                  |   | Drawbar Connector     |   |   |
| Validation Rule for B115                                                                                                                                                                           |   |                       |   |   |
| -Intermediate Connector Style is required for multi-unit equipment                                                                                                                                 |   |                       |   |   |
| -Intermediate Connector Style must not be reported for single unit equipment                                                                                                                       |   |                       |   |   |
| Operating BrakesMandatoryA182                                                                                                                                                                      |   |                       |   |   |
| The number of air brake control valves on the equipment (excludes hand brakes). One control valve consists of a service portion, emergency portion, and pipe bracket. Example: DB-60 control valve |   |                       |   |   |
| Permissible Values for A182                                                                                                                                                                        |   |                       |   |   |
| 1                                                                                                                                                                                                  | 2 | 3                     | 4 | 5 |
| 6                                                                                                                                                                                                  | 7 | 8                     | 9 |   |
| Validation Rule for A182                                                                                                                                                                           |   |                       |   |   |
| -Operating Brakes can only be reported for articulated equipment                                                                                                                                   |   |                       |   |   |
| -Operating Brakes are required for articulated equipment                                                                                                                                           |   |                       |   |   |
| -Operating Brakes (A182) must be 1 for non-articulated equipment with an Axle Count (A024) equal to 4                                                                                              |   |                       |   |   |
| NOTES:                                                                                                                                                                                             |   |                       |   |   |
| • Excludes empty/load device, number 8 vent valve, and proportion valve.                                                                                                                           |   |                       |   |   |
| ECP Brake TypeB327                                                                                                                                                                                 |   |                       |   |   |
| Indicates the type of electronic controlled pneumatic brake used on the                                                                                                                            |   |                       |   |   |

|                                                                                                                                                            |                                |                                                                                     |            |   |         |   |         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------------------------------------------------------------------------------------|------------|---|---------|---|---------|
| equipment                                                                                                                                                  |                                |  |            |   |         |   |         |
| <b>Permissible Values for B327</b>                                                                                                                         |                                |                                                                                     |            |   |         |   |         |
| N                                                                                                                                                          | Not Equipped                   |                                                                                     |            |   |         |   |         |
| O                                                                                                                                                          | Overlay - Both ECP & Air Brake |                                                                                     |            |   |         |   |         |
| S                                                                                                                                                          | Stand Alone - ECP Only         |                                                                                     |            |   |         |   |         |
| <b>Validation Rule for B327</b>                                                                                                                            |                                |                                                                                     |            |   |         |   |         |
| -Equipment must have a value entered for ECP Brake Type if built or rebuilt after June 28, 2012                                                            |                                |                                                                                     |            |   |         |   |         |
| <b>ECP Brake Builder</b>                                                                                                                                   |                                | <b>B328</b>                                                                         |            |   |         |   |         |
| The manufacturer of the electronic controlled pneumatic brake used on the equipment                                                                        |                                |                                                                                     |            |   |         |   |         |
| <b>Permissible Values for B328</b>                                                                                                                         |                                |                                                                                     |            |   |         |   |         |
| NYAB                                                                                                                                                       | New York Air Brake             |                                                                                     |            |   |         |   |         |
| WABT                                                                                                                                                       | WABTEC                         |                                                                                     |            |   |         |   |         |
| <b>Validation Rule for B328</b>                                                                                                                            |                                |                                                                                     |            |   |         |   |         |
| -If ECP Brake Type (B327) is Stand Alone or Overlay then a value must be entered for ECP Brake Builder                                                     |                                |                                                                                     |            |   |         |   |         |
| -If ECP Brake Type (B327) is Not Equipped then ECP Brake Builder is not reportable                                                                         |                                |                                                                                     |            |   |         |   |         |
| <b>Slack Adjuster Group</b>                                                                                                                                |                                | <b>B538</b>                                                                         |            |   |         |   |         |
| The slack adjuster group on the equipment per AAR Field Manual Rule #8  |                                |                                                                                     |            |   |         |   |         |
| Value does not carry forward for Single Clone / Multi-Clone.                                                                                               |                                |                                                                                     |            |   |         |   |         |
| <b>Permissible Values for B538</b>                                                                                                                         |                                |                                                                                     |            |   |         |   |         |
| A                                                                                                                                                          | Group A                        | B                                                                                   | Group B    | C | Group C | D | Group D |
| E                                                                                                                                                          | Group E                        | F                                                                                   | Group F    | G | Group G | H | Group H |
| J                                                                                                                                                          | Group J                        | L                                                                                   | Group L    | M | Group M | N | Group N |
| O                                                                                                                                                          | Group O                        | P                                                                                   | Group P    | Q | Group Q | R | Group R |
| 1                                                                                                                                                          | Internal                       | 2                                                                                   | Unequipped |   |         |   |         |
| <b>Validation Rule for B538</b>                                                                                                                            |                                |                                                                                     |            |   |         |   |         |
| - Slack Adjuster Group is mandatory for all equipment built or rebuilt on or after January 1, 2016                                                         |                                |                                                                                     |            |   |         |   |         |
| - If Slack Adjuster Group is reported as “1” then Brake Cylinder Mount Type (B540) must be reported as “T”                                                 |                                |                                                                                     |            |   |         |   |         |
| - If Slack Adjuster Group is “1” or “2”, then Slack Adjuster CID (B359) must not be reported.                                                              |                                |                                                                                     |            |   |         |   |         |
| <b>NOTES:</b>                                                                                                                                              |                                |                                                                                     |            |   |         |   |         |
| • Permissible value of “1 – Internal” identifies special truck mounted internal slack adjuster within brake cylinder.                                      |                                |                                                                                     |            |   |         |   |         |
| <b>Brake Cylinder Mount Type</b>                                                                                                                           |                                | <b>B540</b>                                                                         |            |   |         |   |         |
| Identifies the location of the brake cylinder                         |                                |                                                                                     |            |   |         |   |         |
| <b>Permissible Values for B540</b>                                                                                                                         |                                |                                                                                     |            |   |         |   |         |
| B                                                                                                                                                          | Body Mounted                   |                                                                                     |            |   |         |   |         |
| T                                                                                                                                                          | Truck Mounted                  |                                                                                     |            |   |         |   |         |
| <b>Validation Rule for B540</b>                                                                                                                            |                                |                                                                                     |            |   |         |   |         |
| - Brake Cylinder Mount Type is mandatory for all equipment built or rebuilt on or after January 1, 2016                                                    |                                |                                                                                     |            |   |         |   |         |
| <b>Equipment Builder</b>                                                                                                                                   |                                | <b>A035</b>                                                                         |            |   |         |   |         |
| Identifies the original manufacturer of the equipment                 |                                |                                                                                     |            |   |         |   |         |
| <b>Permissible Values for A035</b>                                                                                                                         |                                |                                                                                     |            |   |         |   |         |
| ACF                                                                                                                                                        | American Car & Foundry         |                                                                                     |            |   |         |   |         |
| ACFX                                                                                                                                                       | ACF Industries                 |                                                                                     |            |   |         |   |         |
| ARI                                                                                                                                                        | ARI Industries                 |                                                                                     |            |   |         |   |         |
| BETH                                                                                                                                                       | Bethlehem Car Works            |                                                                                     |            |   |         |   |         |
| CONC                                                                                                                                                       | Concarrill                     |                                                                                     |            |   |         |   |         |
| DIFC                                                                                                                                                       | Difco                          |                                                                                     |            |   |         |   |         |
| EDSP                                                                                                                                                       | ESTRATEGIAS DUL S. DE R.L.     |                                                                                     |            |   |         |   |         |
| FMC                                                                                                                                                        | FMC Corporation                |                                                                                     |            |   |         |   |         |
| GMB                                                                                                                                                        | Greenbrier                     |                                                                                     |            |   |         |   |         |
| GUN4                                                                                                                                                       | Gunderson - Trenton Works      |                                                                                     |            |   |         |   |         |
| GUND                                                                                                                                                       | Gunderson Inc                  |                                                                                     |            |   |         |   |         |
| HST                                                                                                                                                        | Hawker Siddeley                |                                                                                     |            |   |         |   |         |
| HYUN                                                                                                                                                       | Hyundai                        |                                                                                     |            |   |         |   |         |

## Data Specification Manual

|      |                                                  |
|------|--------------------------------------------------|
| JAC  | Johnstown America Corporation                    |
| KASG | Kasgro Railcar                                   |
| MULT | Multiple                                         |
| NACA | National Alabama Corporation                     |
| NSC  | National Steel Car                               |
| PS   | Pullman-Standard                                 |
| PSP  | Pullman-Standard, Division of Trinity Industries |
| THRL | Thrall                                           |
| TRIN | Trinity                                          |
| UNKN | Unknown                                          |

**Validation Rule for A035-**Equipment Builder must be populated if the Built Date (BLDT) is July 1, 2010 or newer

- Equipment built or rebuilt on or after July 1, 2010 cannot have a Equipment Builder of Unknown
- Equipment with a Built Date (BLDT) on or after July 1, 2010 cannot have an Equipment Builder Code of OWNER RAILROAD.
- Equipment Builder can have a value of MULT only if the equipment has multiple units.

|                                                                                                |             |
|------------------------------------------------------------------------------------------------|-------------|
| <b>Builder Lot Code</b>                                                                        | <b>B030</b> |
| A unique identifier for a group of equipment built by one manufacturer under the same contract |             |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B030**

- Equipment built or rebuilt on or after June 28, 2012 must have a value for Builder Lot Code

**NOTES:**

- If the value is unknown, enter six zeroes (000000).

|                                                 |             |
|-------------------------------------------------|-------------|
| <b>Built Country</b>                            | <b>B031</b> |
| The country where the equipment was constructed |             |

Data is Confidential.

**Permissible Values for B031**

|    |               |    |        |
|----|---------------|----|--------|
| CA | Canada        | MX | Mexico |
| US | United States |    |        |

|                                                    |             |
|----------------------------------------------------|-------------|
| <b>Rebuilt Country</b>                             | <b>B170</b> |
| The country where the equipment was re-constructed |             |

**Permissible Values for B170**

|    |               |    |        |
|----|---------------|----|--------|
| CA | Canada        | MX | Mexico |
| US | United States |    |        |

|                                                                                         |             |
|-----------------------------------------------------------------------------------------|-------------|
| <b>FRA ReflectORIZATION</b>                                                             | <b>B096</b> |
| Indicates the equipment owner assumes responsibility for applying reflectORIZATION tape |             |

**Permissible Values for B096**

|   |                         |
|---|-------------------------|
| P | ReflectORIZATION Plan   |
| W | ReflectORIZATION Waiver |

**Validation Rule for B096**

- ReflectORIZATION is mandatory for all equipment after November 28, 2015.

|                                            |             |
|--------------------------------------------|-------------|
| <b>Air Hose Arrangement</b>                | <b>B524</b> |
| The type of trainline air hose arrangement |             |

**Permissible Values for B524**

|   |                                                                                                                       |
|---|-----------------------------------------------------------------------------------------------------------------------|
| A | S-424 Angle Cock Location                                                                                             |
| B | S-425 Angle Cock Location on Cars Equipped with AAR Type F Coupler                                                    |
| C | S-426 Angle Cock Location on Cars with Floating Sills                                                                 |
| D | S-427 Angle Cock and Air Brake Hose Location on Cars with Excessive Overhang Preventing Compliance with AAR Standards |
| E | S-428 Angle Cock Location on Cars Equipped with AAR Type F Coupler and Cushioned Underframe                           |
| F | S-4003 (Former Standard)                                                                                              |
| G | S-4003x (Former Standard Retrofitted to Meet All Dimensions Except Height)                                            |

|   |                                                                                                                     |
|---|---------------------------------------------------------------------------------------------------------------------|
| H | S-4003-05 (Current Standard Train Line Arrangement for Cars with F-Shank Couplers)                                  |
| I | S-4021 Angle Cock and Brake Hose Location on Cars with EOCC (E and F)                                               |
| J | S-4021 Coupler Mounted Bracket End Arrangement                                                                      |
| K | S-4028 Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Not Exceeding 45 in. in Length |
| L | S-4029 Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Exceeding 45 in. in Length     |
| M | S-4030 Trolley Arrangement on Cars with EOCC and E-Shank Couplers                                                   |
| N | S-4031 Trainline Arrangement for Cars with E-Type Couplers and Draft System Buff Travel of 6 to 10 inches           |
| O | S-4032 Trainline Arrangement for Cars with E/F-Type Couplers and Draft System Buff Travel of 6 to 10 inches         |

**Validation Rule for B524**

- Air Hose Arrangement must be reported for this equipment if it is Built or Rebuilt on or after April 22, 2014.

**NOTES:**

- If any of the following conditions apply, Air Hose Arrangement (B524) must be reported for cars Built or Rebuilt on or after April 22, 2014:
  - Draft Gear Type (B073) at any location is C or E.
  - Connected Unit Count (A020) is reported.
  - Outside Length (OSLG) is greater than or equal to 70 feet (840 inches).
  - The overhang is greater than 5 feet 6 inches (66 inches). Overhang is calculated as follows:
    - 0.5 \* (Outside Length, in inches, minus Truck Center Length, in inches, minus 31 inches)
    - For all other equipment, reporting Air Hose Arrangement is optional.

|                                                                                   |             |
|-----------------------------------------------------------------------------------|-------------|
| <b>4-Pressure ABT Receiver Eqpd</b>                                               | <b>B539</b> |
| Identifies if the equipment is equipped with a 4-pressure air brake test receiver |             |

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B539**

|   |              |
|---|--------------|
| E | Equipped     |
| N | Not Equipped |

**NOTES:**

- An "E" will be system generated if a 4-Pressure ABT is reported on the equipment.

## Feature

|                                                                          |             |
|--------------------------------------------------------------------------|-------------|
| <b>Floor Material</b>                                                    | <b>A104</b> |
| Describes the type of construction material used for the equipment floor |             |

**Permissible Values for A104**

|    |                            |
|----|----------------------------|
| 01 | Aluminum                   |
| 19 | Standard Steel             |
| 25 | Standard Steel, Reinforced |

|                                                           |             |
|-----------------------------------------------------------|-------------|
| <b>Tie-Down Strap Type</b>                                | <b>B400</b> |
| Indicates the type of tie-down strap used with the chocks |             |

Value does not carry forward for Equipment Group Change.

**Permissible Values for B400**

|   |         |   |        |
|---|---------|---|--------|
| H | Harness | S | Single |
|---|---------|---|--------|

|                               |             |
|-------------------------------|-------------|
| <b>Supplemental Restraint</b> | <b>B401</b> |
| Supplemental Restraint        |             |

Value does not carry forward for Equipment Group Change.

**Permissible Values for B401**

|   |        |   |            |
|---|--------|---|------------|
| A | Holden | B | ZefTek AVR |
|---|--------|---|------------|

|                                                                                                                  |             |
|------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Chain Equipped</b>                                                                                            | <b>B402</b> |
| Indicates the vehicular flat is equipped with chains to tie down the vehicles. This is in addition to Chock Type |             |



# Data Specification Manual

Value does not carry forward for Equipment Group Change.

## Permissible Values for B402

Y Yes

## Cost

### Original Cost

A184

The original manufacturer selling price

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

### Range of Values for A184

| Minimum | Maximum |
|---------|---------|
| 0       | 9999999 |

**Validation Rule for A184**-Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.

- Original Cost must be equal to the Ledger Value if Additions & Betterments Indicator is not reported.
- Railroad marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost
- Private marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost if Built Date (BLDT) is on or after January 1, 2015

### NOTES:

- Original Cost is never altered. It is the cost of the equipment to the original owner.
- For railroad-marked cars, report in US dollars the original ledger value of original owner For cars rebuilt, report the cost prescribed in MR Interchange Rule 88 and Circular Letter OT-24
- The original cost is used in the settlement of AAR Interchange Rule 107 Office Manual.
- For connected unit cars report the total original cost for all units in the set.
- Numeric, applicable to all railroad-marked cars Also, applicable to privately marked covered hopper (LO) cars.
- NOTE: Raise all cents to the next dollar, e.g. \$5,501.02 = 0005502

### Ledger Value

A150

The sum of original cost and additions & betterments

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

### Range of Values for A150

| Minimum | Maximum |
|---------|---------|
| 0       | 9999999 |

**Validation Rule for A150**-Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.

- Ledger Value must equal the Original Cost (A184) plus the additions & betterments, if Total A&B (A003) has been reported. Otherwise Ledger Value should equal Original Cost (A184).

### Total A&B

A003

System generated sum of all reported amounts in A&B Amount (A317), in US dollars

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

### Range of Values for A003

| Minimum | Maximum  |
|---------|----------|
| 0       | 99999999 |

### NOTES:

- For railroad-marked cars, report the sum of all additions and betterments applied to the car. This value is for record keeping purposes only and will not be used to report Ledger Value.
- For private Cars report the additions and betterments as qualified under AAR interchange Rule 107 for determination of settlement value.
  - Additions are costs of all new components applied subsequent to the date the car was built or rebuilt and carried in the capital investment account.
  - Betterments are costs of all improvements of components of existing equipment through the substitution of superior parts for inferior parts

subsequent to the date the car was built or rebuilt.

- For connected unit cars report the total Truck Location A for all units in the set

### Ind for Pos/Neg Total A&B

A128

A code indicating the positive or negative adjustment to the original cost of the equipment

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

### Permissible Values for A128

N Negative P Positive

### A&B Pos/Neg Ind

A316

A code indicating the positive or negative adjustment to the individual addition and betterment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

### Permissible Values for A316

N Negative P Positive

### Validation Rule for A316

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- The A&B Indicator is required when Additions & Betterments are reported.
- The A&B Indicator must not be reported if Additions & Betterments are not reported.

### A&B Amount

A317

The amount of the individual addition and betterment added to or subtracted from the original cost of the equipment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

### Range of Values for A317

| Minimum | Maximum |
|---------|---------|
| 1       | 999999  |

### Validation Rule for A317

- When entering an individual addition & betterment; A&B Date Done (A319), A&B Type (A318), A&B Pos/Neg Ind (A316), and A&B Amount (A317) must be reported

### A&B Date Done

A319

The date of the individual addition and betterment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

### Range of Values for A319

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

### Validation Rule for A319

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- Addition and Betterment Date Done cannot be earlier than Built Date (BLDT).
- Additions & Betterments Date Done cannot be later than today's date.

### A&B Type

A318

The type of individual addition and betterment as defined by Rule 107

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

### Permissible Values for A318

- FLLD Other permanently installed loading equipment used on flat cars
- GNRL General - Capitalized Additions and Betterments
- INIT Initial load of historical A&B amount as of Umler 4.6 implementation date
- RACK Multi-deck racks used on flat cars for automobiles

### Validation Rule for A318

## Data Specification Manual

- For each equipment, only one Individual A&B Type can have a value of INIT.
- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.

## Superstructure

## SS Identification

B156

The Superstructure (rack) identification stenciled number

Value does not carry forward for Equipment Group Change.

## Validation Rule for B156

- SS Identification (B156) is mandatory for all superstructures not integrated with the flat car built on or after September 14, 2023

## Superstructure Built Date

SBDT

The date the construction of the Superstructure is complete

Value does not carry forward for Equipment Group Change.

## Range of Values for SBDT

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1970 | 12/31/9999 |

## Validation Rule for SBDT

- Superstructure Built Date cannot be set if Superstructure is integrated with car
- Superstructure Built Date must be set if SS integrated with car (B342) is blank

## SS Rebuilt Date

SRDT

The date the reconstruction of the Superstructure is complete

Value does not carry forward for Equipment Group Change.

## Range of Values for SRDT

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

## Validation Rule for SRDT

- Superstructure Built Date on VFlat must be prior to Superstructure Rebuilt Date
- Superstructure Rebuilt Date cannot be set if Superstructure is integrated with car

## Superstructure Owner

B159

Rack Owner; Changed Name from Rack to Superstructure-New

Value does not carry forward for Equipment Group Change.

## Validation Rule for B159

- Vehicular Flat cars without Integrated Superstructures must report a Superstructure Owner

## NOTES:

- Report the primary reporting mark of the railroad or private company owning the superstructure.

## Superstructure Lessee

B158

Rack Lessee; Changed Name from Rack to Superstructure-New

Value does not carry forward for Equipment Group Change.

## Validation Rule for B158

- VFlat Superstructure Lessee should not be set if Superstructure is integrated with car

## NOTES:

- Report the primary reporting mark of the railroad or private company leasing the superstructure.

## SS Integrated With Car

B342

Superstructure Integrated with Car

Value does not carry forward for Equipment Group Change.

## Permissible Values for B342

Y Yes

## SS Original Cost Status

B598

The status of the SS Original Cost from the Original Cost Self Service system

Confidential. Value does not carry forward for Single Clone / Multi-Clone.

## Permissible Values for B598

E Estimated  
V Verified

## Validation Rule for B598

- SS Orig Cost Status (B598) can only be updated by the Original Cost Self Service (OCSS) application if Verified (V)

## NOTES:

- When the Original Cost Self Service (OCSS) application has verified the SS Original Cost and/or the SS Addition & Betterment, the SS Original Cost Status will be updated to 'V-Verified'.
- When superstructure has a new SS Rebuilt Date reported, the SS Original Cost Status (B598) will be set to 'E - Estimated'.
- New superstructures added to Umler will have the SS Orig Cost Status (B598) set to 'E'.

## SS Original Cost

A252

RR Superstructure Cost (\$)

Data is Confidential. Value does not carry forward for Equipment Group Change.

## Range of Values for A252

| Minimum | Maximum |
|---------|---------|
| 4000    | 175000  |

## Validation Rule for A252

- If Superstructure Integrated with Car (B342) is not reported, Superstructure Original Cost (A252) must have a value.
- Superstructure Original Cost on VFlat requires a Superstructure Owner other than privately owned
- VFlat Superstructure Original Cost should not be set if Superstructure is integrated with car.
- SS Original Cost (A252) can only be updated by the Original Cost Self Service (OCSS) application when SS Orig Cost Status (B598) is Verified (V)

## SS Indicator A&amp;B

A296

Rack Indicator For Positive/Negative A&amp;B

Data is Confidential. Value does not carry forward for Equipment Group Change.

## Permissible Values for A296

N Negative P Positive

## Validation Rule for A296

- Superstructure Indicator for Positive/Negative A and B on VFlat must be reported if Superstructure Additions & Betterments is reported
- Superstructure Indicator for Positive/Negative A and B on VFlat must not be reported if Superstructure Additions & Betterments is not reported
- VFlat Superstructure Indicator for Positive/Negative A and B must not be reported if Superstructure Integrated with car is reported as Y
- VFlat Superstructure Indicator A and B should not be set if Superstructure is integrated with car.
- SS A&B Indicator (A296) can only be updated by the Original Cost Self Service (OCSS) application when SS Orig Cost Status (B598) is Verified (V)

## SS Addition &amp; Betterment

A004

Rack Addition &amp; Betterment

Data is Confidential. Value does not carry forward for Equipment Group Change.

## Range of Values for A004

| Minimum | Maximum |
|---------|---------|
| 0       | 35000   |

## Validation Rule for A004

## Data Specification Manual

- VFlat Superstructure Additions & Betterments must not be reported if the Superstructure Integrated with car is reported as Y
- VFlat Superstructure Additions & Betterments should not be set if Superstructure is integrated with car.
- SS Addition & Betterment (A004) can only be updated by the Original Cost Self Service (OCSS) application when SS Orig Cost Status (B598) is Verified (V)

|                                                        |             |
|--------------------------------------------------------|-------------|
| <b>SS A&amp;B Date Done</b>                            | <b>B599</b> |
| The date of the superstructure addition and betterment |             |

Confidential; Do not carry forward on single/multiple clone.

**Range of Values for B599**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for B599**

- SS A&B Date Done (B599) can only be updated by the Original Cost Self Service (OCSS) application if Verified (V)

|                                                   |             |
|---------------------------------------------------|-------------|
| <b>Superstructure Deck Level</b> <i>Mandatory</i> | <b>B406</b> |
| Superstructure Deck Levels                        |             |

Used in ETC Generation. Value does not carry forward for Equipment Group Change.

**Permissible Values for B406**

|     |                                     |
|-----|-------------------------------------|
| BCC | Bi-Level, Convertible, Collapsible  |
| BCR | Bi-Level, Convertible, Removable    |
| BHI | Bi-Level, High A Deck               |
| BI  | Bi-Level, Standard                  |
| TCC | Tri-Level, Convertible, Collapsible |
| TCR | Tri-Level, Convertible, Removable   |
| TRI | Tri-Level, Standard                 |
| UNI | Uni-Level                           |

**Validation Rule for B406**

- When Superstructure Deck Levels (B406) is UNI, Superstructure Top Deck Setting Enclosed (A215) must be reported.
- When Superstructure Deck Levels (B406) is BI, BCC, BCR, or BHI Superstructure Deck A/B Setting (A210) must be reported. Additionally, either Superstructure Top Deck Setting Enclosed (A215) or Top Deck Height No Roof (A263) must be reported.
- When Superstructure Deck Levels (B406) is TRI, TCC, or TCR, Superstructure Deck A/B Setting (A210) and Superstructure Deck B/C Setting (A211) must be reported. Additionally, either Superstructure Top Deck Setting Enclosed (A215) or Top Deck Height No Roof (A263) must be reported.
- When Superstructure Deck Levels (B406) is TRI, TCC, or TCR, Superstructure Deck A/B Setting (A210) and Superstructure Deck B/C Setting (A211) must be reported. Additionally, either Superstructure Top Deck Setting Enclosed (A215) or Top Deck Height No Roof (A263) must be reported.

|                                                    |             |
|----------------------------------------------------|-------------|
| <b>Autorack Category</b>                           | <b>ARCG</b> |
| Autorack Category is based from the Autorack Score |             |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Equipment Group Change.

**NOTES:**

- For an explanation of how the Autorack Category value is derived, please reference Manual of Standards and Recommended Practices Specification M-970 Appendix A
- When the SS Built Date (SBDT) or the SS Rebuilt Date (SRDT) is changed, and an Autorack Inspection has been reported; the value for Autorack Category (ARCG) will be reset to 1.
- When the SS Integrated with Car (B342) equals Y, and a change in the Built Date (BLDT) should not reset the Autorack Category – only a change in the Rebuilt Date (RBDT) of the VFLT is changed, and an Autorack Inspection has been reported, the value of Autorack Category (ARCG) will be reset to 1.
- If SS Integrated with Car (B342) is blank, and a newer SS Rebuilt Date (SRDT) or Autorack Certification Inspection (ARC) date is entered, a new Autorack

Inspection (ARI) is generated, and the Autorack Category is reset to “1”

- If SS Integrated with Car (B342) is “Y”, and a newer Rebuilt Date (RBDT) or Autorack Certification Inspection (ARC) date is entered, a new Autorack Inspection (ARI) is generated, and the Autorack Category is reset to “1”.

|                               |             |
|-------------------------------|-------------|
| <b>Superstructure Builder</b> | <b>A212</b> |
| Rack Manufacturer             |             |

Value does not carry forward for Equipment Group Change.

**Permissible Values for A212**

|   |                                  |
|---|----------------------------------|
| A | AMERICAN CAR & FOUNDRY           |
| B | JOHNSTOWN AMERICA                |
| C | THRALL TRINITY FREIGHT CAR, INC. |
| F | GREENVILLE STEEL CAR             |
| G | GREENBRIER                       |
| H | PACIFIC CAR & FOUNDRY            |
| J | PARAGON                          |
| K | PORTEC                           |
| L | PULLMAN STANDARD                 |
| M | THRALL                           |
| N | TRINITY INDUSTRIES               |
| P | WHITEHEAD & KALES                |
| R | RAILROAD MFG.                    |
| S | NATIONAL STEEL CAR LIMITED       |

|                                                                       |             |
|-----------------------------------------------------------------------|-------------|
| <b>SS Rate Indicator</b>                                              | <b>A019</b> |
| Appurtenance Change Indicator, element utilized for Car Hire purposes |             |

Value does not carry forward for Equipment Group Change.

**Permissible Values for A019**

|   |                         |
|---|-------------------------|
| O | Zero Rated              |
| E | Estimated Hourly Charge |
| H | Actual Hourly Charge    |

**Validation Rule for A019**

- Superstructure Rate Indicator must not be reported if Superstructure Integrated with Car (B342) is Y
- Superstructure Rate Indicator must be reported if Superstructure Integrated with Car (B342) is blank

|                                                          |             |
|----------------------------------------------------------|-------------|
| <b>SS Deck A/B Setting</b>                               | <b>A210</b> |
| Rack Deck Setting (A/B Deck), lower deck closest to rail |             |

Value does not carry forward for Equipment Group Change.

**Range of Values for A210**

| Minimum | Maximum |
|---------|---------|
| 54      | 130     |

**Validation Rule for A210**

- Superstructure Deck A/B Setting on VFlat for ETC V6, V7, V8 and V9 must be greater than or equal to 75 inches
- VFlat Superstructure Deck A/B Setting for ETC V1, V2, V3, and V4 must be higher than 54 inches
- Superstructure Deck A/B Setting on VFlat for ETC V1, V3 & V4 must be less than or equal to 74 inches
- Superstructure Deck A/B Setting on VFlat for ETC V2 must be less than or equal to 80 inches
- Superstructure Deck A/B Setting on VFlat for ETC V6 and V9 must be less than or equal to 92 inches, and V9 is not reported with Superstructure Deck Level (B406) as BHI
- Superstructure Deck A/B Setting on VFlat for ETC V9 must greater than or equal to 100 inches and be less than or equal to 130 inches when Superstructure Deck Level (B406) is reported as BHI
- Superstructure Deck A/B Setting on VFlat for ETC V7 must be less than or equal to 118 inches.
- Superstructure Deck A/B Setting (A210) cannot be reported when Superstructure Deck Levels (B406) is UNI. Superstructure Deck A/B Setting must be reported when Superstructure Deck Levels is any other value.

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- Superstructure Deck A/B Setting (A210) plus Superstructure Top Deck Setting (A215) cannot exceed Outside Extreme Height (A185) minus Platform Height Above Rail (A192) for a Bi-Level Superstructure Deck
- Superstructure Deck A/B Setting (A210) plus Top Deck Height No Roof (A263) cannot exceed Outside Extreme Height (A185) minus Platform Height Above Rail (A192) for a Bi-Level Superstructure Deck
- Superstructure Deck A/B Setting (A210) plus Superstructure Deck B/C Setting (A211) plus Superstructure Top Deck Setting (A215) cannot exceed Outside Extreme Height (A185) minus Platform Height Above Rail (A192) for a Tri-Level Superstructure Deck

- VFlat Top Deck Height No Roof for ETC V3-- cannot be greater than 14 feet 06 inches
- VFlat with Top Deck Height No Roof for ETC V8\_\_ must be less than or equal 11 feet 3 inches
- VFlat Top Deck Height No Roof for ETC V8-- cannot be less than 9 feet 00 inches
- Top Deck Height No Roof (A263) cannot be reported when Superstructure Deck Levels (B406) is UNI.

**SS Deck B/C Setting**

**A211**

Rack Deck Setting (B/C Deck), this only applies to the middle deck of a Tri-Level

Value does not carry forward for Equipment Group Change.

**Range of Values for A211**

| Minimum   | Maximum    |
|-----------|------------|
| 54 inches | 115 inches |

**Validation Rule for A211**

- Superstructure Deck B/C Setting on VFlats having ETC V0, V6, V8 or V9 is not permitted
- Superstructure Deck B/C Setting on VFlat for ETC V1, V3 and V4 must be less than 74 inches
- VFlat Superstructure Deck B/C Setting for ETC V1, V2, V3, V4, and V7 cannot be more than 54 inches.
- Superstructure Deck B/C Setting (A211) must be reported when Superstructure Deck Levels (B406) is TRI, TCC, or TCR. Superstructure Deck B/C Setting cannot be reported when Superstructure Deck Levels is any other value.
- Superstructure Deck B/C Setting (A211) must be reported when Superstructure Deck Levels (B406) is TRI, TCC, or TCR. Superstructure Deck B/C Setting cannot be reported when Superstructure Deck Levels is any other value.

**SS Top Deck Setting**

**A215**

Rack Top Deck Setting Enclosed ▲

Used in ETC Generation. Value does not carry forward for Equipment Group Change.

**Range of Values for A215**

| Minimum   | Maximum    |
|-----------|------------|
| 54 inches | 180 inches |

**Validation Rule for A215**

- When Superstructure Deck Levels (B406) is any value other than UNI, either Superstructure Top Deck Setting Enclosed (A215) or Top Deck Height No Roof (A263) must be reported, but not both.
- Superstructure Top Deck Setting (Enclosed) on VFlat must be greater than or equal to 65 inches for V6, V8, and V9, when Superstructure Deck Level (B406) as BHI
- VFlat Superstructure Top Deck Setting (Enclosed) must be greater than 54 inches for V1, V2, V3 and V4
- Superstructure Top Deck Setting (Enclosed) on VFlat must be greater than or equal to 60 inches for V7.
- Superstructure Top Deck Setting (A215) cannot exceed Outside Extreme Height (A185) minus Platform Height Above Rail (A192) for a Uni-Level Superstructure Deck

**Top Deck Height No Roof**

**A263**

Top Deck Height No Roof ■

Affects Rating. Value does not carry forward for Equipment Group Change.

**Range of Values for A263**

| Minimum    | Maximum    |
|------------|------------|
| 108 inches | 174 inches |

**Validation Rule for A263**

- VFlat with Top Deck Height No Roof can only be reported on Vflats with ETC codes of V3\_\_ or V8\_\_
- VFlat with Top Deck Height No Roof for ETC V3\_\_ must be greater than or equal 12 feet 6 inches

**Perforated Sidewalls**

**B146**

Indicates the superstructure is equipped with perforated sidewalls

Value does not carry forward for Equipment Group Change.

**Permissible Values for B146**

Y Yes

**SS Door Edge Protection**

**A074**

Door Edge Protection

Value does not carry forward for Equipment Group Change.

**Permissible Values for A074**

D0 No door edge protection  
D1 Butyl Based tape  
D2 Polyester Strap  
D3 Silicon Beading  
D4 Tubing or Hose  
D5 Vinyl extrusion or polymer  
D6 Closed cell foam  
D7 Thrall extruded  
D8 Thrall molded  
D9 Protection of unknown type  
DA Pennsy Combination Kit

**SS Enclosure Type *Mandatory***

**B153**

Describes the superstructure enclosure type ●▲

Used in ETC Generation. Value does not carry forward for Equipment Group Change.

**Permissible Values for B153**

F Full Height P Partial Height

**Validation Rule for B153**

- Superstructure Enclosure Type on vehicular flats must be reported if Superstructure End Door Design (B154) is reported
- Superstructure Enclosure Type on vehicular flats must not be reported if Superstructure End Door Design (B154) is not reported
- P (Partial Height) Superstructure Enclosure Type on vehicular flats is only applicable to Superstructure End Door Design (B154) reported as either OTHR (Other)

**SS End Door Design *Mandatory***

**B154**

Indicates the superstructure end door design type ●▲

Used in ETC Generation. Value does not carry forward for Equipment Group Change.

**Permissible Values for B154**

|      |           |      |               |
|------|-----------|------|---------------|
| PICK |           | OTHR | Other         |
| RADL | Radial    | RAP  | RAVE, Portec  |
| SEAL | Seal Safe | RATR | RAVE, Trinity |
| TFLD | TRI-FOLD  | TARC | TRI-ARC       |
|      |           | UNKN | Unknown       |

**SS End Door M941-90 Qual**

**B155**

Please reference Manual of Standards and Recommended Practices Specification M941

Value does not carry forward for Equipment Group Change.

**Permissible Values for B155**

Y Yes

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| SS Chock Type Deck A <i>Mandatory</i> | B151 |
|---------------------------------------|------|
| Superstructure Chock Type             | ●    |

Value does not carry forward for Equipment Group Change.

**Permissible Values for B151**

- A Zeftek (SCT) Co-Polymer Chocks (3rd Rail)
- B Trinity (Thrall) Polymer Wedge Chocks (3rd Rail)
- C Trinity (Thrall) Steel Wedge Chocks (3rd Rail)
- D Chocks, All others
- E Holden Grate-Lock Chocks (Grating)
- F Zeftek Low-Profile Polymer Chocks (3rd Rail)
- G Zeftek Low-Profile Steel Chocks (3rd Rail)
- H Trinity Low-Profile Polymer Chocks (3rd Rail)
- I Zeftek Low-Profile Stay-Put Chocks (Grating)
- J Holland Low-Profile VRS Chocks (Grating)
- K Holden Low-Profile Grip-Lock Chocks 96 (Grating)
- L Holland Low-Profile Tri-Low Steel Chocks (3rd Rail)
- M Holden Low-Profile Grip-Lock Chocks 48 (Grating)
- P Zeftek Low-Profile Steel Hybrid Chocks (3rd Rail)
- Q TrinityRail Low – Profile TTM (3rd Rail)
- R Holland Low-Profile Lock N Load Chocks 48 (Grating)
- S Zeftek LoPro Polymer Model 2 (3rd Rail)

| SS Chock Type Deck B <i>Mandatory</i> | B160 |
|---------------------------------------|------|
| Superstructure Chock Type Deck B      | ●    |

Value does not carry forward for Equipment Group Change.

**Permissible Values for B160**

- A Zeftek (SCT) Co-Polymer Chocks (3rd Rail)
- B Trinity (Thrall) Polymer Wedge Chocks (3rd Rail)
- C Trinity (Thrall) Steel Wedge Chocks (3rd Rail)
- D Chocks, All others
- E Holden Grate-Lock Chocks (Grating)
- F Zeftek Low-Profile Polymer Chocks (3rd Rail)
- G Zeftek Low-Profile Steel Chocks (3rd Rail)
- H Trinity Low-Profile Polymer Chocks (3rd Rail)
- I Zeftek Low-Profile Stay-Put Chocks (Grating)
- J Holland Low-Profile VRS Chocks (Grating)
- K Holden Low-Profile Grip-Lock Chocks (Grating)
- L Holland Low-Profile Tri-Low Steel Chocks (3rd Rail)
- M Holden Low-Profile Grip-Lock Chocks 48 (Grating)
- N Not Applicable
- P Zeftek Low-Profile Steel Hybrid Chocks (3rd Rail)
- Q TrinityRail Low – Profile TTM (3rd Rail)
- R Holland Low-Profile Lock N Load Chocks 48 (Grating)
- S Zeftek LoPro Polymer Model 2 (3rd Rail)

**Validation Rule for B160**

- SS Chock Type of N cannot be reported on SS Chock Type Deck A (B151) or SS Chock Type Deck B (B160) if the Superstructure Deck Level (B406) is listed as BCC, BI, or BCR
- SS Chock Type of N cannot be reported on SS Chock Type Deck A (B151), SS Chock Type Deck B (B160) or SS Chock Type Deck C (B161) when the Superstructure Deck Level (B406) is listed as TCC, TRI, or TCR
- SS Chock Type Deck B must be reported as N when the Superstructure Deck Level (B406) is listed as UNI

| SS Chock Type Deck C <i>Mandatory</i> | B161 |
|---------------------------------------|------|
| Superstructure Chock Type Deck C      | ●    |

Value does not carry forward for Equipment Group Change.

**Permissible Values for B160**

- A Zeftek (SCT) Co-Polymer Chocks (3rd Rail)
- B Trinity (Thrall) Polymer Wedge Chocks (3rd Rail)
- C Trinity (Thrall) Steel Wedge Chocks (3rd Rail)
- D Chocks, All others
- E Holden Grate-Lock Chocks (Grating)

- F Zeftek Low-Profile Polymer Chocks (3rd Rail)
- G Zeftek Low-Profile Steel Chocks (3rd Rail)
- H Trinity Low-Profile Polymer Chocks (3rd Rail)
- I Zeftek Low-Profile Stay-Put Chocks (Grating)
- J Holland Low-Profile VRS Chocks (Grating)
- K Holden Low-Profile Grip-Lock Chocks (Grating)
- L Holland Low-Profile Tri-Low Steel Chocks (3rd Rail)
- M Holden Low-Profile Grip-Lock Chocks 48 (Grating)
- N Not Applicable
- P Zeftek Low-Profile Steel Hybrid Chocks (3rd Rail)
- Q TrinityRail Low – Profile TTM (3rd Rail)
- R Holland Low-Profile Lock N Load Chocks 48 (Grating)
- S Zeftek LoPro Polymer Model 2 (3rd Rail)

**Validation Rule for B161**

- SS Chock Type of N cannot be reported on SS Chock Type Deck A (B151), SS Chock Type Deck B (B160) or SS Chock Type Deck C (B161) when the Superstructure Deck Level (B406) is listed as TCC, TRI, or TCR
- SS Chock Type Deck C must be reported as N when the Superstructure Deck Level (B406) is listed as UNI, BCC, BI, or BRC

## Car Management

| Pool Number                                                                       | P001 |
|-----------------------------------------------------------------------------------|------|
| Unique number used to indicate the grouping of equipment for a particular purpose |      |

Used for Transportation Codes. This element is not eligible for Input. Value does not carry forward for Equipment Group Change / Add Back.

| Pool Control | TCPC |
|--------------|------|
| Pool Control |      |

System Generated Field. Used for Transportation Codes. This element is not eligible for Input, Output or Query.

**NOTES:**

- For further explanation reference Appendices C and E.

| User Routing Instructions                    | TCUR |
|----------------------------------------------|------|
| The routing instruction reported by the user |      |

Used for Transportation Codes.

**Permissible Values for TCUR**

- 2 Trailer Service Rule 2
- G Contaminated commodity service
- M Mark canceled
- O Owner requested return
- U Unassigned equipment

**NOTES:**

- For further explanation reference Appendix E.

| Umler Transportation Code                                                   | TCOD |
|-----------------------------------------------------------------------------|------|
| The type of assigned service, empty routing or restriction of the equipment |      |

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

| Transportation Cond Code                    | TCCD |
|---------------------------------------------|------|
| The AAR or FRA interchange restriction code |      |

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

| Mechanical Restriction | TCME |
|------------------------|------|
|------------------------|------|



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**User reported or system generated type of mechanical restriction**

Used for Transportation Codes.

**Permissible Values for TCME**

- S Scrap
- X AAR Interchange Restriction
- Y FRA Interchange Prohibited

**NOTES:**

- For further explanation reference Appendix D.1

**Mech Restriction Reason****TCMR**

The explanation of the Mechanical Restriction (TCME)

Used for Transportation Codes.

**Permissible Values for TCMR**

- A Restricted Due to Age (Over 40-AAR, Over 50-FRA)
- B Restricted Due to Air Brakes
- C Restricted Due to Axles
- D Restricted Due to Couplers and Couplers Parts
- F Restricted Due to Couplers Yokes
- G Restricted Due to Draft Gears
- J Restricted Due to Journal Bearing and Journal Lubrication
- N Restricted Due to Trucks
- P Restricted Due to Truck Side Frames
- T Restricted Due to Trucks Bolsters
- U Restricted by AAR or Owner
- W Restricted Due to Wheels
- X Restricted Due to Scrap or Early Warning
- Z Restricted Due to Umler Conflict (Not Valid for User Input)

**NOTES:**

- For further explanation reference Appendix D.2.
- The assignment of the Transportation Codes S\_, SX, XA, XZ and YA generate the Rate Indicator Code 6 to the CHARM file to zero (0) rate the car hire and mileage rate.

**Sys Gen Routing Inst****TCGR**

The routing instruction generated by the system

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.5.

**Loading Authority Fleet Status** **B597**

Identifies when a car is listed on a fleet in the Loading Authority application

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B597**

- Y Yes
- S Suspended

**NOTES:**

- When equipment is on a fleet the Loading Authority (LA) application will update the flag to 'Y – Yes'. When equipment is removed from a fleet the LA application will remove the 'Y – Yes'.
- When equipment is on a LA fleet that is suspended the LA application will update the flag to 'S – Suspended'. When the equipment is on a LA fleet that is no longer suspended the LA application will update the flag to 'Y – Yes'.

**Train Service****Restricted Speed Empty****B180**

Describes the maximum restricted speed the equipment can travel when empty

**Range of Values for B180**

| Minimum | Maximum |
|---------|---------|
| 5       | 95      |

**Restricted Speed Loaded****B181**

Describes the maximum restricted speed the equipment can travel when loaded

**Range of Values for B181**

| Minimum | Maximum |
|---------|---------|
| 5       | 95      |

**Shove Car to Rest****B189**

Identifies the car must be moved to rest by locomotive

**Permissible Values for B189**

- Y Yes

**Shove Adj. Car to Rest****B188**

Identifies the adjacent car must be shoved to rest by locomotive

**Permissible Values for B188**

- Y Yes

**Train Position Sensitive****B211**

Indicates there is a physical reason, limiting its position on a train

**Permissible Values for B211**

- Y Yes

**End of Train Only****B277**

Indicates the equipment must be placed at the end of the train (including per AAR RP-2001)

**Permissible Values for B277**

- Y Yes

**Check Trailing Tonnage****B044**

Indicates the equipment has restrictions on trailing tonnage

**Permissible Values for B044**

- Y Yes

**Curve Negotiate Exception****B178**

Describes the requirement for negotiating a curve

**Permissible Values for B178**

- A Restrictive Curve Negotiability, Section 2.1.4 of M-1001
- B Does not meet all Chapter XI Curving Requirements

**Loaded Net Braking Ratio****B551**Indicates calculated minimum loaded net braking ratio per AAR Specifications in place on built or rebuilt date (in percent).  
System Generated Field. This element is not eligible for input.**Permissible Values for B551**

- 11.0
- 8.5

**NOTES:**

- Loaded Net Braking Ratio is determined as follows:
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is less than 1/1/1972, then Loaded Net Braking Ratio will be set to blank.
  - If Built Date (BLDT) is greater than or equal to 1/1/1972 and less than 1/1/2004, then loaded Net Braking Ratio is 8.5%.
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is greater than or equal to 1/1/2004, then Loaded Net Braking Ratio is 11.0%.

**Owner-Provided Loaded Net Braking Ratio****B552**

Indicates an alternate minimum loaded net braking ratio provided by owner (in percent).

**Range of Values for B552**

| Minimum | Maximum |
|---------|---------|
| 8.5     | 14.0    |

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## NOTES:

- Owner may enter a documented alternative minimum loaded net braking ratio in this field that is greater than the system calculated Loaded Net Braking Ratio (B551).
- When reported, the Owner-Provided Loaded Net Braking Ratio will be used in PTC stopping distance calculations.
- A change in value for the following elements will cause the Owner-Provided Loaded Net Braking Ratio to reset to blank:
  - Rebuilt Date (RBDT)
  - Gross Rail Load/Weight (A266)
  - Equipment Type Code (UMET)
  - Empty/Load Device Eqpd (B075)

### Empty Braking Ratio B553

Indicates calculated empty braking ratio per AAR Specifications in place on built or rebuilt date (in percent).  
System Generated Field. This element is not eligible for input.

#### Range of Values for B553

| Minimum | Maximum |
|---------|---------|
| 15.0    | 38.0    |

## NOTES:

- Empty Braking Ratio is determined as follows:
  - If Built Date (BLDT) or Rebuilt Date (RBDT) is less than 1/1/1972, then Empty Braking Ratio will be set to blank.

### Owner-Provided Empty Braking Ratio B554

Indicates an owner supplied alternate empty braking ratio (in percent).

#### Range of Values for B554

| Minimum | Maximum |
|---------|---------|
| 15.0    | 38.0    |

## NOTES:

- Owner may enter a documented alternative minimum loaded net braking ratio in this field that is greater than the system calculated Loaded Net Braking Ratio (B551).
- When reported, the Owner-Provided Loaded Net Braking Ratio will be used in PTC stopping distance calculations.
- A change in value for the following elements will cause the Owner-Provided Loaded Net Braking Ratio to reset to blank:
  - Rebuilt Date (RBDT)
  - Gross Rail Load/Weight (A266)
  - Equipment Type Code (UMET)
  - Empty/Load Device Eqpd (B075)

## Truck Components

### Axle Spacing Distance Mandatory B020

The distance between axle centers on the same truck

Affects Rating.

#### Permissible Values for B020

|    |           |
|----|-----------|
| 53 | 53 Inches |
| 54 | 54 Inches |
| 55 | 55 Inches |
| 60 | 60 Inches |
| 61 | 61 Inches |
| 62 | 62 Inches |
| 63 | 63 Inches |
| 64 | 64 Inches |
| 65 | 65 Inches |
| 66 | 66 Inches |
| 68 | 68 Inches |
| 70 | 70 Inches |
| 71 | 71 Inches |
| 72 | 72 Inches |
| 73 | 73 Inches |
| 74 | 74 Inches |
| 76 | 76 Inches |
| 78 | 78 Inches |

99 Axle Space Unknown

### Truck Axle Count B252

The number of axles per truck

#### Range of Values for B252

| Minimum | Maximum |
|---------|---------|
| 2       | 4       |

#### Validation Rule for B252

- Sum of Truck Axle Counts must equal Axle Count (A024)

### Journal Size Mandatory A147

The size of the journal bearing

Affects Rating.

#### Permissible Values for A147

|   |            |   |           |   |            |
|---|------------|---|-----------|---|------------|
| A | 3-3/4 X 7  | B | 4-1/4 X 8 | C | 5 X 9      |
| D | 5-1/2 X 10 | E | 6X11      | F | 6-1/2 X 12 |
| G | 7 X 12     | K | 6-1/ 2X 9 | M | 7 X 9      |

#### Validation Rule for A147

- 4-axle equipment with Journal Size B and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 103,000 lbs.
- 4-axle equipment with Journal Size C and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 142,000 lbs.
- 4-axle equipment with Journal Size D and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 177,000 lbs.
- 4-axle equipment with Journal Size E and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 220,000 lbs.
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) is not populated, must have Gross Rail Load (A266) of 263,000 lbs.
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 1 or 2, must have Gross Rail Load (A266) of 286,000 lbs.
- 4-axle equipment with Journal Size G or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) is not populated, must have Gross Rail Load (A266) of 315,000 lbs.
- 4-axle equipment with Journal Size G, K, or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 1, must have Gross Rail Load (A266) of 286,000 lbs.

## NOTES:

- A, B and C Journal Classes are prohibited in Interchange per Rule 90.B.4
- A, B, and C Journal Sizes are restricted from interchange and will receive the Mechanical Restriction XJ
- 4-axle equipment with 28 inch diameter, 1-wear wheels, is limited to a Gross Rail Load (A266) of 195,000 lbs.

### Wheel Diameter Mandatory A294

The diameter of the wheels

#### Permissible Values for A294

|    |           |    |           |
|----|-----------|----|-----------|
| 28 | 28 Inches | 33 | 33 Inches |
| 36 | 36 Inches | 38 | 38 Inches |

#### Validation Rule for A294

- Equipment with a Qualification for Increased Gross Rail Load (B344) of 1 and Journal Size (A147) of G or M must have a Wheel Diameter of 38
- Equipment with a Qualification for Increased Gross Rail Load (B344) of 1 and Journal Size (A147) of K, must have a wheel diameter of 36
- If Connected Unit Count (A020) is not reported, different Wheel Diameters cannot be reported

### Stability Device Equipped B199

Indicates a stability device is present on the truck

Affects Rating.

#### Permissible Values for B199

|   |     |
|---|-----|
| Y | Yes |
|---|-----|

### Bolster Component ID B351

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**Bolster Component ID from Component Registry**

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Sideframe Component ID****B352****Side Frame Component ID from Component Registry**

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Wheelset Component ID****B350****Component ID from Component Registry**

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Draft System Components****Coupler Code****A057**

Defines the equipment coupler type

**Permissible Values for A057**

|         |                                       |
|---------|---------------------------------------|
| BE60AHT | Type E (Rule 16) - BE60AHT            |
| BE60BHT | Type E Obsolete (Rule 16) - BE60BHT   |
| BE63AHT | Type E Obsolete (Rule 16) - BE63AHT   |
| BE63HT  | Type E (Rule 16) - BE63HT             |
| BE67HT  | Type E (Rule 16) - BE67HT             |
| E42BEX  | Type E/F (Rule 17) - E42BEX           |
| E50ARE  | Type E/F (Rule 17) - E50ARE           |
| E50BEX  | Type E/F (Rule 17) - E50BEX           |
| E60CC   | Type E (Rule 16) - E60CC              |
| E60CE   | Type E (Rule 16) - E60CE              |
| E60CEX  | Type E (Rule 16) - E60CEX             |
| E60CHT  | Type E (Rule 16) - E60CHT             |
| E60CHTE | Type E (Rule 16) - E60CHTE            |
| E60CHTQ | Type E (Rule 16) - E60CHTQ            |
| E60DC   | Type E (Rule 16) - E60DC              |
| E60DE   | Type E (Rule 16) - E60DE              |
| E60EE   | Type E (Rule 16) - E60EE              |
| E61     | Type E Obsolete (Rule 16) - E61       |
| E67AHT  | Type E (Rule 16) - E67AHT             |
| E67BC   | Type E (Rule 16) - E67BC              |
| E67BE   | Type E (Rule 16) - E67BE              |
| E67BHT  | Type E (Rule 16) - E67BHT             |
| E67BHTE | Type E (Rule 16) - E67BHTE            |
| E67CC   | Type E (Rule 16) - E67CC              |
| E67CE   | Type E (Rule 16) - E67CE              |
| E68AHT  | Type E/F Obsolete (Rule 17) - E68AHT  |
| E68AHTE | Type E/F Obsolete (Rule 17) - E68AHTE |
| E68BC   | Type E/F (Rule 17) - E68BC            |
| E68BE   | Type E/F (Rule 17) - E68BE            |
| E68BHT  | Type E/F (Rule 17) - E68BHT           |
| E68BHTE | Type E/F (Rule 17) - E68BHTE          |
| E68BHTQ | Type E/F (Rule 17) - E68BHTQ          |
| E68CE   | Type E/F (Rule 17) - E68CE            |
| E68DE   | Type E/F Obsolete (Rule 17) - E68DE   |
| E69AE   | Type E/F (Rule 17) - E69AE            |
| E69AHTE | Type E/F (Rule 17) - E69AHTE          |
| E69BE   | Type E/F (Rule 17) - E69BE            |
| E69CE   | Type E/F (Rule 17) - E69CE            |
| E69CEX  | Type E/F (Rule 17) - E69CEX           |
| E69HTE  | Type E/F (Rule 17) - E69HTE           |
| E69LCE  | Type E/F (Rule 17) - E69LCE           |
| EB7AHT  | Type E (Rule 16) - EB7AHT             |
| EF204CE | Type E/F (Rule 17) - EF204CE          |
| EF306CE | Type E/F (Rule 17) - EF306CE          |
| EF511AE | Type E/F (Rule 17) - EF511AE          |
| EF511BE | Type E/F (Rule 17) - EF511BE          |
| EF511CE | Type E/F (Rule 17) - EF511CE          |

|           |                                                         |
|-----------|---------------------------------------------------------|
| EF511DE   | Type E/F (Rule 17) - EF511DE                            |
| EF511LCE  | Type E/F (Rule 17) - EF511LCE                           |
| EF511WE   | Type E/F (Rule 17) - EF511WE                            |
| EF512CE   | Type E/F (Rule 17) - EF512CE                            |
| EF512WE   | Type E/F (Rule 17) - EF512WE                            |
| EF528WE   | Type E/F (Rule 17) - EF528WE                            |
| EF60BWE   | Type E/F (Rule 17) - EF60BWE                            |
| EFROTARY  | Type E/F Rotary - EFROTARY                              |
| EFSPEC    | Type E/F Special - EFSPEC                               |
| EFUNK     | Type E/F Unknown - EFUNK                                |
| ESPEC     | Type E Special - ESPEC                                  |
| EUNK      | Type E Unknown - EUNK                                   |
| EK323CE   | Type E (Rule 16) - EK323CE (Long Travel)                |
| F70BHT    | Type F Obsolete (Rule 18) - F70BHT                      |
| F70BHTE   | Type F Obsolete (Rule 18) - F70BHTE                     |
| F70CC     | Type F (Rule 18) - F70CC                                |
| F70CE     | Type F (Rule 18) - F70CE                                |
| F70CHT    | Type F (Rule 18) - F70CHT                               |
| F70CHTE   | Type F (Rule 18) - F70CHTE                              |
| F70DE     | Type F (Rule 18) - F70DE                                |
| F70HT     | Type F Obsolete (Rule 18) - F70HT                       |
| F71CHT    | Type F (Rule 18) - F71CHT                               |
| F72HT     | Type F (Rule 18) - F72HT                                |
| F73AC     | Type F (Rule 18) - F73AC                                |
| F73AE     | Type F (Rule 18) - F73AE                                |
| F73AHT    | Type F (Rule 18) - F73AHT                               |
| F73AHTE   | Type F (Rule 18) - F73AHTE                              |
| F73BE     | Type F (Rule 18) - F73BE                                |
| F73HTE    | Type F Obsolete (Rule 18) - F73HTE                      |
| F79BHT    | Type F Obsolete (Rule 18) - F79BHT                      |
| F79BHTE   | Type F Obsolete (Rule 18) - F79BHTE                     |
| F79CC     | Type F (Rule 18) - F79CC                                |
| F79CE     | Type F (Rule 18) - F79CE                                |
| F79CHT    | Type F (Rule 18) - F79CHT                               |
| F79CHTE   | Type F (Rule 18) - F79CHTE                              |
| F79DE     | Type F (Rule 18) - F79DE                                |
| FF218AE   | Type F (Rule 18) - FF218AE                              |
| FR201E    | Type F (Rule 18) Rotary - FR201E                        |
| FR205AE   | Type F (Rule 18) Rotary - FR205AE                       |
| FR205BE   | Type F (Rule 18) Rotary - FR205BE                       |
| FR205E    | Type F (Rule 18) Rotary - FR205E                        |
| FR206E    | Type F (Rule 18) Rotary - FR206E                        |
| FR206EA   | Type F (Rule 18) Rotary - FR206EA                       |
| FR207AE   | Type F (Rule 18) Rotary - FR207AE                       |
| FR207E    | Type F (Rule 18) Rotary - FR207E                        |
| FR208AE   | Type F (Rule 18) Rotary - FR208AE (without wear insert) |
| FR208E    | Type F (Rule 18) Rotary - FR208E (with wear insert)     |
| FR209E    | Type F (Rule 18) Rotary - FR209E                        |
| FR301E    | Type F (Rule 18) Rotary - FR301E                        |
| FR304E    | Type F (Rule 18) Rotary - FR304E (with wear plate)      |
| FR304WE   | Type F (Rule 18) Rotary - FR304WE (without wear plate)  |
| FROTARY   | Type E/F Rotary - FROTARY                               |
| FSPEC     | Type F Special - FSPEC                                  |
| FUNK      | Type F Unknown - FUNK                                   |
| S700AE    | Type E (Rule 16) - S700AE                               |
| SBE60CC   | Type E (Rule 16) - SBE60CC                              |
| SBE60CE   | Type E (Rule 16) - SBE60CE                              |
| SBE60DC   | Type E (Rule 16) - SBE60DC                              |
| SBE60DE   | Type E (Rule 16) - SBE60DE                              |
| SE60DEX   | Type E (Rule 16) - SE60DEX                              |
| SBE60DREX | Type E (Rule 16) - SBE60DREX                            |
| SBE60EE   | Type E (Rule 16) - SBE60EE                              |
| SBE60EEX  | Type E (Rule 16) - SBE60EEX                             |
| SBE67BC   | Type E (Rule 16) - SBE67BC                              |
| SBE67BE   | Type E (Rule 16) - SBE67BE                              |
| SBE67CC   | Type E (Rule 16) - SBE67CC                              |
| SBE67CE   | Type E (Rule 16) - SBE67CE                              |
| SBE67CREX | Type E (Rule 16) - SBE67CREX                            |

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|           |                                |
|-----------|--------------------------------|
| SBE67DE   | Type E (Rule 16) - SBE67DE     |
| SBE68BC   | Type E/F (Rule 17) - SBE68BC   |
| SBE68BE   | Type E/F (Rule 17) - SBE68BE   |
| SBE68CE   | Type E/F (Rule 17) - SBE68CE   |
| SBE68CREX | Type E/F (Rule 17) - SBE68CREX |
| SBE68DE   | Type E/F (Rule 17) - SBE68DE   |
| SBE68WEX  | Type E/F (Rule 17) - SBE68WEX  |
| SBE69AE   | Type E/F (Rule 17) - SBE69AE   |
| SBE69BE   | Type E/F (Rule 17) - SBE69BE   |
| SBE69BREX | Type E/F (Rule 17) - SBE69BREX |
| SBE69CE   | Type E/F (Rule 17) - SBE69CE   |
| SE60CC    | Type E (Rule 16) - SE60CC      |
| SE60CE    | Type E (Rule 16) - SE60CE      |
| SE60CHT   | Type E (Rule 16) - SE60CHT     |
| SE60CHTE  | Type E (Rule 16) - SE60CHTE    |
| SE60DC    | Type E (Rule 16) - SE60DC      |
| SE60DE    | Type E (Rule 16) - SE60DE      |
| SE60EE    | Type E (Rule 16) - SE60EE      |
| SE67BC    | Type E (Rule 16) - SE67BC      |
| SE67BE    | Type E (Rule 16) - SE67BE      |
| SE67BHT   | Type E (Rule 16) - SE67BHT     |
| SE67BHTE  | Type E (Rule 16) - SE67BHTE    |
| SE67CC    | Type E (Rule 16) - SE67CC      |
| SE67CE    | Type E (Rule 16) - SE67CE      |
| SE68BC    | Type E/F (Rule 17) - SE68BC    |
| SE68BE    | Type E/F (Rule 17) - SE68BE    |
| SE68BHT   | Type E/F (Rule 17) - SE68BHT   |
| SE68BHTE  | Type E/F (Rule 17) - SE68BHTE  |
| SE68CE    | Type E/F (Rule 17) - SE68CE    |
| SE69AE    | Type E/F (Rule 17) - SE69AE    |
| SE69BE    | Type E/F (Rule 17) - SE69BE    |
| SE69CE    | Type E/F (Rule 17) - SE69CE    |
| SF70CC    | Type F (Rule 18) - SF70CC      |
| SF70CE    | Type F (Rule 18) - SF70CE      |
| SF70CHT   | Type F (Rule 18) - SF70CHT     |
| SF70CHTE  | Type F (Rule 18) - SF70CHTE    |
| SF70DE    | Type F (Rule 18) - SF70DE      |
| SF79CC    | Type F (Rule 18) - SF79CC      |
| SF79CE    | Type F (Rule 18) - SF79CE      |
| SF79CHT   | Type F (Rule 18) - SF79CHT     |
| SF79CHTE  | Type F (Rule 18) - SF79CHTE    |
| SF79DE    | Type F (Rule 18) - SF79DE      |

**Validation Rule for A057**

- If Rotary Coupler Style is reported, then Coupler Code must be a rotary coupler.
- If Coupler Code is a rotary coupler, then Coupler Style must be R (Rotary).
- Coupler Code of Type E Obsolete (Rule 16) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of Type E/F Obsolete (Rule 17) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of Type F Obsolete (Rule 18) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of FROTARY or EFROTARY cannot be reported for cars Built or Rebuilt on or after August 12, 2014.

**NOTES:**

- Obsolete: All Type D couplers are obsolete and should report code DOBS; cars with this coupler code will be restricted in interchange as discussed below.
- Unknown: If the coupler code is unknown or if the code stamped on the coupler is illegible, the code BUNK FUNK, EFUNK, or LOCOUNK should be reported.
- Special: Codes ESPEC, FSPEC, and EFSPEC have been created to decline coupler bodies that have been manufactured specifically for the equipment owner and are not listed in the attached table.
- The codes FROTARY and EFROTARY cannot be reported for equipment Built or Rebuilt since August 12, 2014.

|                                                     |             |
|-----------------------------------------------------|-------------|
| <b>Coupler Style</b> <i>Mandatory</i>               | <b>B058</b> |
| Describes the basic coupler design of the equipment |             |

Affects Rating.

**Permissible Values for B058**

|   |              |   |              |
|---|--------------|---|--------------|
| B | Bottom Shelf | D | Double Shelf |
| P | Plain        | R | Rotary       |

**Validation Rule for B058**

- If Draft System Type (B073) is H (Hydraulic) then Coupler Style (B058) cannot be reported as M (Solid Drawbar) or L (Rotary Drawbar)
- If Draft System Type (B073) is not Center Of Car or End Of Car, Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) of Center Of Car or End Of Car is reported then Inches of Travel (B061) must also be reported
- If Draft System Type (B073) is E then Coupler Style (B058) cannot be reported as L or R

|                                                 |             |
|-------------------------------------------------|-------------|
| <b>Inches of Travel</b>                         | <b>B061</b> |
| The number of inches a draft system will travel |             |

Affects Rating.

**Range of Values for B061**

| Minimum | Maximum |
|---------|---------|
| 1       | 30      |

**Validation Rule for B061**

- If Draft System Type (B073) is not Center Of Car or End Of Car, Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) of Center Of Car or End Of Car is reported then Inches of Travel (B061) must also be reported
- Inches of Travel cannot be greater than 20 for equipment with a Built Date (BLDT) on or after January 1, 1974

|                                                  |             |
|--------------------------------------------------|-------------|
| <b>Draft System Type</b> <i>Mandatory</i>        | <b>B073</b> |
| Describes the draft gear/underframe cushion type |             |

Affects Rating.

**Permissible Values for B073**

|   |                                                                               |
|---|-------------------------------------------------------------------------------|
| C | Cushioning at Center of Car (COC)                                             |
| E | Cushioning at End of Car (EOC)                                                |
| S | Standard Draft Gear                                                           |
| X | Devices with less than 6 inches buff travel approved under AAR Standard S-060 |
| Y | Devices with 6 to 10 inches of buff travel approved under AAR Standard S-060  |

**Validation Rule for B073**

- If Draft System Type (B073) is Standard Draft Gear (S), Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) is reported as C, E, X, or Y then Inches of Travel (B061) must also be reported
- If Draft System Type (B073) of X, or Y is reported then Draft Gear Group/Cushion Unit Pocket (B562) cannot be reported
- If Draft System Type (B073) X is reported, the Inches of Travel (B061) value must be greater than or equal to 1 and less than 6
- If Draft System Type (B073) Y is reported, the Inches of Travel (B061) value must be greater than or equal to 6 and less than or equal to 10
- If Draft System Type (B073) is S then Draft Gear Group/Cushion Unit Pocket (B562) may only be A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z (AAR Rule 21)
- If Draft System Type (B073) is E then Draft Gear Group/Cushion Unit Pocket (B562) may only be EOC-1,EOC-1D, EOC-1B, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B,EOC-4, EOC-4B, EOC-5, EOC-5D, EOC-5B, EOC-6, EOC-6D, EOC-6B, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-8F, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10, EOC-10D, EOC-10B, EOC-10F, EOC-11, EOC-11D, EOC-11B,EOC-12, EOC-12D, EOC-12B, EOC-13, EOC-13B, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16, EOC-16D, EOC-16B, EOC-17, EOC-17D, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-23, EOC-23B, EOC-24, EOC-24B, EOC-25E, EOC-26B, EOC-26F, or EOC-27D, or EOC-27E (AAR Rule 59)

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| Draft Gear Group/Cushion Unit Pocket                                                                | B562 |
|-----------------------------------------------------------------------------------------------------|------|
| Draft Gear Group/Cushion Unit Pocket value as listed in AAR Field Manual Interchange Rule 21 and 59 | ★    |

Carry forward for Single Clone / Multi-Clone / Restencil / Add-Back / Equipment Group Change.

**Permissible Values for B562** EOC-1, EOC-1D, EOC-1B, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B, EOC-4, EOC-4B, EOC-5, EOC-5D, EOC-5B, EOC-6, EOC-6D, EOC-6B, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-8F, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10, EOC-10D, EOC-10B, EOC-10F, EOC-11, EOC-11D, EOC-11B, EOC-12, EOC-12D, EOC-12B, EOC-13, EOC-13B, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16, EOC-16D, EOC-16B, EOC-17, EOC-17D, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-23, EOC-23B, EOC-24, EOC-24B, EOC-25E, EOC-26B, EOC-26F, EOC-27D, EOC-27E, COC-1, COC-2, COC-3, COC-4, COC-5, COC-6, COC-7, COC-8 (AAR Rule 59).

A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, Z (AAR Rule 21).

**Validation Rule(s) for B562**

- Draft Gear Group/Cushion Unit Pocket (B562) is mandatory for equipment built on or after June 13, 2019, unless Draft System Type (B073) is reported as X or Y
- If Draft Gear Group/Cushion Unit Pocket (B562) is not equal to A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z, then Cushion Unit Type (B563) must be populated
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-6, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-9, EOC-9B, EOC-9D, EOC-10, EOC-10B, EOC-10D, EOC-14, EOC-14B, EOC-18D, EOC-23, EOC-23B, EOC-24, EOC-25E, EOC-26B, or EOC-27D then the Cushion Unit Type (B563) must be 1
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-9E, EOC-26F, or EOC-27E, then the Cushion Unit Type (B563) must be 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-11, EOC-12, EOC-13, EOC-13B, EOC-15, EOC-15B, EOC-15D, EOC-17, EOC-17B, EOC-17D, EOC-18, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-24B, COC-3, COC-5, or COC-7 then the Cushion Unit Type (B563) must be 1 or 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-8F or EOC-10F then the Cushion Unit Type (B563) must be 2 or 3
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-5, EOC-5B, EOC-5D, EOC-6, EOC-6B, EOC-6D EOC-11B, EOC-11D, EOC-12B, EOC-12D, or COC-4 then the Cushion Unit Type (B563) must be 1, 2, or 3
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-16D, or COC-1 then the Cushion Unit Type (B563) must be 1, 2, or 4
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-2B, EOC-2D, EOC-3, EOC-3B, EOC-4, EOC-4B, or COC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, or 4
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1, EOC-1B, EOC-1D, or EOC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-8 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1D, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B, EOC-5, EOC-5D, EOC-5B, EOC-6D, EOC-7, EOC-7B, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10D, EOC-11, EOC-11B, EOC-11D, EOC-12D, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16D, EOC-17D, EOC-23, EOC-23B, EOC-27D, or EOC-27E then the Inches of Travel (B061) must be 10
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-19, EOC-19B, EOC-22, EOC-22B, or EOC-25E then the inches of travel must be 12
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-20 or EOC-20B then the Inches of Travel (B061) must be 14
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1B, EOC-4, EOC-4B, EOC-6, EOC-6B, EOC-8, EOC-8B, EOC-8F, EOC-10, EOC-10B, EOC-10F, EOC-12, EOC-12B, EOC-13, EOC-13B, EOC-17, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-21, EOC-21B, EOC-24, or EOC-24B then the Inches of Travel (B061) must be 15
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-2, COC-3, COC-4, COC-5, COC-6, or COC-8 then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 1 or 2, then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 4, then the Inches of Travel (B061) must be 18
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 2, then the Inches of Travel (B061) must be 20

- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 1, then the Inches of Travel (B061) must be 30
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1 then the Inches of Travel (B061) must be 10, 12, or 15
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-26, then the Inches of Travel (B061) must be 18

**Note:**

Reference AAR Field Manual Interchange Rule(s) 21 and 59.

| Cushion Unit Type                                                                | B563 |
|----------------------------------------------------------------------------------|------|
| Cushion Unit Type value as listed in AAR Field Manual Interchange Rule 21 and 59 | ★    |

Carry forward for Single Clone / Multi-Clone / Restencil / Add-Back / Equipment Group Change.

**Permissible Values for B563**

- 1 – Type 1
- 2 – Type 2
- 3 – Type 3
- 4 – Type 4
- 5 – Type 5
- S – Type S

**Validation Rule(s) for B563**

- Cushion Unit Type (B563) is mandatory for equipment built on or after June 13, 2019.
- If Draft Gear Group/Cushion Unit Pocket (B562) is not equal to A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z, then Cushion Unit Type (B563) must be populated.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-6, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-9, EOC-9B, EOC-9D, EOC-10, EOC-10B, EOC-10D, EOC-14, EOC-14B, EOC-18D, EOC-23, EOC-23B, EOC-24, EOC-25E, or EOC-26B then the Cushion Unit Type (B563) must be 1.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-9E, EOC-26F, or EOC-27E, then the Cushion Unit Type (B563) must be 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-11, EOC-12, EOC-13, EOC-13B, EOC-15, EOC-15B, EOC-15D, EOC-17, EOC-17B, EOC-17D, EOC-18, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-24B, COC-3, COC-5, or COC-7 then the Cushion Unit Type (B563) must be 1 or 2.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-8F or EOC-10F then the Cushion Unit Type (B563) must be 2 or 3.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-5, EOC-5B, EOC-5D, EOC-6, EOC-6B, EOC-6D EOC-11B, EOC-11D, EOC-12B, EOC-12D, or COC-4 then the Cushion Unit Type (B563) must be 1, 2, or 3.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-16D, or COC-1 then the Cushion Unit Type (B563) must be 1, 2, or 4.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-2B, EOC-2D, EOC-3, EOC-3B, EOC-4, EOC-4B, or COC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, or 4.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1, EOC-1B, EOC-1D, or EOC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-8 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 1 or 2, then the Inches of Travel (B061) must be 20.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 4, then the Inches of Travel (B061) must be 18.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 2, then the Inches of Travel (B061) must be 20.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 1, then the Inches of Travel (B061) must be 30.

**Note:**

Reference AAR Field Manual Interchange Rule(s) 21 and 59.



## Data Specification Manual

**Coupler Component ID** B353

## Coupler Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Cushioning Unit Component ID** B361

## Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Unit Segment Components****Unit Equipment Group** A307

## Describes the equipment type of the platform

Affects Rating.

**Permissible Values for A307**

|      |                 |      |          |
|------|-----------------|------|----------|
| BOXC | Box Car         | FLAT | Flat Car |
| GOND | Gondola         | HOPP | Hopper   |
| IFLT | Intermodal Flat | TANK | Tank Car |
| VFLT | Vehicular Flat  |      |          |

**Validation Rule for A307**

- Unit Equipment Group cannot be reported if the Connected Unit Count (A020) is not reported
- Unit Equipment Group can only be reported if Connected Unit Count (A020) is reported

**Unit Tare Weight** A299

The unit segment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds

**Range of Values for A299**

| Minimum | Maximum |
|---------|---------|
| 65000   | 136000  |

**Validation Rule for A299**

- Unit Tare Weight must not be reported if the Connected Unit Count (A020) is not reported
- Unit Tare Weight must be reported if Connected Unit Count (A020) is reported
- Unit Segment Tare Weights must add up to the Total Tare Weight (A259)
- Unit Tare Weight (A299) value must be reported to the nearest 100 pounds

**Unit Load Limit** A300

The maximum permissible weight of the commodity that can be loaded into the unit segment, reported in pounds

**Range of Values for A300**

| Minimum | Maximum |
|---------|---------|
| 36000   | 150000  |

**Validation Rule for A300**

- Unit Load Limit can not be reported if the Connected Unit Count (A020) is not reported
- Unit Load Limit must be reported if Connected Unit Count (A020) is reported
- Unit Segment Load Limits must add up to the Load Limit (LDLT)

**Unit Inside Length** A301

The inside length of each unit segment

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A301**

| Minimum        | Maximum        |
|----------------|----------------|
| 69 ft 0 inches | 99 ft 3 inches |

**Validation Rule for A301**

- Unit Inside Length can only be reported if Connected Unit Count (A020) is reported
- Unit Inside Length must be reported if Connected Unit Count (A020) is reported

**Brake System Components****Emergency Brake Valve CID** B354

## Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Emergency Valve COTS Date** B567

## Brake valve emergency portion recondition date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve COTS Date is system-generated from a Emergency Brake Valve Inspection.

**Emergency Valve OEM Warranty Date** B568

## Brake valve emergency portion Original Equipment Manufacturer warranty date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve OEM Date is system-generated from a Emergency Brake Valve Inspection.

**Emergency Valve Part Number** B569

## Brake valve emergency portion part number

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve Part Number is system-generated from a Emergency Brake Valve Inspection.

**Service Brake Valve CID** B357

## Component ID from Component Registry

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Service Valve COTS Date** B564

## Brake valve service portion recondition date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve COTS Date is system-generated from a Service Brake Valve Inspection.

**Service Valve OEM Warranty Date** B565

## Brake valve service portion Original Equipment Manufacturer warranty date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve OEM Date is system-generated from a Service Brake Valve Inspection.

**Service Valve Part Number** B566

## Brake valve service portion part number

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve Part Number is system-generated from a Service Brake Valve Inspection.

## Data Specification Manual

| Slack Adjuster CID                   | B359 |
|--------------------------------------|------|
| Component ID from Component Registry |      |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## Miscellaneous

| Umler Effective Date                                                                     | EFDT |
|------------------------------------------------------------------------------------------|------|
| The date the rating activity (pre-registration, modification, etc.) is expected to occur |      |

This element is not eligible for Query. Does not Carry Forward.

**Validation Rule for EFDT**

-Effective Date cannot be set to more than 13 months in the future.

**NOTES:**

- Effective Date will default to the 1st of the following month that equipment is registered

## Inspection

| ABT Due Date (Repair Track)                                    | DU13 |
|----------------------------------------------------------------|------|
| The due date of the air brake test per AAR Field Manual Rule 3 |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

| ABT 5-8 Year Due Date                                                                    | DU58 |
|------------------------------------------------------------------------------------------|------|
| The 5-8 year due date for the air brake test (ABT) after the ABT Due Date (Repair Track) |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

| SS Inspection Due Date       | DUAI |
|------------------------------|------|
| Autorack Inspection Due Date |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Equipment Group Change / Add Back.

| Inspection Date Done                                                                       | DTDN |
|--------------------------------------------------------------------------------------------|------|
| The date the inspection was completed; used for all inspection types reported on equipment |      |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Validation Rule for DTDN**

-The inspection date must not be 60 days before the Build Date

| Exterior Door | EXDR |
|---------------|------|
| Exterior Door |      |

Data is Confidential. This element is not eligible for Input, Output or Query. Does not Carry Forward.

| Exterior Roof Sheets | EXRS |
|----------------------|------|
| Exterior Roof Sheets |      |

Data is Confidential. This element is not eligible for Input, Output or Query. Does not Carry Forward.

| Exterior Shear Panel | EXSP |
|----------------------|------|
| Exterior Shear Panel |      |

Data is Confidential. This element is not eligible for Input, Output or Query. Does not Carry Forward.

| Exterior Side Screens | EXSS |
|-----------------------|------|
| Exterior Side Screens |      |

Data is Confidential. This element is not eligible for Input, Output or Query. Does not Carry Forward.

| Inspection Due Date                                                                      | INDD |
|------------------------------------------------------------------------------------------|------|
| The due date of the next inspection; used for all inspection types reported on equipment |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

| Interior Door | INDR |
|---------------|------|
| Interior Door |      |

Data is Confidential. Does not Carry Forward.

| Inspector ID | INID |
|--------------|------|
| Inspector ID |      |

Does not Carry Forward.

| Interior Side Posts | INSI |
|---------------------|------|
| Interior Side Posts |      |

Data is Confidential. Does not Carry Forward.

| Inspection Performer                                                                        | PERF |
|---------------------------------------------------------------------------------------------|------|
| The SCAC that completed the inspection; used for all inspection types reported on equipment |      |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

| Inspection Reporter                                                                        | REPT |
|--------------------------------------------------------------------------------------------|------|
| The SCAC that reported the inspection; used for all inspection types reported on equipment |      |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

| Location/SPLC                                                                            | SPLC |
|------------------------------------------------------------------------------------------|------|
| The SPLC of the inspecting location; used for all inspection types reported on equipment |      |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

| Top Deck Surface | TPDS |
|------------------|------|
| Top Deck Surface |      |

Data is Confidential. This element is not eligible for Input, Output or Query. Does not Carry Forward.

| Underside of Deck | UNOD |
|-------------------|------|
| Underside Of Deck |      |

Data is Confidential. This element is not eligible for Input, Output or Query. Does not Carry Forward.

| Insp Service Valve COTS Date                 | B570 |
|----------------------------------------------|------|
| Brake valve service portion recondition date |      |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**NOTES:**

- Reports of 9999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMY

| Insp Service Valve OEM Warranty Date                                      | B571 |
|---------------------------------------------------------------------------|------|
| Brake valve service portion Original Equipment Manufacturer warranty date |      |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**NOTES:**

- Reports of 999999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMYYYY

## Data Specification Manual

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Insp Service Valve Part Number</b> <b>B572</b><br>Brake valve service portion part number<br>Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                                                                                                                                                                                                                            | <b>Insp Service Valve Location <i>Mandatory</i></b> <b>B576</b><br>Brake valve service portion location<br>. Value does not carry forward for Single Clone / Multi-Clone.                                                   |
| <b>Insp Emergency Valve COTS Date</b> <b>B573</b><br>Brake valve emergency portion recondition date<br>Value does not carry forward for Single Clone / Multi-Clone / Add Back.<br><b>NOTES:</b> <ul style="list-style-type: none"> <li>• Reports of 9999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.</li> <li>• Valid date format: MMY</li> </ul>                                                                                                  | <b>Insp Emergency Valve Location <i>Mandatory</i></b> <b>B577</b><br>Brake valve emergency portion location reported on an emergency brake valve inspection<br>Value does not carry forward for Single Clone / Multi-Clone. |
| <b>Insp Emergency Valve OEM Warranty Date</b> <b>B574</b><br>Brake valve emergency portion Original Equipment Manufacturer warranty date<br>System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.<br><b>NOTES:</b> <ul style="list-style-type: none"> <li>• Reports of 999999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.</li> <li>• Valid date format: MMYYYY</li> </ul> |                                                                                                                                                                                                                             |
| <b>Insp Emergency Valve Part Number</b> <b>B575</b><br>Brake valve emergency portion part number<br>System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                             |

## Data Specification Manual

## Locomotives

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## Data Specification Manual

## General

**Status Code** *Mandatory* USCDIdentifies the current operational state ●

Does not Carry Forward.

**Permissible Values for USCD**

A ACTIVE I INACTIVE  
P PRE-REGISTERED

**NOTES:**

- For Restencil and Clone process the initial Status of a car should be Pre-Registered.
- All Add-Back processes should initially set the Status to Pre-Registered
- A Pre-registered car will automatically have its Status changed to Active for the initial change when TRAIN detects three (3) movements on the car
- If the Status changes to Active due to movement and the car was created from a Restencil, the Prior Equipment ID (PRID) or source car will have its status changed to Inactive automatically by Umler

**Equipment ID** 0001

The equipment stenciled number

**Validation Rule for 0001**

-Equipment Number must not be larger than 6 digits (i.e., 999999)

**NOTES:**

- Equipment ID includes the mark and number stenciled on the equipment. Marks can be up to 4 characters and number up to 6 digits (i.e., ABCD999999).
- Up to 500 cars can be added or updated in a transaction.
- When adding an equipment record, ensure that Prior Equipment ID (PRID) is reported, unless the equipment is new.

**Mechanical Designation** *Mandatory* UMMDEquipment description without physical dimensions ●

Used for Transportation Codes.

**Permissible Values for UMMD**

D Locomotive

**Equipment Descriptor** *Mandatory* B341Additional information about the type of equipment used in conjunction with the Mechanical Designation to generate the Equipment Type Code (ETC) for Intermodal Flat, Locomotive, Chassis, Container, and Trailer equipment groups ●

Value does not carry forward for Equipment Group Change.

**Permissible Values for B341**

DA Auxiliary Unit  
DE All Electric  
DFGT Freight Diesel-Electric  
DNCF Non-Cab Freight  
DNCP Non-Cab Passenger  
DPAS Passenger Diesel-Electric  
DSTM Steam (New)  
DSW Switching

**Equipment Type Code** UMET

An alpha numeric code that describes the physical attributes of equipment

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Please Refer to Appendix I for More information Regarding ETC Generation

**Built Date** *Mandatory* BLDTThe date the construction of the equipment is complete ●

Data is Confidential. Used for Transportation Codes. Affects Rating. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for BLDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for BLDT**

- Built Date must not be in the future for equipment in Active Status
- Prior and target equipment's Built Date (BLDT) must match

**NOTES:**

- Data is public for railroad marked equipment.
- For connected unit cars report the oldest car in the set.

**Rebuilt / ILS Date** RBDT

The date the re-construction of the equipment is complete

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for RBDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for RBDT**

- Rebuilt/Increased Life Service Date must be after the Built Date (BLDT)
- Rebuilt Date is required for Extended Service Code (A096) 1, 2, or 3 for Increased Life Service
- Rebuilt Date is required for Extended Service Code (A096) R for Rebuilt, or V for 65 years of service
- If Rebuilt Date is reported then the Extended Service Code (A096) must be reported as R for Rebuilt, V, 1, 2, or 3 for Increased Life Service

**NOTES:**

- Railroad cars -- applicable only to cars meeting status as provided in both STB Accounting Rules, and the AAR Mechanical Interchange Rule 88, Office Manual.
- Private cars -- applicable to all cars meeting AAR Mechanical Interchange Rule 88, Section C, Office Manual and Sections A and B of the Field Manual.
- For connected unit cars report the oldest car in the set. Do not report Rebuilt Date unless car has been approved by the AAR.

**Rebuilt Flag** RBFL

Identifies the equipment is nearing its end of life cycle

Data is Confidential. System Generated Field. This element is not eligible for Input.

**Permissible Values for RBFL**

N No Y Yes

**Owner** *Mandatory* UMOWPrimary reporting mark of the railroad or private company owning the car ●

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**NOTES:**

- Report the primary reporting mark of the railroad or private company owning the car. When car's lease or lien is held by a bank, trust holder, capital lease company, etc. not having an assigned mark, report the primary reporting mark affiliated with the stenciled reporting mark.

**Equipment Group** *Mandatory* 0002Identifies the various major car types ●

Used for Transportation Codes. Affects Rating.

**Lessee** LESE

The reporting mark of the company leasing the equipment

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**Validation Rule for LESE**

-Umler Owner (UMOW) and Lessee are not allowed to be equal

**NOTES:**

- In order to assign privately marked cars to a pool, a railroad reporting mark must be reported.

## Data Specification Manual

**Maintenance Party****MNPT**

The parent reporting mark of the company responsible for the maintenance and repairs of the equipment

Does not Carry Forward.

**Mark Owner Category****B201**

The company that owns the stenciled mark on the car

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**Permissible Values for B201**

|   |                            |
|---|----------------------------|
| B | US Private                 |
| C | Canadian Private           |
| F | Foreign Private            |
| H | Canadian Class II          |
| I | Canadian Class I           |
| J | Mexican Class I            |
| K | Canadian Class III         |
| M | Mexican Private            |
| N | US Private Steamship       |
| O | Canadian Private Steamship |
| P | Mexican Private Steamship  |
| Q | Foreign Private Steamship  |
| R | US Class II Railroad       |
| U | US Class I Railroad        |
| V | US Class III Railroad      |
| W | Mexican Class II Railroad  |
| Y | Mexican Class III Railroad |

**NOTES:**

- This value is stored in the Umler Database for informational purposes and is retrieved from the Roadmark Registry.

**Prior Equipment ID****PRID**

The previous reporting mark and number of the equipment

Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for PRID**

- Prior and target equipment's Built Date (BLDT) must match
- The Prior Equipment ID (0001) must belong to the same or comparable Equipment Group (0002) as the current car initial and number

**NOTES:**

- Prior ID enables equipment records to share the same historical lineage. Equipment Identification Number (EIN) is a generated id that enables these equipment records to share inspections and transaction history.

**Last Update Date****B122**

Date of the last Umler element change

System Generated Field. This element is not eligible for Input.

**Equipment Add Date****B082**

Date the reporting mark and number was added to the Umler system

System Generated Field. This element is not eligible for Input.

**Status Change Reason****USCR**

Identifies the reason for the current operational state

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for USCR**

|   |                         |
|---|-------------------------|
| I | Initial Load            |
| M | Movement                |
| O | Status Changed Manually |
| R | Restencil               |

**NOTES:**

- If movement is detected on equipment, status is changed to Active.
- If an equipment record is changed to Active, any prior equipment record is placed in Inactive status.

**Status Change Date****USCT**

Identifies the effective date of the current operational state

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

**Equipment Identification****EINN**

Unique equipment identifier regardless of stenciled mark

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Specify the Prior ID (PRID) on equipment records to ensure the historical lineage is preserved. Equipment with the same EIN share history and inspections.

**Conflict Status****B050**

Identifies the escalation level of equipment in active conflict

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B050**

- 1 Subject to Zero-Rating
- 2 Subject to Restricted in Interchange
- 3 Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

**Date of Original Conflict****B063**

The date the equipment was originally placed in the current conflict

System Generated Field. This element is not eligible for Input.

**Next Conflict Status****B135**

Identifies the next escalation level of an equipment in active conflict

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B135**

- 1 Subject to Zero-Rating
- 2 Subject to Restricted in Interchange
- 3 Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

**Notice Indicator****B137**

Identifies equipment in error in Umler Notice Management

System Generated Field. This element is not eligible for Input.

**Conflict Status Next Date****B062**

The date the conflict status will be escalated

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Rate Indicator****A070**

Indicates the rate type applicable to the unit

System Generated Field. Used for Transportation Codes. Affects Rating. This

## Data Specification Manual

element is not eligible for Input. Does not Carry Forward.

**Permissible Values for A070**

- 0 Zero-Rated Due to Conflict Errors
- 6 Zero-Rated - Scrap (S\_SX), AAR Overage (XA), FRA Overage (YA), Umler Conflict - CHR 1/Tariff 6007 (XZ). Zero-Rated Private Owner Election to Zero Rate [See Private Zero Rate (B150)].

**NOTES:**

- If unit is zero-rated, correction of conflicts will reinstate the appropriate rate indicator code.

| First Movement Date                                               | USAT |
|-------------------------------------------------------------------|------|
| The first movement date under the stenciled mark of the equipment |      |
| This element is not eligible for Input. Does not Carry Forward.   |      |

| Equipment Add Company                                           | B083 |
|-----------------------------------------------------------------|------|
| The reporting mark of the company that added the equipment      |      |
| System Generated Field. This element is not eligible for Input. |      |

| Registration Reason                                    | B174 |
|--------------------------------------------------------|------|
| The code indicating the reason this equipment is added |      |
| Does not Carry Forward.                                |      |

**Permissible Values for B174**

- |   |                   |   |           |
|---|-------------------|---|-----------|
| A | Add-Back          | N | New       |
| P | Pending Restencil | R | Restencil |

| Restencil Program Ind                                 | B177 |
|-------------------------------------------------------|------|
| Identifies the equipment is under a restencil program |      |
| <b>Permissible Values for B177</b>                    |      |
| Y Yes                                                 |      |

| Delete Reason Code                                               | B064 |
|------------------------------------------------------------------|------|
| A code that designates the reason the equipment has been deleted |      |
| Value does not carry forward for Add Back.                       |      |

**Permissible Values for B064**

- |   |                                              |
|---|----------------------------------------------|
| A | Restenciled                                  |
| D | Destroyed or wrecked                         |
| L | Lease terminated, removed from fleet         |
| P | Retired unserviceable beyond economic repair |
| R | Rebuilt                                      |
| S | Sold Serviceable                             |
| T | Lost                                         |
| W | Over age retired for dismantling             |
| Y | Error, reporting did not exist               |
| Z | Other                                        |

## Weight

| Loco Gross Weight <i>Mandatory</i> | A115 |
|------------------------------------|------|
| Weight On Drivers                  |      |

**Range of Values for A115**

| Minimum | Maximum |
|---------|---------|
| 100000  | 999999  |

## Dimension

| Plate Code                                                        | A046 |
|-------------------------------------------------------------------|------|
| Indicates the extreme height and width clearance of the equipment |      |

**Permissible Values for A046**

- |   |                  |
|---|------------------|
| B | Plate Code B     |
| C | Plate Code C     |
| E | Plate Code E     |
| F | Plate Code F     |
| G | Clearance Code G |

- |   |              |
|---|--------------|
| L | Plate Code L |
| M | Plate Code M |
| N | Plate Code N |

**NOTES:**

- For a description of Plate Codes, please see Appendix J at the back of this manual.
  - Report B: If clearance does not exceed Plate B
  - Report C: If clearance is greater than Plate B. but does not exceed Plate C
  - Report E: If clearance is greater than Plates B and C, but does not exceed Plate E.
  - Report F: If clearance is greater than Plates B, C and E, but does not exceed Plate F
  - Report M: If clearance does not exceed Plate M.
  - Report G: If clearance exceeds Plates B, C, E, F, L, M, and N.
- There is no AAR Plate G. Clearance Code G is included in Umler to represent equipment that does not fit any existing AAR clearance plates.
- Plate L is not reportable for locomotives built on or after January 1, 2018.
- For ARTICULATED/MULTI-UNIT SET report the most restrictive clearance plate of UNIT in the set.

| Outside Length <i>Mandatory</i>                                      | OSLG |
|----------------------------------------------------------------------|------|
| The outside length over pulling faces of couplers in normal position |      |
| Displayed in feet and inches on the Web. Stored in inches.           |      |

**Range of Values for OSLG**

| Minimum        | Maximum         |
|----------------|-----------------|
| 37 ft 0 inches | 140 ft 0 inches |

**NOTES:**

- For connected unit cars report the maximum coupled length of the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

| Outside Extreme Width <i>Mandatory</i>     | A186 |
|--------------------------------------------|------|
| The outside extreme width of the equipment |      |

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A186**

| Minimum       | Maximum         |
|---------------|-----------------|
| 9 ft 0 inches | 11 ft 10 inches |

**Validation Rules for A186**

- Outside Extreme Width must not exceed 10 feet 8 inches for Plate Codes B, C, E, F, or N

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

| Outside Extreme Height                               | A185 |
|------------------------------------------------------|------|
| Height from top of rail to extreme projecting height |      |

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A185**

| Minimum       | Maximum        |
|---------------|----------------|
| 6 ft 0 inches | 18 ft 0 inches |

**Validation Rules for A185**

- Outside Extreme Height for Plate Code N must be less than or equal to 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

| Truck Center Length                                     | A276 |
|---------------------------------------------------------|------|
| The length between the centers of the two truck systems |      |

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A276**

| Minimum | Maximum |
|---------|---------|
|---------|---------|

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15 ft 0 inches | 76 ft 11 inches

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.

**Front Snow Plow Height** **B101**

## Snow Plow (Height)

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for B101**

| Minimum       | Maximum       |
|---------------|---------------|
| 0 ft 5 inches | 8 ft 3 inches |

**Rear-End Snow Plow Height** **B169**

## Snow Plow (Height)

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for B169**

| Minimum       | Maximum       |
|---------------|---------------|
| 0 ft 5 inches | 8 ft 3 inches |

## Specification

**Truck Count** **B256**

## The total number of trucks on the equipment

System Generated Field. This element is not eligible for Input.

**Range of Values for B256**

| Minimum | Maximum |
|---------|---------|
| 2       | 4       |

**Axle Count** **Mandatory** **A024**

## The total number of axles on the equipment

**Range of Values for A024**

| Minimum | Maximum |
|---------|---------|
| 2       | 16      |

**Validation Rule for A024**

-Total Axle Count must match sum of truck axle counts

**Wheel Bearing Type** **B191**

## Indicates the wheel bearing journal design for the equipment

**Permissible Values for B191**

P Plain R Roller

**Remote Monitoring Device** **B176**

## Indicates the equipment has a device that transmits a signal or records data

**Permissible Values for B176**

Y Yes

N No

**NOTES:**

- Per AAR S-2045, This may be data related to ride quality, geographic location, temperature/condition of the load, load/empty status, etc.

**Asset Tracking** **B324**

## Remote Monitoring Device Builder

**Permissible Values for B324**

|      |              |                  |
|------|--------------|------------------|
| EMD  | GE           | General Electric |
| INON | Inonix       | INVS Invensys    |
| NEQ  | Not Equipped | OTH Other        |
| UNK  | Unknown      | WABT Wabtec      |
| WTRX | Wi-Tronix    |                  |

**ECP Brake Builder** **B328**

## The manufacturer of the electronic controlled pneumatic brake used on the equipment

**Permissible Values for B328**

NONE Not Equipped

NYAB New York Air Brake

PASS Train-line pass-through

WABT WABTEC

**Validation Rule for B328**

-Equipment must have a value entered for ECP Brake Builder (B328) if built or rebuilt after June 28, 2012.

-Equipment must have a value entered for ECP Brake Builder (B328) if built or rebuilt after June 28, 2012.

**DB Modem Equipped** **Mandatory** **B348**

## Locomotive is capable of reporting the operational status of its dynamic brake system via the MU train line to other locomotives in the consist.

Value does not carry forward for Equipment Group Change.

**Permissible Values for B348**

N No Y Yes

**Air Brake Model Number** **ABMD**

## Air Brake Model

**Permissible Values for ABMD**

|       |       |       |
|-------|-------|-------|
| 14EL  | 14ET  | 24L   |
| 24RL  | 26C   | 26D   |
| 26FNL | 26L   | 26LIC |
| 26LN  | 26LPS | 26LUM |
| 26N   | 26NL  | 30CDW |
| 3102  | 6BL   | 6BLM  |
| 6DS   | 6ET   | 6L    |
| 6SL   | 8ET   | ABMOD |
| CCB1  | CCB2  | CCB26 |
| CCB2E | EPIC2 | FSTBK |
| K14   |       |       |

**Air Brake Multi Hookup** **A014**

## Air Brake Multi Unit Hookup

**Permissible Values for A014**

N Not Equipped

X Non AAR Standard Equipped

Y AAR Standard Equipped

**Dynamic Brake Type** **A078**

## Dynamic Brakes

**Permissible Values for A078**

|   |                                                       |
|---|-------------------------------------------------------|
| A | Dynamic Brake , AC Locomotive                         |
| D | Dynamic Brake Equipped -Range Unknown                 |
| E | Extended Range Tapered                                |
| F | Extended Range Flat                                   |
| L | Standard Range -Field Loop                            |
| N | Not Equipped                                          |
| S | Standard Flat                                         |
| T | Standard Tapered                                      |
| X | Dynamic Brake Equipped-Disconnected                   |
| Z | Dynamic Brake AC Locomotive (Full Braking to Zero(0)) |

**Max Braking Force** **A163**

## Maximum Dynamic Braking (KLBF)

**Range of Values for A163**

| Minimum | Maximum |
|---------|---------|
| 0       | 1100    |

**Validation Rule for A163**

-Locomotive Maximum Dynamic Braking Force is required for

Locomotives with a Built/Rebuilt (Birth) Date on or after July 1, 1997

-Locomotive Maximum Dynamic Braking Force must be reported as 0 for DC Traction Motor Types, when the Pneumatic Control Knockdown Undesired Application Time Delay is reported as NN

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- Locomotive Maximum Dynamic Braking Force is 0, when Pneumatic Control Knockdown Undesired Application Time Delay is NN
- Locomotive Maximum Dynamic Braking Force with DC Traction Motors is not applicable to Traction Motor Type of AC
- Locomotive Maximum Dynamic Braking Force with AC Traction Motors requires the Traction Motor Type is AC

**NOTES:**

- Max Braking Force is in Kilo Pounds.

|                                |             |
|--------------------------------|-------------|
| <b>DB Holding Equipped</b>     | <b>B593</b> |
| Dynamic Brake Holding equipped |             |

**Permissible Values for B593**

- Y Equipped
- N Not Equipped

**Validation Rule for B593**

- DB Holding Equipped (B593) can be reported only if Dynamic Brake Type (A078) is equipped.

|                                                       |             |
|-------------------------------------------------------|-------------|
| <b>Equipment Builder</b>                              | <b>A035</b> |
| Identifies the original manufacturer of the equipment |             |

**Permissible Values for A035**

- 5 WABTEC
- 8 NOT USED
- B BALDWIN-LIMA-HAMILTON
- BL Boise Locomotive
- BLPA Brookville Locomotive Works
- C BALDWIN-LOCOMOTIVE CO.
- D BOMBARDIER
- E CANADIAN GENERAL ELECTRIC
- F CANADIAN LOCOMOTIVE CO.
- G DAVENPORT LOCOMOTIVE CO.
- H ELECTRO-MOTIVE DIVISION, GENERAL MOTORS CORP.
- I FAIRBANKS MORSE
- J GENERAL ELECTRIC
- K GENERAL ELECTRIC AGUASCALIENTES
- LOCO AMERICAN LOCOMOTIVE CO.
- M GENERAL MOTORS-DIESEL DIV. CANADA
- N GENERAL MOTORS-DIESEL DIV.
- NRE National Railway Equipment
- O J.G. BRILL CO.
- OTH Other
- P KRAUSS-MAFFEI, A.G.
- PRMK Progress Rail
- Q LIMA-HAMILTON
- R MORRISON-KNUDSEN
- RP RailPower
- S MONTREAL LOCOMOTIVE WORKS
- T PLYMOUTH LOCOMOTIVE WORKS
- U H.J.POTTER
- UNKN Unknown
- V OWNER RAILROAD
- W WHITECOMP LOCOMOTIVE WORKS
- X PEORIA LOCOMOTIVE WORKS
- Y REPUBLIC LOCOMOTIVES

**Validation Rule for A035**

- Equipment Builder must be populated if the Built Date (BLDT) is July 1, 2010 or newer
- Equipment built or rebuilt on or after July 1, 2010 cannot have a Equipment Builder of Unknown
- Equipment with a Built Date (BLDT) on or after July 1, 2010 cannot have an Equipment Builder Code of OWNER RAILROAD.
- Equipment Builder can have a value of MULT only if the equipment has multiple units.

|                                        |             |
|----------------------------------------|-------------|
| <b>ETIS</b>                            | <b>A083</b> |
| End Of Train Information System (ETIS) |             |

**Permissible Values for A083**

- A Glenayre Electronics (Digitair I) Permanently Mounted
- B Glenayre Electronics (DIGITAIR I) Demountable
- C SAB Harmone Industries (Electronic Caboose) Permanently Mounted
- D SAB Harmon Industries (Electronic Caboose) Demountable
- E Pulse Electronics (Train -Link) Permanently Mounted
- F Pulse Electronics (Train-Link) Demountable
- G Norfolk Southern Railroad VHF Only-Permanently Mountable
- H Norfolk Southern Railroad VHF Only-Demountable
- I Union Switch & Signal (Trail Guard) Permanently Mounted
- J Union Switch & Signal (Trail Guard ) Demountable)
- K Westinghouse Air Brake-Permanently Mounted
- L Westinghouse Air Brake-Demountable
- M Permanently Mounted-Type Unknown
- N Not Equipped (Default)
- O Demountable Type Unknown
- P Glenayre Electronics (Digitair II) Permanently Mounted
- Q Glenayre Electronics (DIGITAIR II) Demountable
- R Colt Technology (Model 1006)-Two Way Communications, Permanently Mounted
- S Colt Technology (Model 1005)-One Way Communications, Permanently Mounted
- T Quantum Engineering VHF/UHF Dual Mode-Permanently Mounted
- U Quantum Engineering VHF/UHF Dual Mode-Demountable
- V Quantum Engineering UHF Only-Permanently Mounted
- W Quantum Engineering UHF Only-Demountable

|                                                 |             |
|-------------------------------------------------|-------------|
| <b>Locomotive Model Number</b> <b>Mandatory</b> | <b>A068</b> |
| Manufacturer Model Number                       |             |

|                                    |             |
|------------------------------------|-------------|
| <b>Horsepower</b> <b>Mandatory</b> | <b>A123</b> |
| Horsepower                         |             |

Used in ETC Generation.

**Range of Values for A123**

| Minimum | Maximum |
|---------|---------|
| 0       | 8046    |

**Validation Rule for A123**

- Locomotives with Equipment Descriptor of DA have Horsepower equal 0
- Locomotives must have an Equipment Descriptor of 'DE-All Electric' to have Horsepower greater than 6600

|                                                 |             |
|-------------------------------------------------|-------------|
| <b>Remote Control Equipped</b> <b>Mandatory</b> | <b>RCLE</b> |
| RCL Equipped Flag                               |             |

Value does not carry forward for Equipment Group Change.

**Permissible Values for RCLE**

- N No Y Yes

|                                             |             |
|---------------------------------------------|-------------|
| <b>Powered Axles Count</b> <b>Mandatory</b> | <b>A200</b> |
| Powered Axles Count                         |             |

**Range of Values for A200**

| Minimum | Maximum |
|---------|---------|
| 2       | 16      |

**Validation Rule for A200**

- If Locomotive Truck Config (B003) is OV8 then Axle Count must be greater than or equal to 9

|                                                       |             |
|-------------------------------------------------------|-------------|
| <b>Locomotive Truck Config</b> <b>Mandatory</b>       | <b>B003</b> |
| New ETC D Component-New ETC D (Locomotive), Component |             |

Used in ETC Generation.

**Permissible Values for B003**

- A1A 4 Powered Axles
- B-B 4 Powered Axles
- B-C 5 Powered Axles
- C-C 6 Powered Axles



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D-D 8 Powered Axles  
 OTH Less than 9 Powered Axles but not defined in list of configurations  
 OV8 More than 8 Powered Axles

**Validation Rule for B003**

-Powered Axle Count must be less than or equal Axle Count

**Air Dryer Equipped****AIRD****Air Dryer Equipped Flag**

Does not Carry Forward.

**Permissible Values for AIRD**

N No Y Yes

**PC Emerg NI Delay *Mandatory*****B235****Pneumatic Control Knockdown Delays****Permissible Values for B235**

00 00 - Instantaneous  
 01 1 Second  
 02 2 Seconds  
 03 3 Seconds  
 04 4 Seconds  
 05 5 Seconds  
 06 6 Seconds  
 07 7 Seconds  
 08 8 Seconds  
 09 9 Seconds  
 10 10 Seconds  
 11 11 Seconds  
 12 12 Seconds  
 13 13 Seconds  
 14 14 Seconds  
 15 15 Seconds  
 16 16 Seconds  
 17 17 Seconds  
 18 18 Seconds  
 19 19 Seconds  
 20 20 Seconds  
 21 21 Seconds  
 22 22 Seconds  
 23 23 Seconds  
 24 24 Seconds  
 25 25 Seconds  
 26 26 Seconds  
 27 27 Seconds  
 28 28 Seconds  
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 30 30 Seconds  
 31 31 Seconds  
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 75 75 Seconds  
 76 76 Seconds  
 77 77 Seconds  
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 79 79 Seconds  
 80 80 Seconds  
 81 81 Seconds  
 82 82 Seconds  
 83 83 Seconds  
 84 84 Seconds  
 85 85 Seconds  
 86 86 Seconds  
 87 87 Seconds  
 88 88 Seconds  
 89 89 Seconds  
 90 90 Seconds  
 91 91 Seconds  
 92 92 Seconds  
 93 93 Seconds  
 94 94 Seconds  
 95 95 Seconds  
 96 96 Seconds  
 97 97 Seconds  
 98 98 Seconds  
 99 99 Seconds  
 NN Does not apply  
 VT P.C. knockdown time varies with train speed  
 XX P.C. will not knockdown

**PC Penalty App Delay *Mandatory*****B236****Pneumatic Control Knockdown Delays****Permissible Values for B236**

00 00 - Instantaneous  
 01 1 Second  
 02 2 Seconds  
 03 3 Seconds  
 04 4 Seconds  
 05 5 Seconds  
 06 6 Seconds  
 07 7 Seconds  
 08 8 Seconds  
 09 9 Seconds  
 10 10 Seconds  
 11 11 Seconds

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12 12 Seconds  
 13 13 Seconds  
 14 14 Seconds  
 15 15 Seconds  
 16 16 Seconds  
 17 17 Seconds  
 18 18 Seconds  
 19 19 Seconds  
 20 20 Seconds  
 21 21 Seconds  
 22 22 Seconds  
 23 23 Seconds  
 24 24 Seconds  
 25 25 Seconds  
 26 26 Seconds  
 27 27 Seconds  
 28 28 Seconds  
 29 29 Seconds  
 30 30 Seconds  
 31 31 Seconds  
 32 32 Seconds  
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 34 34 Seconds  
 35 35 Seconds  
 36 36 Seconds  
 37 37 Seconds  
 38 38 Seconds  
 39 39 Seconds  
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 79 79 Seconds

80 80 Seconds  
 81 81 Seconds  
 82 82 Seconds  
 83 83 Seconds  
 84 84 Seconds  
 85 85 Seconds  
 86 86 Seconds  
 87 87 Seconds  
 88 88 Seconds  
 89 89 Seconds  
 90 90 Seconds  
 91 91 Seconds  
 92 92 Seconds  
 93 93 Seconds  
 94 94 Seconds  
 95 95 Seconds  
 96 96 Seconds  
 97 97 Seconds  
 98 98 Seconds  
 99 99 Seconds  
 NN Does not apply  
 VT P.C. knockdown time varies with train speed  
 XX P.C. will not knockdown

**PC Undesired App Delay *Mandatory*****B237****Pneumatic Control Knockdown Delays****Permissible Values for B237**

00 00 - Instantaneous  
 01 1 Second  
 02 2 Seconds  
 03 3 Seconds  
 04 4 Seconds  
 05 5 Seconds  
 06 6 Seconds  
 07 7 Seconds  
 08 8 Seconds  
 09 9 Seconds  
 10 10 Seconds  
 11 11 Seconds  
 12 12 Seconds  
 13 13 Seconds  
 14 14 Seconds  
 15 15 Seconds  
 16 16 Seconds  
 17 17 Seconds  
 18 18 Seconds  
 19 19 Seconds  
 20 20 Seconds  
 21 21 Seconds  
 22 22 Seconds  
 23 23 Seconds  
 24 24 Seconds  
 25 25 Seconds  
 26 26 Seconds  
 27 27 Seconds  
 28 28 Seconds  
 29 29 Seconds  
 30 30 Seconds  
 31 31 Seconds  
 32 32 Seconds  
 33 33 Seconds  
 34 34 Seconds  
 35 35 Seconds  
 36 36 Seconds  
 37 37 Seconds  
 38 38 Seconds  
 39 39 Seconds

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|    |                                             |
|----|---------------------------------------------|
| 40 | 40 Seconds                                  |
| 41 | 41 Seconds                                  |
| 42 | 42 Seconds                                  |
| 43 | 43 Seconds                                  |
| 44 | 44 Seconds                                  |
| 45 | 45 Seconds                                  |
| 46 | 46 Seconds                                  |
| 47 | 47 Seconds                                  |
| 48 | 48 Seconds                                  |
| 49 | 49 Seconds                                  |
| 50 | 50 Seconds                                  |
| 51 | 51 Seconds                                  |
| 52 | 52 Seconds                                  |
| 53 | 53 Seconds                                  |
| 54 | 54 Seconds                                  |
| 55 | 55 Seconds                                  |
| 56 | 56 Seconds                                  |
| 57 | 57 Seconds                                  |
| 58 | 58 Seconds                                  |
| 59 | 59 Seconds                                  |
| 60 | 60 Seconds                                  |
| 61 | 61 Seconds                                  |
| 62 | 62 Seconds                                  |
| 63 | 63 Seconds                                  |
| 64 | 64 Seconds                                  |
| 65 | 65 Seconds                                  |
| 66 | 66 Seconds                                  |
| 67 | 67 Seconds                                  |
| 68 | 68 Seconds                                  |
| 69 | 69 Seconds                                  |
| 70 | 70 Seconds                                  |
| 71 | 71 Seconds                                  |
| 72 | 72 Seconds                                  |
| 73 | 73 Seconds                                  |
| 74 | 74 Seconds                                  |
| 75 | 75 Seconds                                  |
| 76 | 76 Seconds                                  |
| 77 | 77 Seconds                                  |
| 78 | 78 Seconds                                  |
| 79 | 79 Seconds                                  |
| 80 | 80 Seconds                                  |
| 81 | 81 Seconds                                  |
| 82 | 82 Seconds                                  |
| 83 | 83 Seconds                                  |
| 84 | 84 Seconds                                  |
| 85 | 85 Seconds                                  |
| 86 | 86 Seconds                                  |
| 87 | 87 Seconds                                  |
| 88 | 88 Seconds                                  |
| 89 | 89 Seconds                                  |
| 90 | 90 Seconds                                  |
| 91 | 91 Seconds                                  |
| 92 | 92 Seconds                                  |
| 93 | 93 Seconds                                  |
| 94 | 94 Seconds                                  |
| 95 | 95 Seconds                                  |
| 96 | 96 Seconds                                  |
| 97 | 97 Seconds                                  |
| 98 | 98 Seconds                                  |
| 99 | 99 Seconds                                  |
| NN | Does not apply                              |
| VT | P.C. knockdown time varies with train speed |
| XX | P.C. will not knockdown                     |

|    |                    |
|----|--------------------|
| 00 | 00 - Instantaneous |
| 01 | 1 Second           |
| 02 | 2 Seconds          |
| 03 | 3 Seconds          |
| 04 | 4 Seconds          |
| 05 | 5 Seconds          |
| 06 | 6 Seconds          |
| 07 | 7 Seconds          |
| 08 | 8 Seconds          |
| 09 | 9 Seconds          |
| 10 | 10 Seconds         |
| 11 | 11 Seconds         |
| 12 | 12 Seconds         |
| 13 | 13 Seconds         |
| 14 | 14 Seconds         |
| 15 | 15 Seconds         |
| 16 | 16 Seconds         |
| 17 | 17 Seconds         |
| 18 | 18 Seconds         |
| 19 | 19 Seconds         |
| 20 | 20 Seconds         |
| 21 | 21 Seconds         |
| 22 | 22 Seconds         |
| 23 | 23 Seconds         |
| 24 | 24 Seconds         |
| 25 | 25 Seconds         |
| 26 | 26 Seconds         |
| 27 | 27 Seconds         |
| 28 | 28 Seconds         |
| 29 | 29 Seconds         |
| 30 | 30 Seconds         |
| 31 | 31 Seconds         |
| 32 | 32 Seconds         |
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| 37 | 37 Seconds         |
| 38 | 38 Seconds         |
| 39 | 39 Seconds         |
| 40 | 40 Seconds         |
| 41 | 41 Seconds         |
| 42 | 42 Seconds         |
| 43 | 43 Seconds         |
| 44 | 44 Seconds         |
| 45 | 45 Seconds         |
| 46 | 46 Seconds         |
| 47 | 47 Seconds         |
| 48 | 48 Seconds         |
| 49 | 49 Seconds         |
| 50 | 50 Seconds         |
| 51 | 51 Seconds         |
| 52 | 52 Seconds         |
| 53 | 53 Seconds         |
| 54 | 54 Seconds         |
| 55 | 55 Seconds         |
| 56 | 56 Seconds         |
| 57 | 57 Seconds         |
| 58 | 58 Seconds         |
| 59 | 59 Seconds         |
| 60 | 60 Seconds         |
| 61 | 61 Seconds         |
| 62 | 62 Seconds         |
| 63 | 63 Seconds         |
| 64 | 64 Seconds         |
| 65 | 65 Seconds         |
| 66 | 66 Seconds         |
| 67 | 67 Seconds         |

PC Emerg Initiated Delay *Mandatory*

B234

Pneumatic Control Knockdown Delays

Permissible Values for B234

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|    |                                             |
|----|---------------------------------------------|
| 68 | 68 Seconds                                  |
| 69 | 69 Seconds                                  |
| 70 | 70 Seconds                                  |
| 71 | 71 Seconds                                  |
| 72 | 72 Seconds                                  |
| 73 | 73 Seconds                                  |
| 74 | 74 Seconds                                  |
| 75 | 75 Seconds                                  |
| 76 | 76 Seconds                                  |
| 77 | 77 Seconds                                  |
| 78 | 78 Seconds                                  |
| 79 | 79 Seconds                                  |
| 80 | 80 Seconds                                  |
| 81 | 81 Seconds                                  |
| 82 | 82 Seconds                                  |
| 83 | 83 Seconds                                  |
| 84 | 84 Seconds                                  |
| 85 | 85 Seconds                                  |
| 86 | 86 Seconds                                  |
| 87 | 87 Seconds                                  |
| 88 | 88 Seconds                                  |
| 89 | 89 Seconds                                  |
| 90 | 90 Seconds                                  |
| 91 | 91 Seconds                                  |
| 92 | 92 Seconds                                  |
| 93 | 93 Seconds                                  |
| 94 | 94 Seconds                                  |
| 95 | 95 Seconds                                  |
| 96 | 96 Seconds                                  |
| 97 | 97 Seconds                                  |
| 98 | 98 Seconds                                  |
| 99 | 99 Seconds                                  |
| NN | Does not apply                              |
| VT | P.C. knockdown time varies with train speed |
| XX | P.C. will not knockdown                     |

**Cab Signal Configuration** *Mandatory*

CBSI

## Cab Signal Configuration

## Permissible Values for CBSI

D Double Ended N Not Equipped S Single Ended

## Validation Rule for CBSI

-Locomotive Cab Signal Configuration must agree with Cab Signal Type, and cannot be Not Equipped N if the Cab Signal I Magnetic Valve - no C.C.S (A) or Not Equipped (N)

**Fuel Tank Capacity**

A113

## Fuel Tank Capacity

## Range of Values for A113

| Minimum | Maximum |
|---------|---------|
| 0       | 0       |
| 500     | 8200    |

## Validation Rule for A113

-Locomotives with Equipment Descriptor of DA reporting anything other than a Fuel Tank Capacity of 0, must be reported within the minimum and maximum range specifications of 1000 to 8200.

**Cab Signal Type** *Mandatory*

A041

## Cab Signal Type

## Permissible Values for A041

A Magnetic Valve no CCS  
 B BN CCS  
 C CR CCS  
 D Dual UP and CNW CCS  
 E Type E

G US and S Type EL  
 H US and S Type EL and CNW  
 I US and S Type EL with LSL  
 J US and S Type EH  
 K US and S Type EH with LSL  
 L US and S Type EM  
 M US and S Type EM and CNW  
 N Not Equipped  
 R RFP CCS  
 S Type GRS  
 U UP CCS  
 W CNW CSS

**PTC System Control** *Mandatory*

A006

## Advance Train Control System (A.T.C.S.)

## Permissible Values for A006

A ACSES  
 B Dual (ACSES and Train Guard)  
 D Dual (ACSES and IETMS)  
 E ETMS  
 I ITCS  
 M Dual (ITCS and IETMS)  
 N Not Equipped  
 P Partially Equipped  
 Q Train Guard  
 T ATCS  
 V IETMS

**Fuel Preheater Equipped**

A110

## Fuel Preheater

## Permissible Values for A110

Y Yes

**EPA Emissions Tier Level**

B081

## Indicates the EPA emissions Tier level for the diesel engine on a Locomotive.

## Permissible Values for B081

A Tier 0  
 B Tier 0+  
 C Tier 1  
 D Tier 1+  
 E Tier 2  
 F Tier 2+  
 G Tier 3  
 H Tier 4  
 I Tier 4C  
 N None - Post 1973 Locomotives that are currently non Tier but will become Tier at first Engine change.  
 X Exempt - Locomotive will never require a Tier engine. All pre-1973 Locomotives are exempt unless replaced with a Tier engine, then it becomes Tier forever  
 Z Export Only - Subject to restriction of operating < 25 miles within US Border and certified as "export-only/not for use in US"

## Validation Rule for B081

-Only Locomotives built prior to January 1, 1973 are allowed exemptions from EPA emissions standards

**Control Stand Type**

B057

## Type of control stand

## Permissible Values for B057

A Console B Dual C Standard AAR  
 Z Other

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**Safety Control****A228****Safety Control****Permissible Values for A228**

|   |                               |
|---|-------------------------------|
| A | Alerter                       |
| E | Electric                      |
| F | Foot Pedal                    |
| G | Foot Pedal and Speed Governor |
| H | Alerter and Speed Governor    |
| I | Interval                      |
| N | Not Equipped                  |
| S | Speed Governor                |
| U | Equipped-Type Unknown         |
| Z | Other                         |

**Gear Ratio****A114****Gear Ratio****Permissible Values for A114**

|       |                               |
|-------|-------------------------------|
| 55:12 | 55 axle teeth : 12 gear teeth |
| 55:19 | 55 axle teeth : 19 gear teeth |
| 55:21 | 55 axle teeth : 21 gear teeth |
| 55:22 | 55 axle teeth : 22 gear teeth |
| 55:25 | 55 axle teeth : 25 gear teeth |
| 56:21 | 56 axle teeth : 21 gear teeth |
| 57:18 | 57 axle teeth : 18 gear teeth |
| 57:20 | 57 axle teeth : 20 gear teeth |
| 58:19 | 58 axle teeth : 19 gear teeth |
| 59:15 | 59 axle teeth : 15 gear teeth |
| 59:18 | 59 axle teeth : 18 gear teeth |
| 59:20 | 59 axle teeth : 20 gear teeth |
| 60:17 | 60 axle teeth : 17 gear teeth |
| 61:16 | 61 axle teeth : 16 gear teeth |
| 62:13 | 62 axle teeth : 13 gear teeth |
| 62:15 | 62 axle teeth : 15 gear teeth |
| 62:18 | 62 axle teeth : 18 gear teeth |
| 62:45 | 62 axle teeth : 45 gear teeth |
| 62:50 | 62 axle teeth : 50 gear teeth |
| 62:51 | 62 axle teeth : 51 gear teeth |
| 62:95 | 62 axle teeth : 95 gear teeth |
| 63:15 | 63 axle teeth : 15 gear teeth |
| 65:12 | 65 axle teeth : 12 gear teeth |
| 65:15 | 65 axle teeth : 15 gear teeth |
| 65:18 | 65 axle teeth : 18 gear teeth |
| 65:20 | 65 axle teeth : 20 gear teeth |
| 66:12 | 66 axle teeth : 12 gear teeth |
| 66:20 | 66 axle teeth : 20 gear teeth |
| 68:14 | 68 axle teeth : 14 gear teeth |
| 69:18 | 69 axle teeth : 18 gear teeth |
| 70:17 | 70 axle teeth : 17 gear teeth |
| 70:27 | 70 axle teeth : 27 gear teeth |
| 71:13 | 71 axle teeth : 13 gear teeth |
| 71:23 | 71 axle teeth : 23 gear teeth |
| 73:13 | 73 axle teeth : 13 gear teeth |
| 74:12 | 74 axle teeth : 12 gear teeth |
| 74:15 | 74 axle teeth : 15 gear teeth |
| 74:18 | 74 axle teeth : 18 gear teeth |
| 74:29 | 74 axle teeth : 29 gear teeth |
| 75:16 | 75 axle teeth : 16 gear teeth |
| 78:14 | 78 axle teeth : 14 gear teeth |
| 79:13 | 79 axle teeth : 13 gear teeth |
| 81:22 | 81 axle teeth : 22 gear teeth |
| 82:19 | 82 axle teeth : 19 gear teeth |
| 83:16 | 83 axle teeth : 16 gear teeth |
| 83:18 | 83 axle teeth : 18 gear teeth |
| 83:20 | 83 axle teeth : 20 gear teeth |
| 83:21 | 83 axle teeth : 21 gear teeth |
| 84:22 | 84 axle teeth : 22 gear teeth |
| 85:16 | 85 axle teeth : 16 gear teeth |

|       |                               |
|-------|-------------------------------|
| 85:36 | 85 axle teeth : 36 gear teeth |
| 87:16 | 87 axle teeth : 16 gear teeth |
| 99:12 | 99 axle teeth : 12 gear teeth |
| DRCT  | Direct Drive                  |
| NONE  |                               |

**Validation Rule for A114**

-If Gear Ratio is not set then Direct Drive must be set

**Hood Configuration****A122****Hood Configuration****Permissible Values for A122**

|   |                         |
|---|-------------------------|
| B | Booster--No Cab         |
| C | Carbody (F7, F45, ETC.) |
| E | Extended Low Hood       |
| H | High Hood               |
| L | Low Hood                |
| O | Other                   |
| S | Switcher                |
| T | Tapered Carbody         |
| W | Full Width Cab          |

**Maximum Speed****A165****Maximum Speed****Range of Values for A165**

| Minimum | Maximum |
|---------|---------|
| 25      | 150     |

**Validation Rule for A165**

- Locomotives (Equipment Descriptor of DFGT, DSW, DNCF, or DA) can only report a Maximum Speed less than or equal to 86 mph
- Locomotives (Equipment Descriptor of DPAS, DNCP, or DE) must report a Maximum Speed greater than or equal to 41 mph

**Minimum Speed****A172****Minimum Speed****Range of Values for A172**

| Minimum | Maximum |
|---------|---------|
| 7       | 40      |

**Speed Control****A246****Speed Control****Permissible Values for A246**

|   |                          |
|---|--------------------------|
| H | Hump                     |
| L | Lead                     |
| P | Hump and Trail           |
| R | Lead and Trail           |
| S | Lead , Hump and Trail    |
| T | Trail                    |
| Y | Equipped (Not Specified) |

**Minimum Coupled Curvature****A169****Minimum Coupled Curvature****Range of Values for A169**

| Minimum | Maximum |
|---------|---------|
| 0       | 99      |

**Min Curvature 50 ft Cpld****A170****Minimum Coupled Curvature - 50 Foot Car****Range of Values for A170**

| Minimum | Maximum |
|---------|---------|
| 0       | 99      |

**Min Curvature Uncoupl****A171****Minimum Curvature Uncoupled**



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## Range of Values for A171

| Minimum | Maximum |
|---------|---------|
| 0       | 99      |

## Starter Type

A249

## Starter Type

## Permissible Values for A249

A Air E Electric S Starter

## Traction Motor Type

A271

## Traction Motor Type

## Permissible Values for A271

AC Alternating Current  
DC Direct Current

## Validation Rule for A271

-Locomotive Traction Motor Type is required for Locomotives with a Built/Rebuilt (Birth) Date on or after July 1, 1997

## Traction Motor Cutouts

A270

## Traction Motor Cutouts

## Permissible Values for A270

Y Yes

## Ind Pressure Swit

X113

## Independent Pressure Switch

## Permissible Values for X113

N No Y Yes

## Jumper Cable Connection

A148

## Jumper Cable Connection

## Permissible Values for A148

B 27-Pin AAR Standard  
C 27-Pin Non-AAR  
N Not MU Equipped  
O Other, Nonstandard  
P 27-Pin AAR with Permanent Cable AttachedDitch Light Equipped *Mandatory*

B071

## Warning Lights

## Permissible Values for B071

D Double Ended N Not Equipped S Single Ended

## Mexican Service Qualified

B250

## International Service

## Permissible Values for B250

Y Yes

## Canadian Serve Qualified

B251

## International Service

## Permissible Values for B251

Y Yes

## Qualified for US Service

B249

## International Service

## Permissible Values for B249

Y Yes

## Mother for Slug

B262

## Auxiliary Device M

## Permissible Values for B262

Y Yes

## Distributed Power Eqpd

B070

The unit is equipped with a distributed power device

## Permissible Values for B070

Y Yes  
N No

## Validation Rule for B070

-Distributed Power Eqpd (B070) must be reported effective December 9, 2021

## DP System Type

B578

The Distributed Power system type

## Permissible Values for B578

L3 Locotrol 3  
IPM IPM  
LXA LXA

## Validation Rule for B578

-DP System Type (B578) must be reported if Distributed Power Eqpd (B070) is Y

## NOTES:

- IPM includes EIPM.

## DP Remote EOT Emergency Test

B579

The Distributed Power system is capable of running an end of train Emergency Test

## Permissible Values for B579

Y Yes  
N No

## Validation Rule for B579

-DP Remote EOT Emerg Test (B579) must be reported if Distributed Power Eqpd (B070) is Y.

## NOTES:

- This feature allows verification of end of train emergency braking functionality when using a tail end DP Remote and no traditional EOT device. DP accomplishes this by providing an EOT test button in the DP Remote Session screen on the DP Lead locomotive, requiring the closing of the angle cock behind the Lead, and putting the Lead's automatic brake handle in emergency. DP sends a message to all mid-train Remotes to ignore the impending emergency command and ensures the tail-end Remote is able to initiate an emergency on its own, based on the received command, not the brake pipe. This functionality is similar to a conventional EOT Dump test, which is performed after HOT-EOT arming.
- To use this functionality, all DP units on the train must be equipped with this feature.

## DP BP Test Supplemental Reduction

B580

The Distributed Power system has an enhanced brake pipe test algorithm

## Permissible Values for B580

Y Yes  
N No

## Validation Rule for B580

-DP BP Test Supplemental Reduction (B580) must be reported if Distributed Power Eqpd (B070) is Y.

## NOTES:

- This functionality improves the likelihood of passing the DP brake pipe test on longer trains and in cold temperatures. After failing a brake pipe test, the algorithm makes a supplemental reduction on the next test. To use this functionality, only the Lead DP unit must be equipped with this feature.

## DP Comm Loss Idle Down BV Cut In

B581

The Distributed Power system is capable of automatically cutting in the brake valve after Comm Loss Idle Down (CLID)

## Permissible Values for B581

Y Yes  
N No

## Validation Rule for B581

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-DP Comm Loss Idle Down BV Cut In (B581) must be reported if Distributed Power Eqpd (B070) is Y.

**NOTES:**

- This feature enables automatic recovery of the brake valve on a DP Remote after a CLID event if certain conditions are met. Prior to the CLID, the DP must have been in NORMAL mode and the brake valve Cut-in (i.e., the CLID was due to unexpected airflow). After the CLID, if the following conditions are met, the Remote will automatically Cut-in the brake valve without requiring a brake application/release: (1) radio communications is restored within 90 minutes of CLID; (2) the Lead is commanding automatic brake RELEASE at the time radio communication is restored; and (3) operator commands Remote back to NORMAL mode prior to the train being stopped for longer than 10 minutes. If any of the above conditions are not met, the Remote will enforce normal CLID recovery interlocks and will require the operator to perform the usual brake application and release.
- To use this functionality, only the DP Remote must be equipped with this feature.

**DP DB Comm Loss Idle Down At 0 MPH****B582**

The Distributed Power system on a Remote is capable of idling the Dynamic Brake when locomotive speed reaches zero mph after a Comm Loss Idle Down event

**Permissible Values for B582**

Y Yes  
N No

**Validation Rule for B582**

-DP DB Comm Loss Idle Down At 0 MPH (B582) must be reported if Distributed Power Eqpd (B070) is Y.

**NOTES:**

- To use this functionality, only the DP Remote unit must be equipped with this feature.

**DP Setout Mode With BV Cut In****B583**

The Distributed Power system has the ability to leave the Remote Brake Valve Cut-In while in SETOUT Mode

**Permissible Values for B583**

Y Yes  
N No

**Validation Rule for B583**

-DP Setout Mode With BV Cut In (B583) must be reported if Distributed Power Eqpd (B070) is Y.

**NOTES:**

- This feature allows the DP Remote to maintain the pressure in the brake pipe, avoiding an Emergency Application.
- To use this functionality, both the Lead and individual Remote must be equipped with this feature.

**DP Incremental Link/Unlink****B584**

The Distributed Power system on a Remote is capable of being linked and unlinked without impact to other linked units

**Permissible Values for B584**

Y Yes  
N No

**Validation Rule for B584**

-DP Incremental Link/Unlink (B584) must be reported if Distributed Power Eqpd (B070) is Y.

**NOTES:**

- The feature allows an operator to link new Remotes or drop linked Remotes without unlinking the train.
- To use this functionality for incremental linking, the Lead must be equipped with this feature.
- To use this functionality to unlink a Remote, both the Lead and the Remote must be equipped with this feature.

**DP Suspend Mode****B585**

The Distributed Power system is capable of Suspend Mode enabling a Remote to be operated locally in a conventional manner

**Permissible Values for B585**

NBPT Brake Pipe Test is not required on exiting Suspend Mode  
YBPT Brake Pipe Test is required on exiting Suspend Mode  
N No

**Validation Rule for B585**

-DP Suspend Mode (B585) must be reported if Distributed Power Eqpd (B070) is Y.

**NOTES:**

- This feature allows a DP Remote to be temporarily suspended from DP operation. In Suspended Mode, the DP Remote is functions as a conventional, non-DP unit, providing a local operator full control over propulsion and air brakes to perform movements. In Suspended Mode, the DP system maintains link information. After movements are completed and the train is recoupled, the operator can resume normal DP operation from the DP Lead without having to re-link the train. The need for the operator to run a Brake Pipe Test depends on the permissible value of this element.
- To use this functionality, the Lead and the individual Remote being suspended must be equipped with this feature. To resume operations without a brake pipe test only the Lead must have the NBPT attribute.

**DP Lead Remote Swap****B586**

The Distributed Power system is capable of turning the DP Lead into the DP Remote and the Remote into the Lead

**Permissible Values for B586**

Y Yes  
N No

**Validation Rule for B586**

-DP Lead Remote Swap (B586) must be reported if Distributed Power Eqpd (B070) is Y.

**NOTES:**

- This feature enables swapping of the Lead and Remote configuration in a DP train without undergoing an unlink/relink procedure.
- To use this functionality, the Lead and Remotes must be equipped with this feature.

**Loco Controlled Tractive Effort****B587**

The Locomotive is capable of Controlled Tractive Effort (CTE)

**Permissible Values for B587**

Y Yes  
N No

**Validation Rule for B587**

-Loco Controlled Tractive Effort (B587) must be reported if Distributed Power Eqpd (B070) is Y.

**NOTES:**

- This is a Locomotive characteristic, not a Distributed Power characteristic.

**DP Selection of CTE****B588**

The Distributed Power system on a DP Lead is capable of selecting Controlled Tractive Effort (CTE) on a DP Remote

**Permissible Values for B588**

L Linking  
A Anytime  
N No

**Validation Rule for B588**

-DP Selection of CTE (B588) must be reported if Distributed Power Eqpd (B070) is Y.

**NOTES:**

- To use this functionality, the Lead must be equipped with this feature and the Remote should be equipped with CTE.
- On Linking:** After linking, DP presents the operator with the choice of putting the Remote into RUN CTE or RUN FTE mode. The Remote will stay in the chosen RUN mode until the end of the DP session. To toggle the

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Remote between CTE and FTE, the operator must stop, unlink, and relink. Note, the Lead does not know if the Remote supports CTE. If the operator selects RUN CTE mode, the Lead will send a CTE command to the Remote and an unsupported Remote will respond with a status message saying it is still in FTE.

- **Anytime:** After linking, DP allows the operator to toggle between CTE and FTE at any time (but must be stopped). DP does not require unlinking and relinking. Note: the Lead does not know if the Remote supports CTE. The operator can attempt to change the Remote RUN mode to CTE, but the unsupported Remote will respond saying it is still in FTE.

**DP Elimination Transition Penalty****B589**

The Distributed Power system will not enforce a penalty brake application upon entering DP

**Permissible Values for B589**

Y Yes  
N No

**Validation Rule for B589**

-DP Elimination Transition Penalty (B589) must be reported if Distributed Power Eqpd (B070) is Y.

**NOTES:**

- On a Remote, the DP system will no longer initiate a penalty brake application when DP is set up that locomotive.
- On a Lead, the DP system will no longer initiate a penalty brake application when linking.
- To benefit from this functionality, the Lead and all Remotes must be equipped with this feature.

**DP Remote Dynamic Brake Holding During PCS****B591**

- The Distributed Power system is capable of remote DB Holding During PCS

**Permissible Values for B591**

Y Yes  
N No

**Validation Rule for B591**

-DP Rem Dyn Brake Hold PCS (B591) must be reported if Distributed Power Eqpd (B070) is Y

**NOTES:**

- DP Feature ID: F05
- The pneumatic control switch (PCS) on a Distributed Power Remote opens upon penalty and emergency air brake applications and certain system faults. Currently, Distributed Power's response to PCS open is to immediately transition the Remote to throttle Idle. This holding feature allows the Distributed Power Remote to maintain Dynamic Braking when PCS opens to help stop a moving train more quickly or prevent a stopped train from accelerating.
- To use this functionality, all Distributed Power units on the train must be equipped with this feature.

**Truck Components****Locomotive Truck Type****A278**

Truck Type, Component

**Permissible Values for A278**

AB Alco Hi-Adhesion B  
AC Alco Hi-Adhesion C  
AS Alco Blunt (Switch Unit)  
AT Alco Trimount  
BB Blomberg - B (Swinghanger)  
BL Bolster-Less GE-Passenger  
BM Blomberg + M  
DB Dofasco-DFP-B  
EP EMD-Passenger (Swinghanger), 3 Axles  
FB EMD, Flexicoil, 2 Axles  
FC EMD, Flexicoil, 3 Axles  
FD EMD, Flexicoil, 4 Axles

GF General Electric-Floating Bolster  
GH General Electric Hi-Adhesion  
GP EMD, GP, Standard 2-Axle Truck  
GR General Electric Radial, 3 Axles  
GX General Electric-Flexicoil  
HB HT-EMD, HTB, High Traction, 2 Axles  
HC H-EMD, HTC, High Traction, 3 Axles  
HR HT EMD, HTC, High Traction, Radial, 3 Axles  
MB MLW AAR-B  
MF MLW Flexicoil  
MT MLZ ZWT-Zero wgt. Transfer (Hi-Adhesion)  
RA AAR Type A(Switch Unit)  
RB AAR Type B  
RC EMD 'C-C' Radial  
XB Experimental B-B  
ZZ Other

**Feature****Air Condition Equipped****A017**

Air Conditioner

**Permissible Values for A017**

Y Yes

**Toilet Type****A262**

Toilet Type

**Permissible Values for A262**

B Biology Flow Through  
C Chemical  
D Direct to Ground  
I Incinerator  
N Not Equipped  
P Plastic Bag  
U Equipped-Type Unknown  
Z Other

**Cab Seat Count****A233**

Seating Capacity

**Range of Values for A233**

| Minimum | Maximum |
|---------|---------|
| 0       | 10      |

**Validation Rule for A233**

-Locomotive Cab Seat Count cannot be set, if the Locomotive has no Hood

**Water Cooler****A287**

Water Cooler

**Permissible Values for A287**

A Refrigerated Non-Ice  
B Ice Cooled  
N Not Equipped

**Event Recorder Type****A093**

Manufacturer Make and Model of Locomotive Event Recorder

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A093**

BE BARCO ELECTRIC  
BS BARCO SIS 800  
BS53 BACH-SIMPSON 53000  
BS54 BACH-SIMPSON 54000  
BSTS BACH-SIMPSON TS324  
CM CHICAGO PNEUMATIC MECHANICAL  
CRMF CENTRAL RAILWAY MANUFACTURING  
F3000  
CRM3 CENTRAL RAILWAY MANUFACTURING  
F3050

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|      |                                |
|------|--------------------------------|
| D3   | WABTEC DATACORD 300            |
| D5   | WABTEC DATACORD 5000           |
| EDIE | EDI EDI-PCM-2M                 |
| EDII | EDI IFC-PCM-04                 |
| EQPD | Equipped                       |
| F0   | EMD FIRE                       |
| F1   | EMD FIRE GEN 1                 |
| F2   | EMD FIRE GEN 2                 |
| F3   | EMD FIRE GEN 3                 |
| FI   | EMD FIRE INTEGRATED            |
| G1   | GE G1-GEER 32                  |
| IW   | WABTEC WRE25539P               |
| JW   | WABTEC WRE3289-8-DUAL STREAM   |
| LD   | ETMS AND QES                   |
| LD   | WABTEC LDARS                   |
| M2   | QUANTUM ETR                    |
| M4   | QUANTUM Q1046 UP SOLID STATE   |
| MS   | QUANTUM SOLID STATE/ALERTER    |
| NE   | NOT EQUIPPED                   |
| O    | OTHER                          |
| P2   | POWERSVIEW 251467-000          |
| PD   | PULSE TTX-REC-06H AEROQUIP     |
| PE   | PULSE TTX-REC-03W              |
| PF   | PULSE TTX-REC-SF01             |
| PG   | PULSE TTX-REC-M4W              |
| PH   | PULSE TTX-REC-M6W              |
| PI   | PULSE TTX REC-I3               |
| PJ   | PULSE/EMD CAB CONSOLE COMPUTER |
| PK   | PULSE IFC-PCM-04               |
| PL   | PULSE TTX-REC-M6               |
| PM   | PULSE TTX-IDR-01               |
| PN   | PULSE TTX-REC-MTR              |
| PO   | BACH-SIMPSON CHM               |
| PP   | PULSE TTX-REC-CAT-01 CAT RCL   |
| PQ   | PULSE TTX-REC-RCL-01 RCL       |
| PR   | PULSE TTX-REC-M6W GE INT ALT   |
| PS   | BACH-SIMPSON 54360-512 CHM     |
| PSS  | PULSE SOLID STATE 1054418R3    |
| PT   | PULSE TTX-REC-M6FRA            |
| PU   | PULSE TTX-IDR-02               |
| PV   | PULSE IFC-PCM-02               |
| PW   | WABTEC/PULSE IDR-03            |
| PX   | WABTEC/PULSE IDR-02            |
| Q1   | QTRON 5100                     |
| Q146 | QUANTUM Q1046                  |
| Q2   | QUANTUM 1048                   |
| Q3   | QTRON Q-92251/33               |
| Q4   | QUANTUM TTX-REC-M6             |
| Q44E | QUANTUM Q1044E                 |
| Q45B | QUANTUM Q1045B                 |
| Q45E | QUANTUM Q1045E                 |
| Q5   | QTRON 5000                     |
| Q6   | QUANTUM Q1067E                 |
| Q7   | QUANTUM Q1067D                 |
| QA   | QUANTUM A/AIR MANFLD 1058      |
| QB   | QUANTUM Q1026                  |
| QC   | QUANTUM Q1027                  |
| QCHM | QUANTUM Q1045CHM               |
| QD   | QUANTUM Q1028                  |
| QE   | QUANTUM Q1029                  |
| QECA | QUANTUM Q1045ECA               |
| QH   | QUANTUM Q1046E                 |
| QI   | QUANTUM Q1055                  |
| QJ   | QUANTUM Q1057                  |
| QK   | QUANTUM Q1058                  |
| QL   | QUANTUM Q1059                  |
| QM   | QUANTUM Q1017                  |
| QN   | QUANTUM Q1049                  |

|      |                              |
|------|------------------------------|
| QO   | QUANTUM Q1069                |
| QP   | QUANTUM Q1070                |
| QS   | QTRON SOLID STATE(MODEL UNK) |
| QT20 | QTRON 2000                   |
| QT52 | QTRON 5200                   |
| QTD  | QTRON DC 6000 (Q-93271/1)    |
| QTE  | QTRON DC 6000 (Q-93271/6)    |
| QU   | QUANTUM Q1044 SOLID STATE    |
| QV   | QUANTUM Q1040B               |
| QW   | QUANTUM Q1040E               |
| RK   | ROCKWELL ICE                 |
| T1   | WABTEC TTX-IDR-01            |
| T3   | WABTEC TTX-IDR-03            |
| T4   | WABTEC/PULSE IDR-01          |
| TM87 | TMACS 8709                   |
| UN   | UNKNOWN                      |
| V8   | VIOLET WI-PU 800             |
| W1   | WABTEC WRE26432P             |
| W2   | WABTEC ICF-CPCM-02           |
| W4   | WABTEC ICF-CPCM-04           |
| W5   | WABTEC TTX-REC-F5            |
| W6   | WABTEC TTX-REC-M6            |
| W7   | WABTEC TTX-REC-F7ST          |
| W8   | WABTEC TTX-REC-401           |
| WA   | WABTEC TTX-REC-F11E          |
| WB   | WABTEC TTX-REC-M6E           |
| WL   | WABTEC LDRS-V                |
| WS   | WABTEC SOLID STATE - PCM 04  |
| WT   | WABTEC/PULSE F7S             |
| WU   | WABTEC/PULSE FE-133          |
| WV   | WABTEC/PULSE ICE             |
| WW   | WABTEC/PULSE TTX             |
| WX   | WABTEC/PULSE IDR             |
| WY   | WABTEC/PULSE PCM/IFC         |
| WZ1  | WABTEC/PULSE FIRE            |
| WZ2  | WABTEC/PULSE QES             |

|                                                     |             |
|-----------------------------------------------------|-------------|
| <b>Camera Front Image</b> <i>Mandatory</i>          | <b>B100</b> |
| Manufacturer of image storage (camera) in the front | ●           |

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B100**

|      |                  |      |               |
|------|------------------|------|---------------|
| ANTX | AngelTrax        | AXIS | Axis          |
| GE   | General Electric | NTEQ | Not Equipped  |
| OTHR | Other            | PRMK | Progress Rail |
| PROV | Pro-Vision       | RAVW | Railview      |
| RLHD | Railhead         | WBTC | Wabtec        |
| WLDX | Weldex           | WTRX | Wi-Tronix     |

|                                                   |             |
|---------------------------------------------------|-------------|
| <b>Camera Cab Image</b> <i>Mandatory</i>          | <b>B108</b> |
| Manufacturer of image storage (camera) in the cab | ●           |

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B108**

|      |                  |      |               |
|------|------------------|------|---------------|
| ANTX | AngelTrax        | AXIS | Axis          |
| GE   | General Electric | NTEQ | Not Equipped  |
| OTHR | Other            | PRMK | Progress Rail |
| PROV | Pro-Vision       | RAVW | Railview      |
| RLHD | Railhead         | WBTC | Wabtec        |
| WLDX | Weldex           | WTRX | Wi-Tronix     |

|                                                |             |
|------------------------------------------------|-------------|
| <b>LVVR Compliant</b>                          | <b>B594</b> |
| The unit is Voice and Video Recorder Compliant |             |

**Permissible Values for B594**

|   |     |
|---|-----|
| Y | Yes |
| N | No  |

**Validation Rule for B594**

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- LVVR Compliant cannot be Y-Yes if Cab Camara (B108) = NTEQ – Not Equipped

**NOTES:**

- Transport Canada requirements defined in SOR/2020-178
- Units operating in the lead in Canada are required to be LVVR capable
- Cab cameras must be able to determine status of instrument displays and controls, and operator facial features and expressions
- Microphones must be able to record the voice of the locomotive engineer distinctly and clearly from the conductor; record the voice of the conductor distinctly and clearly from the locomotive engineer; and safety-related sounds and aural warnings in the controlling locomotive
- System must store 48 hours of data in crash-hardened memory

**Camera Rear Image Mandatory****B110**

Manufacturer of image storage (camera) in the rear

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B110**

|      |                  |      |               |
|------|------------------|------|---------------|
| ANTX | AngelTrax        | AXIS | Axis          |
| GE   | General Electric | NTEQ | Not Equipped  |
| OTHR | Other            | PRMK | Progress Rail |
| PROV | Pro-Vision       | RAVW | Railview      |
| RLHD | Railhead         | WBTC | Wabtec        |
| WLDX | Weldex           | WTRX | Wi-Tronix     |

**Rail Lubricator Sys Type****B165**Auxiliary Device L; Code Z=Equipped For Conversion, Codes A-G Assigned  
(Refer To Locomotive Committee Document And Permitted Values)**Permissible Values for B165**

Z Equipped

**Auto Cool Water Drain Eqp****A021**

Automatic Cooling Water Drain

**Permissible Values for A021**

Y Yes

**Aux Side Wall Heat****B349**

Indicates whether a LOCO is equipped with Auxiliary Side Wall Heaters

Value does not carry forward for Equipment Group Change.

**Permissible Values for B349**

Y Yes

**Energy Management Systems****A303**

The type of Energy Management System installed

Value does not carry forward for Equipment Group Change.

**Permissible Values for A303**

|     |                                         |
|-----|-----------------------------------------|
| A   | EMD                                     |
| B   | GE                                      |
| HPT | Trip Optimizer with Smart HPT           |
| LDP | LEADER/PTC-Integrated                   |
| LDR | LEADER                                  |
| LPS | LEADER/PTC-Integrated and Smart Consist |
| LSC | LEADER and Smart Consist                |
| N   | Not Equipped                            |
| OTH | Other                                   |
| R   | Equipped by RR                          |
| SC  | Smart Consist                           |
| TAC | TALOS and Smart Consist                 |
| TAL | TALOS                                   |
| TAP | TALOS/PTC-Integrated                    |

|     |                                                 |
|-----|-------------------------------------------------|
| TO  | Trip Optimizer                                  |
| TOC | Trip Optimizer Smart Consist                    |
| TOP | Trip Optimizer/PTC-Integrated                   |
| TPC | Trip Optimizer/PTC-Integrated and Smart Consist |
| TPH | Trip Optimizer/PTC-Integrated with Smart HPT    |
| TPS | TALOS/PTC-Integrated and Smart Consist          |

**Validation Rule for A303**

- Energy Management System (A303) is mandatory for locomotives built or rebuilt on or after January 1, 2016

**Air Flow Meter Mandatory****B528**

The type of Air Flow Meter on the Locomotive

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B528**

E Electrical M Mechanical N Not Equipped

**Annual Test Required Mandatory****B529**

Annual Test Required

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B529**

N No Y Yes

**NOTES:**

- If Annual Test Required is listed as No, then NA will be displayed in the Annual Tests 229.27 section of the Locomotive Blue Card.

**Vehicle/Track Interaction Equipped****B550**

Identifies if locomotive is equipped with Vehicle/Track Interaction (VTI) Monitor

**Permissible Values for B550**

|   |                                                                       |
|---|-----------------------------------------------------------------------|
| A | Automated Track Geometry Measurement System                           |
| E | Enhanced System (Extra Sensors or DGPS Antenna)                       |
| K | Kawasaki GEO System                                                   |
| N | ENSCO GEO System                                                      |
| O | BNSF ODIN GEO System                                                  |
| S | Standard GPS System                                                   |
| V | Automated Track Geometry Measurement System with Camera Vision System |

**Blue Card****Propelled By Mandatory****L013**

Identifies how the locomotive is propelled

**Permissible Values for L013**

|      |                        |
|------|------------------------|
| DE   | Diesel-Electric        |
| DMU  | Diesel Multiple Unit   |
| E    | Electric               |
| MU   | Electric Multiple Unit |
| MUC  | MU Control Cab         |
| NMUC | Non-MU Control Cab     |
| O    | Other                  |
| T    | Turbine                |
| TC   | Torque Converter       |

**Type of Service Mandatory****L018**

Identifies the type of service for the locomotive

**Permissible Values for L018**

|   |       |   |           |   |      |
|---|-------|---|-----------|---|------|
| O | Other | P | Passenger | R | Road |
| Y | Yard  |   |           |   |      |

**Steam Gen No****L019**

Locomotive Steam Generator Number

Value does not carry forward for Single Clone / Multi-Clone / Add Back.



## Data Specification Manual

|                                                                                                 |                |
|-------------------------------------------------------------------------------------------------|----------------|
| <b>Max Piston</b> <i>Mandatory</i>                                                              | <b>L001</b>    |
| Maximum distance travel                                                                         | ●              |
| <b>Range of Values for L001</b>                                                                 |                |
| <b>Minimum</b>                                                                                  | <b>Maximum</b> |
| 1                                                                                               | 10             |
| <b>Out of Use Credit Days</b>                                                                   | <b>L002</b>    |
| Number of days of out of use credit                                                             |                |
| System Generated Field. Value does not carry forward for Single Clone / Multi-Clone / Add Back. |                |
| <b>Range of Values for L002</b>                                                                 |                |
| <b>Minimum</b>                                                                                  | <b>Maximum</b> |
| 0                                                                                               | 99999          |
| <b>Periodic Insp Interval</b> <i>Mandatory</i>                                                  | <b>L020</b>    |
| Indicates the number of days between Locomotive inspections                                     | ●              |
| Value does not carry forward for Single Clone / Multi-Clone.                                    |                |
| <b>Permissible Values for L020</b>                                                              |                |
| 184                                                                                             | 184 Days       |
| 92                                                                                              | 92 Days        |
| <b>Waiver-Part 229</b>                                                                          | <b>L004</b>    |
| Locomotive Waiver Part 229 No and description information                                       |                |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                         |                |
| <b>Waiver-Other</b>                                                                             | <b>L005</b>    |
| Locomotive Waiver No and description information                                                |                |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                         |                |
| <b>Event Recorder No Days</b>                                                                   | <b>L006</b>    |
| Number of days between Event Recorder Inspections                                               |                |
| Value does not carry forward for Single Clone / Multi-Clone.                                    |                |
| <b>Range of Values for L006</b>                                                                 |                |
| <b>Minimum</b>                                                                                  | <b>Maximum</b> |
| 0                                                                                               | 99999          |
| <b>ABT L2 Periodic Interval</b>                                                                 | <b>L007</b>    |
| Comments related to the number of days between Locomotive Air Brake L2 Inspections              |                |
| Value does not carry forward for Single Clone / Multi-Clone.                                    |                |
| <b>ABT L3 Periodic Interval</b>                                                                 | <b>L008</b>    |
| Comments related to the number of days between Locomotive Air Brake L3 Inspections              |                |
| Value does not carry forward for Single Clone / Multi-Clone.                                    |                |
| <b>Loco Repair Comments</b>                                                                     | <b>L009</b>    |
| Locomotive special notes relating to repairs performed to restore compliance                    |                |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                         |                |
| <b>Loco Noise Comments</b>                                                                      | <b>L010</b>    |
| Locomotive notes for any noise tests or related information in accordance with 49 CFR 210.31    |                |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                         |                |
| <b>Loco Remarks Comments</b>                                                                    | <b>L011</b>    |
| Locomotive additional explanatory or clarifying information                                     |                |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                         |                |
| <b>Pilot Height GT Max</b>                                                                      | <b>L012</b>    |

Locomotive Pilot Height that is above 6 inches

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Permissible Values for L012**

Y Yes

**Waiver-Air Card****L014**

Locomotive Air Card Waiver Part 229 No

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**PTC Operating Status** *Mandatory***L024**

Indicates whether or not a locomotive is in a PTC operable state ●

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for L024**

Y Yes

N No

**Validation Rule for L024**

-PTC Operating Status (L024) cannot be Yes (Y) if the PTC System Control (A006) is Not Equipped (N) or Partially Equipped (P)

**LBP Reduction** *Mandatory***L025**

Limiting Brake Pressure Reduction indicates whether or not a locomotive is equipped with software or hardware controls to limit a penalty brake pipe pressure reduction to no more than 2/7 of the feed valve pressure ●

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for L025**

Y Yes

N No

**Power Cut-Off Switch** *Mandatory***L026**

Device / circuit on a locomotive, that when opened, disables tractive effort ●

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for L026**

Y Yes

N No

**Dynamic Brake Interlock** *Mandatory***L027**

Indicates what type of dynamic brake interlock is currently configured on the locomotive ●

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for L027**

- Automatic brake application is restored (reapplies) when dynamic brake is released
  - Automatic brake application does not restore (does not reapply) when dynamic brake is released
- N Not equipped with Dynamic Brake Interlock (DBI)

## Inspection Interval Days

**Interval Days L2 Vent Valve (Front)****L030**

Indicates the number of days between L2 Vent Valve (Front) Inspections

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Interval Days L2 Vent Valve (Rear)****L031**

Indicates the number of days between L2 Vent Valve (Rear) Inspections

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Interval Days L2 Safety Valve 150#****L032**

Indicates the number of days between L2 Safety Valve 150# Inspections

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Interval Days L2 Check Valve (MR)****L033**

Indicates the number of days between L2 Check Valve (MR) Inspections

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Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                          |             |
|--------------------------------------------------------------------------|-------------|
| <b>Interval Days L2 Check Valve (EQ RES)</b>                             | <b>L034</b> |
| Indicates the number of days between L2 Check Valve (EQ RES) Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                                |             |
|--------------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 Brake Pipe Control Portion</b>                             | <b>L035</b> |
| Indicates the number of days between L3 Brake Pipe Control Portion Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                                          |             |
|------------------------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 Equalizing Reservoir Control Portion</b>                             | <b>L036</b> |
| Indicates the number of days between L3 Equalizing Reservoir Control Portion Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                             |             |
|-----------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 DB Triple Valve Portion</b>                             | <b>L037</b> |
| Indicates the number of days between L3 DB Triple Valve Portion Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                        |             |
|------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 16 Control Portion</b>                             | <b>L038</b> |
| Indicates the number of days between L3 16 Control Portion Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                        |             |
|------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 20 Pipe Block Assy</b>                             | <b>L039</b> |
| Indicates the number of days between L3 20 Pipe Block Assy Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                                    |             |
|------------------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 Brake Cylinder Control Portion</b>                             | <b>L040</b> |
| Indicates the number of days between L3 Brake Cylinder Control Portion Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                        |             |
|------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 13 Control Portion</b>                             | <b>L041</b> |
| Indicates the number of days between L3 13 Control Portion Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                        |             |
|------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 21 Pipe Vent Valve</b>                             | <b>L042</b> |
| Indicates the number of days between L3 21 Pipe Vent Valve Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                                   |             |
|-----------------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 FastBrake MC-31 Control Valve</b>                             | <b>L043</b> |
| Indicates the number of days between L3 FastBrake MC-31 Control Valve Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                                                           |             |
|-----------------------------------------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 FastBrake Independent Application and Release Portion</b>                             | <b>L044</b> |
| Indicates the number of days between L3 FastBrake Independent Application and Release Portion Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                                   |             |
|-----------------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 FastBrake Quick Service Valve</b>                             | <b>L045</b> |
| Indicates the number of days between L3 FastBrake Quick Service Valve Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                                     |             |
|-------------------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 FastBrake Dead In Train Portion</b>                             | <b>L046</b> |
| Indicates the number of days between L3 FastBrake Dead In Train Portion Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                                  |             |
|----------------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 FastBrake 16 Control Portion</b>                             | <b>L047</b> |
| Indicates the number of days between L3 FastBrake 16 Control Portion Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                                  |             |
|----------------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 FastBrake 20 Control Portion</b>                             | <b>L048</b> |
| Indicates the number of days between L3 FastBrake 20 Control Portion Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                                  |             |
|----------------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 FastBrake Brake Cylinder Control Portion</b>                 | <b>L049</b> |
| Indicates the number of days between L3 FastBrake 20 Control Portion Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                                          |             |
|------------------------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 FastBrake Brake Pipe Control Portion</b>                             | <b>L050</b> |
| Indicates the number of days between L3 FastBrake Brake Pipe Control Portion Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                                               |             |
|-----------------------------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 CCB1 20 Control Portion Independent Brake</b>                             | <b>L051</b> |
| Indicates the number of days between L3 CCB1 20 Control Portion Independent Brake Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                                |             |
|--------------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 CCB1 DB-10 Service Portion</b>                             | <b>L052</b> |
| Indicates the number of days between L3 CCB1 DB-10 Service Portion Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                              |             |
|------------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 CCB1 Analog Converter ER</b>                             | <b>L053</b> |
| Indicates the number of days between L3 CCB1 Analog Converter ER Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                              |             |
|------------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 CCB1 Analog Converter 16</b>                             | <b>L054</b> |
| Indicates the number of days between L3 CCB1 Analog Converter 16 Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                                 |             |
|---------------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 CCB1 Cut-off Valve Assembly</b>                             | <b>L055</b> |
| Indicates the number of days between L3 CCB1 Cut-off Valve Assembly Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                                 |             |
|---------------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 CCB1 Brake Pipe Relay Valve</b>                             | <b>L056</b> |
| Indicates the number of days between L3 CCB1 Brake Pipe Relay Valve Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                                  |             |
|----------------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 CCB1 Brake Pipe Cutoff Valve</b>                             | <b>L057</b> |
| Indicates the number of days between L3 CCB1 Brake Pipe Cutoff Valve Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

|                                                                             |             |
|-----------------------------------------------------------------------------|-------------|
| <b>Interval Days L3 CCB1 Double Check Valve</b>                             | <b>L058</b> |
| Indicates the number of days between L3 CCB1 Double Check Valve Inspections |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

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**Interval Days L3 CCB1 Emergency Limit Valve L059**

Indicates the number of days between L3 CCB1 Emergency Limit Valve Inspections

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Interval Days L3 CCB1 Emergency Magnet Valve L060**

Indicates the number of days between L3 CCB1 Emergency Magnet Valve Inspections

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Interval Days L3 CCB1 Equalizing Reservoir Magnet Valve L061**

Indicates the number of days between L3 CCB1 Equalizing Reservoir Magnet Valve Inspections

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Interval Days L3 CCB1 Bail Off Exhaust Magnet Valve L062**

Indicates the number of days between L3 CCB1 Bail Off Exhaust Magnet Valve Inspections

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Interval Days L3 CCB1 Bail Off Supply Valve L063**

Indicates the number of days between L3 CCB1 Bail Off Supply Valve Inspections

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Interval Days L3 CCB1 16 Pipe Magnet Valve L064**

Indicates the number of days between L3 CCB1 16 Pipe Magnet Valve Inspections

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Interval Days L3 CCB1 Brake Pipe Cutoff Pilot L065**

Indicates the number of days between L3 CCB1 Brake Pipe Cutoff Pilot Inspections

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Interval Days L3 CCB1 Emergency Detection Pilot L066**

Indicates the number of days between L3 CCB1 Emergency Detection Pilot Inspections

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Interval Days L3 CCB1 Emergency Pilot Valve L067**

Indicates the number of days between L3 CCB1 Emergency Pilot Valve Inspections

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Interval Days L3 CCB1 Backup Actuating Valve GE L068**

Indicates the number of days between L3 CCB1 Backup Actuating Valve GE Inspections

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Interval Days L3 CCB1 Backup Double Check Valve L069**

Indicates the number of days between L3 CCB1 Backup Double Check Valve Inspections

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Interval Days L3 CCB1 Emergency Detection Pilot Dynamic Brake Interlock L070**

Indicates the number of days between L3 CCB1 Emergency Detection Pilot Dynamic Brake Interlock Inspections

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Interval Days L3 CCB1 Backup Actuating Valve EMD L071**

Indicates the number of days between L3 CCB1 Backup Actuating Valve EMD Inspections

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Interval Days AFMC L072**

Indicates the number of days between AFMC Inspections

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**NOTES:**

- The element will be initially populated with 92 days.
- This element will be updated through an ECC and would default to 92 after an AFMC Inspection is reported.

**Emissions****Emissions Switch - HC B530**

Report the HC - Hydrocarbon emission levels for switch locomotive

Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for B530**

| Minimum | Maximum |
|---------|---------|
| 0       | 99.99   |

**NOTES:**

- Report the grams per brake horsepower hour (G/BHP-HR)

**Emissions Switch - PM B531**

Report the PM - Particulate matter emission levels for switch locomotive

Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for B531**

| Minimum | Maximum |
|---------|---------|
| 0       | 99.99   |

**NOTES:**

- Report the grams per brake horsepower hour (G/BHP-HR)

**Emissions Switch - CO B532**

Report the CO - Carbon monoxide emission levels for switch locomotive

Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for B532**

| Minimum | Maximum |
|---------|---------|
| 0       | 99.99   |

**NOTES:**

- Report the grams per brake horsepower hour (G/BHP-HR)

**Emissions Switch - NOx B533**

Report the NOx - Oxides of nitrogen emission levels for switch locomotive

Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for B533**

| Minimum | Maximum |
|---------|---------|
| 0       | 99.99   |

**NOTES:**

- Report the grams per brake horsepower hour (G/BHP-HR)

**Emissions Line - HC B534**

Report the HC - Hydrocarbon emission levels for line locomotive

Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for B534**

| Minimum | Maximum |
|---------|---------|
| 0       | 99.99   |

**NOTES:**

- Report the grams per brake horsepower hour (G/BHP-HR)

## Data Specification Manual

**Emissions Line - PM****B535**

Report the PM - Particulate matter emission levels for line locomotive

Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for B535**

| Minimum | Maximum |
|---------|---------|
| 0       | 99.99   |

**NOTES:**

- Report the grams per brake horsepower hour (G/BHP-HR)

**Emissions Line - CO****B536**

Report the CO - Carbon monoxide emission levels for line locomotive

Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for B536**

| Minimum | Maximum |
|---------|---------|
| 0       | 99.99   |

**NOTES:**

- Report the grams per brake horsepower hour (G/BHP-HR)

**Emissions Line - NOx****B537**

Report the NOx - Oxides of nitrogen emission levels for line locomotive

Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for B537**

| Minimum | Maximum |
|---------|---------|
| 0       | 99.99   |

**NOTES:**

- Report the grams per brake horsepower hour (G/BHP-HR)

**Cost****Original Cost****A184**

The original manufacturer selling price

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A184**

| Minimum | Maximum |
|---------|---------|
| 0       | 9999999 |

**Validation Rule for A184**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Original Cost must be equal to the Ledger Value if Additions & Betterments Indicator is not reported.
- Railroad marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost
- Private marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost if Build Date (BLDT) is on or after January 1, 2015

**NOTES:**

- Original Cost is never altered. It is the cost of the equipment to the original owner.
- For railroad-marked cars, report in US dollars the original ledger value of the original owner For cars rebuilt, report the cost prescribed in MR Interchange Rule 88 and Circular Letter OT-24
- The original cost is used in the settlement of AAR Interchange Rule 107 Office Manual.
- For connected unit cars report the total original cost for all units in the set.
- Numeric, applicable to all railroad-marked cars Also, applicable to privately marked covered hopper (LO) cars.
- Raise all cents to the next dollar, e.g. \$5,501.02 = 0005502

**Ledger Value****A150**

The sum of original cost and additions &amp; betterments

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A150**

| Minimum | Maximum |
|---------|---------|
|---------|---------|

0 | 9999999

**Validation Rule for A150**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Ledger Value must equal the Original Cost (A184) plus the additions & betterments, if Total A&B (A003) has been reported. Otherwise Ledger Value should equal Original Cost (A184).

**Total A&B****A003**

System generated sum of all reported amounts in A&amp;B Amount (A317), in US dollars

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A003**

| Minimum | Maximum  |
|---------|----------|
| 0       | 99999999 |

**NOTES:**

- For railroad-marked cars, report the sum of all additions and betterments applied to the car. This value is for record keeping purposes only and will not be used to report Ledger Value.
- For private Cars report the additions and betterments as qualified under AAR interchange Rule 107 for determination of settlement value.
  - Additions are costs of all new components applied subsequent to the date the car was built or rebuilt and carried in the capital investment account.
  - Betterments are costs of all improvements of components of existing equipment through the substitution of superior parts for inferior parts subsequent to the date the car was built or rebuilt.
- For connected unit cars report the total Truck Location A for all units in the set

**Ind for Pos/Neg Total A&B****A128**

A code indicating the positive or negative adjustment to the original cost of the equipment

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A128**

N Negative P Positive

**A&B Pos/Neg Ind****A316**

A code indicating the positive or negative adjustment to the individual addition and betterment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A316**

N Negative P Positive

**Validation Rule for A316**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- The A&B Indicator is required when Additions & Betterments are reported.
- The A&B Indicator must not be reported if Additions & Betterments are not reported.

**A&B Amount****A317**

The amount of the individual addition and betterment added to or subtracted from the original cost of the equipment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A317**

| Minimum | Maximum |
|---------|---------|
| 1       | 999999  |

**Validation Rule for A317**

- When entering an individual addition & betterment; A&B Date Done (A319), A&B Type (A318), A&B Pos/Neg Ind (A316), and A&B Amount (A317) must be reported

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**A&B Date Done****A319**

The date of the individual addition and betterment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A319**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for A319**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- Addition and Betterment Date Done cannot be earlier than Built Date (BLDT).
- Additions & Betterments Date Done cannot be later than today's date.

**A&B Type****A318**

The type of individual addition and betterment as defined by Rule 107

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A318**

|      |                                                                           |
|------|---------------------------------------------------------------------------|
| GNRL | General - Capitalized Additions and Betterments                           |
| INIT | Initial load of historical A&B amount as of Umler 4.6 implementation date |

**Validation Rule for A318**

- For each equipment, only one Individual A&B Type can have a value of INIT.
- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.

**Car Management****Pool Number****P001**

Unique number used to indicate the grouping of equipment for a particular purpose

Used for Transportation Codes. This element is not eligible for Input. Value does not carry forward for Equipment Group Change / Add Back.

**User Routing Instructions****TCUR**

The routing instruction reported by the user

Used for Transportation Codes.

**Permissible Values for TCUR**

|   |                                |
|---|--------------------------------|
| 2 | Trailer Service Rule 2         |
| G | Contaminated commodity service |
| M | Mark canceled                  |
| O | Owner requested return         |
| U | Unassigned equipment           |

**NOTES:**

- For further explanation reference Appendix E.

**Umler Transportation Code****TCOD**

The type of assigned service, empty routing or restriction of the equipment

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

**Transportation Cond Code****TCCD**

The AAR or FRA interchange restriction code

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

**Mechanical Restriction****TCME**

User reported or system generated type of mechanical restriction

Used for Transportation Codes.

**Permissible Values for TCME**

|   |                             |
|---|-----------------------------|
| S | Scrap                       |
| X | AAR Interchange Restriction |

**NOTES:**

- For further explanation reference Appendix D.1

**Mech Restriction Reason****TCMR**

The explanation of the Mechanical Restriction (TCME)

Used for Transportation Codes.

**Permissible Values for TCMR**

|   |                                                             |
|---|-------------------------------------------------------------|
| J | Restricted Due to Journal Bearing and Journal Lubrication   |
| X | Restricted Due to Scrap or Early Warning                    |
| Z | Restricted Due to Umler Conflict (Not Valid for User Input) |

**NOTES:**

- For further explanation reference Appendix D.2.
- The assignment of the Transportation Codes S, SX, XA, XZ and YA generate the Rate Indicator Code 6 to the CHARM file to zero (0) rate the car hire and mileage rate.

**Truck Components****Truck Axle Count****B252**

The number of axles per truck

**Range of Values for B252**

| Minimum | Maximum |
|---------|---------|
| 2       | 4       |

**Validation Rule for B252**

- Sum of Truck Axle Counts must equal Axle Count (A024)

**Wheel Diameter****A294**

The diameter of the wheels

**Permissible Values for A294**

|    |           |    |           |    |           |
|----|-----------|----|-----------|----|-----------|
| 36 | 36 Inches | 37 | 37 Inches | 38 | 38 Inches |
| 39 | 39 Inches | 40 | 40 Inches | 41 | 41 Inches |
| 42 | 42 Inches | 43 | 43 Inches | 44 | 44 Inches |
| 45 | 45 Inches | 46 | 46 Inches | 47 | 47 Inches |
| 48 | 48 Inches | 49 | 49 Inches | 50 | 50 Inches |
| 51 | 51 Inches | 52 | 52 Inches | 53 | 53 Inches |
| 54 | 54 Inches | 55 | 55 Inches | 56 | 56 Inches |
| 57 | 57 Inches | 58 | 58 Inches | 59 | 59 Inches |
| 60 | 60 Inches |    |           |    |           |

**Draft System Components****Alignment Control Eqpd *Mandatory*****B008**

Alignment Control Coupler, Component

**Permissible Values for B008**

|   |    |   |     |
|---|----|---|-----|
| N | No | Y | Yes |
|---|----|---|-----|

**Miscellaneous****Commercial Owner CIF****B049**

The Customer Identification File (CIF) number for a commercial owner at a specific location

**Commercial Lessee CIF****B048**

The Customer Identification File (CIF) number for a commercial lessee at a specific location

**Umler Effective Date****EFDT**

The date the rating activity (pre-registration, modification, etc.) is expected to occur



## Data Specification Manual

This element is not eligible for Query. Does not Carry Forward.

**Validation Rule for EFDT**

-Effective Date cannot be set to more than 13 months in the future.

**NOTES:**

- Effective Date will default to the 1st of the following month that equipment is registered

## Inspection

**Periodic Insp Interval****B356**

Indicates the number of days between Locomotive inspections

Value does not carry forward for Single Clone / Multi-Clone / Equipment Group Change.

**Permissible Values for B356**

184                      92

**FRA Drop Dead Date****DDNE**

FRA Drop Dead Date

System Generated Field. This element is not eligible for Input.

**Inspection Certified by****CERT**

Person certifying inspection

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Inspection Conducted by****COND**

Person conducting inspection

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Inspection Date Done****DTDN**

The date the inspection was completed; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Validation Rule for DTDN**

-The inspection date must not be 60 days before the Build Date

**Inspection Due Date****INDD**

The due date of the next inspection; used for all inspection types reported on equipment

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Inspection Item Codes****L003**

Code indicating type of items inspected as part of a locomotive periodic inspection

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for L003**

|   |             |   |              |   |           |
|---|-------------|---|--------------|---|-----------|
| 1 | Brakes      | 2 | Running Gear | 3 | Cab Equip |
| 4 | Mech Equip  | 5 | Elect Equip  | 6 | Steam Gen |
| 7 | Safety Appl |   |              |   |           |

**Inspection Performer****PERF**

The SCAC that completed the inspection; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Inspection Reporter****REPT**

The SCAC that reported the inspection; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Scheduled Due Date****SCDD****Scheduled Due Date**

This element is not eligible for Input. Does not Carry Forward.

**Location/SPLC****SPLC**

The SPLC of the inspecting location; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**OOS From Date****L021**

The first day eligible for Out of Service Credit

Value does not carry forward for Single Clone / Multi-Clone.

**OOS To Date****L022**

The last day eligible for Out of Service Credit

Value does not carry forward for Single Clone / Multi-Clone.

**OOS Number of Days****L023**

The number of out of service days for that occurrence

Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for L023**

| Minimum | Maximum |
|---------|---------|
| 0       | 99999   |

**Air Card Item****L015**

Detail indicating type of items inspected as part of a locomotive Air Card Inspection

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Air Card Description****L016**

Description of the items inspected as part of a Locomotive Air Card Inspection

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Air Card Frequency Days****L017**

Locomotive Air Card Frequency Days

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Range of Values for L017**

| Minimum | Maximum |
|---------|---------|
| 0       | 99999   |

**Air Brake Test Device****B523**

Indicates the type of test device used to perform the Air Brake Test

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Permissible Values for B523**

A Automatic (Non 4-Pressure)  
M Manual  
P Automatic (4-Pressure)

**Validation Rule for B523**

-Air Brake Test Device (B523) must be reported for Air Brake Test inspection reported on or after December 10, 2020

**Cab Signals Inspection Due Date****DU21**

Cab Signals Inspection Due Date

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive Periodic Inspection Due Date****DU22**

Locomotive Periodic Inspection Due Date

System generated. This element is not eligible for Input. Does not Carry Forward.

**Qualified Locomotive Manual Inspection Due Date****DU23**

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**Qualified Locomotive Manual Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**AFMC Inspection Due Date****DU24****AFMC Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive Annual Inspection Due Date****DU25****Locomotive Annual Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive Event Recorder Inspection Due Date****DU26****Locomotive Event Recorder Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive Hand Brake Inspection Due Date****DU27****Locomotive Hand Brake Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive Air Brake L1 Inspection Due Date****DU28****Locomotive Air Brake L1 Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive Air Brake L2 Inspection Due Date****DU29****Locomotive Air Brake L2 Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive Air Brake L3 Inspection Due Date****DU30****Locomotive Air Brake L3 Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L2 Vent Valve Front Inspection Due Date****DU31****Locomotive L2 Vent Valve Front Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L2 Vent Valve Rear Inspection Due Date****DU32****Locomotive L2 Vent Valve Rear Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L2 Safety Valve 150 Inspection Due Date****DU33****Locomotive L2 Safety Valve 150 Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L2 Check Valve Main Res Inspection Due Date****DU34****Locomotive L2 Check Valve Main Res Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L2 Check Valve EQ RES Inspection Due Date****DU35****Locomotive L2 Check Valve EQ RES Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L3 Brake Pipe Control Portion Inspection Due Date****DU36****Locomotive L3 Brake Pipe Control Portion Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L3 Equalizing Reservoir Control Portion Inspection Due Date****DU37****Locomotive L3 Equalizing Reservoir Control Portion Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L3 DB Triple Valve Portion Inspection Due Date****DU38****Locomotive L3 DB Triple Valve Portion Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L3 16 Control Portion Inspection Due Date****DU39****Locomotive L3 16 Control Portion Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L3 20 Pipe Block Assy Inspection Due Date****DU40****Locomotive L3 20 Pipe Block Assy Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L3 Brake Cylinder Control Portion Inspection Due Date****DU41****Locomotive L3 Brake Cylinder Control Portion Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L3 16 Control Portion Inspection Due Date****DU42****Locomotive L3 16 Control Portion Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L3 21 Pipe Vent Valve Inspection Due Date****DU43****Locomotive L3 21 Pipe Vent Valve Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L3 FastBrake MC-31 Control Valve Inspection Due Date****DU44****Locomotive L3 FastBrake MC-31 Control Valve Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L3 FastBrake Independent Application and Release Portion Inspection Due Date****DU45****Locomotive L3 FastBrake Independent Application and Release Portion Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L3 FastBrake Quick Service Valve Inspection Due Date****DU46****Locomotive L3 FastBrake Quick Service Valve Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L3 FastBrake Dead in Train Portion Inspection Due Date****DU47****Locomotive L3 FastBrake Dead in Train Portion Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L3 FastBrake 16 Control Portion Inspection Due Date****DU48****Locomotive L3 FastBrake 16 Control Portion Inspection Due Date**

System generated. This element is not eligible for Input. Does not Carry Forward.

**Locomotive L3 FastBrake 20 Control Portion Inspection Due Date****DU49****Locomotive L3 FastBrake 20 Control Portion Inspection Due Date**

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System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 FastBrake Brake Cylinder Control Portion Inspection Due Date DU50

Locomotive L3 FastBrake Brake Cylinder Control Portion Inspection Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 FastBrake Brake Pipe Control Portion Inspection Due Date DU51

Locomotive L3 FastBrake Brake Pipe Control Portion Inspection Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 20 Control Portion Independent Brake Inspection Due Date DU52

Locomotive L3 CCB1 20 Control Portion Independent Brake Inspection Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 DB-10 Service Portion Inspection Due Date DU53

Locomotive L3 CCB1 DB-10 Service Portion Inspection Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 Analog Converter ER Inspection Due Date DU54

Locomotive L3 CCB1 Analog Converter ER Inspection Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 Analog Converter 16 Inspection Due Date DU55

Locomotive L3 CCB1 Analog Converter 16 Inspection Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 Cutoff Valve Assembly Inspection Due Date DU56

Locomotive L3 CCB1 Cutoff Valve Assembly Inspection Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 Brake Pipe Relay Valve Inspection Due Date DU57

Locomotive L3 CCB1 Brake Pipe Relay Valve Inspection Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 Brake Pipe Cutoff Valve Inspection Due Date DU59

Locomotive L3 CCB1 Brake Pipe Cutoff Valve Inspection Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 Double Check Valve Inspection Due Date DU60

Locomotive L3 CCB1 Double Check Valve Inspection Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 Emergency Limit Valve Inspection Due Date DU61

Locomotive L3 CCB1 Emergency Limit Valve Inspection Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 Emergency Magnet Valve Inspection Due Date DU62

Locomotive L3 CCB1 Emergency Magnet Valve Inspection Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 Equalizing Reservoir Magnet Valve Inspection Due Date DU63

Locomotive L3 CCB1 Equalizing Reservoir Magnet Valve Inspection Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 Bail Off Exhaust Magnet Valve Inspection Due Date DU64

Locomotive L3 CCB1 Bail Off Exhaust Magnet Valve Inspection Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 Bail Off Supply Valve Inspection Due Date DU65

Locomotive L3 CCB1 Bail Off Supply Valve Inspection Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 16 Pipe Magnet Valve Inspection Due Date DU66

Locomotive L3 CCB1 16 Pipe Magnet Valve Inspection Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 Brake Pipe Cutoff Pilot Inspection Due Date DU67

Locomotive L3 CCB1 Brake Pipe Cutoff Pilot Inspection Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 Emergency Detection Pilot Inspection DU68

Locomotive L3 CCB1 Emergency Detection Pilot Inspection  
Scheduled Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 Emergency Pilot Valve Inspection Due Date DU69

Locomotive L3 CCB1 Emergency Pilot Valve Inspection Due Date  
Scheduled Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 Backup Actuating Valve GE Inspection Due Date DU70

Locomotive L3 CCB1 Backup Actuating Valve GE Inspection Due Date  
Scheduled Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 Backup Double Check Valve Inspection Due Date DU71

Locomotive L3 CCB1 Backup Double Check Valve Inspection Due Date  
Scheduled Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### Locomotive L3 CCB1 Emergency Detection Pilot Dynamic Brake Interlock Inspection Due Date DU72

Locomotive L3 CCB1 Emergency Detection Pilot Dynamic Brake Interlock Inspection Due Date  
Scheduled Due Date  
System generated. This element is not eligible for Input. Does not Carry Forward.

#### NOTES:

- If no inspection exists for the car, the due date remains blank.
- When an inspection is recorded, the system adds the value from the Interval Days element to the inspection's Date Done. If the Interval Days element is not provided, the due date defaults to the Date Done.
- Interval Days is supplied by the customer through an ECA or ECC

transaction.

System generated logic:

- Inspection Date Done (PDI-DTDN) + Interval Days (L070) - 1 = Due Date (DU72)
- EX: Inspection Date Done 1/1/2025 + 3480 Interval Days - 1 = Due Date 7/12/2034

|                                                                                   |
|-----------------------------------------------------------------------------------|
| Locomotive L3 CCB1 Backup Actuating Valve EMD Inspection Due Date                 |
| DU73                                                                              |
| Locomotive L3 CCB1 Backup Actuating Valve EMD Inspection Due Date                 |
| Scheduled Due Date                                                                |
| System generated. This element is not eligible for Input. Does not Carry Forward. |

NOTES:

- If no inspection exists for the car, the due date remains blank.

- When an inspection is recorded, the system adds the value from the Interval Days element to the inspection’s Date Done. If the Interval Days element is not provided, the due date defaults to the Date Done.
- Interval Days is supplied by the customer through an ECA or ECC transaction.

System generated logic:

- Inspection Date Done (BVI-DTDN) + Interval Days (L071) - 1 = Due Date (DU73)
- EX: Inspection Date Done 1/1/2025 + 3480 Interval Days - 1 = Due Date 7/12/2034

## Passenger Cars

|                                           |            |
|-------------------------------------------|------------|
| <b>General</b>                            | <b>235</b> |
| Status Code (USCD)                        | 235        |
| Equipment ID (0001)                       | 235        |
| Mechanical Designation (UMMD)             | 235        |
| Equipment Type Code (UMET)                | 235        |
| Maint of Way Service Type (B403)          | 235        |
| Built Date (BLDT)                         | 235        |
| Rebuilt / ILS Date (RBDT)                 | 235        |
| Rebuilt Flag (RBLF)                       | 235        |
| Owner (UMOW)                              | 235        |
| Equipment Group (0002)                    | 235        |
| Lessee (LESE)                             | 235        |
| Maintenance Party (MNPT)                  | 235        |
| Mark Owner Category (B201)                | 236        |
| Prior Equipment ID (PRID)                 | 236        |
| Last Update Date (B122)                   | 236        |
| Equipment Add Date (B082)                 | 236        |
| Status Change Reason (USCR)               | 236        |
| Status Change Date (USCT)                 | 236        |
| Equipment Identification (EINN)           | 236        |
| Info Conflict Status (B355)               | 236        |
| Conflict Status (B050)                    | 236        |
| Date of Original Conflict (B063)          | 236        |
| Next Conflict Status (B135)               | 236        |
| Notice Indicator (B137)                   | 236        |
| Conflict Status Next Date (B062)          | 236        |
| Rate Indicator (A070)                     | 236        |
| First Movement Date (USAT)                | 237        |
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## Data Specification Manual

## General

**Status Code** *Mandatory* USCDIdentifies the current operational state ●

Does not Carry Forward.

**Permissible Values for USCD**

A ACTIVE I INACTIVE  
P PRE-REGISTERED

**NOTES:**

- For Restencil and Clone process the initial Status of a car should be Pre-Registered.
- All Add-Back processes should initially set the Status to Pre-Registered
- A Pre-registered car will automatically have its Status changed to Active for the initial change when TRAIN detects three (3) movements on the car
- If the Status changes to Active due to movement and the car was created from a Restencil, the Prior Equipment ID (PRID) or source car will have its status changed to Inactive automatically by Umler

**Equipment ID** 0001

The equipment stenciled number

**Validation Rule for 0001**

-Equipment Number must not be larger than 6 digits (i.e., 999999)

**NOTES:**

- Equipment ID includes the mark and number stenciled on the equipment. Marks can be up to 4 characters and number up to 6 digits (i.e., ABCD999999).
- Up to 500 cars can be added or updated in a transaction.
- When adding an equipment record, ensure that Prior Equipment ID (PRID) is reported, unless the equipment is new.

**Mechanical Designation** *Mandatory* UMMDEquipment description without physical dimensions ● ▲

Used in ETC Generation. Used for Transportation Codes.

**Permissible Values for UMMD**

PA Passenger - Passenger Service  
PAB Passenger - Passenger and Baggage Service  
PB Passenger - Baggage Service only  
PD Passenger - Dining car  
PS Passenger - Company Service car  
PSD Passenger - Company Service car with Dining

**Equipment Type Code** UMET

An alpha numeric code that describes the physical attributes of equipment

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Please Refer to Appendix I for More information Regarding ETC Generation

**Maint of Way Service Type** B403

Identifies equipment Maintenance Of Way function

Value does not carry forward for Equipment Group Change.

**Permissible Values for B403**

C2 Crane / Boom Support Car  
F4 Flat-Wheel Sets  
T4 Training Car  
T8 Track Geometry Car

**Built Date** *Mandatory* BLDTThe date the construction of the equipment is complete ●

Data is Confidential. Used for Transportation Codes. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for BLDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for BLDT**

- Built Date must not be in the future for equipment in Active Status
- Prior and target equipment's Built Date (BLDT) must match for restenciling

**NOTES:**

- Data is public for railroad marked equipment.
- For connected unit cars report the oldest car in the set.

**Rebuilt / ILS Date** RBDT

The date the re-construction of the equipment is complete

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for RBDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for RBDT**

- Rebuilt/Increased Life Service Date must be after the Built Date (BLDT)
- Rebuilt Date must not be more than 70 years after the Built Date (BLDT)

**NOTES:**

- Railroad cars -- applicable only to cars meeting status as provided in both STB Accounting Rules, and the AAR Mechanical Interchange Rule 88, Office Manual.
- Private cars -- applicable to all cars meeting AAR Mechanical Interchange Rule 88, Section C, Office Manual and Sections A and B of the Field Manual.
- For connected unit cars report the oldest car in the set. Do not report Rebuilt Date unless car has been approved by the AAR.

**Rebuilt Flag** RBFL

Identifies the equipment is nearing its end of life cycle

Data is Confidential. System Generated Field. This element is not eligible for Input.

**Permissible Values for RBFL**

|   |    |   |     |
|---|----|---|-----|
| N | No | Y | Yes |
|---|----|---|-----|

**Owner** *Mandatory* UMOWPrimary reporting mark of the railroad or private company owning the car ●

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**NOTES:**

- Report the primary reporting mark of the railroad or private company owning the car. When car's lease or lien is held by a bank, trust holder, capital lease company, etc. not having an assigned mark, report the primary reporting mark affiliated with the stenciled reporting mark.

**Equipment Group** *Mandatory* 0002Identifies the various major car types ● ●

Used for Transportation Codes. Affects Rating.

**Lessee** LESE

The reporting mark of the company leasing the equipment

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**Validation Rule for LESE**

-Umler Owner (UMOW) and Lessee are not allowed to be equal

**NOTES:**

- In order to assign privately marked cars to a pool, a railroad reporting mark must be reported.

**Maintenance Party** MNPT

The parent reporting mark of the company responsible for the maintenance and repairs of the equipment

Does not Carry Forward.

## Data Specification Manual

| Mark Owner Category                                 | B201 |
|-----------------------------------------------------|------|
| The company that owns the stenciled mark on the car |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**Permissible Values for B201**

|   |                            |
|---|----------------------------|
| B | US Private                 |
| C | Canadian Private           |
| F | Foreign Private            |
| H | Canadian Class II          |
| I | Canadian Class I           |
| J | Mexican Class I            |
| K | Canadian Class III         |
| M | Mexican Private            |
| N | US Private Steamship       |
| O | Canadian Private Steamship |
| P | Mexican Private Steamship  |
| Q | Foreign Private Steamship  |
| R | US Class II Railroad       |
| U | US Class I Railroad        |
| V | US Class III Railroad      |
| W | Mexican Class II Railroad  |
| Y | Mexican Class III Railroad |

**NOTES:**

- This value is stored in the Umler Database for informational purposes and is retrieved from the Roadmark Registry.

| Prior Equipment ID                                      | PRID |
|---------------------------------------------------------|------|
| The previous reporting mark and number of the equipment |      |

Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for PRID**

- Prior and target equipment's Built Date (BLDT) must match
- The Prior Equipment ID (0001) must belong to the same or comparable Equipment Group (0002) as the current car initial and number

**NOTES:**

- Prior ID enables equipment records to share the same historical lineage. Equipment Identification Number (EIN) is a generated id that enables these equipment records to share inspections and transaction history.

| Last Update Date                      | B122 |
|---------------------------------------|------|
| Date of the last Umler element change |      |

System Generated Field. This element is not eligible for Input.

| Equipment Add Date                                               | B082 |
|------------------------------------------------------------------|------|
| Date the reporting mark and number was added to the Umler system |      |

System Generated Field. This element is not eligible for Input.

| Status Change Reason                                    | USCR |
|---------------------------------------------------------|------|
| Identifies the reason for the current operational state |      |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for USCR**

|   |                         |
|---|-------------------------|
| I | Initial Load            |
| M | Movement                |
| O | Status Changed Manually |
| R | Restencil               |

**NOTES:**

- If movement is detected on equipment, status is changed to Active.
- If an equipment record is changed to Active, any prior equipment record is placed in Inactive status.

| Status Change Date                                             | USCT |
|----------------------------------------------------------------|------|
| Identifies the effective date of the current operational state |      |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

| Equipment Identification                                 | EINN |
|----------------------------------------------------------|------|
| Unique equipment identifier regardless of stenciled mark |      |

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Specify the Prior ID (PRID) on equipment records to ensure the historical lineage is preserved. Equipment with the same EIN share history and inspections.

| Info Conflict Status                                                    | B355 |
|-------------------------------------------------------------------------|------|
| Indicates that an Informational Conflict exists on the Equipment record |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

| Conflict Status                                                 | B050 |
|-----------------------------------------------------------------|------|
| Identifies the escalation level of equipment in active conflict |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B050**

- Subject to Zero-Rating
- Subject to Restricted in Interchange
- Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

| Date of Original Conflict                                            | B063 |
|----------------------------------------------------------------------|------|
| The date the equipment was originally placed in the current conflict |      |

System Generated Field. This element is not eligible for Input.

| Next Conflict Status                                                    | B135 |
|-------------------------------------------------------------------------|------|
| Identifies the next escalation level of an equipment in active conflict |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B135**

- Subject to Zero-Rating
- Subject to Restricted in Interchange
- Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

| Notice Indicator                                         | B137 |
|----------------------------------------------------------|------|
| Identifies equipment in error in Umler Notice Management |      |

System Generated Field. This element is not eligible for Input.

| Conflict Status Next Date                      | B062 |
|------------------------------------------------|------|
| The date the conflict status will be escalated |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

| Rate Indicator                                 | A070 |
|------------------------------------------------|------|
| Indicates the rate type applicable to the unit |      |

System Generated Field. Used for Transportation Codes. Affects Rating. This

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element is not eligible for Input. Does not Carry Forward.

**Permissible Values for A070**

- 0 Zero-Rated Due to Conflict Errors
- 6 Zero-Rated - Scrap (S\_SX), AAR Overage (XA), FRA Overage (YA), Umler Conflict - CHR 1/Tarriff 6007 (XZ). Zero-Rated Private Owner Election to Zero Rate [See Private Zero Rate (B150)].

**NOTES:**

- If unit is zero-rated, correction of conflicts will reinstate the appropriate rate indicator code.

|                                                                   |             |
|-------------------------------------------------------------------|-------------|
| <b>First Movement Date</b>                                        | <b>USAT</b> |
| The first movement date under the stenciled mark of the equipment |             |
| This element is not eligible for Input. Does not Carry Forward.   |             |

|                                                                 |             |
|-----------------------------------------------------------------|-------------|
| <b>Equipment Add Company</b>                                    | <b>B083</b> |
| The reporting mark of the company that added the equipment      |             |
| System Generated Field. This element is not eligible for Input. |             |

|                                                        |             |
|--------------------------------------------------------|-------------|
| <b>Registration Reason</b>                             | <b>B174</b> |
| The code indicating the reason this equipment is added |             |
| Does not Carry Forward.                                |             |

**Permissible Values for B174**

- |   |                   |   |           |
|---|-------------------|---|-----------|
| A | Add-Back          | N | New       |
| P | Pending Restencil | R | Restencil |

|                                                       |             |
|-------------------------------------------------------|-------------|
| <b>Restencil Program Ind</b>                          | <b>B177</b> |
| Identifies the equipment is under a restencil program |             |
| <b>Permissible Values for B177</b>                    |             |
| Y Yes                                                 |             |

|                                                                  |             |
|------------------------------------------------------------------|-------------|
| <b>Delete Reason Code</b>                                        | <b>B064</b> |
| A code that designates the reason the equipment has been deleted |             |
| Value does not carry forward for Add Back.                       |             |

**Permissible Values for B064**

- |   |                                              |
|---|----------------------------------------------|
| A | Restenciled                                  |
| D | Destroyed or wrecked                         |
| L | Lease terminated, removed from fleet         |
| P | Retired unserviceable beyond economic repair |
| R | Rebuilt                                      |
| S | Sold Serviceable                             |
| T | Lost                                         |
| W | Over age retired for dismantling             |
| Y | Error, reporting did not exist               |
| Z | Other                                        |

|                                                                                                                                                 |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Non-Compliant Wheelsets</b>                                                                                                                  | <b>B544</b> |
| Equipment record is incomplete and has a missing wheelset component ID association. Refer to AAR Field Manual Rule 44 for industry requirements |             |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B544**

- A Wheelset Component ID is required for each applicable location on equipment built on or after January 1, 2016
- A Wheelset Component ID is required for each applicable location on equipment rebuilt on or after January 1, 2016 and Gross Rail Load (A266) is greater than 268,000 lbs

**NOTES:**

- A "Y" will be system generated if the equipment is active and the number of Wheelset CID's required is not equal to the Axle Count (A024) on the equipment
- Validation rule applies to equipment that has been in Active status for 60 days

**Weight**

|                                                                                          |             |
|------------------------------------------------------------------------------------------|-------------|
| <b>Gross Rail Load/Weight</b> <b>Mandatory</b>                                           | <b>A266</b> |
| The maximum permissible weight on rail of the equipment and the load, reported in pounds |             |

**Range of Values for A266**

| Minimum | Maximum |
|---------|---------|
| 42500   | 495000  |

**Validation Rule for A266**

-Gross Rail Load must be equal to the Load Limit (LDLT) plus the Tare Weight (A259)

Use Table 1 below to determine Gross Rail Load

| TABLE 1 - Journal Size | Load per Axle | Gross Rail Load for 4-axle Equipment |
|------------------------|---------------|--------------------------------------|
| B - 4 1/2" x 8"        | 25,750 lbs.   | 103,000 lbs.                         |
| C - 5" x 9"            | 35,500 lbs.   | 142,000 lbs.                         |
| D - 5 1/2" x 10"       | 44,250 lbs.   | 177,000 lbs.                         |
| E - 6" x 11"           | 55,000 lbs.   | 220,000 lbs.                         |
| F - 6 1/2" x 12"       | 65,750 lbs.   | 263,000 lbs.                         |
| G - 7" x 12"           | 78,750 lbs.   | 315,000 lbs.                         |
| K - 6 1/2" x 9"        | 71,500 lbs.   | 263,000 lbs.                         |
| M - 7" x 9"            | 78,750 lbs.   | 315,000 lbs.                         |

**NOTES:**

- For multi-unit equipment, report the total gross rail load for the entire set.
- Refer to Field Manual Rule 70 if additional information is required.

A Gross Rail Load less than the listed or calculated values may be entered; however:

1. Star Code (A247) must be R or S, and
2. Load Limit (LDLT) must also be reduced, ensuring Tare Weight (A259) plus Load Limit (LDLT) equals the reported Gross Rail Load.

For equipment having two or more different journal sizes, see following examples:

Example for Drawbar Connected:

- A 3-unit drawbar connected car has 12 axles.
- The end units (Locations A and B) each have 4 axles with E - 6" x 11" journals.
- The intermediate unit (Locations C) has 4 axles with F - 6 1/2" x 12" journals

Using TABLE 1, the Gross Rail Load would be:

$$8 \text{ ea. E-6" x 11" journal axles X } 55,000 \text{ lbs. per axle} = 440,000 \text{ lbs.} \\ + 4 \text{ ea. F-6 1/2" x 12" journal axles X } 65,750 \text{ lbs. per axle} = 263,000 \text{ lbs.} \\ \text{Gross Rail Load} = 703,000 \text{ lbs.}$$

Example for Articulated Connected:

- A 5-unit articulated intermodal car has 6 trucks (12 axles).
- The end trucks (Locations A and B) each have 2 axles with E - 6" x 11" journals.
- The intermediate trucks (Locations C, D, E, and F) each have 2 axles with G - 7" x 12" journals

Using TABLE 1, the Gross Rail Load would be:

$$4 \text{ ea. E-6" x 11" journal axles X } 55,000 \text{ lbs. per axle} = 220,000 \text{ lbs.} \\ + 8 \text{ ea. G-7" x 12" journal axles X } 78,750 \text{ lbs. per axle} = 630,000 \text{ lbs.} \\ \text{Gross Rail Load} = 850,000 \text{ lbs.}$$

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**Tare Weight *Mandatory*** **A259**

The equipment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds

**Range of Values for A259**

| Minimum | Maximum |
|---------|---------|
| 16000   | 320000  |

**NOTES:**

- Do not report an average Tare Weight for car series, except for Pre-Registered cars
- When cars are made active, the actual Tare Weight must be recorded

**Load Limit *Mandatory*** **LDLT**

The maximum permissible weight of the commodity that can be loaded into the equipment, reported in pounds

**Range of Values for LDLT**

| Minimum | Maximum |
|---------|---------|
| 2500    | 145000  |

**Star Code** **A247**

Indicates a reduction of the Load Limit (LDLT) of the equipment per AAR Rule 70

**Permissible Values for A247**

- R Body Capacity less than Truck Capacity
- S Reduced Load Limit

**Dimension****Plate Code** **A046**

Indicates the extreme height and width clearance of the equipment

**Permissible Values for A046**

- B Plate Code B
- C Plate Code C
- E Plate Code E
- F Plate Code F
- G Clearance Code G
- N Plate Code N

**NOTES:**

- For a description of Plate Codes, please see Appendix J at the back of this manual.
  - Report B: If clearance does not exceed Plate B
  - Report C: If clearance is greater than Plate B, but does not exceed Plate C
  - Report E: If clearance is greater than Plates B and C, but does not exceed Plate E.
  - Report F: If clearance is greater than Plates B, C and E, but does not exceed Plate F
  - Report G: If clearance exceeds Plates B, C, E, F, and N.
  - Report N: If clearance is greater than Plates B, C, E, and F, but does not exceed Plate N.
- There is no AAR Plate G. Clearance Code G is included in Umler to represent equipment that does not fit any existing AAR clearance plates.
- For ARTICULATED/MULTI-UNIT SET report the most restrictive clearance plate of UNIT in the set.

**Outside Length *Mandatory*** **OSLG**

The outside length over pulling faces of couplers in normal position

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for OSLG**

| Minimum        | Maximum         |
|----------------|-----------------|
| 20 ft 0 inches | 133 ft 0 inches |

**NOTES:**

- For connected unit cars report the maximum coupled length of the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

**Outside Extreme Width *Mandatory*** **A186**

The outside extreme width of the equipment

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A186**

| Minimum       | Maximum         |
|---------------|-----------------|
| 7 ft 0 inches | 11 ft 10 inches |

**Validation Rule for A186**

- Outside Extreme Width must not exceed 10 feet 8 inches for Plate Codes B, C, E, F, or N
- Outside Extreme Width (A186) for Plate Code A must not be less than 10 feet 8 inches.
- Outside Extreme Width (A186) for Plate Code A must not exceed 10 feet 10 inches.

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Outside Extreme Height** **A185**

Height from top of rail to extreme projecting height

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A185**

| Minimum       | Maximum        |
|---------------|----------------|
| 2 ft 0 inches | 22 ft 0 inches |

**Validation Rule for A185**

- Outside Extreme Height for Plate Codes A, B, or H must be less than or equal to 15 feet 1 inch
- Outside Extreme Height for Plate Codes C or I must be less than or equal to 15 feet 6 inches
- Outside Extreme Height for Plate Code E must be less than or equal to 15 feet 9 inches
- Outside Extreme Height for Plate Code F must be less than or equal to 17 feet 0 inch
- Outside Extreme Height for Plate Code N must be less than or equal to 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Outside Height Extr Width** **A187**

The highest point at which the extreme width of the equipment occurs

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A187**

| Minimum       | Maximum        |
|---------------|----------------|
| 1 ft 0 inches | 22 ft 0 inches |

**Validation Rule for A187**

- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 8 inches if Outside Height Extreme Width is 13 feet 10 inches or less
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 7 inches if Outside Height Extreme Width is 13 feet 11 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 6 inches if Outside Height Extreme Width is 14 feet 0 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 4 inches if Outside Height Extreme Width is 14 feet 1 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 3 inches if Outside Height Extreme Width is 14 feet 2 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 2 inches if Outside Height Extreme Width is 14 feet 3 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 10 feet 0 inches if Outside Height Extreme Width is 14 feet 4 inches

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- Outside Extreme Width (A186) for Plate Codes B must not exceed 9 feet 9 inches if Outside Height Extreme Width is 14 feet 5 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 9 feet 5 inches if Outside Height Extreme Width is 14 feet 6 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 9 feet 2 inches if Outside Height Extreme Width is 14 feet 7 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 8 feet 10 inches if Outside Height Extreme Width is 14 feet 8 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 8 feet 6 inches if Outside Height Extreme Width is 14 feet 9 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 8 feet 3 inches if Outside Height Extreme Width is 14 feet 10 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 7 feet 11 inches if Outside Height Extreme Width is 14 feet 11 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 7 feet 6 inches if Outside Height Extreme Width is 15 feet 0 inches
- Outside Extreme Width (A186) for Plate Codes B must not exceed 7 feet 4 inches if Outside Height Extreme Width is 15 feet 1 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 8 inches if Outside Height Extreme Width is 14 feet 3 inches or less
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 7 inches if Outside Height Extreme Width is 14 feet 4 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 6 inches if Outside Height Extreme Width is 14 feet 5 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 4 inches if Outside Height Extreme Width is 14 feet 6 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 3 inches if Outside Height Extreme Width is 14 feet 7 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 2 inches if Outside Height Extreme Width is 14 feet 8 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 10 feet 0 inches if Outside Height Extreme Width is 14 feet 9 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 9 feet 9 inches if Outside Height Extreme Width is 14 feet 10 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 9 feet 5 inches if Outside Height Extreme Width is 14 feet 11 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 9 feet 2 inches if Outside Height Extreme Width is 15 feet 0 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 8 feet 10 inches if Outside Height Extreme Width is 15 feet 1 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 8 feet 6 inches if Outside Height Extreme Width is 15 feet 2 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 8 feet 3 inches if Outside Height Extreme Width is 15 feet 3 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 7 feet 11 inches if Outside Height Extreme Width is 15 feet 4 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 7 feet 8 inches if Outside Height Extreme Width is 15 feet 5 inches
- Outside Extreme Width (A186) for Plate Codes C must not exceed 7 feet 4 inches if Outside Height Extreme Width is 15 feet 6 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 8 inches if Outside Height Extreme Width is 15 feet 2 inches or less
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 6 inches if Outside Height Extreme Width is 15 feet 3 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 10 feet 3 inches if Outside Height Extreme Width is 15 feet 4 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 9 feet 6 inches if Outside Height Extreme Width is 15 feet 5 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 8 feet 8 inches if Outside Height Extreme Width is 15 feet 6 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 7 feet 11 inches if Outside Height Extreme Width is 15 feet 7 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 7 feet 1 inches if Outside Height Extreme Width is 15 feet 8 inches
- Outside Extreme Width (A186) for Plate Code E must not exceed 6 feet 3 inches if Outside Height Extreme Width is 15 feet 9 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 8 inches if Outside Height Extreme Width is 16 feet 3 inches or less

- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 7 inches if Outside Height Extreme Width is between 16 feet 4 inches and 16 feet 6 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 6 inches if Outside Height Extreme Width is 16 feet 7 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 3 inches if Outside Height Extreme Width is 16 feet 8 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 10 feet 0 inches if Outside Height Extreme Width is 16 feet 9 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 8 inches if Outside Height Extreme Width is 16 feet 10 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 5 inches if Outside Height Extreme Width is 16 feet 11 inches
- Outside Extreme Width (A186) for Plate Code F must not exceed 9 feet 2 inches if Outside Height Extreme Width is 17 feet 0 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 8 inches if Outside Height Extreme Width (A187) is 16 feet 9 inches or less
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 6 inches if Outside Height Extreme Width (A187) is 16 feet 10 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 4 inches if Outside Height Extreme Width (A187) is 16 feet 11 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 10 feet 2 inches if Outside Height Extreme Width (A187) is 17 feet 0 inches
- Outside Extreme Width (A186) for Plate Code N must not exceed 9 feet 11 inches if Outside Height Extreme Width (A187) is 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

|                                                                  |             |
|------------------------------------------------------------------|-------------|
| <b>Outside Upper Eaves Width</b>                                 | <b>A194</b> |
| The width between the outside uppermost corners of the equipment |             |

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A194**

| Minimum       | Maximum         |
|---------------|-----------------|
| 4 ft 0 inches | 10 ft 10 inches |

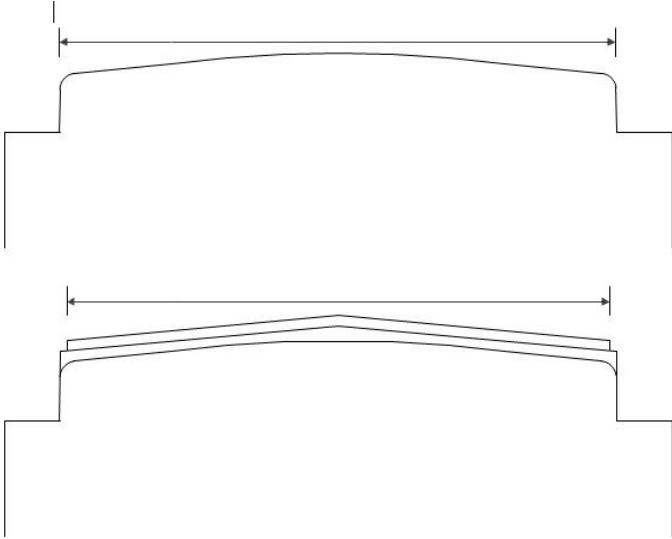
**Validation Rule for A194**

- Outside Upper Eaves Width must be less than or equal to the Outside Extreme Width (A186)
- Outside Upper Eaves Width must be less than or equal to the Outside Lower Eaves Width (A190)
- Outside Upper Eaves Width for Plate Code A must not exceed 10 feet 10 inches
- Outside Upper Eaves Width for Plate Code B, C, E, F, H, or I must not exceed 10 feet 8 inches
- Outside Upper Eaves Width for Plate Code N must not exceed 10 feet 8 inches if Outside Upper Eaves Height (A193) is 16 feet 9 inches or less
- Outside Upper Eaves Width for Plate Code N must not exceed 10 feet 6 inches if Outside Upper Eaves Height (A193) is 16 feet 10 inches
- Outside Upper Eaves Width for Plate Code N must not exceed 10 feet 4 inches if Outside Upper Eaves Height (A193) is 16 feet 11 inches
- Outside Upper Eaves Width for Plate Code N must not exceed 10 feet 2 inches if Outside Upper Eaves Height (A193) is 17 feet 0 inches
- Outside Upper Eaves Width for Plate Code N must not exceed 9 feet 11 inches if Outside Upper Eaves Height (A193) is 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set



**Outside Upper Eaves Hght** **A193**

Height from the top of rail to the uppermost outside corner of the equipment

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A193**

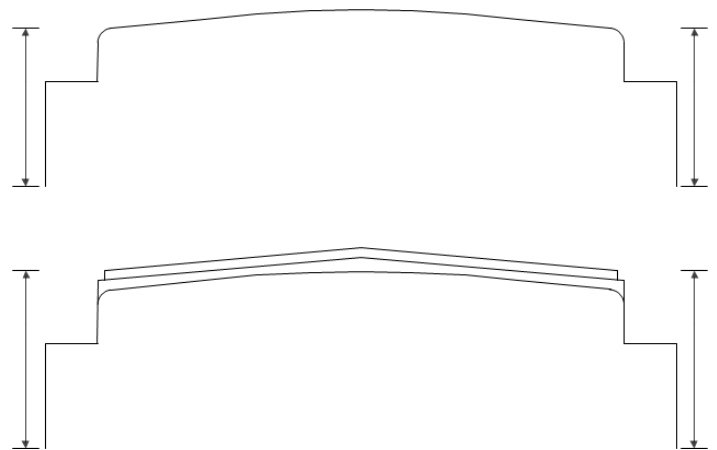
| Minimum       | Maximum        |
|---------------|----------------|
| 2 ft 0 inches | 20 ft 0 inches |

**Validation Rule for A193**

- Outside Upper Eaves Height must not exceed the Outside Extreme Height
- Outside Upper Eaves Height must be greater than or equal to the Outside Lower Eaves Height (A189)
- Outside Upper Eaves Height for Plate Codes A, B, or H must not exceed 15 feet 1 inch
- Outside Upper Eaves Height for Plate Codes C or I must not exceed 15 feet 6 inches
- Outside Upper Eaves Height for Plate Code E must not exceed 15 feet 9 inches
- Outside Upper Eaves Height for Plate Code F must not exceed 17 feet 0 inches
- Outside Upper Eaves Height for Plate Code N must not exceed 17 feet 1 inch

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.

**Outside Lower Eaves Width** **A190**

Width over lower eaves at sides of car (see diagram)

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A190**

| Minimum       | Maximum         |
|---------------|-----------------|
| 7 ft 0 inches | 10 ft 10 inches |

**Validation Rule for A190**

- Outside Lower Eaves Width must not exceed the Outside Extreme Width (A186)
- Outside Lower Eaves Width for Plate Code A must not exceed 10 feet 10 inches
- Outside Lower Eaves Width for Plate Codes B, C, E, F, H, or I must not exceed 10 feet 8 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 8 inches if Outside Lower Eaves Height (A189) is 16 feet 9 inches or less
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 6 inches if Outside Lower Eaves Height (A189) is 16 feet 10 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 4 inches if Outside Lower Eaves Height (A189) is 16 feet 11 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 10 feet 2 inches if Outside Lower Eaves Height (A189) is 17 feet 0 inches
- Outside Lower Eaves Width for Plate Code N must not exceed 9 feet 11 inches if Outside Lower Eaves Height (A189) is 17 feet 1 inch

**NOTES:**

- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- For connected unit cars report the dimension of the largest unit in the set.

**Outside Lower Eaves Hght** **A189**

Height from top of rail to lower eaves at side of car (see diagrams)

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A189**

| Minimum       | Maximum        |
|---------------|----------------|
| 8 ft 0 inches | 20 ft 0 inches |

**Validation Rule for A189**

- Outside Lower Eaves Height must not exceed the Outside Extreme Height (A185)
- Outside Lower Eaves Height for Plate Codes A, B or H must not exceed 15 feet 1 inch
- Outside Lower Eaves Height for Plate Codes C or I must not exceed 15 feet 6 inches
- Outside Lower Eaves Height for Plate Code E must not exceed 15 feet 9 inches
- Outside Lower Eaves Height for Plate Code F must not exceed 17 feet 0 inches
- Outside Lower Eaves Height for Plate Code N must not exceed 17 feet 1 inch

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## NOTES:

- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- For connected unit cars report the dimension of the largest unit in the set.

**Truck Center Length** **A276**

The length between the centers of the two truck systems

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A276**

| Minimum        | Maximum         |
|----------------|-----------------|
| 15 ft 0 inches | 76 ft 11 inches |

**Validation Rule for A276**

- Truck Center Length is required for cars with an Outside Length of greater than 62 feet 6 inches
- Truck Center Length must be a minimum of 15 feet for cars with an Outside Length greater than 62 feet 6 inches

## NOTES:

- For connected unit cars report the dimension of the largest unit in the set.

## Specification

**Truck Count** **B256**

The total number of trucks on the equipment

System Generated Field. This element is not eligible for Input.

**Range of Values for B256**

| Minimum | Maximum |
|---------|---------|
| 2       | 4       |

**Axle Count** **Mandatory** **A024**

The total number of axles on the equipment

**Range of Values for A024**

| Minimum | Maximum |
|---------|---------|
| 2       | 40      |

**Validation Rule for A024**

- Axle Count must be greater than or equal to 4
- Axle Count for an articulated car must be greater than or equal to ((Connected Unit Count (A020) x 2) + 2)
- Axle Count for a draw bar connected car must be greater than or equal to (Connected Unit Count (A020) x 4)
- Total Axle Count must match sum of truck axle counts

## NOTES:

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

**Wheel Bearing Type** **Mandatory** **B191**

Indicates the wheel bearing journal design for the equipment

Affects Rating.

**Permissible Values for B191**

P Plain R Roller

**Validation Rule for B191**

- Cars with Plain Bearings will have a Transportation Code (TCOD) and Transportation Condition Code (TCCD) of either YA, S\_, SX, or XJ
- Equipment cannot have Plain Bearings if Built Date (BLDT) is on or after January 1, 1993

## NOTES:

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

**Brake Shoe Type** **Mandatory** **B026**

Indicates the type of brake shoe on the equipment

**Permissible Values for B026**

C Tread Conditioning  
 H High Friction Composite  
 L Low Friction Composite/Cast Iron  
 P DISC PADS  
 T DISC AND TREADS

**CC Side Bearing Type** **A146**

Indicates the travel range of the constant contact side bearings installed on the equipment

**Permissible Values for A146**

LC Long Travel Constant Contact  
 SC Short Travel Constant Contact

**Empty/Load Device Eqpd** **B075**

Indicates that the air brake system includes a device to determine if the equipment is empty or loaded, and then varies the braking forces accordingly

**Permissible Values for B075**

Y Yes

**Body Material** **A030**

The material that composes the body of the equipment

**Permissible Values for A030**

01 Aluminum  
 04 Combination  
 09 Fiberglass Reinforced Composite  
 18 Stainless Steel  
 19 Standard Steel  
 30 Wood

**Remote Monitoring Device** **B176**

Indicates the equipment has a device that transmits a signal or records data

**Permissible Values for B176**

Y Yes

## NOTES:

- Per AAR S-2045, This may be data related to ride quality, geographic location, temperature/condition of the load, load/empty status, etc.

**Connected Unit Count** **A020**

Indicates the number of units within an articulated or multi-unit equipment

Affects Rating.

**Range of Values for A020**

| Minimum | Maximum |
|---------|---------|
| 2       | 45      |

**Intermediate Conn Style** **B115**

Indicates the method by which two or more pieces of equipment are connected

**Permissible Values for B115**

A Articulated Connector  
 D Drawbar Connector

**Validation Rule for B115**

- Intermediate Connector Style is required for multi-unit equipment
- Intermediate Connector Style must not be reported for single unit equipment

**Operating Brakes** **Mandatory** **A182**

The number of air brake control valves on the equipment (excludes hand brakes). One control valve consists of a service portion, emergency portion, and pipe bracket. Example: DB-60 control valve

**Permissible Values for A182**

1 2 3 4 5  
 6 7 8 9

**Validation Rule for A182**

- Operating Brakes must be reported for all equipment
- Operating Brakes (A182) must be 1 for non-articulated equipment with an Axle Count (A024) equal to 4

## NOTES:

- Excludes empty/load device, number 8 vent valve, and proportion valve.

## Data Specification Manual

|                                                                                   |                                |      |
|-----------------------------------------------------------------------------------|--------------------------------|------|
| ECP Brake Type                                                                    |                                | B327 |
| Indicates the type of electronic controlled pneumatic brake used on the equipment |                                |      |
| Permissible Values for B327                                                       |                                |      |
| N                                                                                 | Not Equipped                   |      |
| O                                                                                 | Overlay - Both ECP & Air Brake |      |
| S                                                                                 | Stand Alone - ECP Only         |      |

|                                                                                     |                    |      |
|-------------------------------------------------------------------------------------|--------------------|------|
| ECP Brake Builder                                                                   |                    | B328 |
| The manufacturer of the electronic controlled pneumatic brake used on the equipment |                    |      |
| Permissible Values for B328                                                         |                    |      |
| NYAB                                                                                | New York Air Brake |      |
| WABT                                                                                | WABTEC             |      |

|                                                                                                         |               |                                                                                   |
|---------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------|
| Brake Cylinder Mount Type                                                                               |               | B540                                                                              |
| Identifies the location of the brake cylinder                                                           |               |  |
| Permissible Values for B540                                                                             |               |                                                                                   |
| B                                                                                                       | Body Mounted  |                                                                                   |
| T                                                                                                       | Truck Mounted |                                                                                   |
| Validation Rule for B540                                                                                |               |                                                                                   |
| - Brake Cylinder Mount Type is mandatory for all equipment built or rebuilt on or after January 1, 2016 |               |                                                                                   |

|                             |       |               |
|-----------------------------|-------|---------------|
| Air Brake Model Number      |       | ABMD          |
| Air Brake Model             |       |               |
| Permissible Values for ABMD |       |               |
| 26C                         | 26C8  | 26CDW         |
| 26CF                        | 26DX  | 26L           |
| 27A                         | AB    | ABC           |
| ABD                         | ABDW  | ABDWP         |
| ABDX                        | AC1B  | D22           |
| D22A                        | D22AR | D22BR         |
| KE5                         | L2    | L3 (obsolete) |
| LN3 (obsolete)              | U12   | U12B          |
| U12BC                       | U12BD |               |

|                                                                                                                       |                             |                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------|
| Equipment Builder                                                                                                     |                             | A035                                                                                |
| Identifies the original manufacturer of the equipment                                                                 |                             |  |
| Permissible Values for A035                                                                                           |                             |                                                                                     |
| ACF                                                                                                                   | American Car & Foundry      |                                                                                     |
| BUDD                                                                                                                  | Ed G Budd Company           |                                                                                     |
| CFF                                                                                                                   | Canadian Car & Foundry      |                                                                                     |
| D                                                                                                                     | BOMBARDIER                  |                                                                                     |
| EMD                                                                                                                   | ElectroMotive Diesel        |                                                                                     |
| NIPP                                                                                                                  | Nippon-Sharyo               |                                                                                     |
| NSC                                                                                                                   | National Steel Car          |                                                                                     |
| PCM                                                                                                                   | Pullman Car & Manufacturing |                                                                                     |
| PS                                                                                                                    | Pullman-Standard            |                                                                                     |
| SLC                                                                                                                   | Saint Louis Car Company     |                                                                                     |
| TLGA                                                                                                                  | Talgo America               |                                                                                     |
| UNKN                                                                                                                  | Unknown                     |                                                                                     |
| Validation Rule for A035                                                                                              |                             |                                                                                     |
| -Equipment built or rebuilt on or after July 1, 2010 cannot have a Equipment Builder of Unknown                       |                             |                                                                                     |
| -Equipment with a Built Date (BLDT) on or after July 1, 2010 cannot have an Equipment Builder Code of OWNER RAILROAD. |                             |                                                                                     |
| -Equipment Builder can have a value of MULT only if the equipment has multiple units.                                 |                             |                                                                                     |

|                  |      |
|------------------|------|
| Builder Lot Code | B030 |
|------------------|------|

|                                                                                                |  |   |  |
|------------------------------------------------------------------------------------------------|--|---|--|
| A unique identifier for a group of equipment built by one manufacturer under the same contract |  | ● |  |
| Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.             |  |   |  |
| <b>Validation Rule for B030</b>                                                                |  |   |  |
| -Equipment built or rebuilt on or after June 28, 2012 must have a value for Builder Lot Code   |  |   |  |
| <b>NOTES:</b>                                                                                  |  |   |  |
| ● If the value is unknown, enter six zeroes (000000).                                          |  |   |  |

|                                                 |               |             |        |
|-------------------------------------------------|---------------|-------------|--------|
| <b>Built Country</b>                            |               | <b>B031</b> |        |
| The country where the equipment was constructed |               |             |        |
| Data is Confidential.                           |               |             |        |
| <b>Permissible Values for B031</b>              |               |             |        |
| CA                                              | Canada        | MX          | Mexico |
| US                                              | United States |             |        |

|                                                    |               |             |        |
|----------------------------------------------------|---------------|-------------|--------|
| <b>Rebuilt Country</b>                             |               | <b>B170</b> |        |
| The country where the equipment was re-constructed |               |             |        |
| <b>Permissible Values for B170</b>                 |               |             |        |
| CA                                                 | Canada        | MX          | Mexico |
| US                                                 | United States |             |        |

|                                                                                         |                         |             |  |
|-----------------------------------------------------------------------------------------|-------------------------|-------------|--|
| <b>FRA Reflectorization</b>                                                             |                         | <b>B096</b> |  |
| Indicates the equipment owner assumes responsibility for applying reflectorization tape |                         |             |  |
| <b>Permissible Values for B096</b>                                                      |                         |             |  |
| P                                                                                       | Reflectorization Plan   |             |  |
| W                                                                                       | Reflectorization Waiver |             |  |

|                                                                                                                                                |                                                                                                                       |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------|--|
| <b>Air Hose Arrangement</b>                                                                                                                    |                                                                                                                       | <b>B524</b> |  |
| The type of trainline air hose arrangement                                                                                                     |                                                                                                                       |             |  |
| ●                                                                                                                                              |                                                                                                                       |             |  |
| <b>Permissible Values for B524</b>                                                                                                             |                                                                                                                       |             |  |
| A                                                                                                                                              | S-424 Angle Cock Location                                                                                             |             |  |
| B                                                                                                                                              | S-425 Angle Cock Location on Cars Equipped with AAR Type F Coupler                                                    |             |  |
| C                                                                                                                                              | S-426 Angle Cock Location on Cars with Floating Sills                                                                 |             |  |
| D                                                                                                                                              | S-427 Angle Cock and Air Brake Hose Location on Cars with Excessive Overhang Preventing Compliance with AAR Standards |             |  |
| E                                                                                                                                              | S-428 Angle Cock Location on Cars Equipped with AAR Type F Coupler and Cushioned Underframe                           |             |  |
| F                                                                                                                                              | S-4003 (Former Standard)                                                                                              |             |  |
| G                                                                                                                                              | S-4003x (Former Standard Retrofitted to Meet All Dimensions Except Height)                                            |             |  |
| H                                                                                                                                              | S-4003-05 (Current Standard Train Line Arrangement for Cars with F-Shank Couplers)                                    |             |  |
| I                                                                                                                                              | S-4021 Angle Cock and Brake Hose Location on Cars with EOCC (E and F)                                                 |             |  |
| J                                                                                                                                              | S-4021 Coupler Mounted Bracket End Arrangement                                                                        |             |  |
| K                                                                                                                                              | S-4028 Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Not Exceeding 45 in. in Length   |             |  |
| L                                                                                                                                              | S-4029 Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Exceeding 45 in. in Length       |             |  |
| M                                                                                                                                              | S-4030 Trolley Arrangement on Cars with EOCC and E-Shank Couplers                                                     |             |  |
| N                                                                                                                                              | S-4031 Trainline Arrangement for Cars with E-Type Couplers and Draft System Buff Travel of 6 to 10 inches             |             |  |
| O                                                                                                                                              | S-4032 Trainline Arrangement for Cars with E/F-Type Couplers and Draft System Buff Travel of 6 to 10 inches           |             |  |
| <b>Validation Rule for B524</b>                                                                                                                |                                                                                                                       |             |  |
| -Air Hose Arrangement must be reported for this equipment if it is Built or Rebuilt on or after April 22, 2014.                                |                                                                                                                       |             |  |
| <b>NOTES:</b>                                                                                                                                  |                                                                                                                       |             |  |
| ● If any of the following conditions apply, Air Hose Arrangement (B524) must be reported for cars Built or Rebuilt on or after April 22, 2014: |                                                                                                                       |             |  |
| ○ Draft Gear Type (B073) at any location is C or E.                                                                                            |                                                                                                                       |             |  |
| ○ Connected Unit Count (A020) is reported.                                                                                                     |                                                                                                                       |             |  |

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- Outside Length (OSLG) is greater than or equal to 70 feet (840 inches).
- The overhang is greater than 5 feet 6 inches (66 inches). Overhang is calculated as follows:
- $0.5 * (\text{Outside Length, in inches, minus Truck Center Length, in inches, minus 31 inches})$
- For all other equipment, reporting Air Hose Arrangement is optional.

**4-Pressure ABT Receiver Eqpd****B539**

Identifies if the equipment is equipped with a 4-pressure air brake test receiver

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B539**

E Equipped  
N Not Equipped

**NOTES:**

- An "E" will be system generated if a 4-Pressure ABT is reported on the equipment.

**Feature****Vehicle/Track Interaction Equipped****B550**

Identifies if equipment is equipped with Vehicle/Track Interaction (VTI) Monitor

**Permissible Values for B550**

A Automated Track Geometry Measurement System  
E Enhanced System (Extra Sensors or DGPS Antenna)  
K Kawasaki GEO System  
N ENSCO GEO System  
O BNSF ODIN GEO System  
S Standard GPS System  
V Automated Track Geometry Measurement System with Camera Vision System

**Cost****Original Cost****A184**

The original manufacturer selling price

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A184**

| Minimum | Maximum |
|---------|---------|
| 0       | 9999999 |

**Validation Rule for A184**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Original Cost must be equal to the Ledger Value if Additions & Betterments Indicator is not reported.
- Railroad marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost
- Private marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost if Built Date (BLDT) is on or after January 1, 2015

**NOTES:**

- Original Cost is never altered. It is the cost of the equipment to the original owner.
- For railroad-marked cars, report in US dollars the original ledger value of the original owner For cars rebuilt, report the cost prescribed in MR Interchange Rule 88 and Circular Letter OT-24
- The original cost is used in the settlement of AAR Interchange Rule 107 Office Manual.
- For connected unit cars report the total original cost for all units in the set.
- Numeric, applicable to all railroad-marked cars Also, applicable to privately marked covered hopper (LO) cars.
- Raise all cents to the next dollar, e.g. \$5,501.02 = 0005502

**Ledger Value****A150****The sum of original cost and additions & betterments**

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A150**

| Minimum | Maximum |
|---------|---------|
| 0       | 9999999 |

**Validation Rule for A150**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Ledger Value must equal the Original Cost (A184) plus the additions & betterments, if Total A&B (A003) has been reported. Otherwise Ledger Value should equal Original Cost (A184).

**Total A&B****A003**

System generated sum of all reported amounts in A&amp;B Amount (A317), in US dollars

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A003**

| Minimum | Maximum  |
|---------|----------|
| 0       | 99999999 |

**NOTES:**

- For railroad-marked cars, report the sum of all additions and betterments applied to the car. This value is for record keeping purposes only and will not be used to report Ledger Value.
- For private Cars report the additions and betterments as qualified under AAR interchange Rule 107 for determination of settlement value.
  - Additions are costs of all new components applied subsequent to the date the car was built or rebuilt and carried in the capital investment account.
  - Betterments are costs of all improvements of components of existing equipment through the substitution of superior parts for inferior parts subsequent to the date the car was built or rebuilt.
- For connected unit cars report the total Truck Location A for all units in the set

**Ind for Pos/Neg Total A&B****A128**

A code indicating the positive or negative adjustment to the original cost of the equipment

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A128**

N Negative P Positive

**A&B Pos/Neg Ind****A316**

A code indicating the positive or negative adjustment to the individual addition and betterment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A316**

N Negative P Positive

**Validation Rule for A316**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- The A&B Indicator is required when Additions & Betterments are reported.
- The A&B Indicator must not be reported if Additions & Betterments are not reported.

**A&B Amount****A317**

The amount of the individual addition and betterment added to or subtracted from the original cost of the equipment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A317**

| Minimum | Maximum |
|---------|---------|
| 1       | 999999  |

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**Validation Rule for A317**

-When entering an individual addition & betterment; A&B Date Done (A319), A&B Type (A318), A&B Pos/Neg Ind (A316), and A&B Amount (A317) must be reported

| A&B Date Done                                      | A319 |
|----------------------------------------------------|------|
| The date of the individual addition and betterment |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A319**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for A319**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- Addition and Betterment Date Done cannot be earlier than Built Date (BLDT).
- Additions & Betterments Date Done cannot be later than today's date.

| A&B Type                                                              | A318 |
|-----------------------------------------------------------------------|------|
| The type of individual addition and betterment as defined by Rule 107 |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A318**

|      |                                                                           |
|------|---------------------------------------------------------------------------|
| GNRL | General - Capitalized Additions and Betterments                           |
| INIT | Initial load of historical A&B amount as of Umler 4.6 implementation date |

**Validation Rule for A318**

- For each equipment, only one Individual A&B Type can have a value of INIT.
- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.

## Car Management

| Pool Number                                                                       | P001 |
|-----------------------------------------------------------------------------------|------|
| Unique number used to indicate the grouping of equipment for a particular purpose |      |

Used for Transportation Codes. This element is not eligible for Input. Value does not carry forward for Equipment Group Change / Add Back.

| User Routing Instructions                    | TCUR |
|----------------------------------------------|------|
| The routing instruction reported by the user |      |

Used for Transportation Codes.

**Permissible Values for TCUR**

|   |                                |
|---|--------------------------------|
| 2 | Trailer Service Rule 2         |
| G | Contaminated commodity service |
| M | Mark canceled                  |
| O | Owner requested return         |
| U | Unassigned equipment           |

**NOTES:**

- For further explanation reference Appendix E.

| Umler Transportation Code                                                   | TCOD |
|-----------------------------------------------------------------------------|------|
| The type of assigned service, empty routing or restriction of the equipment |      |

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

| Transportation Cond Code                    | TCCD |
|---------------------------------------------|------|
| The AAR or FRA interchange restriction code |      |

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

| Mechanical Restriction                                           | TCME |
|------------------------------------------------------------------|------|
| User reported or system generated type of mechanical restriction |      |

Used for Transportation Codes.

**Permissible Values for TCME**

|   |                             |
|---|-----------------------------|
| S | Scrap                       |
| X | AAR Interchange Restriction |
| Y | FRA Interchange Prohibited  |

**NOTES:**

- For further explanation reference Appendix D.1

| Mech Restriction Reason                              | TCMR |
|------------------------------------------------------|------|
| The explanation of the Mechanical Restriction (TCME) |      |

Used for Transportation Codes.

**Permissible Values for TCMR**

|   |                                                             |
|---|-------------------------------------------------------------|
| A | Restricted Due to Age (Over 40-AAR, Over 50-FRA)            |
| B | Restricted Due to Air Brakes                                |
| C | Restricted Due to Axles                                     |
| D | Restricted Due to Couplers and Couplers Parts               |
| F | Restricted Due to Couplers Yokes                            |
| G | Restricted Due to Draft Gears                               |
| J | Restricted Due to Journal Bearing and Journal Lubrication   |
| N | Restricted Due to Trucks                                    |
| P | Restricted Due to Truck Side Frames                         |
| T | Restricted Due to Trucks Bolsters                           |
| U | Restricted by AAR or Owner                                  |
| W | Restricted Due to Wheels                                    |
| X | Restricted Due to Scrap or Early Warning                    |
| Z | Restricted Due to Umler Conflict (Not Valid for User Input) |

**NOTES:**

- For further explanation reference Appendix D.2.
- The assignment of the Transportation Codes S\_, SX, XA, XZ and YA generate the Rate Indicator Code 6 to the CHARM file to zero (0) rate the car hire and mileage rate.

## Train Service

| Restricted Speed Empty                                                     | B180 |
|----------------------------------------------------------------------------|------|
| Describes the maximum restricted speed the equipment can travel when empty |      |

**Range of Values for B180**

| Minimum | Maximum |
|---------|---------|
| 5       | 95      |

| Restricted Speed Loaded                                                     | B181 |
|-----------------------------------------------------------------------------|------|
| Describes the maximum restricted speed the equipment can travel when loaded |      |

**Range of Values for B181**

| Minimum | Maximum |
|---------|---------|
| 5       | 95      |

| Shove Car to Rest                                      | B189 |
|--------------------------------------------------------|------|
| Identifies the car must be moved to rest by locomotive |      |

**Permissible Values for B189**

|   |     |
|---|-----|
| Y | Yes |
|---|-----|

**Validation Rule for B189**

-If Shove Adjacent Car to Rest is reported, then Shove Car to Rest must be reported

| Shove Adj. Car to Rest                                           | B188 |
|------------------------------------------------------------------|------|
| Identifies the adjacent car must be shoved to rest by locomotive |      |

**Permissible Values for B188**



## Data Specification Manual

Y Yes

**Train Position Sensitive****B211**

Indicates there is a physical reason, limiting its position on a train

**Permissible Values for B211**

Y Yes

**End of Train Only****B277**

Indicates the equipment must be placed at the end of the train (including per AAR RP-2001)

**Permissible Values for B277**

Y Yes

**Check Trailing Tonnage****B044**

Indicates the equipment has restrictions on trailing tonnage

**Permissible Values for B044**

Y Yes

**Coupler Restriction****B278**

Special Train Service Code WI

**Permissible Values for B278**

Y Yes

**Clearance Exception****B275**

Describes equipment containing nonstandard dimension

**Permissible Values for B275**

- A Excessive Outside Extreme Height (A185)
- B Excessive Outside Extreme Width (A186)
- P Passenger equipment with Undercarriage Exceptions below 3 ft 4-1/2 in.
- Q Passenger equipment with both Excessive Outside Extreme Width (A186) (calculated for swingout) and Undercarriage Exceptions below 3 ft 4-1/2 in.

**Owner-Provided Loaded Net Braking Ratio****B552**

Indicates an alternate minimum loaded net braking ratio provided by owner (in percent).

**Range of Values for B552**

| Minimum | Maximum |
|---------|---------|
| 8.5     | 14.0    |

**NOTES:**

- Owner may enter a documented alternative minimum loaded net braking ratio in this field that is greater than the system calculated Loaded Net Braking Ratio (B551).
- When reported, the Owner-Provided Loaded Net Braking Ratio will be used in PTC stopping distance calculations.
- A change in value for the following elements will cause the Owner-Provided Loaded Net Braking Ratio to reset to blank:
  - Rebuilt Date (RBDT)
  - Gross Rail Load/Weight (A266)
  - Equipment Type Code (UMET)
  - Empty/Load Device Eqpd (B075)

**Owner-Provided Empty Braking Ratio****B554**

Indicates an owner supplied alternate empty braking ratio (in percent).

**Range of Values for B554**

| Minimum | Maximum |
|---------|---------|
| 15.0    | 38.0    |

**NOTES:**

- Owner may enter a documented alternative minimum loaded net braking ratio in this field that is greater than the system calculated Loaded Net Braking Ratio (B551).
- When reported, the Owner-Provided Loaded Net Braking Ratio will be used

in PTC stopping distance calculations.

- A change in value for the following elements will cause the Owner-Provided Loaded Net Braking Ratio to reset to blank:
  - Rebuilt Date (RBDT)
  - Gross Rail Load/Weight (A266)
  - Equipment Type Code (UMET)
  - Empty/Load Device Eqpd (B075)

**Truck Components****Axle Spacing Distance****B020**

Describes the distance between axles on the same truck

**Permissible Values for B020**

|     |                    |
|-----|--------------------|
| 154 | 154 Inches         |
| 53  | 53 Inches          |
| 54  | 54 Inches          |
| 55  | 55 Inches          |
| 60  | 60 Inches          |
| 61  | 61 Inches          |
| 62  | 62 Inches          |
| 63  | 63 Inches          |
| 64  | 64 Inches          |
| 65  | 65 Inches          |
| 66  | 66 Inches          |
| 68  | 68 Inches          |
| 70  | 70 Inches          |
| 71  | 71 Inches          |
| 72  | 72 Inches          |
| 73  | 73 Inches          |
| 74  | 74 Inches          |
| 76  | 76 Inches          |
| 78  | 78 Inches          |
| 96  | 96 Inches          |
| 99  | Axle Space Unknown |

**Truck Axle Count****B252**

The number of axles per truck

**Range of Values for B252**

| Minimum | Maximum |
|---------|---------|
| 1       | 4       |

**Validation Rule for B252**

- Sum of Truck Axle Counts must equal Axle Count (A024)

**Journal Size****A147**

The size of the journal bearing

**Permissible Values for A147**

|   |            |   |           |   |            |
|---|------------|---|-----------|---|------------|
| A | 3-3/4 X 7  | B | 4-1/4 X 8 | C | 5 X 9      |
| D | 5-1/2 X 10 | E | 6X11      | F | 6-1/2 X 12 |
| G | 7 X 12     | H | 7 X 14    | K | 6-1/2 X 9  |
| M | 7 X 9      |   |           |   |            |

**Wheel Diameter****A294**

The diameter of the wheels

**Permissible Values for A294**

|    |           |    |           |    |           |
|----|-----------|----|-----------|----|-----------|
| 28 | 28 Inches | 30 | 30 Inches | 33 | 33 Inches |
| 36 | 36 Inches | 38 | 38 Inches |    |           |

**Validation Rule for A294**

- UnStarred Cars with Gross Weight of 286,000 lbs. and Increased Gross Rail Load of 2 must have a Wheel Diameter of 36 inches
- UnStarred Cars with Gross Weight of 286,000 lbs. and Increased Gross Rail Load of 2 must have a Wheel Diameter of either 36 or 38 inches
- Cars with an Increased Gross Rail Load of 1 and Journal of G or M must have a Wheel Diameter of 38 inches
- If Connected Unit Count (A020) is not reported, different Wheel Diameters cannot be reported

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|                                                      |             |
|------------------------------------------------------|-------------|
| <b>Stability Device Equipped</b>                     | <b>B199</b> |
| Indicates a stability device is present on the truck |             |

**Permissible Values for B199**

Y Yes

|                                              |             |
|----------------------------------------------|-------------|
| <b>Bolster Component ID</b>                  | <b>B351</b> |
| Bolster Component ID from Component Registry |             |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

|                                                 |             |
|-------------------------------------------------|-------------|
| <b>Sideframe Component ID</b>                   | <b>B352</b> |
| Side Frame Component ID from Component Registry |             |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

|                                      |             |
|--------------------------------------|-------------|
| <b>Wheelset Component ID</b>         | <b>B350</b> |
| Component ID from Component Registry |             |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Draft System Components**

|                                    |             |
|------------------------------------|-------------|
| <b>Coupler Code</b>                | <b>A057</b> |
| Defines the equipment coupler type |             |

**Permissible Values for A057**

|         |                                       |
|---------|---------------------------------------|
| BE60AHT | Type E (Rule 16) - BE60AHT            |
| BE60BHT | Type E Obsolete (Rule 16) - BE60BHT   |
| BE63AHT | Type E Obsolete (Rule 16) - BE63AHT   |
| BE63HT  | Type E (Rule 16) - BE63HT             |
| BE67HT  | Type E (Rule 16) - BE67HT             |
| E42BEX  | Type E/F (Rule 17) - E42BEX           |
| E50ARE  | Type E/F (Rule 17) - E50ARE           |
| E50BEX  | Type E/F (Rule 17) - E50BEX           |
| E60CC   | Type E (Rule 16) - E60CC              |
| E60CE   | Type E (Rule 16) - E60CE              |
| E60CEX  | Type E (Rule 16) - E60CEX             |
| E60CHT  | Type E (Rule 16) - E60CHT             |
| E60CHTE | Type E (Rule 16) - E60CHTE            |
| E60CHTQ | Type E (Rule 16) - E60CHTQ            |
| E60DC   | Type E (Rule 16) - E60DC              |
| E60DE   | Type E (Rule 16) - E60DE              |
| E60EE   | Type E (Rule 16) - E60EE              |
| E61     | Type E Obsolete (Rule 16) - E61       |
| E67AHT  | Type E (Rule 16) - E67AHT             |
| E67BC   | Type E (Rule 16) - E67BC              |
| E67BE   | Type E (Rule 16) - E67BE              |
| E67BHT  | Type E (Rule 16) - E67BHT             |
| E67BHTE | Type E (Rule 16) - E67BHTE            |
| E67CC   | Type E (Rule 16) - E67CC              |
| E67CE   | Type E (Rule 16) - E67CE              |
| E68AHT  | Type E/F Obsolete (Rule 17) - E68AHT  |
| E68AHTe | Type E/F Obsolete (Rule 17) - E68AHTe |
| E68BC   | Type E/F (Rule 17) - E68BC            |
| E68BE   | Type E/F (Rule 17) - E68BE            |
| E68BHT  | Type E/F (Rule 17) - E68BHT           |
| E68BHTE | Type E/F (Rule 17) - E68BHTE          |
| E68BHTQ | Type E/F (Rule 17) - E68BHTQ          |
| E68CE   | Type E/F (Rule 17) - E68CE            |
| E68DE   | Type E/F Obsolete (Rule 17) - E68DE   |
| E69AE   | Type E/F (Rule 17) - E69AE            |
| E69AHTe | Type E/F (Rule 17) - E69AHTe          |
| E69BE   | Type E/F (Rule 17) - E69BE            |
| E69CE   | Type E/F (Rule 17) - E69CE            |
| E69CEX  | Type E/F (Rule 17) - E69CEX           |

|           |                                                         |
|-----------|---------------------------------------------------------|
| E69HTE    | Type E/F (Rule 17) - E69HTE                             |
| E69LCE    | Type E/F (Rule 17) - E69LCE                             |
| EB7AHT    | Type E (Rule 16) - EB7AHT                               |
| EF204CE   | Type E/F (Rule 17) - EF204CE                            |
| EF306CE   | Type E/F (Rule 17) - EF306CE                            |
| EF511CE   | Type E/F (Rule 17) - EF511CE                            |
| EF511DE   | Type E/F (Rule 17) - EF511DE                            |
| EF511LCE  | Type E/F (Rule 17) - EF511LCE                           |
| EF511WE   | Type E/F (Rule 17) - EF511WE                            |
| EF528WE   | Type E/F (Rule 17) - EF528WE                            |
| EFROTARY  | Type E/F Rotary - EFROTARY                              |
| EFSPEC    | Type E/F Special - EFSPEC                               |
| EFUNK     | Type E/F Unknown - EFUNK                                |
| EK323CE   | Type E (Rule 16) - EK323CE (Long Travel)                |
| ESPEC     | Type E Special - ESPEC                                  |
| EUNK      | Type E Unknown - EUNK                                   |
| F70BHT    | Type F Obsolete (Rule 18) - F70BHT                      |
| F70BHTE   | Type F Obsolete (Rule 18) - F70BHTE                     |
| F70CC     | Type F (Rule 18) - F70CC                                |
| F70CE     | Type F (Rule 18) - F70CE                                |
| F70CHT    | Type F (Rule 18) - F70CHT                               |
| F70CHTE   | Type F (Rule 18) - F70CHTE                              |
| F70DE     | Type F (Rule 18) - F70DE                                |
| F70HT     | Type F Obsolete (Rule 18) - F70HT                       |
| F71CHT    | Type F (Rule 18) - F71CHT                               |
| F72HT     | Type F (Rule 18) - F72HT                                |
| F73AC     | Type F (Rule 18) - F73AC                                |
| F73AE     | Type F (Rule 18) - F73AE                                |
| F73AHT    | Type F (Rule 18) - F73AHT                               |
| F73AHTe   | Type F (Rule 18) - F73AHTe                              |
| F73BE     | Type F (Rule 18) - F73BE                                |
| F73HTE    | Type F Obsolete (Rule 18) - F73HTE                      |
| F79BHT    | Type F Obsolete (Rule 18) - F79BHT                      |
| F79BHTE   | Type F Obsolete (Rule 18) - F79BHTE                     |
| F79CC     | Type F (Rule 18) - F79CC                                |
| F79CE     | Type F (Rule 18) - F79CE                                |
| F79CHT    | Type F (Rule 18) - F79CHT                               |
| F79CHTE   | Type F (Rule 18) - F79CHTE                              |
| F79DE     | Type F (Rule 18) - F79DE                                |
| FF205E    | Type F (Rule 18) - FF205E                               |
| FF218AE   | Type F (Rule 18) - FF218AE                              |
| FR201E    | Type F (Rule 18) Rotary - FR201E                        |
| FR205AE   | Type F (Rule 18) Rotary - FR205AE                       |
| FR205BE   | Type F (Rule 18) Rotary - FR205BE                       |
| FR205E    | Type F (Rule 18) Rotary - FR205E                        |
| FR206E    | Type F (Rule 18) Rotary - FR206E                        |
| FR206EA   | Type F (Rule 18) Rotary - FR206EA                       |
| FR207AE   | Type F (Rule 18) Rotary - FR207AE                       |
| FR207E    | Type F (Rule 18) Rotary - FR207E                        |
| FR208AE   | Type F (Rule 18) Rotary - FR208AE (without wear insert) |
| FR208E    | Type F (Rule 18) Rotary - FR208E (with wear insert)     |
| FR209E    | Type F (Rule 18) Rotary - FR209E                        |
| FR301E    | Type F (Rule 18) Rotary - FR301E                        |
| FR304E    | Type F (Rule 18) Rotary - FR304E (with wear plate)      |
| FR304WE   | Type F (Rule 18) Rotary - FR304WE (without wear plate)  |
| FROTARY   | Type E/F Rotary - FROTARY                               |
| FSPEC     | Type F Special - FSPEC                                  |
| FUNK      | Type F Unknown - FUNK                                   |
| PUNK      | Passenger Unknown                                       |
| S700AE    | Type E (Rule 16) - S700AE                               |
| SBE60CC   | Type E (Rule 16) - SBE60CC                              |
| SBE60CE   | Type E (Rule 16) - SBE60CE                              |
| SBE60DC   | Type E (Rule 16) - SBE60DC                              |
| SBE60DE   | Type E (Rule 16) - SBE60DE                              |
| SBE60DREX | Type E (Rule 16) - SBE60DREX                            |
| SBE60EE   | Type E (Rule 16) - SBE60EE                              |
| SBE60EEX  | Type E (Rule 16) - SBE60EEX                             |
| SBE67BC   | Type E (Rule 16) - SBE67BC                              |

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|           |                                |
|-----------|--------------------------------|
| SBE67BE   | Type E (Rule 16) - SBE67BE     |
| SBE67CC   | Type E (Rule 16) - SBE67CC     |
| SBE67CE   | Type E (Rule 16) - SBE67CE     |
| SBE67CREX | Type E (Rule 16) - SBE67CREX   |
| SBE67DE   | Type E (Rule 16) - SBE67DE     |
| SBE68BC   | Type E/F (Rule 17) - SBE68BC   |
| SBE68BE   | Type E/F (Rule 17) - SBE68BE   |
| SBE68CE   | Type E/F (Rule 17) - SBE68CE   |
| SBE68CREX | Type E/F (Rule 17) - SBE68CREX |
| SBE68DE   | Type E/F (Rule 17) - SBE68DE   |
| SBE68WEX  | Type E/F (Rule 17) - SBE68WEX  |
| SBE69AE   | Type E/F (Rule 17) - SBE69AE   |
| SBE69BE   | Type E/F (Rule 17) - SBE69BE   |
| SBE69BREX | Type E/F (Rule 17) - SBE69BREX |
| SBE69CE   | Type E/F (Rule 17) - SBE69CE   |
| SE60CC    | Type E (Rule 16) - SE60CC      |
| SE60CE    | Type E (Rule 16) - SE60CE      |
| SE60CHT   | Type E (Rule 16) - SE60CHT     |
| SE60CHTE  | Type E (Rule 16) - SE60CHTE    |
| SE60DC    | Type E (Rule 16) - SE60DC      |
| SE60DE    | Type E (Rule 16) - SE60DE      |
| SE60DEX   | Type E (Rule 16) - SE60DEX     |
| SE60EE    | Type E (Rule 16) - SE60EE      |
| SE67BC    | Type E (Rule 16) - SE67BC      |
| SE67BE    | Type E (Rule 16) - SE67BE      |
| SE67BHT   | Type E (Rule 16) - SE67BHT     |
| SE67BHTE  | Type E (Rule 16) - SE67BHTE    |
| SE67CC    | Type E (Rule 16) - SE67CC      |
| SE67CE    | Type E (Rule 16) - SE67CE      |
| SE68BC    | Type E/F (Rule 17) - SE68BC    |
| SE68BE    | Type E/F (Rule 17) - SE68BE    |
| SE68BHT   | Type E/F (Rule 17) - SE68BHT   |
| SE68BHTE  | Type E/F (Rule 17) - SE68BHTE  |
| SE68CE    | Type E/F (Rule 17) - SE68CE    |
| SE69AE    | Type E/F (Rule 17) - SE69AE    |
| SE69BE    | Type E/F (Rule 17) - SE69BE    |
| SE69CE    | Type E/F (Rule 17) - SE69CE    |
| SF70CC    | Type F (Rule 18) - SF70CC      |
| SF70CE    | Type F (Rule 18) - SF70CE      |
| SF70CHT   | Type F (Rule 18) - SF70CHT     |
| SF70CHTE  | Type F (Rule 18) - SF70CHTE    |
| SF70DE    | Type F (Rule 18) - SF70DE      |
| SF79CC    | Type F (Rule 18) - SF79CC      |
| SF79CE    | Type F (Rule 18) - SF79CE      |
| SF79CHT   | Type F (Rule 18) - SF79CHT     |
| SF79CHTE  | Type F (Rule 18) - SF79CHTE    |
| SF79DE    | Type F (Rule 18) - SF79DE      |
| TUNK      | Transit Unknown                |

**Validation Rule for A057**

- If Rotary Coupler Style is reported, then Coupler Code must be a rotary coupler.
- If Coupler Code is a rotary coupler, then Coupler Style must be R (Rotary).
- Coupler Code of Type E Obsolete (Rule 16) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of Type E/F Obsolete (Rule 17) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of Type F Obsolete (Rule 18) can only be reported if the car was built or rebuilt before July 31, 2015
- Coupler Code of FROTARY or EFROTARY cannot be reported for cars Built or Rebuilt on or after August 12, 2014.

**NOTES:**

- Obsolete: All Type D couplers are obsolete and should report code DOBS; cars with this coupler code will be restricted in interchange as discussed below.
- Unknown: If the coupler code is unknown or if the code stamped on the coupler is illegible, the code BUNK FUNK, EFUNK, or LOCOUNK should be reported.
- Special: Codes ESPEC, FSPEC, and EFSPEC have been created to decline

coupler bodies that have been manufactured specifically for the equipment owner and are not listed in the attached table.

- The codes FROTARY and EFROTARY cannot be reported for equipment Built or Rebuilt since August 12, 2014.

| Coupler Style                                       | B058 |
|-----------------------------------------------------|------|
| Describes the basic coupler design of the equipment |      |

**Permissible Values for B058**

|   |                |   |              |
|---|----------------|---|--------------|
| B | Bottom Shelf   | D | Double Shelf |
| L | Drawbar Rotary | M | Drawbar      |
| P | Plain          | R | Rotary       |

**Validation Rule for B058**

- If Draft System Type (B073) is H (Hydraulic) then Coupler Style (B058) cannot be reported as M (Solid Drawbar) or L (Rotary Drawbar)
- If Draft System Type (B073) is not Center Of Car or End Of Car, Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) of Center Of Car or End Of Car is reported then Inches of Travel (B061) must also be reported
- If Draft System Type (B073) is E then Coupler Style (B058) cannot be reported as L or R

| Inches of Travel                                | B061 |
|-------------------------------------------------|------|
| The number of inches a draft system will travel |      |

Affects Rating.

**Range of Values for B061**

| Minimum | Maximum |
|---------|---------|
| 1       | 30      |

**Validation Rule for B061**

- If Draft System Type (B073) is not Center Of Car or End Of Car, Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) of Center Of Car or End Of Car is reported then Inches of Travel (B061) must also be reported
- Inches of Travel cannot be greater than 20 for equipment with a Built Date (BLDT) on or after January 1, 1974

| Draft System Type                                | B073 |
|--------------------------------------------------|------|
| Describes the draft gear/underframe cushion type |      |

**Permissible Values for B073**

|   |                                                                               |
|---|-------------------------------------------------------------------------------|
| C | Cushioning at Center of Car (COC)                                             |
| E | Cushioning at End of Car (EOC)                                                |
| S | Standard Draft Gear                                                           |
| X | Devices with less than 6 inches buff travel approved under AAR Standard S-060 |
| Y | Devices with 6 to 10 inches of buff travel approved under AAR Standard S-060  |

**Validation Rule for B073**

- If Draft System Type (B073) is Standard Draft Gear (S), Inches of Travel (B061) cannot be reported
- If Draft System Type (B073) is reported as C, E, X, or Y then Inches of Travel (B061) must also be reported
- If Draft System Type (B073) of X, or Y is reported then Draft Gear Group/Cushion Unit Pocket (B562) cannot be reported
- If Draft System Type (B073) X is reported, the Inches of Travel (B061) value must be greater than or equal to 1 and less than 6
- If Draft System Type (B073) Y is reported, the Inches of Travel (B061) value must be greater than or equal to 6 and less than or equal to 10
- If Draft System Type (B073) is S then Draft Gear Group/Cushion Unit Pocket (B562) may only be A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z (AAR Rule 21)
- If Draft System Type (B073) is E then Draft Gear Group/Cushion Unit Pocket (B562) may only be EOC-1,EOC-1D, EOC-1B, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B,EOC-4, EOC-4B, EOC-5, EOC-5D, EOC-5B, EOC-6, EOC-6D, EOC-6B, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-8F, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10, EOC-10D, EOC-10B, EOC-10F, EOC-11, EOC-11D, EOC-11B,EOC-12, EOC-12D, EOC-12B, EOC-13, EOC-13B, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16, EOC-16D,

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EOC-16B, EOC-17, EOC-17D, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-23, EOC-23B, EOC-24, EOC-24B, EOC-25E, EOC-26B, EOC-26F, or EOC-27D, or EOC-27E (AAR Rule 59)

| Draft Gear Group/Cushion Unit Pocket                                                                | B562 |
|-----------------------------------------------------------------------------------------------------|------|
| Draft Gear Group/Cushion Unit Pocket value as listed in AAR Field Manual Interchange Rule 21 and 59 | ★    |

Carry forward for Single Clone / Multi-Clone / Restencil / Add-Back / Equipment Group Change.

**Permissible Values for B562**

EOC-1, EOC-1D, EOC-1B, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B, EOC-4, EOC-4B, EOC-5, EOC-5D, EOC-5B, EOC-6, EOC-6D, EOC-6B, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-8F, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10, EOC-10D, EOC-10B, EOC-10F, EOC-11, EOC-11D, EOC-11B, EOC-12, EOC-12D, EOC-12B, EOC-13, EOC-13B, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16, EOC-16D, EOC-16B, EOC-17, EOC-17D, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-23, EOC-23B, EOC-24, EOC-24B, EOC-25E, EOC-26B, EOC-26F, EOC-27D, EOC-27E, COC-1, COC-2, COC-3, COC-4, COC-5, COC-6, COC-7, COC-8 (AAR Rule 59).

A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, Z (AAR Rule 21).

**Validation Rule(s) for B562**

- Draft Gear Group/Cushion Unit Pocket (B562) is mandatory for equipment built on or after June 13, 2019, unless Draft System Type (B073) is reported as X or Y
- If Draft Gear Group/Cushion Unit Pocket (B562) is not equal to A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z, then Cushion Unit Type (B563) must be populated
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-6, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-9, EOC-9B, EOC-9D, EOC-10, EOC-10B, EOC-10D, EOC-14, EOC-14B, EOC-18D, EOC-23, EOC-23B, EOC-24, EOC-25E, EOC-26B, or EOC-27D then the Cushion Unit Type (B563) must be 1
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-9E, EOC-26F, or EOC-27E, then the Cushion Unit Type (B563) must be 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-11, EOC-12, EOC-13, EOC-13B, EOC-15, EOC-15B, EOC-15D, EOC-17, EOC-17B, EOC-17D, EOC-18, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-24B, COC-3, COC-5, or COC-7 then the Cushion Unit Type (B563) must be 1 or 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-8F or EOC-10F then the Cushion Unit Type (B563) must be 2 or 3
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-5, EOC-5B, EOC-5D, EOC-6, EOC-6B, EOC-6D, EOC-11B, EOC-11D, EOC-12B, EOC-12D, or COC-4 then the Cushion Unit Type (B563) must be 1, 2, or 3
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-16D, or COC-1 then the Cushion Unit Type (B563) must be 1, 2, or 4
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-2B, EOC-2D, EOC-3, EOC-3B, EOC-4, EOC-4B, or COC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, or 4
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1, EOC-1B, EOC-1D, or EOC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-8 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1D, EOC-2, EOC-2D, EOC-2B, EOC-3, EOC-3B, EOC-5, EOC-5D, EOC-5B, EOC-6D, EOC-7, EOC-7B, EOC-9, EOC-9B, EOC-9D, EOC-9E, EOC-10D, EOC-11, EOC-11B, EOC-11D, EOC-12D, EOC-14, EOC-14B, EOC-15, EOC-15D, EOC-15B, EOC-16D, EOC-17D, EOC-23, EOC-23B, EOC-27D, or EOC-27E then the Inches of Travel (B061) must be 10
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-19, EOC-19B, EOC-22, EOC-22B, or EOC-25E then the inches of travel must be 12
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-20 or EOC-20B then the Inches of Travel (B061) must be 14
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1B, EOC-4, EOC-4B, EOC-6, EOC-6B, EOC-8, EOC-8B, EOC-8F, EOC-10, EOC-10B, EOC-10F, EOC-12, EOC-12B, EOC-13, EOC-13B, EOC-17, EOC-17B, EOC-18, EOC-18D, EOC-18B, EOC-21, EOC-21B, EOC-24, or EOC-24B then the Inches of Travel (B061) must be 15
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-2, COC-3, COC-4, COC-5, COC-6, or COC-8 then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 1 or 2, then the Inches of Travel (B061) must be 20

- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 4, then the Inches of Travel (B061) must be 18
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 2, then the Inches of Travel (B061) must be 20
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 1, then the Inches of Travel (B061) must be 30
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1 then the Inches of Travel (B061) must be 10, 12, or 15
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-26, then the Inches of Travel (B061) must be 18

**Note:**

Reference AAR Field Manual Interchange Rule(s) 21 and 59.

| Cushion Unit Type                                                                | B563 |
|----------------------------------------------------------------------------------|------|
| Cushion Unit Type value as listed in AAR Field Manual Interchange Rule 21 and 59 | ★    |

Carry forward for Single Clone / Multi-Clone / Restencil / Add-Back / Equipment Group Change.

**Permissible Values for B563**

- 1 – Type 1
- 2 – Type 2
- 3 – Type 3
- 4 – Type 4
- 5 – Type 5
- S – Type S

**Validation Rule(s) for B563**

- Cushion Unit Type (B563) is mandatory for equipment built on or after June 13, 2019.
- If Draft Gear Group/Cushion Unit Pocket (B562) is not equal to A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, S, or Z, then Cushion Unit Type (B563) must be populated.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-6, EOC-7, EOC-7B, EOC-8, EOC-8B, EOC-9, EOC-9B, EOC-9D, EOC-10, EOC-10B, EOC-10D, EOC-14, EOC-14B, EOC-18D, EOC-23, EOC-23B, EOC-24, EOC-25E, or EOC-26B then the Cushion Unit Type (B563) must be 1.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-9E, EOC-26F, or EOC-27E, then the Cushion Unit Type (B563) must be 2
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-11, EOC-12, EOC-13, EOC-13B, EOC-15, EOC-15B, EOC-15D, EOC-17, EOC-17B, EOC-17D, EOC-18, EOC-18B, EOC-19, EOC-19B, EOC-20, EOC-20B, EOC-21, EOC-21B, EOC-22, EOC-22B, EOC-24B, COC-3, COC-5, or COC-7 then the Cushion Unit Type (B563) must be 1 or 2.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-8F or EOC-10F then the Cushion Unit Type (B563) must be 2 or 3.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-5, EOC-5B, EOC-5D, EOC-6, EOC-6B, EOC-6D, EOC-11B, EOC-11D, EOC-12B, EOC-12D, or COC-4 then the Cushion Unit Type (B563) must be 1, 2, or 3.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-16, EOC-16B, EOC-16D, or COC-1 then the Cushion Unit Type (B563) must be 1, 2, or 4.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-2B, EOC-2D, EOC-3, EOC-3B, EOC-4, EOC-4B, or COC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, or 4.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is EOC-1, EOC-1B, EOC-1D, or EOC-2 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-8 then the Cushion Unit Type (B563) must be 1, 2, 3, 4, or 5.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 1 or 2, then the Inches of Travel (B061) must be 20.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-1, and Cushion Unit Type (B563) is 4, then the Inches of Travel (B061) must be 18.
- When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 2, then the Inches of Travel (B061) must be 20.

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-When the Draft Gear Group/Cushion Unit Pocket (B562) is COC-7, and Cushion Unit Type (B563) is 1, then the Inches of Travel (B061) must be 30.

**Note:**

Reference AAR Field Manual Interchange Rule(s) 21 and 59.

|                                              |             |
|----------------------------------------------|-------------|
| <b>Coupler Component ID</b>                  | <b>B353</b> |
| Coupler Component ID from Component Registry |             |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

|                                      |             |
|--------------------------------------|-------------|
| <b>Cushioning Unit Component ID</b>  | <b>B361</b> |
| Component ID from Component Registry |             |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## Brake System Components

|                                      |             |
|--------------------------------------|-------------|
| <b>Emergency Brake Valve CID</b>     | <b>B354</b> |
| Component ID from Component Registry |             |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

|                                                |             |
|------------------------------------------------|-------------|
| <b>Emergency Valve COTS Date</b>               | <b>B567</b> |
| Brake valve emergency portion recondition date |             |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve COTS Date is system-generated from a Emergency Brake Valve Inspection.

|                                                                             |             |
|-----------------------------------------------------------------------------|-------------|
| <b>Emergency Valve OEM Warranty Date</b>                                    | <b>B568</b> |
| Brake valve emergency portion Original Equipment Manufacturer warranty date |             |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve OEM Date is system-generated from a Emergency Brake Valve Inspection.

|                                           |             |
|-------------------------------------------|-------------|
| <b>Emergency Valve Part Number</b>        | <b>B569</b> |
| Brake valve emergency portion part number |             |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Emergency Valve Part Number is system-generated from a Emergency Brake Valve Inspection.

|                                      |             |
|--------------------------------------|-------------|
| <b>Service Brake Valve CID</b>       | <b>B357</b> |
| Component ID from Component Registry |             |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

|                                              |             |
|----------------------------------------------|-------------|
| <b>Service Valve COTS Date</b>               | <b>B564</b> |
| Brake valve service portion recondition date |             |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve COTS Date is system-generated from a Service Brake Valve Inspection.

|                                                                           |             |
|---------------------------------------------------------------------------|-------------|
| <b>Service Valve OEM Warranty Date</b>                                    | <b>B565</b> |
| Brake valve service portion Original Equipment Manufacturer warranty date |             |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve OEM Date is system-generated from a Service Brake Valve Inspection.

|                                         |             |
|-----------------------------------------|-------------|
| <b>Service Valve Part Number</b>        | <b>B566</b> |
| Brake valve service portion part number |             |

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Service Valve Part Number is system-generated from a Service Brake Valve Inspection.

|                                      |             |
|--------------------------------------|-------------|
| <b>Slack Adjuster CID</b>            | <b>B359</b> |
| Component ID from Component Registry |             |

Data is Confidential. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

## Miscellaneous

|                                                                                             |             |
|---------------------------------------------------------------------------------------------|-------------|
| <b>Commercial Owner CIF</b>                                                                 | <b>B049</b> |
| The Customer Identification File (CIF) number for a commercial owner at a specific location |             |

|                                                                                              |             |
|----------------------------------------------------------------------------------------------|-------------|
| <b>Commercial Lessee CIF</b>                                                                 | <b>B048</b> |
| The Customer Identification File (CIF) number for a commercial lessee at a specific location |             |

|                                                                                          |             |
|------------------------------------------------------------------------------------------|-------------|
| <b>Umler Effective Date</b>                                                              | <b>EFDT</b> |
| The date the rating activity (pre-registration, modification, etc.) is expected to occur |             |

This element is not eligible for Query. Does not Carry Forward.

**Validation Rule for EFDT**

-Effective Date cannot be set to more than 13 months in the future.

**NOTES:**

- Effective Date will default to the 1st of the following month that equipment is registered

## Inspection

|                                                                |             |
|----------------------------------------------------------------|-------------|
| <b>ABT Due Date (Repair Track)</b>                             | <b>DU13</b> |
| The due date of the air brake test per AAR Field Manual Rule 3 |             |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

|                                                                                          |             |
|------------------------------------------------------------------------------------------|-------------|
| <b>ABT 5-8 Year Due Date</b>                                                             | <b>DU58</b> |
| The 5-8 year due date for the air brake test (ABT) after the ABT Due Date (Repair Track) |             |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

|                                                                                            |             |
|--------------------------------------------------------------------------------------------|-------------|
| <b>Inspection Date Done</b>                                                                | <b>DTDN</b> |
| The date the inspection was completed; used for all inspection types reported on equipment |             |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Validation Rule for DTDN**

-The inspection date must not be 60 days before the Build Date

|                                                                                          |             |
|------------------------------------------------------------------------------------------|-------------|
| <b>Inspection Due Date</b>                                                               | <b>INDD</b> |
| The due date of the next inspection; used for all inspection types reported on equipment |             |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.



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|                                                                                                                                                                                                 |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Inspection Performer</b>                                                                                                                                                                     | <b>PERF</b> |
| The SCAC that completed the inspection; used for all inspection types reported on equipment                                                                                                     |             |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                         |             |
| <b>Inspection Reporter</b>                                                                                                                                                                      | <b>REPT</b> |
| The SCAC that reported the inspection; used for all inspection types reported on equipment                                                                                                      |             |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                         |             |
| <b>Location/SPLC</b>                                                                                                                                                                            | <b>SPLC</b> |
| The SPLC of the inspecting location; used for all inspection types reported on equipment                                                                                                        |             |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                         |             |
| <b>Air Brake Test Device</b>                                                                                                                                                                    | <b>B523</b> |
| Indicates the type of test device used to perform the Air Brake Test                                                                                                                            | ★           |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                         |             |
| <b>Permissible Values for B523</b>                                                                                                                                                              |             |
| A Automatic (Non 4-Pressure)                                                                                                                                                                    |             |
| M Manual                                                                                                                                                                                        |             |
| P Automatic (4-Pressure)                                                                                                                                                                        |             |
| <b>Validation Rule for B523</b>                                                                                                                                                                 |             |
| -Air Brake Test Device (B523) must be reported for Air Brake Test inspection reported on or after December 10, 2020                                                                             |             |
| <b>Insp Service Valve COTS Date</b>                                                                                                                                                             | <b>B570</b> |
| Brake valve service portion recondition date                                                                                                                                                    |             |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                         |             |
| <b>NOTES:</b>                                                                                                                                                                                   |             |
| <ul style="list-style-type: none"> <li>Reports of 9999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.</li> <li>Valid date format: MMY</li> </ul>   |             |
| <b>Insp Service Valve OEM Warranty Date</b>                                                                                                                                                     | <b>B571</b> |
| Brake valve service portion Original Equipment Manufacturer warranty date                                                                                                                       |             |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                         |             |
| <b>NOTES:</b>                                                                                                                                                                                   |             |
| <ul style="list-style-type: none"> <li>Reports of 999999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.</li> <li>Valid date format: MMY</li> </ul> |             |
| <b>Insp Service Valve Part Number</b>                                                                                                                                                           | <b>B572</b> |
| Brake valve service portion part number                                                                                                                                                         |             |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                         |             |
| <b>Insp Emergency Valve COTS Date</b>                                                                                                                                                           | <b>B573</b> |
| Brake valve emergency portion recondition date                                                                                                                                                  |             |
| Value does not carry forward for Single Clone / Multi-Clone / Add Back.                                                                                                                         |             |

**NOTES:**

- Reports of 9999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMY

**Insp Emergency Valve OEM Warranty Date** **B574**

Brake valve emergency portion Original Equipment Manufacturer warranty date

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**NOTES:**

- Reports of 999999 will be allowed in case the date is illegible and the valve cannot be replaced immediately.
- Valid date format: MMY

**Insp Emergency Valve Part Number** **B575**

Brake valve emergency portion part number

System generated element. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Insp Service Valve Location Mandatory** **B576**

Brake valve service portion location

. Value does not carry forward for Single Clone / Multi-Clone.

**Insp Emergency Valve Location Mandatory** **B577**

Brake valve emergency portion location reported on an emergency brake valve inspection

Value does not carry forward for Single Clone / Multi-Clone.

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## EOT Devices

|                                        |            |
|----------------------------------------|------------|
| <b>General</b> .....                   | <b>252</b> |
| Status Code (USCD) .....               | 252        |
| Equipment ID (0001) .....              | 252        |
| Mechanical Designation (UMMD) .....    | 252        |
| Equipment Type Code (UMET) .....       | 252        |
| Built Date (BLDT) .....                | 252        |
| Rebuilt / ILS Date (RBDT) .....        | 252        |
| Rebuilt Flag (RBFL) .....              | 252        |
| Owner (UMOW) .....                     | 252        |
| Lessee (LESE) .....                    | 252        |
| Equipment Group (0002) .....           | 252        |
| Maintenance Party (MNPT) .....         | 252        |
| Mark Owner Category (B201) .....       | 252        |
| Prior Equipment ID (PRID) .....        | 253        |
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## Data Specification Manual

## General

**Status Code** *Mandatory* USCDIdentifies the current operational state ●

Does not Carry Forward.

**Permissible Values for USCD**

A ACTIVE I INACTIVE  
P PRE-REGISTERED

**NOTES:**

- For Restencil and Clone process the initial Status of a car should be Pre-Registered.
- All Add-Back processes should initially set the Status to Pre-Registered
- A Pre-registered car will automatically have its Status changed to Active for the initial change when TRAIN detects three (3) movements on the car
- If the Status changes to Active due to movement and the car was created from a Restencil, the Prior Equipment ID (PRID) or source car will have its status changed to Inactive automatically by Umler

**Equipment ID** 0001

The equipment stenciled number

**Validation Rule for 0001**

-Equipment Number must not be larger than 6 digits (i.e., 999999)

**NOTES:**

- Equipment ID includes the mark and number stenciled on the equipment. Marks can be up to 4 characters and number up to 6 digits (i.e., ABCD999999).
- Up to 500 cars can be added or updated in a transaction.
- When adding an equipment record, ensure that Prior Equipment ID (PRID) is reported, unless the equipment is new.

**Mechanical Designation** *Mandatory* UMMDEquipment description without physical dimensions ●▲

Used in ETC Generation. Used for Transportation Codes.

**Permissible Values for UMMD**

NF EOTD-Two-Way Sensing and Braking Unit (SBT)

**Equipment Type Code** UMET

An alpha numeric code that describes the physical attributes of equipment

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Please Refer to Appendix I for More information Regarding ETC Generation

**Built Date** *Mandatory* BLDTThe date the construction of the equipment is complete ●

Data is Confidential. Used for Transportation Codes. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for BLDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for BLDT**

-Prior and target equipment's Built Date (BLDT) must match for restenciling

**NOTES:**

- Data is public for railroad marked equipment.
- For connected unit cars report the oldest car in the set.

**Rebuilt / ILS Date** RBDT

The date the re-construction of the equipment is complete

Data is Confidential. Value does not carry forward for Single Clone/Multi-Clone.

**Range of Values for RBDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**NOTES:**

- Railroad cars -- applicable only to cars meeting status as provided in both STB

Accounting Rules, and the AAR Mechanical Interchange Rule 88, Office Manual.

- Private cars -- applicable to all cars meeting AAR Mechanical Interchange Rule 88, Section C, Office Manual and Sections A and B of the Field Manual.
- For connected unit cars report the oldest car in the set. Do not report Rebuilt Date unless car has been approved by the AAR.

**Rebuilt Flag** RBFL

Identifies the equipment is nearing its end of life cycle

Data is Confidential. System Generated Field. This element is not eligible for Input.

**Permissible Values for RBFL**

N No Y Yes

**Owner** *Mandatory* UMOWPrimary reporting mark of the railroad or private company owning the car ●

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**NOTES:**

- Report the primary reporting mark of the railroad or private company owning the car. When car's lease or lien is held by a bank, trust holder, capital lease company, etc. not having an assigned mark, report the primary reporting mark affiliated with the stenciled reporting mark.

**Lessee** LESE

The reporting mark of the company leasing the equipment

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**Validation Rule for LESE**

-Umler Owner (UMOW) and Lessee are not allowed to be equal

**NOTES:**

- In order to assign privately marked cars to a pool, a railroad reporting mark must be reported.

**Equipment Group** *Mandatory* 0002Identifies the various major car types ●●

Used for Transportation Codes. Affects Rating.

**Maintenance Party** MNPT

The parent reporting mark of the company responsible for the maintenance and repairs of the equipment

Does not Carry Forward.

**Mark Owner Category** B201

The company that owns the stenciled mark on the car

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**Permissible Values for B201**

B US Private  
C Canadian Private  
F Foreign Private  
H Canadian Class II  
I Canadian Class I  
J Mexican Class I  
K Canadian Class III  
M Mexican Private  
N US Private Steamship  
O Canadian Private Steamship  
P Mexican Private Steamship  
Q Foreign Private Steamship  
R US Class II Railroad  
U US Class I Railroad  
V US Class III Railroad

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- W Mexican Class II Railroad  
Y Mexican Class III Railroad

**NOTES:**

- This value is stored in the Umler Database for informational purposes and is retrieved from the Roadmark Registry.

| Prior Equipment ID                                      | PRID |
|---------------------------------------------------------|------|
| The previous reporting mark and number of the equipment |      |

Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for PRID**

- Prior and target equipment's Built Date (BLDT) must match
- The Prior Equipment ID (0001) must belong to the same or comparable Equipment Group (0002) as the current car initial and number

**NOTES:**

- Prior ID enables equipment records to share the same historical lineage. Equipment Identification Number (EIN) is a generated id that enables these equipment records to share inspections and transaction history.

| Last Update Date                      | B122 |
|---------------------------------------|------|
| Date of the last Umler element change |      |

System Generated Field. This element is not eligible for Input.

| Equipment Add Date                                               | B082 |
|------------------------------------------------------------------|------|
| Date the reporting mark and number was added to the Umler system |      |

System Generated Field. This element is not eligible for Input.

| Status Change Reason                                    | USCR |
|---------------------------------------------------------|------|
| Identifies the reason for the current operational state |      |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for USCR**

- I Initial Load  
M Movement  
O Status Changed Manually  
R Restencil

**NOTES:**

- If movement is detected on equipment, status is changed to Active.
- If an equipment record is changed to Active, any prior equipment record is placed in Inactive status.

| Status Change Date                                             | USCT |
|----------------------------------------------------------------|------|
| Identifies the effective date of the current operational state |      |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

| Equipment Identification                                 | EINN |
|----------------------------------------------------------|------|
| Unique equipment identifier regardless of stenciled mark |      |

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Specify the Prior ID (PRID) on equipment records to ensure the historical lineage is preserved. Equipment with the same EIN share history and inspections.

| Conflict Status                                                 | B050 |
|-----------------------------------------------------------------|------|
| Identifies the escalation level of equipment in active conflict |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B050**

- Subject to Zero-Rating
- Subject to Restricted in Interchange
- Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs

- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

| Date of Original Conflict                                            | B063 |
|----------------------------------------------------------------------|------|
| The date the equipment was originally placed in the current conflict |      |
| System Generated Field. This element is not eligible for Input.      |      |

| Next Conflict Status                                                    | B135 |
|-------------------------------------------------------------------------|------|
| Identifies the next escalation level of an equipment in active conflict |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B135**

- Subject to Zero-Rating
- Subject to Restricted in Interchange
- Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

| Notice Indicator                                         | B137 |
|----------------------------------------------------------|------|
| Identifies equipment in error in Umler Notice Management |      |

System Generated Field. This element is not eligible for Input.

| Conflict Status Next Date                      | B062 |
|------------------------------------------------|------|
| The date the conflict status will be escalated |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

| Rate Indicator                                 | A070 |
|------------------------------------------------|------|
| Indicates the rate type applicable to the unit |      |

System Generated Field. Used for Transportation Codes. Affects Rating. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for A070**

- Zero-Rated Due to Conflict Errors
- Zero-Rated - Scrap (S\_SX), AAR Overage (XA), FRA Overage (YA), Umler Conflict - CHR 1/Tarriff 6007 (XZ). Zero-Rated Private Owner Election to Zero Rate [See Private Zero Rate (B150)].

**NOTES:**

- If unit is zero-rated, correction of conflicts will reinstate the appropriate rate indicator code.

| First Movement Date                                               | USAT |
|-------------------------------------------------------------------|------|
| The first movement date under the stenciled mark of the equipment |      |

This element is not eligible for Input. Does not Carry Forward.

| Equipment Add Company                                      | B083 |
|------------------------------------------------------------|------|
| The reporting mark of the company that added the equipment |      |

System Generated Field. This element is not eligible for Input.

| Registration Reason                                    | B174 |
|--------------------------------------------------------|------|
| The code indicating the reason this equipment is added |      |

Does not Carry Forward.

**Permissible Values for B174**

- |   |                   |   |           |
|---|-------------------|---|-----------|
| A | Add-Back          | N | New       |
| P | Pending Restencil | R | Restencil |

| Restencil Program Ind                                 | B177 |
|-------------------------------------------------------|------|
| Identifies the equipment is under a restencil program |      |

**Permissible Values for B177**

## Data Specification Manual

Y Yes

| Serial Number                | A234 |
|------------------------------|------|
| Manufacturer's Serial Number |      |

## Range of Values for A234

| Minimum | Maximum |
|---------|---------|
| 1000    | 999999  |

| Delete Reason Code                                               | B064 |
|------------------------------------------------------------------|------|
| A code that designates the reason the equipment has been deleted |      |

Value does not carry forward for Add Back.

## Permissible Values for B064

|   |                                              |
|---|----------------------------------------------|
| A | Restenciled                                  |
| D | Destroyed or wrecked                         |
| L | Lease terminated, removed from fleet         |
| P | Retired unserviceable beyond economic repair |
| R | Rebuilt                                      |
| S | Sold Serviceable                             |
| T | Lost                                         |
| W | Over age retired for dismantling             |
| Y | Error, reporting did not exist               |
| Z | Other                                        |

## Specification

| Internal Data Logging                                                                                                                                                                                                              | B080 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| EOT Internal Data Logging can plug in a laptop and download multiple fields (ie: locomotive event recorder). The fields include: GPS lat/long, battery voltage, speed, brake pipe pressure, light on/off, emergency valve stat-New |      |

## Permissible Values for B080

Y Yes

| ECP Brake Equipped                                        | B347 |
|-----------------------------------------------------------|------|
| Indicates whether an EOTD is equipped for ECP type brakes |      |

Value does not carry forward for Equipment Group Change.

## Permissible Values for B347

Y Yes

| Equipment Builder                                     | A035 |
|-------------------------------------------------------|------|
| Identifies the original manufacturer of the equipment |      |

## Permissible Values for A035

|      |                           |
|------|---------------------------|
| 1    | QUANTUM                   |
| 2    | GLENAYRE (DSL)            |
| 4    | PULSE ELEC. INC.          |
| 5    | WABTEC                    |
| 7    | U.S. & S                  |
| 8    | NOT USED                  |
| 9    | NORFOLK SOUTHERN RWY      |
| B    | BALDWIN-LIMA-HAMILTON     |
| DPS  | DPS Electronics           |
| INVS | Invensys Rail Corporation |
| PRMK | Progress Rail             |
| SIEM | Siemens                   |
| UNKN | Unknown                   |

## Validation Rule for A035

- Equipment Builder must be populated if the Built Date (BLDT) is July 1, 2010 or newer
- Equipment built or rebuilt on or after July 1, 2010 cannot have a Equipment Builder of Unknown
- Equipment with a Built Date (BLDT) on or after July 1, 2010 cannot have an Equipment Builder Code of OWNER RAILROAD.
- Equipment Builder can have a value of MULT only if the equipment has multiple units.

| Builder Lot Code                                                                               | B030 |
|------------------------------------------------------------------------------------------------|------|
| A unique identifier for a group of equipment built by one manufacturer under the same contract |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

## Validation Rule for B030

- Equipment built or rebuilt on or after June 28, 2012 must have a value for Builder Lot Code

## NOTES:

- If the value is unknown, enter six zeroes (000000).

| Built Country                                   | B031 |
|-------------------------------------------------|------|
| The country where the equipment was constructed |      |

Data is Confidential.

## Permissible Values for B031

|    |               |    |        |
|----|---------------|----|--------|
| CA | Canada        | MX | Mexico |
| US | United States |    |        |

| Battery Composition                                       | B556 |
|-----------------------------------------------------------|------|
| Indicates the type of composition in the internal battery |      |

## Permissible Values for B556

|   |                        |
|---|------------------------|
| A | Lead Acid              |
| P | Lithium-Iron Phosphate |

## NOTES:

- This element is used to identify the battery composition within the EOTD main battery to support shipping and safety requirements.
- All EOTD internal batteries are non-spillable.
- Package shippers require lithium-ion batteries to contain less than 10kg of lithium. All EOTD batteries comply.

| GPS Equipped                                                                                      | B557 |
|---------------------------------------------------------------------------------------------------|------|
| Indicates the presence of a global positioning device through the following communication method. |      |

## Permissible Values for B557

|    |              |
|----|--------------|
| 3G | Cellular 3G  |
| 4G | Cellular 4G  |
| 5G | Cellular 5G  |
| NE | Not Equipped |
| SA | Satellite    |

## Validation Rule for B557

- GPS Equipped cannot be Cellular 3G if Built Date (BLDT) is on or after January 1, 2019

## NOTES:

- This element is used to identify whether the device contains cellular and GPS device capabilities. When new cellular technologies are deployed cellular companies plan for older technologies to expire.
- Cellular 2G expired on January 1, 2018, and 3G is planned to expire January 1, 2019.

| Radio Wattage                                  | B558 |
|------------------------------------------------|------|
| Indicates the device radio transmitter wattage |      |

## Permissible Values for B558

|   |    |
|---|----|
| 2 | 2W |
| 5 | 5W |
| 8 | 8W |



## Data Specification Manual

**NOTES:**

- This element is to identify the radio wattage.

**Remote Disable****B559**

Indicates the device can be disabled remotely

**Permissible Values for B559**

N Not Equipped  
Y Yes

**NOTES:**

- This element is used to identify whether the device is capable of being remotely disabled.

**Remote Asset Health Monitoring****B560**

Indicates the equipment contains an asset health and status monitoring accessible remotely

**Permissible Values for B560**

E Equipped  
N Not Equipped

**Validation Rule for B560**

- If Remote Asset Health Monitoring Equipment is Equipped then GPS Equipped (B557) cannot be Not Equipped.

**NOTES:**

- This element is used to identify whether the device is capable of remote asset health monitoring, e.g. battery level. Providing battery level enables EOTD Managers to prioritize finding low battery level devices higher than those that are not. Devices with depleted battery power cannot send GPS pings.

**Weight****B561**

Total weight of the EOT Device including the air hose in pounds

**Range of Values for B561**

Minimum 5  
Maximum 45

**NOTES:**

- Supports improving shipping weights and understanding how much devices weigh for safety
- This element is used to identify the total weight of an EOT device including the air hose

**Cost****Original Cost****A184**

The original manufacturer selling price

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A184**

| Minimum | Maximum |
|---------|---------|
| 0       | 9999999 |

**Validation Rule for A184**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Original Cost must be equal to the Ledger Value if Additions & Betterments Indicator is not reported.
- Railroad marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost
- Private marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost if Built Date (BLDT) is on or after January 1, 2015

**NOTES:**

- Original Cost is never altered. It is the cost of the equipment to the original owner.

- For railroad-marked cars, report in US dollars the original ledger value of the original owner For cars rebuilt, report the cost prescribed in MR Interchange Rule 88 and Circular Letter OT-24
- The original cost is used in the settlement of AAR Interchange Rule 107 Office Manual.
- For connected unit cars report the total original cost for all units in the set.
- Numeric, applicable to all railroad-marked cars Also, applicable to privately marked covered hopper (LO) cars.
- Raise all cents to the next dollar, e.g. \$5,501.02 = 0005502

**Ledger Value****A150**

The sum of original cost and additions &amp; betterments

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A150**

| Minimum | Maximum |
|---------|---------|
| 0       | 9999999 |

**Validation Rule for A150**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Ledger Value must equal the Original Cost (A184) plus the additions & betterments, if Total A&B (A003) has been reported. Otherwise Ledger Value should equal Original Cost (A184).

**Total A&B****A003**

System generated sum of all reported amounts in A&amp;B Amount (A317), in US dollars

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A003**

| Minimum | Maximum  |
|---------|----------|
| 0       | 99999999 |

**NOTES:**

- For railroad-marked cars, report the sum of all additions and betterments applied to the car. This value is for record keeping purposes only and will not be used to report Ledger Value.
- For private Cars report the additions and betterments as qualified under AAR interchange Rule 107 for determination of settlement value.
  - Additions are costs of all new components applied subsequent to the date the car was built or rebuilt and carried in the capital investment account.
  - Betterments are costs of all improvements of components of existing equipment through the substitution of superior parts for inferior parts subsequent to the date the car was built or rebuilt.
- For connected unit cars report the total Truck Location A for all units in the set

**Ind for Pos/Neg Total A&B****A128**

A code indicating the positive or negative adjustment to the original cost of the equipment

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A128**

N Negative P Positive

**A&B Pos/Neg Ind****A316**

A code indicating the positive or negative adjustment to the individual addition and betterment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A316**

N Negative P Positive

**Validation Rule for A316**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- The A&B Indicator is required when Additions & Betterments are reported.

## Data Specification Manual

-The A&B Indicator must not be reported if Additions & Betterments are not reported.

| A&B Amount <span style="float: right;">A317</span>                                                                                                        |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| The amount of the individual addition and betterment added to or subtracted from the original cost of the equipment                                       |         |
| Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.                                                                        |         |
| <b>Range of Values for A317</b>                                                                                                                           |         |
| Minimum                                                                                                                                                   | Maximum |
| 1                                                                                                                                                         | 999999  |
| <b>Validation Rule for A317</b>                                                                                                                           |         |
| -When entering an individual addition & betterment; A&B Date Done (A319), A&B Type (A318), A&B Pos/Neg Ind (A316), and A&B Amount (A317) must be reported |         |

| A&B Date Done <span style="float: right;">A319</span>                                       |            |
|---------------------------------------------------------------------------------------------|------------|
| The date of the individual addition and betterment                                          |            |
| Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.          |            |
| <b>Range of Values for A319</b>                                                             |            |
| Minimum                                                                                     | Maximum    |
| 1/1/1900                                                                                    | 12/31/9999 |
| <b>Validation Rule for A319</b>                                                             |            |
| -When entering an individual Addition & Betterment, you must enter a value in all 4 fields. |            |
| -Addition and Betterment Date Done cannot be earlier than Built Date (BLDT).                |            |
| -Additions & Betterments Date Done cannot be later than today's date.                       |            |

| A&B Type <span style="float: right;">A318</span>                                            |                                                                           |
|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| The type of individual addition and betterment as defined by Rule 107                       |                                                                           |
| Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.          |                                                                           |
| <b>Permissible Values for A318</b>                                                          |                                                                           |
| GNRL                                                                                        | General - Capitalized Additions and Betterments                           |
| INIT                                                                                        | Initial load of historical A&B amount as of Umler 4.6 implementation date |
| <b>Validation Rule for A318</b>                                                             |                                                                           |
| -For each equipment, only one Individual A&B Type can have a value of INIT.                 |                                                                           |
| -When entering an individual Addition & Betterment, you must enter a value in all 4 fields. |                                                                           |

## Car Management

| Pool Number <span style="float: right;">P001</span>                                                                                        |                                |
|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Unique number used to indicate the grouping of equipment for a particular purpose                                                          |                                |
| Used for Transportation Codes. This element is not eligible for Input. Value does not carry forward for Equipment Group Change / Add Back. |                                |
| User Routing Instructions <span style="float: right;">TCUR</span>                                                                          |                                |
| The routing instruction reported by the user                                                                                               |                                |
| Used for Transportation Codes.                                                                                                             |                                |
| <b>Permissible Values for TCUR</b>                                                                                                         |                                |
| 2                                                                                                                                          | Trailer Service Rule 2         |
| G                                                                                                                                          | Contaminated commodity service |
| M                                                                                                                                          | Mark canceled                  |
| O                                                                                                                                          | Owner requested return         |
| U                                                                                                                                          | Unassigned equipment           |
| <b>NOTES:</b>                                                                                                                              |                                |
| • For further explanation reference Appendix E.                                                                                            |                                |
| Umler Transportation Code <span style="float: right;">TCOD</span>                                                                          |                                |

| The type of assigned service, empty routing or restriction of the equipment                    |  |
|------------------------------------------------------------------------------------------------|--|
| System Generated Field. Used for Transportation Codes. This element is not eligible for Input. |  |

**NOTES:**

- For further explanation reference Appendix E.

| Transportation Cond Code <span style="float: right;">TCCD</span>                               |  |
|------------------------------------------------------------------------------------------------|--|
| The AAR or FRA interchange restriction code                                                    |  |
| System Generated Field. Used for Transportation Codes. This element is not eligible for Input. |  |
| <b>NOTES:</b>                                                                                  |  |
| • For further explanation reference Appendix E.                                                |  |

| Mechanical Restriction <span style="float: right;">TCME</span>   |                             |
|------------------------------------------------------------------|-----------------------------|
| User reported or system generated type of mechanical restriction |                             |
| Used for Transportation Codes.                                   |                             |
| <b>Permissible Values for TCME</b>                               |                             |
| S                                                                | Scrap                       |
| X                                                                | AAR Interchange Restriction |
| <b>NOTES:</b>                                                    |                             |
| • For further explanation reference Appendix D.1                 |                             |

| Mech Restriction Reason <span style="float: right;">TCMR</span>                                                                                                        |                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| The explanation of the Mechanical Restriction (TCME)                                                                                                                   |                                                             |
| Used for Transportation Codes.                                                                                                                                         |                                                             |
| <b>Permissible Values for TCMR</b>                                                                                                                                     |                                                             |
| X                                                                                                                                                                      | Restricted Due to Scrap or Early Warning                    |
| Z                                                                                                                                                                      | Restricted Due to Umler Conflict (Not Valid for User Input) |
| <b>NOTES:</b>                                                                                                                                                          |                                                             |
| • For further explanation reference Appendix D.2.                                                                                                                      |                                                             |
| • The assignment of the Transportation Codes S, SX, XA, XZ and YA generate the Rate Indicator Code 6 to the CHARM file to zero (0) rate the car hire and mileage rate. |                                                             |

## Miscellaneous

| Commercial Owner CIF <span style="float: right;">B049</span>                                |  |
|---------------------------------------------------------------------------------------------|--|
| The Customer Identification File (CIF) number for a commercial owner at a specific location |  |

| Commercial Lessee CIF <span style="float: right;">B048</span>                                |  |
|----------------------------------------------------------------------------------------------|--|
| The Customer Identification File (CIF) number for a commercial lessee at a specific location |  |

| Umler Effective Date <span style="float: right;">EFDT</span>                             |  |
|------------------------------------------------------------------------------------------|--|
| The date the rating activity (pre-registration, modification, etc.) is expected to occur |  |

This element is not eligible for Query. Does not Carry Forward.

**Validation Rule for EFDT**

-Effective Date cannot be set to more than 13 months in the future.

**NOTES:**

- Effective Date will default to the 1st of the following month that equipment is registered

## Inspection

| Inspection Date Done <span style="float: right;">DTDN</span>                               |  |
|--------------------------------------------------------------------------------------------|--|
| The date the inspection was completed; used for all inspection types reported on equipment |  |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Validation Rule for DTDN**

-The inspection date must not be 60 days before the Build Date

| Inspection Due Date <span style="float: right;">INDD</span> |  |
|-------------------------------------------------------------|--|
|-------------------------------------------------------------|--|

Data Specification Manual

The due date of the next inspection; used for all inspection types reported on equipment

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Inspection Reporter** **REPT**

The SCAC that reported the inspection; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Location/SPLC** **SPLC**

The SPLC of the inspecting location; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Inspection Performer** **PERF**

The SCAC that completed the inspection; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

## Data Specification Manual

## Steel Wheel Set

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## Data Specification Manual

## General

**Status Code** *Mandatory* **USCD**

Identifies the current operational state

Does not Carry Forward.

**Permissible Values for USCD**

A ACTIVE I INACTIVE  
P PRE-REGISTERED

**NOTES:**

- For Restencil and Clone process the initial Status of a car should be Pre-Registered.
- All Add-Back processes should initially set the Status to Pre-Registered
- A Pre-registered car will automatically have its Status changed to Active for the initial change when TRAIN detects three (3) movements on the car
- If the Status changes to Active due to movement and the car was created from a Restencil, the Prior Equipment ID (PRID) or source car will have its status changed to Inactive automatically by Umler

**Equipment ID** **0001**

The equipment stenciled number

**Validation Rule for 0001**

-Equipment Number must not be larger than 6 digits (i.e., 999999)

**NOTES:**

- Equipment ID includes the mark and number stenciled on the equipment. Marks can be up to 4 characters and number up to 6 digits (i.e., ABCD999999).
- Up to 500 cars can be added or updated in a transaction.
- When adding an equipment record, ensure that Prior Equipment ID (PRID) is reported, unless the equipment is new.

**Mechanical Designation** *Mandatory* **UMMD**

Equipment description without physical dimensions

Used for Transportation Codes.

**Permissible Values for UMMD**

ST Steel Wheel Set

**Equipment Type Code** **UMET**

An alpha numeric code that describes the physical attributes of equipment

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Please Refer to Appendix I for More information Regarding ETC Generation

**Built Date** *Mandatory* **BLDT**

The date the construction of the equipment is complete

Data is Confidential. Used for Transportation Codes. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for BLDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for BLDT**

- Built Date must be within the last 99 years
- Built Date must not be in the future for equipment in Active Status
- Prior and target equipment's Built Date (BLDT) must match for restenciling

**NOTES:**

- Data is public for railroad marked equipment.
- For connected unit cars report the oldest car in the set.

**Rebuilt / ILS Date** **RBDT**

The date the re-construction of the equipment is complete

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for RBDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for RBDT**

- Rebuilt/Increased Life Service Date must be after the Built Date (BLDT)
- Rebuilt Date must not be more than 70 years after the Built Date (BLDT)

**NOTES:**

- Railroad cars -- applicable only to cars meeting status as provided in both STB Accounting Rules, and the AAR Mechanical Interchange Rule 88, Office Manual.
- Private cars -- applicable to all cars meeting AAR Mechanical Interchange Rule 88, Section C, Office Manual and Sections A and B of the Field Manual.
- For connected unit cars report the oldest car in the set. Do not report Rebuilt Date unless car has been approved by the AAR.

**Rebuilt Flag** **RBFL**

Identifies the equipment is nearing its end of life cycle

Data is Confidential. System Generated Field. This element is not eligible for Input.

**Permissible Values for RBFL**

N No Y Yes

**Owner** *Mandatory* **UMOW**

Primary reporting mark of the railroad or private company owning the car

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**NOTES:**

- Report the primary reporting mark of the railroad or private company owning the car. When car's lease or lien is held by a bank, trust holder, capital lease company, etc. not having an assigned mark, report the primary reporting mark affiliated with the stenciled reporting mark.

**Equipment Group** *Mandatory* **0002**

Identifies the various major car types

Used for Transportation Codes. Affects Rating.

**Lessee** **LESE**

The reporting mark of the company leasing the equipment

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**Validation Rule for LESE**

-Umler Owner (UMOW) and Lessee are not allowed to be equal

**NOTES:**

- In order to assign privately marked cars to a pool, a railroad reporting mark must be reported.

**Maintenance Party** **MNPT**

The parent reporting mark of the company responsible for the maintenance and repairs of the equipment

Does not Carry Forward.

**Mark Owner Category** **B201**

The company that owns the stenciled mark on the car

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**Permissible Values for B201**

B US Private  
C Canadian Private  
F Foreign Private  
H Canadian Class II



## Data Specification Manual

|   |                            |
|---|----------------------------|
| I | Canadian Class I           |
| J | Mexican Class I            |
| K | Canadian Class III         |
| M | Mexican Private            |
| N | US Private Steamship       |
| O | Canadian Private Steamship |
| P | Mexican Private Steamship  |
| Q | Foreign Private Steamship  |
| R | US Class II Railroad       |
| U | US Class I Railroad        |
| V | US Class III Railroad      |
| W | Mexican Class II Railroad  |
| Y | Mexican Class III Railroad |

**NOTES:**

- This value is stored in the Umler Database for informational purposes and is retrieved from the Roadmark Registry.

| Prior Equipment ID                                      | PRID |
|---------------------------------------------------------|------|
| The previous reporting mark and number of the equipment |      |

Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for PRID**

- Prior and target equipment's Built Date (BLDT) must match
- The Prior Equipment ID (0001) must belong to the same or comparable Equipment Group (0002) as the current car initial and number

**NOTES:**

- Prior ID enables equipment records to share the same historical lineage. Equipment Identification Number (EIN) is a generated id that enables these equipment records to share inspections and transaction history.

| Last Update Date                      | B122 |
|---------------------------------------|------|
| Date of the last Umler element change |      |

System Generated Field. This element is not eligible for Input.

| Equipment Add Date                                               | B082 |
|------------------------------------------------------------------|------|
| Date the reporting mark and number was added to the Umler system |      |

System Generated Field. This element is not eligible for Input.

| Status Change Reason                                    | USCR |
|---------------------------------------------------------|------|
| Identifies the reason for the current operational state |      |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for USCR**

|   |                         |
|---|-------------------------|
| I | Initial Load            |
| M | Movement                |
| O | Status Changed Manually |
| R | Restencil               |

**NOTES:**

- If movement is detected on equipment, status is changed to Active.
- If an equipment record is changed to Active, any prior equipment record is placed in Inactive status.

| Status Change Date                                             | USCT |
|----------------------------------------------------------------|------|
| Identifies the effective date of the current operational state |      |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

| Equipment Identification                                 | EINN |
|----------------------------------------------------------|------|
| Unique equipment identifier regardless of stenciled mark |      |

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Specify the Prior ID (PRID) on equipment records to ensure the historical lineage is preserved. Equipment with the same EIN share history and inspections.

| Conflict Status                                                 | B050 |
|-----------------------------------------------------------------|------|
| Identifies the escalation level of equipment in active conflict |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B050**

- Subject to Zero-Rating
- Subject to Restricted in Interchange
- Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

| Date of Original Conflict                                            | B063 |
|----------------------------------------------------------------------|------|
| The date the equipment was originally placed in the current conflict |      |

System Generated Field. This element is not eligible for Input.

| Next Conflict Status                                                    | B135 |
|-------------------------------------------------------------------------|------|
| Identifies the next escalation level of an equipment in active conflict |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B135**

- Subject to Zero-Rating
- Subject to Restricted in Interchange
- Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

| Notice Indicator                                         | B137 |
|----------------------------------------------------------|------|
| Identifies equipment in error in Umler Notice Management |      |

System Generated Field. This element is not eligible for Input.

| Conflict Status Next Date                      | B062 |
|------------------------------------------------|------|
| The date the conflict status will be escalated |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

| Rate Indicator                                 | A070 |
|------------------------------------------------|------|
| Indicates the rate type applicable to the unit |      |

System Generated Field. Used for Transportation Codes. Affects Rating. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for A070**

- Zero-Rated Due to Conflict Errors
- Zero-Rated - Scrap (S\_SX), AAR Overage (XA), FRA Overage (YA), Umler Conflict - CHR 1/Tarriiff 6007 (XZ). Zero-Rated Private Owner Election to Zero Rate [See Private Zero Rate (B150)].

**NOTES:**

- If unit is zero-rated, correction of conflicts will reinstate the appropriate rate indicator code.

| First Movement Date                                               | USAT |
|-------------------------------------------------------------------|------|
| The first movement date under the stenciled mark of the equipment |      |

## Data Specification Manual

This element is not eligible for Input. Does not Carry Forward.

2 ft 6 inches | 5 ft 0 inches

|                                                                 |                   |
|-----------------------------------------------------------------|-------------------|
| <b>Equipment Add Company</b>                                    | <b>B083</b>       |
| The reporting mark of the company that added the equipment      |                   |
| System Generated Field. This element is not eligible for Input. |                   |
| <b>Registration Reason</b>                                      | <b>B174</b>       |
| The code indicating the reason this equipment is added          |                   |
| Does not Carry Forward.                                         |                   |
| <b>Permissible Values for B174</b>                              |                   |
| A                                                               | Add-Back          |
| N                                                               | New               |
| P                                                               | Pending Restencil |
| R                                                               | Restencil         |
| <b>Restencil Program Ind</b>                                    | <b>B177</b>       |
| Identifies the equipment is under a restencil program           |                   |
| <b>Permissible Values for B177</b>                              |                   |
| Y                                                               | Yes               |

|                                                                  |                                              |
|------------------------------------------------------------------|----------------------------------------------|
| <b>Delete Reason Code</b>                                        | <b>B064</b>                                  |
| A code that designates the reason the equipment has been deleted |                                              |
| Value does not carry forward for Add Back.                       |                                              |
| <b>Permissible Values for B064</b>                               |                                              |
| A                                                                | Restenciled                                  |
| D                                                                | Destroyed or wrecked                         |
| L                                                                | Lease terminated, removed from fleet         |
| P                                                                | Retired unserviceable beyond economic repair |
| R                                                                | Rebuilt                                      |
| S                                                                | Sold Serviceable                             |
| T                                                                | Lost                                         |
| W                                                                | Over age retired for dismantling             |
| Y                                                                | Error, reporting did not exist               |
| Z                                                                | Other                                        |

## Weight

|                                                                                                                                                                                                                   |                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| <b>Tare Weight Mandatory</b>                                                                                                                                                                                      | <b>A259</b>    |
| The equipment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds                                                                                                                |                |
| Affects Rating.                                                                                                                                                                                                   |                |
| <b>Range of Values for A259</b>                                                                                                                                                                                   |                |
| <b>Minimum</b>                                                                                                                                                                                                    | <b>Maximum</b> |
| 9000                                                                                                                                                                                                              | 15000          |
| <b>NOTES:</b>                                                                                                                                                                                                     |                |
| <ul style="list-style-type: none"> <li>Do not report an average Tare Weight for car series, except for Pre-Registered cars</li> <li>When cars are made active, the actual Tare Weight must be recorded</li> </ul> |                |

|                                                                                                                                                     |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Weighing Status Mandatory</b>                                                                                                                    | <b>A289</b> |
| Indicates the weight information is an estimate or an actual measurement                                                                            |             |
| Value does not carry forward for Single Clone / Multi-Clone.                                                                                        |             |
| <b>Permissible Values for A289</b>                                                                                                                  |             |
| A                                                                                                                                                   | Actual      |
| E                                                                                                                                                   | Estimated   |
| <b>Validation Rule for A289</b>                                                                                                                     |             |
| -When Status Code changes to Active or Inactive Weighing Status must be reported as Actual (A) or Verified (V) within 60 days of Status Code change |             |

## Dimension

|                                                            |                |
|------------------------------------------------------------|----------------|
| <b>Height of Bogey Mandatory</b>                           | <b>A120</b>    |
| Height Of Bogie                                            |                |
| Displayed in feet and inches on the Web. Stored in inches. |                |
| <b>Range of Values for A120</b>                            |                |
| <b>Minimum</b>                                             | <b>Maximum</b> |

## Specification

|                                                                 |                |
|-----------------------------------------------------------------|----------------|
| <b>Truck Count</b>                                              | <b>B256</b>    |
| The total number of trucks on the equipment                     |                |
| System Generated Field. This element is not eligible for Input. |                |
| <b>Range of Values for B256</b>                                 |                |
| <b>Minimum</b>                                                  | <b>Maximum</b> |
| 1                                                               | 1              |

|                                            |                |
|--------------------------------------------|----------------|
| <b>Axle Count Mandatory</b>                | <b>A024</b>    |
| The total number of axles on the equipment |                |
| <b>Range of Values for A024</b>            |                |
| <b>Minimum</b>                             | <b>Maximum</b> |
| 2                                          | 999            |

## Validation Rule for A024

- Axle Count for an articulated car must be greater than or equal to ((Connected Unit Count x 2) + 2)
- Axle Count for a draw bar connected car must be greater than or equal to (Connected Unit Count x 4)

## NOTES:

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

|                                                              |             |
|--------------------------------------------------------------|-------------|
| <b>Wheel Bearing Type Mandatory</b>                          | <b>B191</b> |
| Indicates the wheel bearing journal design for the equipment |             |
| <b>Permissible Values for B191</b>                           |             |
| P                                                            | Plain       |
| R                                                            | Roller      |

## Validation Rule for B191

- Cars with Plain Bearings will have a Transportation Code (TCOD) and Transportation Condition Code (TCCD) of either YA, S, SX, or XJ
- Equipment cannot have Plain Bearings if Built Date (BLDT) is on or after January 1, 1993

## NOTES:

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

|                                                   |                                  |
|---------------------------------------------------|----------------------------------|
| <b>Brake Shoe Type Mandatory</b>                  | <b>B026</b>                      |
| Indicates the type of brake shoe on the equipment |                                  |
| <b>Permissible Values for B026</b>                |                                  |
| C                                                 | Tread Conditioning               |
| H                                                 | High Friction Composite          |
| L                                                 | Low Friction Composite/Cast Iron |

|                                    |             |
|------------------------------------|-------------|
| <b>Non-Rail Connector Eqpd</b>     | <b>B295</b> |
| Bogey Coupler Equipped             |             |
| Used in ETC Generation.            |             |
| <b>Permissible Values for B295</b> |             |
| Y                                  | Yes         |

|                                                                                             |                               |
|---------------------------------------------------------------------------------------------|-------------------------------|
| <b>CC Side Bearing Type</b>                                                                 | <b>A146</b>                   |
| Indicates the travel range of the constant contact side bearings installed on the equipment |                               |
| <b>Permissible Values for A146</b>                                                          |                               |
| LC                                                                                          | Long Travel Constant Contact  |
| SC                                                                                          | Short Travel Constant Contact |

|                                                                                                                                                        |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>Empty/Load Device Eqpd</b>                                                                                                                          | <b>B075</b> |
| Indicates that the air brake system includes a device to determine if the equipment is empty or loaded, and then varies the braking forces accordingly |             |

## Data Specification Manual

## Permissible Values for B075

Y Yes

## Remote Monitoring Device

B176

Indicates the equipment has a device that transmits a signal or records data

## Permissible Values for B176

Y Yes

## NOTES:

- Per AAR S-2045, This may be data related to ride quality, geographic location, temperature/condition of the load, load/empty status, etc.

## Intermediate Conn Style

B115

Indicates the method by which two or more pieces of equipment are connected

## Permissible Values for B115

A Articulated Connector  
D Drawbar Connector

## Validation Rule for B115

- Intermediate Connector Style is required for multi-unit equipment
- Intermediate Connector Style must not be reported for single unit equipment

## Equipment Builder

A035

Identifies the original manufacturer of the equipment

## Permissible Values for A035

2 GLENAYRE (DSL)  
3 GLENAYRE  
4 PULSE ELEC. INC.  
5 WABTEC  
6 HARMON  
7 U.S. & S  
8 NOT USED  
9 NORFOLK SOUTHERN RWY  
ABB Asea Brown Bavari  
ACC American Crane Company  
ACCI Accurate Industries  
ACF American Car & Foundry  
ACFX ACF Industries  
ALCC Alloy Crafts Company  
ALCO American Locomotive Company  
ALGE Alco-GE  
ALST Alstom  
ALTN Altoona  
ALWO Alco-Worthington  
ARI ARI Industries  
B BALDWIN-LIMA-HAMILTON  
BERW Berwick Forge  
BETH Bethlehem Car Works  
BL Boise Locomotive  
BLH Baldwin Lima Hamilton  
BLW Baldwin Locomotive Works  
BOMB Bombardier  
BRIL Brill  
BRKS Brooks Locomotive Works  
BS Barney & Smith  
BSP Bethlehem Steel Corporation  
BUDD Ed G Budd Company  
BURR Burro Crane Works  
C BALDWIN-LOCOMOTIVE CO.  
CAN Canadian Car  
CFF Canadian Car & Foundry  
CHIN Chinese builders (various)  
CLC Canadian Locomotive Company  
CLW Climax Locomotive Works  
CN Canadian National  
CNCF Carros De Ferrocarril, SA

CNR Canadian National Railway  
CONC Concarill  
CPR Canadian Pacific  
CRMX Colorado Railcar Manufacturing  
CSXR CSX Remanufacture  
D BOMBARDIER  
DARB Darby  
DAV Davenport Locomotive Company  
DETR Detroit Car Works  
DIFC Difco  
DSL Davies Ship Building  
E CANADIAN GENERAL ELECTRIC  
EASX East Rail Car Division  
EMAB ElectroMotive Diesel - Asea Brown Bavari  
EMC ElectroMotive Corporation  
EMD ElectroMotive Diesel  
ETIS QUANTUM  
EVAN Evans Products  
F CANADIAN LOCOMOTIVE CO.  
FCA Freight Car America  
FGRW FRTGRW  
FM Fairbanks Morse  
FMC FMC Corporation  
FRCE Freight Car Engineering  
FREU Freuhauf Corporation  
G DAVENPORT LOCOMOTIVE CO.  
GATX General American Transportation Corp  
GE General Electric  
GEC GEC Alsthom  
GENS General Steel  
GLOB Global Lot  
GMB Greenbrier  
GMDD General Motors Diesel Division  
GREX Georgetown Rail Equipment Company  
GROV Grove  
GSC Greenville Steel Car  
GSWI Gunderson Southwest Inc  
GULF Gulf Railcar  
GUN4 Gunderson - Trenton Works  
GUND Gunderson Inc  
GUNM Gunderson - Mexico  
H ELECTRO-MOTIVE DIVISION, GENERAL MOTORS CORP.  
HAMB Hamburg Fab Shop  
HARS Harsco  
HB Haskell & Baker  
HEIS Heisler Locomotive Works  
HIIX Hamburg  
HPA HPA Monon Corporation  
HST Hawker Siddeley  
HYUN Hyundai  
I FAIRBANKS MORSE  
IBH Industrial Brown Hoist  
ICC International Car Company  
ICG Interglobal Capital  
IR Ingersoll Rand  
J GENERAL ELECTRIC  
JAC Johnstown America Corporation  
JACK Jackson Equipment Company  
JLW Juniata Locomotive Works  
JORD Jordan Machine Works  
JS Jackson & Sharp  
K GENERAL ELECTRIC AGUASCALIENTES  
KASG Kasgro Railcar  
KM Krauss Maffei  
KRCA Kawasaki Railcar America  
L GENERAL ELECTRIC DE BRAZIL  
LAVE Lavelin  
LH Lima-Hamilton

## Data Specification Manual

|      |                                                  |
|------|--------------------------------------------------|
| LIMA | Lima Locomotive Works                            |
| LOCO | AMERICAN LOCOMOTIVE CO.                          |
| LOX  | Lox Equipment Company                            |
| M    | GENERAL MOTORS-DIESEL DIV. CANADA                |
| MCDW | McDowell Wellman                                 |
| MILW | CMSTP & P Railroad                               |
| MK   | Morrison-Knudson                                 |
| MLW  | Montreal Locomotive Works                        |
| MRCO | Millennium Railcar, Dome Division                |
| MRNE | Marine Industries                                |
| N    | GENERAL MOTORS-DIESEL DIV.                       |
| NACC | North American Car                               |
| NIPP | Nippon-Sharyo                                    |
| NRE  | National Railway Equipment                       |
| NSC  | National Steel Car                               |
| O    | J.G. BRILL CO.                                   |
| OB   | Osgood Bradley Car Company                       |
| ORTN | Ortner                                           |
| P    | KRAUSS-MAFFEL, A.G.                              |
| PCF  | Pacific Car & Foundry                            |
| PCM  | Pullman Car & Manufacturing                      |
| PLAS | Plasser America                                  |
| PLC  | Paducah Locomotive Company                       |
| PORT | Porter Locomotive Company                        |
| PORW | Thrall-Winder                                    |
| PRAT | Pratt Enterprises                                |
| PRO  | Procor Limited                                   |
| PS   | Pullman-Standard                                 |
| PSCC | Pressed Steel Car Company                        |
| PSP  | Pullman-Standard, Division of Trinity Industries |
| PT   | Plasser & Theurer                                |
| Q    | LIMA-HAMILTON                                    |
| R    | MORRISON-KNUDSEN                                 |
| RCC  | Raceland Car Corporation                         |
| REBD | Reilly Beard                                     |
| RELC | Relco                                            |
| RICH | Richmond Locomotive Works                        |
| ROAN | Roanoke Shops                                    |
| ROTA | Rota Car Company                                 |
| RP   | RailPower                                        |
| RTCX | Richmond Tank Car                                |
| RUSS | Russian builders (various)                       |
| S    | MONTREAL LOCOMOTIVE WORKS                        |
| SCM  | Standard Car Manufacturing                       |
| SIEM | Siemens                                          |
| SLC  | Saint Louis Car Company                          |
| SRSC | Springfield Railcar                              |
| SSCC | Standard Steel Car Company                       |
| T    | PLYMOUTH LOCOMOTIVE WORKS                        |
| TA   | Transit America                                  |
| TERX | Terex Corporation                                |
| THR  | Thrall Car Service Parts                         |
| THR4 | Thrall - Cartersville                            |
| THRL | Thrall                                           |
| TLGA | Talgo America                                    |
| TRAN | Tranzrail                                        |
| TRIN | Trinity                                          |
| TRIS | Trinity - Springfield MO                         |
| TRIX | Trinity Mexico                                   |
| U    | H.J.POTTER                                       |
| UNAM | United America                                   |
| UNKN | Unknown                                          |
| UTLX | Union Tank Car                                   |
| V    | OWNER RAILROAD                                   |
| VENT | Ventrns                                          |
| VULC | Vulcan Locomotive Works                          |
| W    | WHITECOMP LOCOMOTIVE WORKS                       |
| WABN | Wabash National                                  |

|     |                         |
|-----|-------------------------|
| WAG | Wagner Car Company      |
| X   | PEORIA LOCOMOTIVE WORKS |
| Y   | REPUBLIC LOCOMOTIVES    |

**Validation Rule for A035**

- Equipment built or rebuilt on or after July 1, 2010 cannot have a Equipment Builder of Unknown
- Equipment with a Built Date (BLDT) on or after July 1, 2010 cannot have an Equipment Builder Code of OWNER RAILROAD
- Equipment Builder can have a value of MULT only if the equipment has multiple units

**Builder Lot Code****B030**

A unique identifier for a group of equipment built by one manufacturer under the same contract

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B030**

- Equipment built or rebuilt on or after June 28, 2012 must have a value for Builder Lot Code

**NOTES:**

- If the value is unknown, enter six zeroes (000000).

**Built Country****B031**

The country where the equipment was constructed

Data is Confidential.

**Permissible Values for B031**

|    |               |    |        |
|----|---------------|----|--------|
| CA | Canada        | MX | Mexico |
| US | United States |    |        |

**Rebuilt Country****B170**

The country where the equipment was re-constructed

**Permissible Values for B170**

|    |               |    |        |
|----|---------------|----|--------|
| CA | Canada        | MX | Mexico |
| US | United States |    |        |

**Cost****Original Cost****A184**

The original manufacturer selling price

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A184**

| Minimum | Maximum |
|---------|---------|
| 0       | 999999  |

**Validation Rule for A184**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Original Cost must be equal to the Ledger Value if Additions & Betterments Indicator is not reported.
- Railroad marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost
- Private marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost if Built Date (BLDT) is on or after January 1, 2015

**NOTES:**

- Original Cost is never altered. It is the cost of the equipment to the original owner.
- For railroad-marked cars, report in US dollars the original ledger value of the original owner For cars rebuilt, report the cost prescribed in MR Interchange Rule 88 and Circular Letter OT-24
- The original cost is used in the settlement of AAR Interchange Rule 107 Office Manual.
- For connected unit cars report the total original cost for all units in the set.
- Numeric, applicable to all railroad-marked cars Also, applicable to privately marked covered hopper (LO) cars.

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- Raise all cents to the next dollar, e.g. \$5,501.02 = 0005502

| Ledger Value                                         | A150 |
|------------------------------------------------------|------|
| The sum of original cost and additions & betterments |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A150**

| Minimum | Maximum |
|---------|---------|
| 0       | 999999  |

**Validation Rule for A150**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Ledger Value must equal the Original Cost (A184) plus the additions & betterments, if Total A&B (A003) has been reported. Otherwise Ledger Value should equal Original Cost (A184).

| Total A&B                                                                        | A003 |
|----------------------------------------------------------------------------------|------|
| System generated sum of all reported amounts in A&B Amount (A317), in US dollars |      |

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A003**

| Minimum | Maximum  |
|---------|----------|
| 0       | 99999999 |

**NOTES:**

- For railroad-marked cars, report the sum of all additions and betterments applied to the car. This value is for record keeping purposes only and will not be used to report Ledger Value.
- For private Cars report the additions and betterments as qualified under AAR interchange Rule 107 for determination of settlement value.
  - o Additions are costs of all new components applied subsequent to the date the car was built or rebuilt and carried in the capital investment account.
  - o Betterments are costs of all improvements of components of existing equipment through the substitution of superior parts for inferior parts subsequent to the date the car was built or rebuilt.
- For connected unit cars report the total Truck Location A for all units in the set

| Ind for Pos/Neg Total A&B                                                                   | A128 |
|---------------------------------------------------------------------------------------------|------|
| A code indicating the positive or negative adjustment to the original cost of the equipment |      |

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A128**

N Negative P Positive

| A&B Pos/Neg Ind                                                                                 | A316 |
|-------------------------------------------------------------------------------------------------|------|
| A code indicating the positive or negative adjustment to the individual addition and betterment |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A316**

N Negative P Positive

**Validation Rule for A316**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- The A&B Indicator is required when Additions & Betterments are reported.
- The A&B Indicator must not be reported if Additions & Betterments are not reported.

| A&B Amount                                                                                                          | A317 |
|---------------------------------------------------------------------------------------------------------------------|------|
| The amount of the individual addition and betterment added to or subtracted from the original cost of the equipment |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A317**

| Minimum | Maximum |
|---------|---------|
| 1       | 999999  |

**Validation Rule for A317**

- When entering an individual addition & betterment; A&B Date Done (A319), A&B Type (A318), A&B Pos/Neg Ind (A316), and A&B Amount (A317) must be reported

| A&B Date Done                                      | A319 |
|----------------------------------------------------|------|
| The date of the individual addition and betterment |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A319**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for A319**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- Addition and Betterment Date Done cannot be earlier than Built Date (BLDT).
- Additions & Betterments Date Done cannot be later than today's date.

| A&B Type                                                              | A318 |
|-----------------------------------------------------------------------|------|
| The type of individual addition and betterment as defined by Rule 107 |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A318**

GNRL General - Capitalized Additions and Betterments  
INIT Initial load of historical A&B amount as of Umler 4.6 implementation date

**Validation Rule for A318**

- For each equipment, only one Individual A&B Type can have a value of INIT.
- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.

## Car Management

| Pool Number                                                                       | P001 |
|-----------------------------------------------------------------------------------|------|
| Unique number used to indicate the grouping of equipment for a particular purpose |      |

Used for Transportation Codes. Affects Rating. This element is not eligible for Input. Value does not carry forward for Equipment Group Change / Add Back.

| User Routing Instructions                    | TCUR |
|----------------------------------------------|------|
| The routing instruction reported by the user |      |

Used for Transportation Codes.

**Permissible Values for TCUR**

2 Trailer Service Rule 2  
G Contaminated commodity service  
M Mark canceled  
O Owner requested return  
U Unassigned equipment

**NOTES:**

- For further explanation reference Appendix E.

| Umler Transportation Code                                                   | TCOD |
|-----------------------------------------------------------------------------|------|
| The type of assigned service, empty routing or restriction of the equipment |      |

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

| Transportation Cond Code                    | TCCD |
|---------------------------------------------|------|
| The AAR or FRA interchange restriction code |      |



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System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

| Mechanical Restriction                                           | TCME |
|------------------------------------------------------------------|------|
| User reported or system generated type of mechanical restriction |      |

Used for Transportation Codes.

**Permissible Values for TCME**

- S Scrap
- X AAR Interchange Restriction
- Y FRA Interchange Prohibited

**NOTES:**

- For further explanation reference Appendix D.1

| Mech Restriction Reason                              | TCMR |
|------------------------------------------------------|------|
| The explanation of the Mechanical Restriction (TCME) |      |

Used for Transportation Codes.

**Permissible Values for TCMR**

- A Restricted Due to Age (Over 40-AAR, Over 50-FRA)
- B Restricted Due to Air Brakes
- C Restricted Due to Axles
- D Restricted Due to Couplers and Couplers Parts
- F Restricted Due to Couplers Yokes
- G Restricted Due to Draft Gears
- J Restricted Due to Journal Bearing and Journal Lubrication
- N Restricted Due to Trucks
- P Restricted Due to Truck Side Frames
- T Restricted Due to Trucks Bolsters
- U Restricted by AAR or Owner
- W Restricted Due to Wheels
- X Restricted Due to Scrap or Early Warning
- Z Restricted Due to Umler Conflict (Not Valid for User Input)

**NOTES:**

- For further explanation reference Appendix D.2.
- The assignment of the Transportation Codes S\_, SX, XA, XZ and YA generate the Rate Indicator Code 6 to the CHARM file to zero (0) rate the car hire and mileage rate.

| Sys Gen Routing Inst                            | TCGR |
|-------------------------------------------------|------|
| The routing instruction generated by the system |      |

System Generated Field. Used for Transportation Codes. Affects Rating. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.5.

## Truck Components

| Axle Spacing Distance                               | B020 |
|-----------------------------------------------------|------|
| The distance between axle centers on the same truck |      |

**Permissible Values for B020**

- 53 53 Inches
- 54 54 Inches
- 55 55 Inches
- 60 60 Inches
- 61 61 Inches
- 62 62 Inches
- 63 63 Inches
- 64 64 Inches
- 65 65 Inches
- 68 68 Inches
- 70 70 Inches
- 71 71 Inches
- 72 72 Inches
- 73 73 Inches

- 74 74 Inches
- 76 76 Inches
- 78 78 Inches
- 99 Axle Space Unknown

| Truck Axle Count              | B252 |
|-------------------------------|------|
| The number of axles per truck |      |

**Range of Values for B252**

| Minimum | Maximum |
|---------|---------|
| 1       | 2       |

| Journal Size                    | A147 |
|---------------------------------|------|
| The size of the journal bearing |      |

**Permissible Values for A147**

- |              |             |              |
|--------------|-------------|--------------|
| A 3-3/4 X 7  | B 4-1/4 X 8 | C 5 X 9      |
| D 5-1/2 X 10 | E 6X11      | F 6-1/2 X 12 |
| G 7 X 12     | H 7 X 14    | K 6-1/ 2X 9  |
| M 7 X 9      |             |              |

**Validation Rule for A147**

- 4-axle equipment with Journal Size B and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 103,000 lbs.
- Journal Size B (4 1/4 x 8) requires a Gross Weight of 154,000 lbs. for 6-axle cars unless the car is Star Coded
- 4-axle equipment with Journal Size C and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 142,000 lbs.
- Journal Size C (5 x 9) requires a Gross Weight of 213,000 lbs. for 6-axle cars unless the car is Star Coded
- 4-axle equipment with Journal Size D and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 177,000 lbs.
- Journal Size D (5 1/2 x 10) requires a Gross Weight of 265,000 lbs. for 6-axle cars unless the car is Star Coded
- 4-axle equipment with Journal Size E and Star Code (A247) is not populated, must have Gross Rail Load (A266) of 220,000 lbs.
- Journal Size E (6 x 11) requires a Gross Weight of 179,000 lbs. for 4-axes ETC P---, Q---, V--- cars only (cars with 28 inch wheels) unless the car is Star Coded
- Journal Size E (6 x 11) requires a Gross Weight of 330,000 lbs. for 6-axes
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) is not populated, must have Gross Rail Load (A266) of 263,000 lbs.
- 4-axle equipment with Journal Size F or K, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 1 or 2, must have Gross Rail Load (A266) of 286,000 lbs.
- Journal Size F requires a Gross Weight of 394,500 lbs. or 429,000 lbs. for 6-axle cars unless the car is Star Coded.
- 4-axle equipment with Journal Size G or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) is not populated, must have Gross Rail Load (A266) of 315,000 lbs.
- 4-axle equipment with Journal Size G, K, or M, Star Code (A247) is not populated, and Qualification for Increased Gross Rail Load (B344) of 1, must have Gross Rail Load (A266) of 286,000 lbs.
- Journal Size G (7 x 12) requires a Gross Weight of 472,000 lbs. for 6-axle cars unless the car is Star Coded
- Journal Size H (7 x 14) requires a Gross Weight of 315,000 lbs. for 4-axle cars unless the car is Star Coded
- Journal Size H (7 x 14) requires a Gross Weight of 472,000 lbs. for 6-axle cars unless the car is Star Coded
- Journal Size I (6 x 11 and 6 1/2 x 12) or J (6 x 11 and 7 x 12) are only applicable to articulated or draw-bar cars
- Journal Size Code M (7 x 9) requires a Gross Weight of 472,000 lbs. for 6-axes
- Unstarred 4 Axle Cars with GRL of 315,000 and no IGRL reported and Unstarred cars with Journal Size of G or M must have a Wheel Size of 38 inches
- Gross Weight must be 394,000 lbs. for 6 -axle cars with Journal Size K

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**NOTES:**

- A, B and C Journal Classes are prohibited in Interchange per Rule 90.B.4

| Wheel Diameter             | A294 |
|----------------------------|------|
| The diameter of the wheels |      |

**Permissible Values for A294**

28 28 Inches 30 30 Inches 33 33 Inches  
36 36 Inches 38 38 Inches

**Validation Rule for A294**

- UnStarred Cars with Gross Weight of 286,000 lbs. and Increased Gross Rail Load of 2 must have a Wheel Diameter of 36 inches
- UnStarred Cars with Gross Weight of 286,000 lbs. and Increased Gross Rail Load of 2 must have a Wheel Diameter of either 36 or 38 inches
- Cars with an Increased Gross Rail Load of 1 and Journal of G or M must have a Wheel Diameter of 38 inches

| Stability Device Equipped                            | B199 |
|------------------------------------------------------|------|
| Indicates a stability device is present on the truck |      |

**Permissible Values for B199**

Y Yes

**Miscellaneous**

| Commercial Owner CIF                                                                        | B049 |
|---------------------------------------------------------------------------------------------|------|
| The Customer Identification File (CIF) number for a commercial owner at a specific location |      |

| Commercial Lessee CIF                                                                        | B048 |
|----------------------------------------------------------------------------------------------|------|
| The Customer Identification File (CIF) number for a commercial lessee at a specific location |      |

| Umler Effective Date                                                                     | EFDT |
|------------------------------------------------------------------------------------------|------|
| The date the rating activity (pre-registration, modification, etc.) is expected to occur |      |

This element is not eligible for Query. Does not Carry Forward.

**Validation Rule for EFDT**

- Effective Date cannot be set to more than 13 months in the future.

**NOTES:**

- Effective Date will default to the 1st of the following month that equipment is registered

**Inspection**

| ABT Due Date (Repair Track)                                    | DU13 |
|----------------------------------------------------------------|------|
| The due date of the air brake test per AAR Field Manual Rule 3 |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

| ABT 5-8 Year Due Date                                                                    | DU58 |
|------------------------------------------------------------------------------------------|------|
| The 5-8 year due date for the air brake test (ABT) after the ABT Due Date (Repair Track) |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

| Inspection Date Done                                                                       | DTDN |
|--------------------------------------------------------------------------------------------|------|
| The date the inspection was completed; used for all inspection types reported on equipment |      |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Validation Rule for DTDN**

- The inspection date must not be 60 days before the Build Date

| Inspection Due Date                                                            | INDD |
|--------------------------------------------------------------------------------|------|
| The due date of the next inspection; used for all inspection types reported on |      |

| equipment |
|-----------|
|-----------|

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

| Inspection Performer                                                                        | PERF |
|---------------------------------------------------------------------------------------------|------|
| The SCAC that completed the inspection; used for all inspection types reported on equipment |      |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

| Inspection Reporter                                                                        | REPT |
|--------------------------------------------------------------------------------------------|------|
| The SCAC that reported the inspection; used for all inspection types reported on equipment |      |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

| Location/SPLC                                                                            | SPLC |
|------------------------------------------------------------------------------------------|------|
| The SPLC of the inspecting location; used for all inspection types reported on equipment |      |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

| Air Brake Test Device                                                | B523 |
|----------------------------------------------------------------------|------|
| Indicates the type of test device used to perform the Air Brake Test |      |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Permissible Values for B523**

A Automatic (Non 4-Pressure)  
M Manual  
P Automatic (4-Pressure)

**Validation Rule for B523**

- Air Brake Test Device (B523) must be reported for Air Brake Test inspection reported on or after December 10, 2020

## Containers

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## Data Specification Manual

## General

**Status Code** *Mandatory* USCDIdentifies the current operational state ●

Does not Carry Forward.

**Permissible Values for USCD**

A ACTIVE I INACTIVE  
P PRE-REGISTERED

**NOTES:**

- For Restencil and Clone process the initial Status of a car should be Pre-Registered.
- All Add-Back processes should initially set the Status to Pre-Registered
- A Pre-registered car will automatically have its Status changed to Active for the initial change when TRAIN detects three (3) movements on the car
- If the Status changes to Active due to movement and the car was created from a Restencil, the Prior Equipment ID (PRID) or source car will have its status changed to Inactive automatically by Umler

**Equipment ID** 0001

The equipment stenciled number

**Validation Rule for 0001**

-Equipment Number must not be larger than 6 digits (i.e., 999999)

**NOTES:**

- Equipment ID includes the mark and number stenciled on the equipment. Marks can be up to 4 characters and number up to 6 digits (i.e., ABCD999999).
- Up to 500 cars can be added or updated in a transaction.
- When adding an equipment record, ensure that Prior Equipment ID (PRID) is reported, unless the equipment is new.

**Mechanical Designation** *Mandatory* UMMDEquipment description without physical dimensions ●

Used for Transportation Codes.

**Permissible Values for UMMD**

U Container

**Equipment Descriptor** *Mandatory* B341Additional information about the type of equipment used in conjunction with the Mechanical Designation to generate the Equipment Type Code (ETC) for Intermodal Flat, Locomotive, Chassis, Container, and Trailer equipment groups ●

Value does not carry forward for Equipment Group Change.

**Permissible Values for B341**

UB General Service Dry Box Container  
UBE Special Equipped (Straight Floor Closed) Container  
UBI Container - Insulated  
UBR Mechanical Refrigerator Container  
UFB Flat Rack/Flat Bed Container  
UH Bulk Hopper Container  
UOT Open Top Container  
UTK Tank Container

**Equipment Type Code** UMET

An alpha numeric code that describes the physical attributes of equipment

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Please Refer to Appendix I for More information Regarding ETC Generation

**Built Date** *Mandatory* BLDTThe date the construction of the equipment is complete ●

Data is Confidential. Used for Transportation Codes. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for BLDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for BLDT**

- For Trailers, Containers and Chassis, the age of the equipment if not rebuilt cannot be in excess of 50 years from today
- Prior and target equipment's Built Date (BLDT) must match for restenciling

**NOTES:**

- Data is public for railroad marked equipment.
- For connected unit cars report the oldest car in the set.

**Rebuilt / ILS Date** RBDT

The date the re-construction of the equipment is complete

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for RBDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for RBDT**

- For Trailers, Containers and Chassis, the Built Date cannot be on or before 25 years before the Rebuilt Date
- For Trailers, Containers and Chassis, the Built Date cannot be on or after the Rebuilt Date

**NOTES:**

- Railroad cars -- applicable only to cars meeting status as provided in both STB Accounting Rules, and the AAR Mechanical Interchange Rule 88, Office Manual.
- Private cars -- applicable to all cars meeting AAR Mechanical Interchange Rule 88, Section C, Office Manual and Sections A and B of the Field Manual.
- For connected unit cars report the oldest car in the set. Do not report Rebuilt Date unless car has been approved by the AAR.

**Rebuilt Flag** RBFL

Identifies the equipment is nearing its end of life cycle

Data is Confidential. System Generated Field. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for RBFL**

N No Y Yes

**Owner** *Mandatory* UMOWPrimary reporting mark of the railroad or private company owning the car ●

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**NOTES:**

- Report the primary reporting mark of the railroad or private company owning the car. When car's lease or lien is held by a bank, trust holder, capital lease company, etc. not having an assigned mark, report the primary reporting mark affiliated with the stenciled reporting mark.

**Equipment Group** *Mandatory* 0002Identifies the various major car types ● ●

Used for Transportation Codes. Affects Rating.

**Lessee** LESE

The reporting mark of the company leasing the equipment

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**Validation Rule for LESE**

-Umler Owner (UMOW) and Lessee are not allowed to be equal

**NOTES:**

- In order to assign privately marked cars to a pool, a railroad reporting mark must be reported.

## Data Specification Manual

| Maintenance Party                                                                                     | MNPT |
|-------------------------------------------------------------------------------------------------------|------|
| The parent reporting mark of the company responsible for the maintenance and repairs of the equipment |      |

Does not Carry Forward.

| Mark Owner Category                                 | B201 |
|-----------------------------------------------------|------|
| The company that owns the stenciled mark on the car |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**Permissible Values for B201**

|   |                            |
|---|----------------------------|
| B | US Private                 |
| C | Canadian Private           |
| F | Foreign Private            |
| H | Canadian Class II          |
| I | Canadian Class I           |
| J | Mexican Class I            |
| K | Canadian Class III         |
| M | Mexican Private            |
| N | US Private Steamship       |
| O | Canadian Private Steamship |
| P | Mexican Private Steamship  |
| Q | Foreign Private Steamship  |
| R | US Class II Railroad       |
| U | US Class I Railroad        |
| V | US Class III Railroad      |
| W | Mexican Class II Railroad  |
| Y | Mexican Class III Railroad |

**NOTES:**

- This value is stored in the Umler Database for informational purposes and is retrieved from the Roadmark Registry.

| Prior Equipment ID                                      | PRID |
|---------------------------------------------------------|------|
| The previous reporting mark and number of the equipment |      |

Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for PRID**

- Prior and target equipment's Built Date (BLDT) must match
- The Prior Equipment ID (0001) must belong to the same or comparable Equipment Group (0002) as the current car initial and number

**NOTES:**

- Prior ID enables equipment records to share the same historical lineage. Equipment Identification Number (EIN) is a generated id that enables these equipment records to share inspections and transaction history.

| Last Update Date                      | B122 |
|---------------------------------------|------|
| Date of the last Umler element change |      |

System Generated Field. This element is not eligible for Input.

| Equipment Add Date                                               | B082 |
|------------------------------------------------------------------|------|
| Date the reporting mark and number was added to the Umler system |      |

System Generated Field. This element is not eligible for Input.

| Status Change Reason                                    | USCR |
|---------------------------------------------------------|------|
| Identifies the reason for the current operational state |      |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for USCR**

|   |                         |
|---|-------------------------|
| I | Initial Load            |
| M | Movement                |
| O | Status Changed Manually |
| R | Restencil               |

**NOTES:**

- If movement is detected on equipment, status is changed to Active.
- If an equipment record is changed to Active, any prior equipment record is placed in Inactive status.

| Status Change Date                                             | USCT |
|----------------------------------------------------------------|------|
| Identifies the effective date of the current operational state |      |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

| Licensing State/Province   | A154 |
|----------------------------|------|
| Licensing State / Province |      |

**Permissible Values for A154**

|    |                             |
|----|-----------------------------|
| AB | Canada-Alberta              |
| AG | Mexico-Aguascalientes       |
| AK | US-Alaska                   |
| AL | US-Alabama                  |
| AR | US-Arkansas                 |
| AZ | US-Arizona                  |
| BC | Canada-British Columbia     |
| BJ | Mexico-Baja California      |
| BS | Mexico-Baja California Sur  |
| CA | US-California               |
| CH | Mexico-Chiapas              |
| CI | Mexico-Chihuahua            |
| CL | Mexico-Colima               |
| CO | US-Colorado                 |
| CP | Mexico-Campeche             |
| CT | US-Connecticut              |
| CU | Mexico-Coahuila De Zaragoza |
| DC | US-District of Columbia     |
| DE | US-Delaware                 |
| DF | Mexico-Districto Federal    |
| DG | Mexico-Durango              |
| EM | Mexico-Estado Mexico        |
| FL | US-Florida                  |
| GA | US-Georgia                  |
| GJ | Mexico-Guanajuato           |
| GR | Mexico-Guerrero             |
| HG | Mexico-Hidalgo              |
| HI | US-Hawaii                   |
| IA | US-Iowa                     |
| ID | US-Idaho                    |
| IL | US-Illinois                 |
| IN | US-Indiana                  |
| JA | Mexico-Jalisco              |
| KS | US-Kansas                   |
| KY | US-Kentucky                 |
| LA | US-Louisiana                |
| MA | US-Massachusetts            |
| MB | Canada-Manitoba             |
| MD | US-Maryland                 |
| ME | US-Maine                    |
| MH | US-Marshall Islands         |
| MI | US-Michigan                 |
| MN | US-Minnesota                |
| MO | US-Missouri                 |
| MR | Mexico-Morelos              |
| MS | US-Mississippi              |
| MT | US-Montana                  |
| MX | Mexico-Other                |
| NA | Mexico-Nayarit              |
| NB | Canada-New Brunswick        |
| NC | US-North Carolina           |
| ND | US-North Dakota             |
| NE | US-Nebraska                 |



## Data Specification Manual

|    |                                           |
|----|-------------------------------------------|
| NF | Canada-Newfoundland                       |
| NH | US-New Hampshire                          |
| NJ | US-New Jersey                             |
| NL | Mexico-Nuevo Leon                         |
| NM | US-New Mexico                             |
| NS | Canada-Nova Scotia                        |
| NT | Canada-Northwest Territories              |
| NU | Canada-Nunavut                            |
| NV | US-Nevada                                 |
| NW | Northwest Territory                       |
| NY | US-New York                               |
| OA | Mexico-Oaxaca                             |
| OH | US-Ohio                                   |
| OK | US-Oklahoma                               |
| ON | Canada-Ontario                            |
| OR | US-Oregon                                 |
| PA | US-Pennsylvania                           |
| PE | Canada-Prince Edward Island               |
| PQ | Canada-Quebec                             |
| PR | US-Puerto Rico                            |
| PU | Mexico-Puebla                             |
| QA | Mexico-Querataro                          |
| QR | Mexico-Quintana Roo                       |
| RI | US-Rhode Island                           |
| SC | US-South Carolina                         |
| SD | US-South Dakota                           |
| SI | Mexico-Sinaloa                            |
| SK | Canada-Saskatchewan                       |
| SL | Mexico-San Luis Potosi                    |
| SO | Mexico-Sonora                             |
| TA | Mexico-Tabasco                            |
| TL | Mexico-Tlaxcala                           |
| TM | Mexico-Tamaulipas                         |
| TN | US-Tennessee                              |
| TX | US-Texas                                  |
| UT | US-Utah                                   |
| VA | US-Virginia                               |
| VI | US-Virgin Islands                         |
| VL | Mexico-Veracruz-Llave                     |
| VT | US-Vermont                                |
| WA | US-Washington                             |
| WI | US-Wisconsin                              |
| WV | US-West Virginia                          |
| WY | US-Wyoming                                |
| XX | Exception (Intl. TOFC/COFC or No License) |
| YC | Mexico-Yucatan                            |
| YK | Canada-Yukon                              |
| YT | Canada-Yukon                              |
| ZT | Mexico-Zacatecas                          |

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

**Date of Original Conflict****B063**

The date the equipment was originally placed in the current conflict

System Generated Field. This element is not eligible for Input.

**Next Conflict Status****B135**

Identifies the next escalation level of an equipment in active conflict

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B135**

- 1 Subject to Zero-Rating
- 2 Subject to Restricted in Interchange
- 3 Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

**Notice Indicator****B137**

Identifies equipment in error in Umler Notice Management

System Generated Field. This element is not eligible for Input.

**Conflict Status Next Date****B062**

The date the conflict status will be escalated

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Rate Indicator****A070**

Indicates the rate type applicable to the unit

System Generated Field. Used for Transportation Codes. Affects Rating. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for A070**

- 0 Zero-Rated Due to Conflict Errors
- 1 Units subject to special lease arrangement
- 6 Zero-Rated - Scrap (S\_SX), AAR Overage (XA), FRA Overage (YA), Umler Conflict - CHR 1/Tariff 6007 (XZ). Zero-Rated Private Owner Election to Zero Rate [See Private Zero Rate (B150)].

**NOTES:**

- If unit is zero-rated, correction of conflicts will reinstate the appropriate rate indicator code.

**First Movement Date****USAT**

The first movement date under the stenciled mark of the equipment

This element is not eligible for Input. Does not Carry Forward.

**Equipment Add Company****B083**

The reporting mark of the company that added the equipment

System Generated Field. This element is not eligible for Input.

**Registration Reason****B174**

The code indicating the reason this equipment is added

Does not Carry Forward.

**Permissible Values for B174**

- |   |                   |   |           |
|---|-------------------|---|-----------|
| A | Add-Back          | N | New       |
| P | Pending Restencil | R | Restencil |

**Equipment Identification****EINN**

Unique equipment identifier regardless of stenciled mark

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Specify the Prior ID (PRID) on equipment records to ensure the historical lineage is preserved. Equipment with the same EIN share history and inspections.

**Conflict Status****B050**

Identifies the escalation level of equipment in active conflict

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B050**

- 1 Subject to Zero-Rating
- 2 Subject to Restricted in Interchange
- 3 Subject to Deletion

## Data Specification Manual

|                                                       |             |
|-------------------------------------------------------|-------------|
| <b>Restencil Program Ind</b>                          | <b>B177</b> |
| Identifies the equipment is under a restencil program |             |

**Permissible Values for B177**

Y Yes

|                                                                  |             |
|------------------------------------------------------------------|-------------|
| <b>Delete Reason Code</b>                                        | <b>B064</b> |
| A code that designates the reason the equipment has been deleted |             |

Value does not carry forward for Add Back.

**Permissible Values for B064**

A Restenciled  
 D Destroyed or wrecked  
 L Lease terminated, removed from fleet  
 P Retired unserviceable beyond economic repair  
 R Rebuilt  
 S Sold Serviceable  
 T Lost  
 W Over age retired for dismantling  
 Y Error, reporting did not exist  
 Z Other

**Weight**

|                                                                                          |             |
|------------------------------------------------------------------------------------------|-------------|
| <b>Gross Rail Load/Weight</b>                                                            | <b>A266</b> |
| The maximum permissible weight on rail of the equipment and the load, reported in pounds |             |

**Range of Values for A266**

| Minimum | Maximum |
|---------|---------|
| 4900    | 94000   |

**Validation Rule for A266**

- Container Gross Weight must not exceed 92,500 lbs. for Tank Containers (Equipment Descriptor of UTK)
- Gross Rail Load must be equal to the Load Limit (LDLT) plus the Tare Weight (A259)

**NOTES:**

- Gross Rail Load must be equal to the Load Limit (LDLT) plus the Tare Weight (A259)
- For connected unit cars report the total gross rail load of the entire set

Use Table 1 below to determine Gross Rail Load, if Qualification for Increased Gross Rail Load (B344) does not exist.

TABLE 1 -

| Journal Size     | Load per Axle | Gross Rail Load for 4-axle Equipment |
|------------------|---------------|--------------------------------------|
| B - 4 1/2" x 8"  | 25,750 lbs.   | 103,000 lbs.                         |
| C - 5" x 9"      | 35,500 lbs.   | 142,000 lbs.                         |
| D - 5 1/2" x 10" | 44,250 lbs.   | 177,000 lbs.                         |
| E - 6" x 11"     | 55,000 lbs.   | 220,000 lbs.                         |
| F - 6 1/2" x 12" | 65,750 lbs.   | 263,000 lbs.                         |
| G - 7" x 12"     | 78,750 lbs.   | 315,000 lbs.                         |
| K - 6 1/2" x 9"  | 71,500 lbs.   | 263,000 lbs.                         |
| M - 7" x 9"      | 78,750 lbs.   | 315,000 lbs.                         |

Use Table 2 below to determine Gross Rail Load for 4-axle equipment if Qualification for Increased Gross Rail Load (B344) exists.

TABLE 2 -

| Qualification for Increased Gross Rail Load (B344) | Journal Size     | Gross Rail Load |
|----------------------------------------------------|------------------|-----------------|
| 1                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 1                                                  | G - 7" x 12"     | 286,000 lbs.    |
| 1                                                  | M - 7" x 9"      | 286,000 lbs.    |
| 2                                                  | F - 6 1/2" x 12" | 286,000 lbs.    |
| 2                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 3                                                  | F - 6 1/2" x 12" | 268,000 lbs.    |

3

K - 6 1/2" x 9"

268,000 lbs.

A Gross Rail Load less than the listed or calculated values may be entered; however:

- Star Code (A247) must be R or S, and
- Load Limit (LDLT) must also be reduced, ensuring Tare Weight (A259) plus Load Limit (LDLT) equals the reported Gross Rail Load.

For equipment having two or more different journal sizes, see following examples:

Example for Drawbar Connected:

A 5-unit drawbar connected car has 20 axles.

The end units (Locations A and B) each have 4 axles with E - 6" x 11" journals.

The intermediate units (Locations C, D, and E) each have 4 axles with F - 6 1/2" x 12" journals.

- Using TABLE 1, the Gross Rail Load would be:
  - 8 ea. E-6" x 11" journal axles X 55,000 lbs. per axle = 440,000 lbs.
  - +12 ea. F-6 1/2" x 12" journal axles X 65,750 lbs. per axle = 789,000 lbs.
- Gross Rail Load = 1,229,000 lbs.

- Example for IFLT & VFLT:
- A 5-unit articulated intermodal car has 6 trucks (12 axles).
- The end trucks (Locations A and B) each have 2 axles with E - 6" x 11" journals.

The intermediate trucks (Locations C, D, E, and F) each have 2 axles with G - 7" x 12" journals.

Using TABLE 1, the Gross Rail Load would be:

$$\begin{aligned}
 &4 \text{ ea. E-6" x 11" journal axles X } 55,000 \text{ lbs. per axle} = 220,000 \text{ lbs.} \\
 &+ 8 \text{ ea. G-7" x 12" journal axles X } 78,750 \text{ lbs. per axle} = 630,000 \text{ lbs.} \\
 &\text{Gross Rail Load} = 850,000 \text{ lbs.}
 \end{aligned}$$

|                                                                                                    |             |
|----------------------------------------------------------------------------------------------------|-------------|
| <b>Tare Weight</b>                                                                                 | <b>A259</b> |
| The equipment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds |             |

**Range of Values for A259**

| Minimum | Maximum |
|---------|---------|
| 600     | 31000   |

**Validation Rule for A259**

- Container Tare Weight must not exceed 19,000 lbs. for Containers other than Tanks (Equipment Descriptor other than UTK)
- Container Tare Weight cannot be greater than 19000 lbs. for all Containers other than Tanks (Equipment Descriptor - not UTK)
- Container Tare Weight cannot be less than 1,000 lbs. for Tank Containers (Equipment Descriptor of UTK)
- Container Tare Weight cannot be greater than 31000 lbs. for Tank Containers (Equipment Descriptor - UTK)
- Container Gross Weight cannot be greater than 92500 lbs. for Tank Containers (Equipment Descriptor - UTK)
- Container Refrigeration Unit Fuel Capacity cannot be greater than 1500 gallons for Mechanical Refrigerator Containers (Equipment Descriptor UBR)
- Container Gallonage Capacity is only applicable to Tanks
- Container Gallonage Capacity is only applicable to Tanks

**NOTES:**

- Do not report an average Tare Weight for car series, except for Pre-Registered cars
- When cars are made active, the actual Tare Weight must be recorded

## Data Specification Manual

| Load Limit                                                                                                | DLT |
|-----------------------------------------------------------------------------------------------------------|-----|
| The maximum permissible weight of the commodity that can be loaded into the equipment, reported in pounds |     |

## Range of Values for DLT

| Minimum | Maximum |
|---------|---------|
| 0       | 70000   |

| Cubic Feet Capacity                                       | A067 |
|-----------------------------------------------------------|------|
| The maximum interior cubic feet capacity of the equipment |      |

## Range of Values for A067

| Minimum | Maximum |
|---------|---------|
| 200     | 4500    |

## Validation Rule for A067

-Container Cubic Feet Capacity is not applicable to Tanks and Flats (Equipment Descriptor UFB or UTK)

| Gallage Capacity                              | A297 |
|-----------------------------------------------|------|
| The number of gallons the equipment will hold |      |

## Range of Values for A297

| Minimum | Maximum |
|---------|---------|
| 1500    | 9000    |

## Dimension

| Outside Length <i>Mandatory</i>                                      | OSLG |
|----------------------------------------------------------------------|------|
| The outside length over pulling faces of couplers in normal position |      |

Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

## Range of Values for OSLG

| Minimum        | Maximum        |
|----------------|----------------|
| 5 ft 11 inches | 57 ft 0 inches |

## NOTES:

- For connected unit cars report the maximum coupled length of the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

| Outside Extreme Width <i>Mandatory</i>     | A186 |
|--------------------------------------------|------|
| The outside extreme width of the equipment |      |

Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

## Range of Values for A186

| Minimum       | Maximum       |
|---------------|---------------|
| 4 ft 6 inches | 8 ft 7 inches |

## NOTES:

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

| Outside Extreme Height <i>Mandatory</i>              | A185 |
|------------------------------------------------------|------|
| Height from top of rail to extreme projecting height |      |

Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

## Range of Values for A185

| Minimum       | Maximum        |
|---------------|----------------|
| 1 ft 0 inches | 13 ft 6 inches |

## Validation Rule for A185

- Container Outside Extreme Height for Tank Containers (Equipment Descriptor of UTK) must be greater than or equal 4 feet
- Container Outside Extreme Height for Tank Containers (Equipment Descriptor of UTK) must be less than or equal 8 feet 6 inches

## NOTES:

- For connected unit cars report the dimension of the largest unit in the set.

- Round fraction to the higher inch, e.g., 05 1/4" = 06"

| Outside Height Extr Width <i>Mandatory</i>                           | A187 |
|----------------------------------------------------------------------|------|
| The highest point at which the extreme width of the equipment occurs |      |

Displayed in feet and inches on the Web. Stored in inches.

## Range of Values for A187

| Minimum       | Maximum        |
|---------------|----------------|
| 0 ft 8 inches | 13 ft 6 inches |

## Validation Rule for A187

-Outside Height Extreme Width must be less than or equal to Outside Extreme Height

## NOTES:

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

| Inside Length                                                                                     | A135 |
|---------------------------------------------------------------------------------------------------|------|
| The inside length of the equipment from end to end inside walls, linings, and permanent bulkheads |      |

Displayed in feet and inches on the Web. Stored in inches.

## Range of Values for A135

| Minimum       | Maximum        |
|---------------|----------------|
| 5 ft 0 inches | 53 ft 0 inches |

## Validation Rule for A135

- Inside Length must not be greater than Outside Length
- Inside Length/Inside Platform Length must be less than or equal to Outside Length (OSLG)
- Is not applicable to Inside Length/Inside Platform Length for Trailer/Container - Bulk Hopper, Tank or Flat (Mechanical Designation of UH, or UTK)

## NOTES:

- Round fraction to the lower inch, e.g., 05 1/4" = 05"
- For connected unit cars report the shortest dimension of a unit in the set.

| Inside Width                                                  | A138 |
|---------------------------------------------------------------|------|
| The inside width of the equipment from side walls and linings |      |

Displayed in feet and inches on the Web. Stored in inches.

## Range of Values for A138

| Minimum       | Maximum       |
|---------------|---------------|
| 4 ft 0 inches | 8 ft 4 inches |

## Validation Rule for A138

- Inside Width/Inside Platform Width must not exceed Outside Extreme Width
- Inside Width/Inside Platform Width must not exceed Outside Extreme Width
- Inside Width/Inside Platform Width is not applicable to Trailer/Container - Tank or Flat (Mechanical Designation of UTK)

## NOTES:

- For connected unit cars report the shortest dimension of a unit in the set.

| Inside Height                                                                                                            | A133 |
|--------------------------------------------------------------------------------------------------------------------------|------|
| The inside height of the equipment from the floor to the top of the side, or to the lowest point of the interior ceiling |      |

Displayed in feet and inches on the Web. Stored in inches.

## Range of Values for A133

| Minimum       | Maximum        |
|---------------|----------------|
| 1 ft 0 inches | 12 ft 6 inches |

## Validation Rule for A133

- Container Inside Height is only applicable to Containers with Equipment Descriptor other than UFB, UTK, UOT, or UH
- Inside Height must not exceed Outside Extreme Height (A185)

## NOTES:

- For connected unit cars report the shortest dimension of a unit in the set.

| Deck Height Above Ground | B149 |
|--------------------------|------|
|--------------------------|------|

## Data Specification Manual

**Inside Height/Deck Hgt.**

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for B149**

| Minimum       | Maximum        |
|---------------|----------------|
| 1 ft 0 inches | 12 ft 6 inches |

**Validation Rule for B149**

-Container Platform Deck Height is only applicable to Flat Rack/Flat Bed Containers (Equipment Descriptor of UFB)

**CONT Gooseneck Width****B051**

For CONT only. The measurement of the width of the container gooseneck tunnel where the gooseneck from the Chassis is inserted. This centers the container to the gooseneck chassis for a more secured transport.-New

Displayed in feet and inches on the Web. Stored in inches.

**Door****End Door Type****A081**

End Door Type

**Permissible Values for A081**

- 1 Hinged    2 Overhead/Rollup
- 3 Other

**Validation Rule for A081**

-Container End Door Type is not applicable to Bulk Hoppers, Tanks, and Flats (Equipment Descriptor UH, UFB, or UTK)

**End Door Width****A082**

The width of the end door opening in inches

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A082**

| Minimum       | Maximum       |
|---------------|---------------|
| 3 ft 0 inches | 8 ft 4 inches |

**Validation Rule for A082**

- End Door Width must not be reported if Trailer/Container End Door Type is not reported
- End Door Width requires End Door Type of Trailer/Container with other than 0
- End Door Width is not applicable to Trailer/Container - Bulk Hopper, Tank or Flat (Mechanical Designation of UH, UFB, UTK, ZBH, ZTK, or ZFB)

**NOTES:**

- Round fraction to the lower inch, e.g., 05 1/4" = 05"
- For connected unit cars report the dimension of the smallest end door width of a unit in the set.

**End Door Height****A080**

The height of the end door opening in inches

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A080**

| Minimum       | Maximum        |
|---------------|----------------|
| 5 ft 0 inches | 12 ft 6 inches |

**Validation Rule for A080**

- End Door Height must not be reported if End Door Width is not reported
- End Door Height must be reported if End Door Width is reported
- End Door Height must not be reported if Trailer/Container End Door Type is not reported
- End Door Height must be reported if End Door Type of Trailer/Container is reported
- End Door Height is not applicable to a Trailer/Container - Bulk Hopper, Tank or Flat (Mechanical Designation of UH, UFB, UTK, ZBH, ZTK, or ZFB)

**NOTES:**

- Round fraction to the lower inch, e.g., 05 1/4" = 05"
- For connected unit cars report the dimension of the smallest end door height of a unit in the set.

**Specification****Corner Casting****A053**

Container Corner Casting

**Permissible Values for A053**

- ISO ISO Type Only, Oval Opening 1 1/8 inch bottom wall
- MAT Matson Only
- OTH Other designs of corner castings
- SEA Sea Land Only
- USA Includes ASA and ANSI Oval Opening 9/16 inch bottom wall

**Stackability Count****B055**

For CONT only. The maximum number of containers that can be stacked on this container. 0-Not Stackable; 1-8 Stackable-New

**Range of Values for B055**

| Minimum | Maximum |
|---------|---------|
| 0       | 8       |

**TRLR/CONT Body Material****A031**

Body Type TRLR/CONT

**Permissible Values for A031**

- 01 Aluminum
- 04 Combination
- 18 Stainless Steel
- 19 Standard Steel
- 30 Wood
- 37 PultrusionComposite
- 38 Fiberglass or Fiberglass Reinforced Material
- 39 Miscellaneous Material

**Validation Rule for A031**

- No Body Material (Body/Shell Type) for Flat type Trailer/Containers
- Body Material (Body/Shell Type) can only be reported as C-Pultrusion Composite for Equipment Designators of ZVE, ZV, or UB

**Frame Type-Center Loading****A109**

Frame Type-Center Loading

**Permissible Values for A109**

- Y Yes

**Validation Rule for A109**

-Container Frame Type with Center Loading is only applicable to Tank Containers (Equipment Descriptor of UTK)

**Wide Top Picker Frame****B248**

Container is equipped with wide top picker frame

**Permissible Values for B248**

- Y Yes

**Electrical Voltage System****A079**

Electrical Voltage System

**Permissible Values for A079**

- 00 Unused or restricted
- 06 06 Volts
- 11 110 Volts
- 12 12 Volts
- 22 220 Volts
- 24 24 Volts
- 33 330 Volts
- 44 440 Volts

**Validation Rule for A079**

-Trailer/Container Electrical Voltage System is only applicable to Equipment Descriptor of UBR, UBI, UBE, ZVR, ZVI, or ZVE

**Forward Extension****A106**

Forward Extension

Value does not carry forward for Single Clone.

**Range of Values for A106**

| Minimum | Maximum |
|---------|---------|
|---------|---------|

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18 | 60

**Validation Rule for A106**

-Forward Extension is required for nose mounted refrigeration with Refrigeration Unit Location of Code N

**Remote Monitoring Device** **B176**

Indicates the equipment has a device that transmits a signal or records data

**Permissible Values for B176**

Y Yes

**NOTES:**

- Per AAR S-2045, This may be data related to ride quality, geographic location, temperature/condition of the load, load/empty status, etc.

**AEI High Temperature Tag** **B006**

Indicates the equipment is equipped with a high temperature AEI tag

**Permissible Values for B006**

Y High Temperature Tag

**Equipment Builder** **A035**

Identifies the original manufacturer of the equipment

**Permissible Values for A035**

|      |                              |
|------|------------------------------|
| ACCI | Accurate Industries          |
| CHIN | Chinese builders (various)   |
| CIPM | Chart Industries, Inc.       |
| HYUN | Hyundai                      |
| INOX | INOXCVA                      |
| JNS  | JINDO SEOUL                  |
| NACA | National Alabama Corporation |
| SING | Singamas                     |
| SU   | STOUGHTON                    |
| UNKN | Unknown                      |

**Validation Rule for A035**

- Equipment built or rebuilt on or after July 1, 2010 cannot have a Equipment Builder of Unknown
- Equipment with a Built Date (BLDT) on or after July 1, 2010 cannot have an Equipment Builder Code of OWNER RAILROAD.
- Equipment Builder can have a value of MULT only if the equipment has multiple units.

**Builder Lot Code** **B030**

A unique identifier for a group of equipment built by one manufacturer under the same contract

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B030**

- Equipment built or rebuilt on or after June 28, 2012 must have a value for Builder Lot Code

**NOTES:**

- If the value is unknown, enter six zeroes (000000).

**Built Country** **B031**

The country where the equipment was constructed

Data is Confidential.

**Permissible Values for B031**

|    |                |    |               |
|----|----------------|----|---------------|
| CA | Canada         | CN | China         |
| CZ | Czech Republic | IN | India         |
| KR | South Korea    | MX | Mexico        |
| SG | Singapore      | US | United States |

**Rebuilt Country** **B170**

The country where the equipment was re-constructed

**Permissible Values for B170**

|    |             |    |        |
|----|-------------|----|--------|
| CA | Canada      | CN | China  |
| KR | South Korea | MX | Mexico |

SG Singapore US United States

**Refrig Emission Code****B345**

California State Emission standards for refrigeration units

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B345**

|   |                 |   |           |
|---|-----------------|---|-----------|
| N | Not Qualified   | Q | Qualified |
| U | Ultra-Qualified |   |           |

**Feature****Floor Material****A104**

Describes the type of construction material used for the equipment floor

**Permissible Values for A104**

|    |                                                                                  |
|----|----------------------------------------------------------------------------------|
| 01 | Aluminum                                                                         |
| 02 | Aluminum (Ribbed)                                                                |
| 05 | Composite Nailable (considered same as wood)                                     |
| 06 | Composite Nailable, Reinforced (considered same as wood)                         |
| 14 | Other                                                                            |
| 19 | Standard Steel                                                                   |
| 23 | Steel Nailable (includes alternate wood and steel floor)                         |
| 24 | Steel Nailable, Reinforced (includes alternate wood and steel floor)             |
| 25 | Standard Steel, Reinforced                                                       |
| 30 | Wood                                                                             |
| 32 | Wood, Double                                                                     |
| 33 | Wood, Double, Reinforced                                                         |
| 34 | Wood Floor with Steel Protective Plates (includes perforated steel)              |
| 35 | Wood Floor, Reinforced, with Steel Protective Plates (includes perforated steel) |
| 36 | Wood Floor, Reinforced                                                           |

**Validation Rule for A104**

- Floor Material is not applicable to Bulk Hopper type Containers (Equipment Descriptor of UH)

**Floor Anchor Builder****B335**

Floor Anchor Builder

**Permissible Values for B335**

|      |                             |
|------|-----------------------------|
| ABB  | Asea Brown Bavar            |
| ACC  | American Crane Company      |
| ACCI | Accurate Industries         |
| ACF  | American Car & Foundry      |
| ACFX | ACF Industries              |
| ALCC | Alloy Crafts Company        |
| ALCO | American Locomotive Company |
| ALGE | Alco-GE                     |
| ALST | Alstom                      |
| ALTN | Altoona                     |
| ALWO | Alco-Worthington            |
| ARI  | ARI Industries              |
| BERW | Berwick Forge               |
| BETH | Bethlehem Car Works         |
| BL   | Boise Locomotive            |
| BLH  | Baldwin Lima Hamilton       |
| BLW  | Baldwin Locomotive Works    |
| BOMB | Bombardier                  |
| BRIL | Brill                       |
| BRKS | Brooks Locomotive Works     |
| BS   | Barney & Smith              |
| BSP  | Bethlehem Steel Corporation |
| BUDD | Ed G Budd Company           |
| BURR | Burro Crane Works           |
| CAN  | Canadian Car                |
| CFF  | Canadian Car & Foundry      |
| CHIN | Chinese builders (various)  |

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|      |                                          |
|------|------------------------------------------|
| CLC  | Canadian Locomotive Company              |
| CLW  | Climax Locomotive Works                  |
| CN   | Canadian National                        |
| CNCF | Carros De Ferrocarril, SA                |
| CNR  | Canadian National Railway                |
| CONC | Concarrill                               |
| CPR  | Canadian Pacific                         |
| CRMX | Colorado Railcar Manufacturing           |
| CSXR | CSX Remanufacture                        |
| DARB | Darby                                    |
| DAV  | Davenport Locomotive Company             |
| DETR | Detroit Car Works                        |
| DIFC | Difco                                    |
| DSL  | Davies Ship Building                     |
| EASX | East Rail Car Division                   |
| EMAB | ElectroMotive Diesel - Asea Brown Bavari |
| EMC  | ElectroMotive Corporation                |
| EMD  | ElectroMotive Diesel                     |
| EVAN | Evans Products                           |
| FCA  | Freight Car America                      |
| FGRW | FRTGRW                                   |
| FM   | Fairbanks Morse                          |
| FMC  | FMC Corporation                          |
| FRCE | Freight Car Engineering                  |
| FREU | Freuhauf Corporation                     |
| GATX | General American Transportation Corp     |
| GE   | General Electric                         |
| GEC  | GEC Alsthom                              |
| GENS | General Steel                            |
| GLOB | Global Lot                               |
| GMB  | Greenbrier                               |
| GMDD | General Motors Diesel Division           |
| GREX | Georgetown Rail Equipment Company        |
| GROV | Grove                                    |
| GSC  | Greenville Steel Car                     |
| GSWI | Gunderson Southwest Inc                  |
| GULF | Gulf Railcar                             |
| GUN4 | Gunderson - Trenton Works                |
| GUND | Gunderson Inc                            |
| GUNM | Gunderson - Mexico                       |
| HAMB | Hamburg Fab Shop                         |
| HARS | Harsco                                   |
| HB   | Haskell & Baker                          |
| HEIS | Heisler Locomotive Works                 |
| HIIX | Hamburg                                  |
| HPA  | HPA Monon Corporation                    |
| HST  | Hawker Siddeley                          |
| HYUN | Hyundai                                  |
| IBH  | Industrial Brown Hoist                   |
| ICC  | International Car Company                |
| ICG  | Interglobal Capital                      |
| IR   | Ingersoll Rand                           |
| JAC  | Johnstown America Corporation            |
| JACK | Jackson Equipment Company                |
| JLW  | Juniata Locomotive Works                 |
| JORD | Jordan Machine Works                     |
| JS   | Jackson & Sharp                          |
| KASG | Kasgro Railcar                           |
| KM   | Krauss Maffei                            |
| KRCA | Kawasaki Railcar America                 |
| LAVE | Lavelin                                  |
| LH   | Lima-Hamilton                            |
| LIMA | Lima Locomotive Works                    |
| LOX  | Lox Equipment Company                    |
| MAGR | Magor Car Manufacturing                  |
| MCDW | McDowell Wellman                         |
| MILW | CMSTP & P Railroad                       |
| MK   | Morrison-Knudson                         |

|      |                                                  |
|------|--------------------------------------------------|
| MLW  | Montreal Locomotive Works                        |
| MRC  | Millennium Railcar, Dome Division                |
| MRNE | Marine Industries                                |
| NACC | North American Car                               |
| NIPP | Nippon-Sharyo                                    |
| NRE  | National Railway Equipment                       |
| NSC  | National Steel Car                               |
| OB   | Osgood Bradley Car Company                       |
| ORTN | Ortner                                           |
| PCF  | Pacific Car & Foundry                            |
| PCM  | Pullman Car & Manufacturing                      |
| PLAS | Plasser America                                  |
| PLC  | Paducah Locomotive Company                       |
| PORT | Porter Locomotive Company                        |
| PORW | Thrall-Winder                                    |
| PRAT | Pratt Enterprises                                |
| PRO  | Procor Limited                                   |
| PS   | Pullman-Standard                                 |
| PSCC | Pressed Steel Car Company                        |
| PSP  | Pullman-Standard, Division of Trinity Industries |
| PT   | Plasser & Theurer                                |
| RCC  | Raceland Car Corporation                         |
| REBD | Reilly Beard                                     |
| RELC | Relco                                            |
| RICH | Richmond Locomotive Works                        |
| ROAN | Roanoke Shops                                    |
| ROTA | Rota Car Company                                 |
| RP   | RailPower                                        |
| RTCX | Richmond Tank Car                                |
| RUSS | Russian builders (various)                       |
| SCM  | Standard Car Manufacturing                       |
| SIEM | Siemens                                          |
| SLC  | Saint Louis Car Company                          |
| SRSC | Springfield Railcar                              |
| SSCC | Standard Steel Car Company                       |
| TA   | Transit America                                  |
| TERX | Terex Corporation                                |
| THR  | Thrall Car Service Parts                         |
| THR4 | Thrall - Cartersville                            |
| THRL | Thrall                                           |
| TLGA | Talgo America                                    |
| TRAN | Tranzrail                                        |
| TRIN | Trinity                                          |
| TRIS | Trinity - Springfield MO                         |
| TRIX | Trinity Mexico                                   |
| UNAM | United America                                   |
| UTLX | Union Tank Car                                   |
| VENT | Ventrns                                          |
| VULC | Vulcan Locomotive Works                          |
| WABN | Wabash National                                  |
| WAG  | Wagner Car Company                               |

|                    |      |
|--------------------|------|
| Floor Anchor Count | B336 |
|--------------------|------|

|                    |
|--------------------|
| Floor Anchor Count |
|--------------------|

|                          |      |
|--------------------------|------|
| Floor Anchor Loc Spacing | B337 |
|--------------------------|------|

|                               |
|-------------------------------|
| Floor Anchor Location Spacing |
|-------------------------------|

|                   |      |
|-------------------|------|
| Floor Load Rating | B338 |
|-------------------|------|

|                   |
|-------------------|
| Floor Load Rating |
|-------------------|

|                |      |
|----------------|------|
| Floor Load PSI | B339 |
|----------------|------|

|                |
|----------------|
| Floor Load PSI |
|----------------|

|                      |      |
|----------------------|------|
| Floor Drain Equipped | B095 |
|----------------------|------|



## Data Specification Manual

Indicates the equipment floor has a drain

**Permissible Values for B095**

Y Yes

**Lining Material****A158**

Describes the type of construction material used in the lining of equipment

**Permissible Values for A158**

03 Cement  
 07 Composite Wood and Steel  
 08 Fiberglass  
 10 Glass  
 11 Kanigen  
 12 Metal Clad  
 13 Metal Spray  
 16 Rubber  
 17 Sheet Metal  
 26 Synthetic  
 28 Unlined  
 29 Vinyl  
 30 Wood

**Validation Rule for A158**

-Lining Material is not applicable to Flat type Containers (Equipment Descriptor of UFB)

**Bulkhead Type****B034**

Identifies the type of bulkhead attached to the equipment

**Permissible Values for B034**

F Fixed I Inflatable M Moveable

**Belt Rail Equipped****B024**

Indicates the equipment is belt rail equipped

**Permissible Values for B024**

Y Yes

**Vent Openings****B222**

Indicates the equipment has vent openings

**Permissible Values for B222**

Y Yes

**Controlled Atmosphere Typ****A056**

Type Of Controlled Atmosphere

**Permissible Values for A056**

N Nitrogen Blanket O Oxytrol  
 T Tectrol U Other Type System

**Validation Rule for A056**

-Container Controlled Atmosphere Type is only applicable to Mechanical Refrigerator Containers (Equipment Descriptor of UBR)  
 -Controlled Atmosphere Type is only applicable to Refrigerator type Trailer/Containers

**Refrigeration Fuel Type****A207**

Type of fuel used in the refrigeration unit

**Permissible Values for A207**

B Butane D Diesel G Gasoline  
 M Other type N Nitrogen P Propane

**Validation Rule for A207**

-Refrigeration Fuel Type required when Refrigeration System Builder is supplied

**Refrigeration Level****B172**

Describes the level of refrigeration to be used within the equipment

**Permissible Values for B172**

F Zero Only (Frozen)  
 N Non-Frozen

W Wide Range (Frozen to Non-Frozen)

**Refrigeration Unit Loc****A221**

Refrigeration Unit Location

**Permissible Values for A221**

N Nose or Front Mounting  
 P Pod Mounting  
 S Side Mounting  
 U Under of Belly Mounting

**Validation Rule for A221**

-Container Refrigeration Unit Location with I (Interior Mounting) is only applicable to Mechanical Refrigerator Containers (Equipment Descriptor of UBR)  
 -Refrigeration Unit Location required when Refrigeration System Builder is supplied

**Refrigerator Fuel Cap****A222**

Refrigerator Fuel Capacity

**Range of Values for A222**

| Minimum | Maximum |
|---------|---------|
| 10      | 1500    |

**Validation Rule for A222**

-Container Refrigeration Unit Fuel Capacity must not exceed 250 gallons for Containers except Mechanical Refrigerator Containers (Equipment Descriptor other than UBR)

**Refrigerator System Bldr****A223**

Refrigerator System Manufacturer

**Permissible Values for A223**

C Carrier-Transcold  
 F Trane-Artic Traveler  
 M Other  
 P Polarstream  
 T Thermo-King  
 W Worthington-York

**Cost****Original Cost****A184**

The original manufacturer selling price

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A184**

| Minimum | Maximum |
|---------|---------|
| 0       | 999999  |

**Validation Rule for A184**

-Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.  
 -Original Cost must be equal to the Ledger Value if Additions & Betterments Indicator is not reported.  
 -Railroad marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost  
 -Private marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost if Built Date (BLDT) is on or after January 1, 2015

**NOTES:**

- Original Cost is never altered. It is the cost of the equipment to the original owner.
- For railroad-marked cars, report in US dollars the original ledger value of the original owner For cars rebuilt, report the cost prescribed in MR Interchange Rule 88 and Circular Letter OT-24
- The original cost is used in the settlement of AAR Interchange Rule 107 Office Manual.
- For connected unit cars report the total original cost for all units in the set.
- Numeric, applicable to all railroad-marked cars Also, applicable to privately marked covered hopper (LO) cars.

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- Raise all cents to the next dollar, e.g. \$5,501.02 = 0005502

| Ledger Value                                         | A150 |
|------------------------------------------------------|------|
| The sum of original cost and additions & betterments |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A150**

| Minimum | Maximum |
|---------|---------|
| 0       | 999999  |

**Validation Rule for A150**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Ledger Value must equal the Original Cost (A184) plus the additions & betterments, if Total A&B (A003) has been reported. Otherwise Ledger Value should equal Original Cost (A184).

| Total A&B                                                                        | A003 |
|----------------------------------------------------------------------------------|------|
| System generated sum of all reported amounts in A&B Amount (A317), in US dollars |      |

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A003**

| Minimum | Maximum  |
|---------|----------|
| 0       | 99999999 |

**NOTES:**

- For railroad-marked cars, report the sum of all additions and betterments applied to the car. This value is for record keeping purposes only and will not be used to report Ledger Value.
- For private Cars report the additions and betterments as qualified under AAR interchange Rule 107 for determination of settlement value.
  - o Additions are costs of all new components applied subsequent to the date the car was built or rebuilt and carried in the capital investment account.
  - o Betterments are costs of all improvements of components of existing equipment through the substitution of superior parts for inferior parts subsequent to the date the car was built or rebuilt.
- For connected unit cars report the total Truck Location A for all units in the set

| Ind for Pos/Neg Total A&B                                                                   | A128 |
|---------------------------------------------------------------------------------------------|------|
| A code indicating the positive or negative adjustment to the original cost of the equipment |      |

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A128**

N Negative P Positive

| A&B Pos/Neg Ind                                                                                 | A316 |
|-------------------------------------------------------------------------------------------------|------|
| A code indicating the positive or negative adjustment to the individual addition and betterment |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A316**

N Negative P Positive

**Validation Rule for A316**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- The A&B Indicator is required when Additions & Betterments are reported.
- The A&B Indicator must not be reported if Additions & Betterments are not reported.

| A&B Amount                                                                                                          | A317 |
|---------------------------------------------------------------------------------------------------------------------|------|
| The amount of the individual addition and betterment added to or subtracted from the original cost of the equipment |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A317**

| Minimum | Maximum |
|---------|---------|
| 1       | 999999  |

**Validation Rule for A317**

- When entering an individual addition & betterment; A&B Date Done (A319), A&B Type (A318), A&B Pos/Neg Ind (A316), and A&B Amount (A317) must be reported

| A&B Date Done                                      | A319 |
|----------------------------------------------------|------|
| The date of the individual addition and betterment |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A319**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for A319**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- Addition and Betterment Date Done cannot be earlier than Built Date (BLDT).
- Additions & Betterments Date Done cannot be later than today's date.

| A&B Type                                                              | A318 |
|-----------------------------------------------------------------------|------|
| The type of individual addition and betterment as defined by Rule 107 |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A318**

CONT Containers (metal, rubber, or combination metal/rubber)  
GNRL General - Capitalized Additions and Betterments  
INIT Initial load of historical A&B amount as of Umler 4.6 implementation date

**Validation Rule for A318**

- For each equipment, only one Individual A&B Type can have a value of INIT.
- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.

## Car Management

| Pool Number                                                                       | P001 |
|-----------------------------------------------------------------------------------|------|
| Unique number used to indicate the grouping of equipment for a particular purpose |      |

Used for Transportation Codes. This element is not eligible for Input. Value does not carry forward for Equipment Group Change / Add Back.

| User Routing Instructions                    | TCUR |
|----------------------------------------------|------|
| The routing instruction reported by the user |      |

Used for Transportation Codes.

**Permissible Values for TCUR**

2 Trailer Service Rule 2  
G Contaminated commodity service  
M Mark canceled  
O Owner requested return  
U Unassigned equipment

**NOTES:**

- For further explanation reference Appendix E.

| Umler Transportation Code                                                   | TCOD |
|-----------------------------------------------------------------------------|------|
| The type of assigned service, empty routing or restriction of the equipment |      |

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

| Transportation Cond Code | TCCD |
|--------------------------|------|
|--------------------------|------|



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**The AAR or FRA interchange restriction code**

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

**Mechanical Restriction****TCME**

User reported or system generated type of mechanical restriction

Used for Transportation Codes. Affects Rating.

**Permissible Values for TCME**

- S Scrap
- X AAR Interchange Restriction

**NOTES:**

- For further explanation reference Appendix D.1

**Mech Restriction Reason****TCMR**

The explanation of the Mechanical Restriction (TCME)

Used for Transportation Codes.

**Permissible Values for TCMR**

- X Restricted Due to Scrap or Early Warning
- Z Restricted Due to Umler Conflict (Not Valid for User Input)

**NOTES:**

- For further explanation reference Appendix D.2.
- The assignment of the Transportation Codes S\_, SX, XA, XZ and YA generate the Rate Indicator Code 6 to the CHARM file to zero (0) rate the car hire and mileage rate.

**Miscellaneous****Commercial Owner CIF****B049**

The Customer Identification File (CIF) number for a commercial owner at a specific location

**Commercial Lessee CIF****B048**

The Customer Identification File (CIF) number for a commercial lessee at a specific location

**Umler Effective Date****EFDT**

The date the rating activity (pre-registration, modification, etc.) is expected to occur

This element is not eligible for Query. Does not Carry Forward.

**Validation Rule for EFDT**

-Effective Date cannot be set to more than 13 months in the future.

**NOTES:**

- Effective Date will default to the 1st of the following month that equipment is registered

**Inspection****Inspection Date Done****DTDN**

The date the inspection was completed; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Validation Rule for DTDN**

-The inspection date must not be 60 days before the Build Date

**Inspection Due Date****INDD**

The due date of the next inspection; used for all inspection types reported on equipment

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Inspection Performer****PERF**

The SCAC that completed the inspection; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Inspection Reporter****REPT**

The SCAC that reported the inspection; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Location/SPLC****SPLC**

The SPLC of the inspecting location; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

## Data Specification Manual

## Trailers

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## Data Specification Manual

## General

**Status Code** *Mandatory* USCDIdentifies the current operational state ●

Does not Carry Forward.

**Permissible Values for USCD**

A ACTIVE I INACTIVE  
P PRE-REGISTERED

**NOTES:**

- For Restencil and Clone process the initial Status of a car should be Pre-Registered.
- All Add-Back processes should initially set the Status to Pre-Registered
- A Pre-registered car will automatically have its Status changed to Active for the initial change when TRAIN detects three (3) movements on the car
- If the Status changes to Active due to movement and the car was created from a Restencil, the Prior Equipment ID (PRID) or source car will have its status changed to Inactive automatically by Umler

**Equipment ID** 0001

The equipment stenciled number

**Validation Rule for 0001**

-Equipment Number must not be larger than 6 digits (i.e., 999999)

**NOTES:**

- Equipment ID includes the mark and number stenciled on the equipment. Marks can be up to 4 characters and number up to 6 digits (i.e., ABCD999999).
- Up to 500 cars can be added or updated in a transaction.
- When adding an equipment record, ensure that Prior Equipment ID (PRID) is reported, unless the equipment is new.

**Mechanical Designation** *Mandatory* UMMDEquipment description without physical dimensions ●

Used for Transportation Codes.

**Permissible Values for UMMD**

Z Chassis/Trailer

**Equipment Descriptor** *Mandatory* B341Additional information about the type of equipment used in conjunction with the Mechanical Designation to generate the Equipment Type Code (ETC) for Intermodal Flat, Locomotive, Chassis, Container, and Trailer equipment groups ●

Value does not carry forward for Equipment Group Change.

**Permissible Values for B341**

ZFB Flat Bed Trailer  
ZOT Open Top Trailer  
ZRV Rail Compatible - Mark V  
ZV General Service Dry Van Trailer  
ZVE Special Equipped (Straight Floor Closed) Trailer  
ZVI Insulated Trailer  
ZVR Mechanical Refrigerator Trailer

**Validation Rule for B341**

-Equipment Designator does not agree with the TRLR allowable Mechanical Designations

**Equipment Type Code** UMET

An alpha numeric code that describes the physical attributes of equipment

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Please Refer to Appendix I for More information Regarding ETC Generation

**Built Date** *Mandatory* BLDTThe date the construction of the equipment is complete ●

Data is Confidential. Used for Transportation Codes. Value does not carry

forward for Single Clone / Multi-Clone.

**Range of Values for BLDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for BLDT**

- For Trailers, Containers and Chassis, the age of the equipment if not rebuilt cannot be in excess of 50 years from today
- Prior and target equipment's Built Date (BLDT) must match for restenciling

**NOTES:**

- Data is public for railroad marked equipment.
- For connected unit cars report the oldest car in the set.

**Rebuilt / ILS Date** RBDT

The date the re-construction of the equipment is complete

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for RBDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for RBDT**

- For Trailers, Containers and Chassis, the Built Date cannot be on or before 25 years before the Rebuilt Date
- For Trailers, Containers and Chassis, the Built Date cannot be on or after the Rebuilt Date

**NOTES:**

- Railroad cars -- applicable only to cars meeting status as provided in both STB Accounting Rules, and the AAR Mechanical Interchange Rule 88, Office Manual.
- Private cars -- applicable to all cars meeting AAR Mechanical Interchange Rule 88, Section C, Office Manual and Sections A and B of the Field Manual.
- For connected unit cars report the oldest car in the set. Do not report Rebuilt Date unless car has been approved by the AAR.

**Rebuilt Flag** RBFL

Identifies the equipment is nearing its end of life cycle

Data is Confidential. System Generated Field. This element is not eligible for Input.

**Permissible Values for RBFL**

N No Y Yes

**Owner** *Mandatory* UMOWPrimary reporting mark of the railroad or private company owning the car ●

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**NOTES:**

- Report the primary reporting mark of the railroad or private company owning the car. When car's lease or lien is held by a bank, trust holder, capital lease company, etc. not having an assigned mark, report the primary reporting mark affiliated with the stenciled reporting mark.

**Lessee** LESE

The reporting mark of the company leasing the equipment

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**Validation Rule for LESE**

-Umler Owner (UMOW) and Lessee are not allowed to be equal

**NOTES:**

- In order to assign privately marked cars to a pool, a railroad reporting mark must be reported.

**Equipment Group** *Mandatory* 0002Identifies the various major car types ● ●

Used for Transportation Codes. Affects Rating.

## Data Specification Manual

| Maintenance Party                                                                                     | MNPT |
|-------------------------------------------------------------------------------------------------------|------|
| The parent reporting mark of the company responsible for the maintenance and repairs of the equipment |      |
| Does not Carry Forward.                                                                               |      |

| Mark Owner Category                                 | B201 |
|-----------------------------------------------------|------|
| The company that owns the stenciled mark on the car |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**Permissible Values for B201**

|   |                            |
|---|----------------------------|
| B | US Private                 |
| C | Canadian Private           |
| F | Foreign Private            |
| H | Canadian Class II          |
| I | Canadian Class I           |
| J | Mexican Class I            |
| K | Canadian Class III         |
| M | Mexican Private            |
| N | US Private Steamship       |
| O | Canadian Private Steamship |
| P | Mexican Private Steamship  |
| Q | Foreign Private Steamship  |
| R | US Class II Railroad       |
| U | US Class I Railroad        |
| V | US Class III Railroad      |
| W | Mexican Class II Railroad  |
| Y | Mexican Class III Railroad |

**NOTES:**

- This value is stored in the Umler Database for informational purposes and is retrieved from the Roadmark Registry.

| Prior Equipment ID                                      | PRID |
|---------------------------------------------------------|------|
| The previous reporting mark and number of the equipment |      |

Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for PRID**

- Prior and target equipment's Built Date (BLDT) must match
- The Prior Equipment ID (0001) must belong to the same or comparable Equipment Group (0002) as the current car initial and number

**NOTES:**

- Prior ID enables equipment records to share the same historical lineage. Equipment Identification Number (EIN) is a generated id that enables these equipment records to share inspections and transaction history.

| Last Update Date                      | B122 |
|---------------------------------------|------|
| Date of the last Umler element change |      |

System Generated Field. This element is not eligible for Input.

| Equipment Add Date                                               | B082 |
|------------------------------------------------------------------|------|
| Date the reporting mark and number was added to the Umler system |      |

System Generated Field. This element is not eligible for Input.

| Status Change Reason                                    | USCR |
|---------------------------------------------------------|------|
| Identifies the reason for the current operational state |      |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for USCR**

|   |                         |
|---|-------------------------|
| I | Initial Load            |
| M | Movement                |
| O | Status Changed Manually |

R Restencil

**NOTES:**

- If movement is detected on equipment, status is changed to Active.
- If an equipment record is changed to Active, any prior equipment record is placed in Inactive status.

| Status Change Date                                             | USCT |
|----------------------------------------------------------------|------|
| Identifies the effective date of the current operational state |      |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

| Licensing State/Province   | A154 |
|----------------------------|------|
| Licensing State / Province |      |

**Permissible Values for A154**

|    |                             |
|----|-----------------------------|
| AB | Canada-Alberta              |
| AG | Mexico-Aguascalientes       |
| AK | US-Alaska                   |
| AL | US-Alabama                  |
| AR | US-Arkansas                 |
| AZ | US-Arizona                  |
| BC | Canada-British Columbia     |
| BJ | Mexico-Baja California      |
| BS | Mexico-Baja California Sur  |
| CA | US-California               |
| CH | Mexico-Chiapas              |
| CI | Mexico-Chihuahua            |
| CL | Mexico-Colima               |
| CO | US-Colorado                 |
| CP | Mexico-Campeche             |
| CT | US-Connecticut              |
| CU | Mexico-Coahuila De Zaragoza |
| DC | US-District of Columbia     |
| DE | US-Delaware                 |
| DF | Mexico-Districto Federal    |
| DG | Mexico-Durango              |
| EM | Mexico-Estado Mexico        |
| FL | US-Florida                  |
| GA | US-Georgia                  |
| GJ | Mexico-Guanajuato           |
| GR | Mexico-Guerrero             |
| HG | Mexico-Hidalgo              |
| HI | US-Hawaii                   |
| IA | US-Iowa                     |
| ID | US-Idaho                    |
| IL | US-Illinois                 |
| IN | US-Indiana                  |
| JA | Mexico-Jalisco              |
| KS | US-Kansas                   |
| KY | US-Kentucky                 |
| LA | US-Louisiana                |
| MA | US-Massachusetts            |
| MB | Canada-Manitoba             |
| MD | US-Maryland                 |
| ME | US-Maine                    |
| MH | US-Marshall Islands         |
| MI | US-Michigan                 |
| MN | US-Minnesota                |
| MO | US-Missouri                 |
| MR | Mexico-Morelos              |
| MS | US-Mississippi              |
| MT | US-Montana                  |
| MX | Mexico-Other                |
| NA | Mexico-Nayarit              |
| NB | Canada-New Brunswick        |
| NC | US-North Carolina           |

## Data Specification Manual

|    |                                           |
|----|-------------------------------------------|
| ND | US-North Dakota                           |
| NE | US-Nebraska                               |
| NF | Canada-Newfoundland                       |
| NH | US-New Hampshire                          |
| NJ | US-New Jersey                             |
| NL | Mexico-Nuevo Leon                         |
| NM | US-New Mexico                             |
| NS | Canada-Nova Scotia                        |
| NT | Canada-Northwest Territories              |
| NU | Canada-Nunavut                            |
| NV | US-Nevada                                 |
| NW | Northwest Territory                       |
| NY | US-New York                               |
| OA | Mexico-Oaxaca                             |
| OH | US-Ohio                                   |
| OK | US-Oklahoma                               |
| ON | Canada-Ontario                            |
| OR | US-Oregon                                 |
| PA | US-Pennsylvania                           |
| PE | Canada-Prince Edward Island               |
| PQ | Canada-Quebec                             |
| PR | US-Puerto Rico                            |
| PU | Mexico-Puebla                             |
| QA | Mexico-Querataro                          |
| QR | Mexico-Quintana Roo                       |
| RI | US-Rhode Island                           |
| SC | US-South Carolina                         |
| SD | US-South Dakota                           |
| SI | Mexico-Sinaloa                            |
| SK | Canada-Saskatchewan                       |
| SL | Mexico-San Luis Potosi                    |
| SO | Mexico-Sonora                             |
| TA | Mexico-Tabasco                            |
| TL | Mexico-Tlaxcala                           |
| TM | Mexico-Tamaulipas                         |
| TN | US-Tennessee                              |
| TX | US-Texas                                  |
| UT | US-Utah                                   |
| VA | US-Virginia                               |
| VI | US-Virgin Islands                         |
| VL | Mexico-Veracruz-Llave                     |
| VT | US-Vermont                                |
| WA | US-Washington                             |
| WI | US-Wisconsin                              |
| WV | US-West Virginia                          |
| WY | US-Wyoming                                |
| XX | Exception (Intl. TOFC/COFC or No License) |
| YC | Mexico-Yucatan                            |
| YK | Canada-Yukon                              |
| YT | Canada-Yukon                              |
| ZT | Mexico-Zacatecas                          |

**Equipment Identification** EINN

Unique equipment identifier regardless of stenciled mark

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Specify the Prior ID (PRID) on equipment records to ensure the historical lineage is preserved. Equipment with the same EIN share history and inspections.

**Conflict Status** B050

Identifies the escalation level of equipment in active conflict

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B050**

- Subject to Zero-Rating

- Subject to Restricted in Interchange

- Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

**Date of Original Conflict** B063

The date the equipment was originally placed in the current conflict

System Generated Field. This element is not eligible for Input.

**Next Conflict Status** B135

Identifies the next escalation level of an equipment in active conflict

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B135**

- Subject to Zero-Rating
- Subject to Restricted in Interchange
- Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

**Notice Indicator** B137

Identifies equipment in error in Umler Notice Management

System Generated Field. This element is not eligible for Input.

**Conflict Status Next Date** B062

The date the conflict status will be escalated

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Rate Indicator** A070

Indicates the rate type applicable to the unit

System Generated Field. Used for Transportation Codes. Affects Rating. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for A070**

- Zero-Rated Due to Conflict Errors
- Units subject to special lease arrangement
- Zero-Rated - Scrap (S\_SX), AAR Overage (XA), FRA Overage (YA), Umler Conflict - CHR 1/Tariff 6007 (XZ). Zero-Rated Private Owner Election to Zero Rate [See Private Zero Rate (B150)].

**NOTES:**

- If unit is zero-rated, correction of conflicts will reinstate the appropriate rate indicator code.

**First Movement Date** USAT

The first movement date under the stenciled mark of the equipment

This element is not eligible for Input. Does not Carry Forward.

**Equipment Add Company** B083

The reporting mark of the company that added the equipment

System Generated Field. This element is not eligible for Input.

**Registration Reason** B174

The code indicating the reason this equipment is added

Does not Carry Forward.

**Permissible Values for B174**

- |   |                   |   |           |
|---|-------------------|---|-----------|
| A | Add-Back          | N | New       |
| P | Pending Restencil | R | Restencil |

## Data Specification Manual

**Restencil Program Ind****B177**

Identifies the equipment is under a restencil program

**Permissible Values for B177**

Y Yes

**Delete Reason Code****B064**

A code that designates the reason the equipment has been deleted

Value does not carry forward for Add Back.

**Permissible Values for B064**

A Restenciled  
 D Destroyed or wrecked  
 L Lease terminated, removed from fleet  
 P Retired unserviceable beyond economic repair  
 R Rebuilt  
 S Sold Serviceable  
 T Lost  
 W Over age retired for dismantling  
 Y Error, reporting did not exist  
 Z Other

**Weight****Gross Rail Load/Weight****A266**

The maximum permissible weight on rail of the equipment and the load, reported in pounds

**Range of Values for A266**

| Minimum | Maximum |
|---------|---------|
| 4900    | 98000   |

**Validation Rule for A266**

-Gross Rail Load must be equal to the Load Limit (LDLT) plus the Tare Weight (A259)

**NOTES:**

Use Table 1 below to determine Gross Rail Load, if Qualification for Increased Gross Rail Load (B344) does not exist.

TABLE 1 -

| Journal Size     | Load per Axle | Gross Rail Load for 4-axle Equipment |
|------------------|---------------|--------------------------------------|
| B - 4 1/2" x 8"  | 25,750 lbs.   | 103,000 lbs.                         |
| C - 5" x 9"      | 35,500 lbs.   | 142,000 lbs.                         |
| D - 5 1/2" x 10" | 44,250 lbs.   | 177,000 lbs.                         |
| E - 6" x 11"     | 55,000 lbs.   | 220,000 lbs.                         |
| F - 6 1/2" x 12" | 65,750 lbs.   | 263,000 lbs.                         |
| G - 7" x 12"     | 78,750 lbs.   | 315,000 lbs.                         |
| K - 6 1/2" x 9"  | 71,500 lbs.   | 263,000 lbs.                         |
| M - 7" x 9"      | 78,750 lbs.   | 315,000 lbs.                         |

Use Table 2 below to determine Gross Rail Load for 4-axle equipment if Qualification for Increased Gross Rail Load (B344) exists.

TABLE 2 -

| Qualification for Increased Gross Rail Load (B344) | Journal Size     | Gross Rail Load |
|----------------------------------------------------|------------------|-----------------|
| 1                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 1                                                  | G - 7" x 12"     | 286,000 lbs.    |
| 1                                                  | M - 7" x 9"      | 286,000 lbs.    |
| 2                                                  | F - 6 1/2" x 12" | 286,000 lbs.    |
| 2                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 3                                                  | F - 6 1/2" x 12" | 268,000 lbs.    |
| 3                                                  | K - 6 1/2" x 9"  | 268,000 lbs.    |

- For multi-unit equipment, report the total gross rail load for the entire set.
- Refer to Field Manual Rule 70 if additional information is required.

A Gross Rail Load less than the listed or calculated values may be entered; however:

- Star Code (A247) must be R or S, and
- Load Limit (LDLT) must also be reduced, ensuring Tare Weight (A259) plus Load Limit (LDLT) equals the reported Gross Rail Load.

For equipment having two or more different journal sizes, see following examples:

Example for Drawbar Connected:

- A 5-unit drawbar connected car has 20 axles.
- The end units (Locations A and B) each have 4 axles with E - 6" x 11" journals.
- The intermediate units (Locations C, D, and E) each have 4 axles with F - 6 1/2" x 12" journals.

Using TABLE 1, the Gross Rail Load would be:

$$\begin{aligned}
 &8 \text{ ea. E-6" x 11" journal axles X } 55,000 \text{ lbs. per axle} = 440,000 \text{ lbs.} \\
 &+12 \text{ ea. F-6 1/2" x 12" journal axles X } 65,750 \text{ lbs. per axle} = 789,000 \text{ lbs.} \\
 &\text{Gross Rail Load} = 1,229,000 \text{ lbs.}
 \end{aligned}$$

Example for Articulated Connected:

- A 5-unit articulated intermodal car has 6 trucks (12 axles).
- The end trucks (Locations A and B) each have 2 axles with E - 6" x 11" journals.
- The intermediate trucks (Locations C, D, E, and F) each have 2 axles with G - 7" x 12" journals

Using TABLE 1, the Gross Rail Load would be:

$$\begin{aligned}
 &4 \text{ ea. E-6" x 11" journal axles X } 55,000 \text{ lbs. per axle} = 220,000 \text{ lbs.} \\
 &+ 8 \text{ ea. G-7" x 12" journal axles X } 78,750 \text{ lbs. per axle} = 630,000 \text{ lbs.} \\
 &\text{Gross Rail Load} = 850,000 \text{ lbs.}
 \end{aligned}$$

**Tare Weight****A259**

The equipment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds

**Range of Values for A259**

| Minimum | Maximum |
|---------|---------|
| 600     | 33000   |

**NOTES:**

- Do not report an average Tare Weight for car series, except for Pre-Registered cars
- When cars are made active, the actual Tare Weight must be recorded

**Load Limit****LDLT**

The maximum permissible weight of the commodity that can be loaded into the equipment, reported in pounds

**Range of Values for LDLT**

| Minimum | Maximum |
|---------|---------|
| 0       | 70000   |

**Cubic Feet Capacity****A067**

The maximum interior cubic feet capacity of the equipment

**Range of Values for A067**

| Minimum | Maximum |
|---------|---------|
| 1000    | 4200    |

**Validation Rule for A067**

-Trailer Cubic Feet Capacity is not applicable to Flat Bed Trailers (Equipment Descriptor - VFB)

**Gallage Capacity****A297**

The number of gallons the equipment will hold



## Data Specification Manual

Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A297**

| Minimum | Maximum |
|---------|---------|
| 4000    | 12000   |

**Dimension****Outside Length** *Mandatory*

OSLG

The outside length over pulling faces of couplers in normal position



Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for OSLG**

| Minimum        | Maximum        |
|----------------|----------------|
| 15 ft 7 inches | 57 ft 0 inches |

**NOTES:**

- For connected unit cars report the maximum coupled length of the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

**Outside Extreme Width** *Mandatory*

A186

The outside extreme width of the equipment



Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A186**

| Minimum       | Maximum       |
|---------------|---------------|
| 7 ft 3 inches | 8 ft 6 inches |

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Outside Extreme Height** *Mandatory*

A185

Height from top of rail to extreme projecting height



Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A185**

| Minimum       | Maximum        |
|---------------|----------------|
| 4 ft 3 inches | 14 ft 0 inches |

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Outside Height Extr Width** *Mandatory*

A187

The highest point at which the extreme width of the equipment occurs



Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A187**

| Minimum       | Maximum        |
|---------------|----------------|
| 1 ft 0 inches | 14 ft 0 inches |

**Validation Rule for A187**

-Outside Height Extreme Width must be less than or equal to Outside Extreme Height

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Undercarriage Width**

B217

Undercarriage Width



Used in ETC Generation.

**Permissible Values for B217**

102 102 inches 96 96 inches

**Validation Rule for B217**

-Undercarriage Width must be set if Undercarriage Type is set

**Inside Length**

A135

The inside length of the equipment from end to end inside walls, linings, and permanent bulkheads

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A135**

| Minimum        | Maximum        |
|----------------|----------------|
| 15 ft 6 inches | 55 ft 4 inches |

**Validation Rule for A135**

- Inside Length must not be greater than Outside Length
- Inside Length/Inside Platform Length must be less than or equal to Outside Length (OSLG)
- Is not applicable to Inside Length/Inside Platform Length for Trailer/Container - Bulk Hopper, Tank or Flat (Mechanical Designation of UH, or UTK)

**NOTES:**

- Round fraction to the lower inch, e.g., 05 1/4" = 05"
- For connected unit cars report the shortest dimension of a unit in the set.

**Inside Width**

A138

The inside width of the equipment from side walls and linings

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A138**

| Minimum       | Maximum       |
|---------------|---------------|
| 7 ft 0 inches | 8 ft 4 inches |

**Validation Rule for A138**

- Inside Width/Inside Platform Width must not exceed Outside Extreme Width
- Inside Width/Inside Platform Width is not applicable to Trailer/Container - Tank or Flat (Mechanical Designation of UTK)

**Inside Height**

A133

The inside height of the equipment from the floor to the top of the side, or to the lowest point of the interior ceiling

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A133**

| Minimum       | Maximum        |
|---------------|----------------|
| 1 ft 0 inches | 11 ft 1 inches |

**Validation Rule for A133**

- Trailer Inside Height cannot be set for Flat Bed Trailers (Equipment Descriptors ZFB)
- Inside Height must not exceed Outside Extreme Height (A185)

**NOTES:**

- For connected unit cars report the shortest dimension of a unit in the set.

**Deck Height Above Ground**

B149

Inside Height/Deck Hgt.

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for B149**

| Minimum       | Maximum        |
|---------------|----------------|
| 1 ft 0 inches | 11 ft 1 inches |

**Validation Rule for B149**

-Trailer Platform Deck Height can only be set for Flat Bed Trailers (Equipment Descriptor - VFB)

**Height Trailer @ Lift Pts**

B107

The measurement in feet and inches at the lift point of a trailer-New

**Door****End Door Type**

A081

End Door Type

**Permissible Values for A081**

- Hinged
- Overhead/Rollup
- Other

**Validation Rule for A081**

## Data Specification Manual

-Trailer End Door Type is not applicable to Flat Bed Trailers (Equipment Descriptor - VFB)

-Body Material (Body/Shell Type) can only be reported as C-Pultruded Composite for Equipment Designators of ZVE, ZV, or UB

| End Door Width A082                                                                                                                           |               |
|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| The width of the end door opening in inches                                                                                                   |               |
| Displayed in feet and inches on the Web. Stored in inches.                                                                                    |               |
| <b>Range of Values for A082</b>                                                                                                               |               |
| Minimum                                                                                                                                       | Maximum       |
| 4 ft 0 inches                                                                                                                                 | 8 ft 4 inches |
| <b>Validation Rule for A082</b>                                                                                                               |               |
| -End Door Width must not be reported if Trailer/Container End Door Type is not reported                                                       |               |
| -End Door Width requires End Door Type of Trailer/Container with other than 0                                                                 |               |
| -End Door Width is not applicable to Trailer/Container - Bulk Hopper, Tank or Flat (Mechanical Designation of UH, UFB, UTK, ZBH, ZTK, or ZFB) |               |
| <b>NOTES:</b>                                                                                                                                 |               |
| • Round fraction to the lower inch, e.g., 05 1/4" = 05"                                                                                       |               |
| • For connected unit cars report the dimension of the smallest end door width of a unit in the set.                                           |               |

| End Door Height A080                                                                                                                             |                |
|--------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| The height of the end door opening in inches                                                                                                     |                |
| Displayed in feet and inches on the Web. Stored in inches.                                                                                       |                |
| <b>Range of Values for A080</b>                                                                                                                  |                |
| Minimum                                                                                                                                          | Maximum        |
| 4 ft 0 inches                                                                                                                                    | 10 ft 6 inches |
| <b>Validation Rule for A080</b>                                                                                                                  |                |
| -End Door Height must not be reported if End Door Width is not reported                                                                          |                |
| -End Door Height must be reported if End Door Width is reported                                                                                  |                |
| -End Door Height must not be reported if Trailer/Container End Door Type is not reported                                                         |                |
| -End Door Height must be reported if End Door Type of Trailer/Container is reported                                                              |                |
| -End Door Height is not applicable to a Trailer/Container - Bulk Hopper, Tank or Flat (Mechanical Designation of UH, UFB, UTK, ZBH, ZTK, or ZFB) |                |
| <b>NOTES:</b>                                                                                                                                    |                |
| • Round fraction to the lower inch, e.g., 05 1/4" = 05"                                                                                          |                |
| • For connected unit cars report the dimension of the smallest end door height of a unit in the set.                                             |                |

## Specification

| Undercarriage Type B216                                              |                                              |
|----------------------------------------------------------------------|----------------------------------------------|
| Undercarriage Type ▲                                                 |                                              |
| Used in ETC Generation.                                              |                                              |
| <b>Permissible Values for B216</b>                                   |                                              |
| F                                                                    | Fix Forward                                  |
| R                                                                    | Fixed Rear                                   |
| S                                                                    | Sliding                                      |
| <b>Validation Rule for B216</b>                                      |                                              |
| -Undercarriage Type must be set if Undercarriage Width is set        |                                              |
| TRLR/CONT Body Material A031                                         |                                              |
| Body Type TRLR/CONT                                                  |                                              |
| <b>Permissible Values for A031</b>                                   |                                              |
| 01                                                                   | Aluminum                                     |
| 04                                                                   | Combination                                  |
| 18                                                                   | Stainless Steel                              |
| 19                                                                   | Standard Steel                               |
| 30                                                                   | Wood                                         |
| 37                                                                   | PultrusionComposite                          |
| 38                                                                   | Fiberglass or Fiberglass Reinforced Material |
| 39                                                                   | Miscellaneous Material                       |
| <b>Validation Rule for A031</b>                                      |                                              |
| -No Body Material (Body/Shell Type) for Flat type Trailer/Containers |                                              |

| Electrical Voltage System A079                                                                                             |                      |
|----------------------------------------------------------------------------------------------------------------------------|----------------------|
| Electrical Voltage System                                                                                                  |                      |
| <b>Permissible Values for A079</b>                                                                                         |                      |
| 00                                                                                                                         | Unused or restricted |
| 06                                                                                                                         | 06 Volts             |
| 11                                                                                                                         | 110 Volts            |
| 12                                                                                                                         | 12 Volts             |
| 22                                                                                                                         | 220 Volts            |
| 24                                                                                                                         | 24 Volts             |
| 33                                                                                                                         | 330 Volts            |
| 44                                                                                                                         | 440 Volts            |
| <b>Validation Rule for A079</b>                                                                                            |                      |
| -Trailer/Container Electrical Voltage System is only applicable to Equipment Descriptor of UBR, UBI, UBE, ZVR, ZVI, or ZVE |                      |
| King Pin Setting A149                                                                                                      |                      |
| King Pin Setting                                                                                                           |                      |
| <b>Permissible Values for A149</b>                                                                                         |                      |
| 18                                                                                                                         | 18 Inches            |
| 28                                                                                                                         | 28 inches            |
| 30                                                                                                                         | 30 inches            |
| 32                                                                                                                         | 32 inches            |
| 36                                                                                                                         | 36 inches (standard) |
| 42                                                                                                                         | 42 inches            |
| Forward Extension A106                                                                                                     |                      |
| Forward Extension                                                                                                          |                      |
| <b>Range of Values for A106</b>                                                                                            |                      |
| Minimum                                                                                                                    | Maximum              |
| 18                                                                                                                         | 60                   |
| <b>Validation Rule for A106</b>                                                                                            |                      |
| -Forward Extension is required for nose mounted refrigeration with Refrigeration Unit Location of Code N                   |                      |
| Brake Type A034                                                                                                            |                      |
| Brake System                                                                                                               |                      |
| <b>Permissible Values for A034</b>                                                                                         |                      |
| A                                                                                                                          | Air                  |
| E                                                                                                                          | Electric             |
| V                                                                                                                          | Vacuum               |
| Axle Count A024                                                                                                            |                      |
| The total number of axles on the equipment                                                                                 |                      |
| <b>Range of Values for A024</b>                                                                                            |                      |
| Minimum                                                                                                                    | Maximum              |
| 2                                                                                                                          | 999                  |
| <b>Validation Rule for A024</b>                                                                                            |                      |
| -Axle Count for an articulated car must be greater than or equal to ((Connected Unit Count (A020) x 2) + 2)                |                      |
| -Axle Count for a draw bar connected car must be greater than or equal to (Connected Unit Count (A020) x 4)                |                      |
| Tire Size & Wheel Size A261                                                                                                |                      |
| Tire Size & Wheel Size                                                                                                     |                      |
| <b>Range of Values for A261</b>                                                                                            |                      |
| Minimum                                                                                                                    | Maximum              |
| 7351400                                                                                                                    | 12002500             |
| Insid Wdth Btwn TOFC Tire B332                                                                                             |                      |
| Inside Width Between Trailer Tires                                                                                         |                      |
| Remote Monitoring Device B176                                                                                              |                      |

## Data Specification Manual

Indicates the equipment has a device that transmits a signal or records data

**Permissible Values for B176**

Y Yes

**NOTES:**

- Per AAR S-2045, This may be data related to ride quality, geographic location, temperature/condition of the load, load/empty status, etc.

**AEI High Temperature Tag****B006**

Indicates the equipment is equipped with a high temperature AEI tag

**Permissible Values for B006**

Y High Temperature Tag

**Equipment Builder****A035**

Identifies the original manufacturer of the equipment

**Permissible Values for A035**

HPA HPA Monon Corporation  
 NACA National Alabama Corporation  
 UNKN Unknown  
 WABN Wabash National

**Validation Rule for A035**

- Equipment built or rebuilt on or after July 1, 2010 cannot have a Equipment Builder of Unknown
- Equipment with a Built Date (BLDT) on or after July 1, 2010 cannot have an Equipment Builder Code of OWNER RAILROAD.
- Equipment Builder can have a value of MULT only if the equipment has multiple units.

**Builder Lot Code****B030**

A unique identifier for a group of equipment built by one manufacturer under the same contract

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B030**

- Equipment built or rebuilt on or after June 28, 2012 must have a value for Builder Lot Code

**NOTES:**

- If the value is unknown, enter six zeroes (000000).

**Built Country****B031**

The country where the equipment was constructed

Data is Confidential.

**Permissible Values for B031**

CA Canada MX Mexico  
 US United States

**Rebuilt Country****B170**

The country where the equipment was re-constructed

**Permissible Values for B170**

CA Canada MX Mexico  
 US United States

**Refrig Emission Code****B345**

California State Emission standards for refrigeration units

Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for B345**

N Not Qualified Q Qualified  
 U Ultra-Qualified

**Floor Material****A104**

Describes the type of construction material used for the equipment floor

**Permissible Values for A104**

01 Aluminum  
 02 Aluminum (Ribbed)  
 05 Composite Nailable (considered same as wood)  
 06 Composite Nailable, Reinforced (considered same as wood)  
 14 Other  
 15 Other, Reinforced  
 19 Standard Steel  
 21 Steel Floor, (straight deck) without risers (F-8-)  
 22 Steel Floor, permanently mounted steel risers (F-8-)  
 23 Steel Nailable (includes alternate wood and steel floor)  
 24 Steel Nailable, Reinforced (includes alternate wood and steel floor)  
 25 Standard Steel, Reinforced  
 27 Unknown (Flats only)  
 30 Wood  
 32 Wood, Double  
 33 Wood, Double, Reinforced  
 34 Wood Floor with Steel Protective Plates (includes perforated steel)  
 35 Wood Floor, Reinforced, with Steel Protective Plates (includes perforated steel)  
 36 Wood Floor, Reinforced

**Floor Anchor Builder****B335**

Floor Anchor Builder

**Permissible Values for B335**

ABB Asea Brown Bavari  
 ACC American Crane Company  
 ACCI Accurate Industries  
 ACF American Car & Foundry  
 ACFX ACF Industries  
 ALCC Alloy Crafts Company  
 ALCO American Locomotive Company  
 ALGE Alco-GE  
 ALST Alstom  
 ALTN Altoona  
 ALWO Alco-Worthington  
 ARI ARI Industries  
 BERW Berwick Forge  
 BETH Bethlehem Car Works  
 BL Boise Locomotive  
 BLH Baldwin Lima Hamilton  
 BLW Baldwin Locomotive Works  
 BOMB Bombardier  
 BRIL Brill  
 BRKS Brooks Locomotive Works  
 BS Barney & Smith  
 BSP Bethlehem Steel Corporation  
 BUDD Ed G Budd Company  
 BURR Burro Crane Works  
 CAN Canadian Car  
 CFF Canadian Car & Foundry  
 CHIN Chinese builders (various)  
 CLC Canadian Locomotive Company  
 CLW Climax Locomotive Works  
 CN Canadian National  
 CNCF Carros De Ferrocarril, SA  
 CNR Canadian National Railway  
 CONC Concarill  
 CPR Canadian Pacific  
 CRMX Colorado Railcar Manufacturing  
 CSXR CSX Remanufacture  
 DARB Darby  
 DAV Davenport Locomotive Company  
 DETR Detroit Car Works

**Feature**

## Data Specification Manual

|      |                                          |
|------|------------------------------------------|
| DIFC | Difco                                    |
| DSL  | Davies Ship Building                     |
| EASX | East Rail Car Division                   |
| EMAB | ElectroMotive Diesel - Asea Brown Bavori |
| EMC  | ElectroMotive Corporation                |
| EMD  | ElectroMotive Diesel                     |
| EVAN | Evans Products                           |
| FCA  | Freight Car America                      |
| FGRW | FRTGRW                                   |
| FM   | Fairbanks Morse                          |
| FMC  | FMC Corporation                          |
| FRCE | Freight Car Engineering                  |
| FREU | Freuhauf Corporation                     |
| GATX | General American Transportation Corp     |
| GE   | General Electric                         |
| GEC  | GEC Alsthom                              |
| GENS | General Steel                            |
| GLOB | Global Lot                               |
| GMB  | Greenbrier                               |
| GMDD | General Motors Diesel Division           |
| GREX | Georgetown Rail Equipment Company        |
| GROV | Grove                                    |
| GSC  | Greenville Steel Car                     |
| GSWI | Gunderson Southwest Inc                  |
| GULF | Gulf Railcar                             |
| GUN4 | Gunderson - Trenton Works                |
| GUND | Gunderson Inc                            |
| GUNM | Gunderson - Mexico                       |
| HAMB | Hamburg Fab Shop                         |
| HARS | Harsco                                   |
| HB   | Haskell & Baker                          |
| HEIS | Heisler Locomotive Works                 |
| HIIX | Hamburg                                  |
| HPA  | HPA Monon Corporation                    |
| HST  | Hawker Siddeley                          |
| HYUN | Hyundai                                  |
| IBH  | Industrial Brown Hoist                   |
| ICC  | International Car Company                |
| ICG  | Interglobal Capital                      |
| IR   | Ingersoll Rand                           |
| JAC  | Johnstown America Corporation            |
| JACK | Jackson Equipment Company                |
| JLW  | Juniata Locomotive Works                 |
| JORD | Jordan Machine Works                     |
| JS   | Jackson & Sharp                          |
| KASG | Kasgro Railcar                           |
| KM   | Krauss Maffei                            |
| KRCA | Kawasaki Railcar America                 |
| LAVE | Lavelin                                  |
| LH   | Lima-Hamilton                            |
| LIMA | Lima Locomotive Works                    |
| LOX  | Lox Equipment Company                    |
| MAGR | Magor Car Manufacturing                  |
| MCDW | McDowell Wellman                         |
| MILW | CMSTP & P Railroad                       |
| MK   | Morrison-Knudson                         |
| MLW  | Montreal Locomotive Works                |
| MRCO | Millennium Railcar, Dome Division        |
| MRNE | Marine Industries                        |
| NACC | North American Car                       |
| NIPP | Nippon-Sharyo                            |
| NRE  | National Railway Equipment               |
| NSC  | National Steel Car                       |
| OB   | Osgood Bradley Car Company               |
| ORTN | Ortner                                   |
| PCF  | Pacific Car & Foundry                    |
| PCM  | Pullman Car & Manufacturing              |
| PLAS | Plasser America                          |

|      |                                                  |
|------|--------------------------------------------------|
| PLC  | Paducah Locomotive Company                       |
| PORT | Porter Locomotive Company                        |
| PORW | Thrall-Winder                                    |
| PRAT | Pratt Enterprises                                |
| PRO  | Procor Limited                                   |
| PS   | Pullman-Standard                                 |
| PSCC | Pressed Steel Car Company                        |
| PSP  | Pullman-Standard, Division of Trinity Industries |
| PT   | Plasser & Theurer                                |
| RCC  | Raceland Car Corporation                         |
| REBD | Reilly Beard                                     |
| RELC | Relco                                            |
| RICH | Richmond Locomotive Works                        |
| ROAN | Roanoke Shops                                    |
| ROTA | Rota Car Company                                 |
| RP   | RailPower                                        |
| RTCX | Richmond Tank Car                                |
| RUSS | Russian builders (various)                       |
| SCM  | Standard Car Manufacturing                       |
| SIEM | Siemens                                          |
| SLC  | Saint Louis Car Company                          |
| SRSC | Springfield Railcar                              |
| SSCC | Standard Steel Car Company                       |
| TA   | Transit America                                  |
| TERX | Terex Corporation                                |
| THR  | Thrall Car Service Parts                         |
| THR4 | Thrall - Cartersville                            |
| THRL | Thrall                                           |
| TLGA | Talgo America                                    |
| TRAN | Tranzrail                                        |
| TRIN | Trinity                                          |
| TRIS | Trinity - Springfield MO                         |
| TRIX | Trinity Mexico                                   |
| UNAM | United America                                   |
| UTLX | Union Tank Car                                   |
| VENT | Ventrns                                          |
| VULC | Vulcan Locomotive Works                          |
| WABN | Wabash National                                  |
| WAG  | Wagner Car Company                               |

|                           |             |
|---------------------------|-------------|
| <b>Floor Anchor Count</b> | <b>B336</b> |
| Floor Anchor Count        |             |

|                                 |             |
|---------------------------------|-------------|
| <b>Floor Anchor Loc Spacing</b> | <b>B337</b> |
| Floor Anchor Location Spacing   |             |

|                          |             |
|--------------------------|-------------|
| <b>Floor Load Rating</b> | <b>B338</b> |
| Floor Load Rating        |             |

|                       |             |
|-----------------------|-------------|
| <b>Floor Load PSI</b> | <b>B339</b> |
| Floor Load PSI        |             |

|                                           |             |
|-------------------------------------------|-------------|
| <b>Floor Drain Equipped</b>               | <b>B095</b> |
| Indicates the equipment floor has a drain |             |

**Permissible Values for B095**

Y Yes

|                                                                             |             |
|-----------------------------------------------------------------------------|-------------|
| <b>Lining Material</b>                                                      | <b>A158</b> |
| Describes the type of construction material used in the lining of equipment |             |

**Permissible Values for A158**

|    |                          |
|----|--------------------------|
| 03 | Cement                   |
| 07 | Composite Wood and Steel |
| 08 | Fiberglass               |
| 10 | Glass                    |

## Data Specification Manual

- 11 Kanigen
- 12 Metal Clad
- 13 Metal Spray
- 16 Rubber
- 17 Sheet Metal
- 26 Synthetic
- 28 Unlined
- 29 Vinyl
- 30 Wood

**Validation Rule for A158**

-Lining Material cannot be set for Flat bed trailers (Equipment Descriptor - VFB)

|                                                           |             |
|-----------------------------------------------------------|-------------|
| <b>Bulkhead Type</b>                                      | <b>B034</b> |
| Identifies the type of bulkhead attached to the equipment |             |

**Permissible Values for B034**

F Fixed I Inflatable M Moveable

|                                               |             |
|-----------------------------------------------|-------------|
| <b>Belt Rail Equipped</b>                     | <b>B024</b> |
| Indicates the equipment is belt rail equipped |             |

**Permissible Values for B024**

Y Yes

|                     |             |
|---------------------|-------------|
| <b>Belt Builder</b> | <b>B331</b> |
| Belt Builder        |             |

**Permissible Values for B331**

ABB Asea Brown Bavari  
 ACC American Crane Company  
 ACCI Accurate Industries  
 ACF American Car & Foundry  
 ACFX ACF Industries  
 ALCC Alloy Crafts Company  
 ALCO American Locomotive Company  
 ALGE Alco-GE  
 ALST Alstom  
 ALTN Altoona  
 ALWO Alco-Worthington  
 ARI ARI Industries  
 BERW Berwick Forge  
 BETH Bethlehem Car Works  
 BL Boise Locomotive  
 BLH Baldwin Lima Hamilton  
 BLW Baldwin Locomotive Works  
 BOMB Bombardier  
 BRIL Brill  
 BRKS Brooks Locomotive Works  
 BS Barney & Smith  
 BSP Bethlehem Steel Corporation  
 BUDD Ed G Budd Company  
 BURR Burro Crane Works  
 CAN Canadian Car  
 CFF Canadian Car & Foundry  
 CHIN Chinese builders (various)  
 CLC Canadian Locomotive Company  
 CLW Climax Locomotive Works  
 CN Canadian National  
 CNCF Carros De Ferrocarril, SA  
 CNR Canadian National Railway  
 CONC Concarill  
 CPR Canadian Pacific  
 CRMX Colorado Railcar Manufacturing  
 CSXR CSX Remanufacture  
 DARB Darby  
 DAV Davenport Locomotive Company  
 DETR Detroit Car Works

DIFC Difco  
 DSL Davies Ship Building  
 EASX East Rail Car Division  
 EMAB ElectroMotive Diesel - Asea Brown Bavari  
 EMC ElectroMotive Corporation  
 EMD ElectroMotive Diesel  
 EVAN Evans Products  
 FCA Freight Car America  
 FGRW FRTGRW  
 FM Fairbanks Morse  
 FMC FMC Corporation  
 FRCE Freight Car Engineering  
 FREU Freuhauf Corporation  
 GATX General American Transportation Corp  
 GE General Electric  
 GEC GEC Alsthom  
 GENS General Steel  
 GLOB Global Lot  
 GMB Greenbrier  
 GMDD General Motors Diesel Division  
 GREX Georgetown Rail Equipment Company  
 GROV Grove  
 GSC Greenville Steel Car  
 GSWI Gunderson Southwest Inc  
 GULF Gulf Railcar  
 GUN4 Gunderson - Trenton Works  
 GUND Gunderson Inc  
 GUNM Gunderson - Mexico  
 HAMB Hamburg Fab Shop  
 HARS Harsco  
 HB Haskell & Baker  
 HEIS Heisler Locomotive Works  
 HIIX Hamburg  
 HPA HPA Monon Corporation  
 HST Hawker Siddeley  
 HYUN Hyundai  
 IBH Industrial Brown Hoist  
 ICC International Car Company  
 ICG Interglobal Capital  
 IR Ingersoll Rand  
 JAC Johnstown America Corporation  
 JACK Jackson Equipment Company  
 JLW Juniata Locomotive Works  
 JORD Jordan Machine Works  
 JS Jackson & Sharp  
 KASG Kasgro Railcar  
 KM Krauss Maffei  
 KRCA Kawasaki Railcar America  
 LAVE Lavelin  
 LH Lima-Hamilton  
 LIMA Lima Locomotive Works  
 LOX Lox Equipment Company  
 MAGR Magor Car Manufacturing  
 MCDW McDowell Wellman  
 MILW CMSTP & P Railroad  
 MK Morrison-Knudson  
 MLW Montreal Locomotive Works  
 MRCD Millennium Railcar, Dome Division  
 MRNE Marine Industries  
 NACC North American Car  
 NIPP Nippon-Sharyo  
 NRE National Railway Equipment  
 NSC National Steel Car  
 OB Osgood Bradley Car Company  
 ORTN Ortner  
 PCF Pacific Car & Foundry  
 PCM Pullman Car & Manufacturing  
 PLAS Plasser America

## Data Specification Manual

|      |                                                  |
|------|--------------------------------------------------|
| PLC  | Paducah Locomotive Company                       |
| PORT | Porter Locomotive Company                        |
| PORW | Thrall-Winder                                    |
| PRAT | Pratt Enterprises                                |
| PRO  | Procor Limited                                   |
| PS   | Pullman-Standard                                 |
| PSCC | Pressed Steel Car Company                        |
| PSP  | Pullman-Standard, Division of Trinity Industries |
| PT   | Plasser & Theurer                                |
| RCC  | Raceland Car Corporation                         |
| REBD | Reilly Beard                                     |
| RELC | Relco                                            |
| RICH | Richmond Locomotive Works                        |
| ROAN | Roanoke Shops                                    |
| ROTA | Rota Car Company                                 |
| RP   | RailPower                                        |
| RTCX | Richmond Tank Car                                |
| RUSS | Russian builders (various)                       |
| SCM  | Standard Car Manufacturing                       |
| SIEM | Siemens                                          |
| SLC  | Saint Louis Car Company                          |
| SRSC | Springfield Railcar                              |
| SSCC | Standard Steel Car Company                       |
| TA   | Transit America                                  |
| TERX | Terex Corporation                                |
| THR  | Thrall Car Service Parts                         |
| THR4 | Thrall - Cartersville                            |
| THRL | Thrall                                           |
| TLGA | Talgo America                                    |
| TRAN | Tranzrail                                        |
| TRIN | Trinity                                          |
| TRIS | Trinity - Springfield MO                         |
| TRIX | Trinity Mexico                                   |
| UNAM | United America                                   |
| UTLX | Union Tank Car                                   |
| VENT | Ventrns                                          |
| VULC | Vulcan Locomotive Works                          |
| WABN | Wabash National                                  |
| WAG  | Wagner Car Company                               |

Describes the level of refrigeration to be used within the equipment

**Permissible Values for B172**

|   |                                   |
|---|-----------------------------------|
| F | Zero Only (Frozen)                |
| N | Non-Frozen                        |
| W | Wide Range (Frozen to Non-Frozen) |

**Refrigeration Unit Loc****A221**

Refrigeration Unit Location

**Permissible Values for A221**

|   |                         |
|---|-------------------------|
| I | Interior Mounting       |
| N | Nose or Front Mounting  |
| P | Pod Mounting            |
| S | Side Mounting           |
| U | Under of Belly Mounting |

**Validation Rule for A221**

- Trailer Refrigeration Unit Location can only be set for Refrigerator Trailers (Equipment Descriptor - ZVR)
- Refrigeration Unit Location required when Refrigeration System Builder is supplied

**Refrigerator Fuel Cap****A222**

Refrigerator Fuel Capacity

**Range of Values for A222**

| Minimum | Maximum |
|---------|---------|
| 10      | 250     |

**Refrigerator System Bldr****A223**

Refrigerator System Manufacturer

**Permissible Values for A223**

|   |                      |
|---|----------------------|
| C | Carrier-Transcold    |
| F | Trane-Artic Traveler |
| M | Other                |
| P | Polarstream          |
| T | Thermo-King          |
| W | Worthington-York     |

**Cost****Original Cost****A184**

The original manufacturer selling price

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A184**

| Minimum | Maximum |
|---------|---------|
| 0       | 999999  |

**Validation Rule for A184**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Original Cost must be equal to the Ledger Value if Additions & Betterments Indicator is not reported.
- Railroad marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost
- Private marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost if Built Date (BLDT) is on or after January 1, 2015

**NOTES:**

- Original Cost is never altered. It is the cost of the equipment to the original owner.
- For railroad-marked cars, report in US dollars the original ledger value of the original owner For cars rebuilt, report the cost prescribed in MR Interchange Rule 88 and Circular Letter OT-24
- The original cost is used in the settlement of AAR Interchange Rule 107 Office Manual.
- For connected unit cars report the total original cost for all units in the set.
- Numeric, applicable to all railroad-marked cars Also, applicable to privately

**Vent Openings****B222**

Indicates the equipment has vent openings

**Permissible Values for B222**

|   |     |
|---|-----|
| Y | Yes |
|---|-----|

**Controlled Atmosphere Typ****A056**

Type Of Controlled Atmosphere

**Permissible Values for A056**

|   |                  |   |                   |
|---|------------------|---|-------------------|
| N | Nitrogen Blanket | O | Oxytrol           |
| T | Tectrol          | U | Other Type System |

**Validation Rule for A056**

- Trailer Controlled Atmosphere Type can only be set for Refrigerator Trailers (Equipment Descriptor - ZVR)
- Controlled Atmosphere Type is only applicable to Refrigerator type Trailer/Containers

**Refrigeration Fuel Type****A207**

Type of fuel used in the refrigeration unit

**Permissible Values for A207**

|   |            |   |          |   |          |
|---|------------|---|----------|---|----------|
| B | Butane     | D | Diesel   | G | Gasoline |
| M | Other type | N | Nitrogen | P | Propane  |

**Validation Rule for A207**

-Refrigeration Fuel Type required when Refrigeration System Builder is supplied

**Refrigeration Level****B172**



## Data Specification Manual

marked covered hopper (LO) cars.

- Raise all cents to the next dollar, e.g. \$5,501.02 = 0005502

| Ledger Value                                         | A150 |
|------------------------------------------------------|------|
| The sum of original cost and additions & betterments |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A150**

| Minimum | Maximum |
|---------|---------|
| 0       | 999999  |

**Validation Rule for A150**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Ledger Value must equal the Original Cost (A184) plus the additions & betterments, if Total A&B (A003) has been reported. Otherwise Ledger Value should equal Original Cost (A184).

| Total A&B                                                                        | A003 |
|----------------------------------------------------------------------------------|------|
| System generated sum of all reported amounts in A&B Amount (A317), in US dollars |      |

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A003**

| Minimum | Maximum  |
|---------|----------|
| 0       | 99999999 |

**NOTES:**

- For railroad-marked cars, report the sum of all additions and betterments applied to the car. This value is for record keeping purposes only and will not be used to report Ledger Value.
- For private Cars report the additions and betterments as qualified under AAR interchange Rule 107 for determination of settlement value.
  - o Additions are costs of all new components applied subsequent to the date the car was built or rebuilt and carried in the capital investment account.
  - o Betterments are costs of all improvements of components of existing equipment through the substitution of superior parts for inferior parts subsequent to the date the car was built or rebuilt.
- For connected unit cars report the total Truck Location A for all units in the set

| Ind for Pos/Neg Total A&B                                                                   | A128 |
|---------------------------------------------------------------------------------------------|------|
| A code indicating the positive or negative adjustment to the original cost of the equipment |      |

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A128**

N Negative P Positive

| A&B Pos/Neg Ind                                                                                 | A316 |
|-------------------------------------------------------------------------------------------------|------|
| A code indicating the positive or negative adjustment to the individual addition and betterment |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A316**

N Negative P Positive

**Validation Rule for A316**

-When entering an individual Addition & Betterment, you must enter a value in all 4 fields.

-The A&B Indicator is required when Additions & Betterments are reported.

-The A&B Indicator must not be reported if Additions & Betterments are not reported.

| A&B Amount                                                                  | A317 |
|-----------------------------------------------------------------------------|------|
| The amount of the individual addition and betterment added to or subtracted |      |

from the original cost of the equipment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A317**

| Minimum | Maximum |
|---------|---------|
| 1       | 999999  |

**Validation Rule for A317**

-When entering an individual addition & betterment; A&B Date Done (A319), A&B Type (A318), A&B Pos/Neg Ind (A316), and A&B Amount (A317) must be reported

| A&B Date Done                                      | A319 |
|----------------------------------------------------|------|
| The date of the individual addition and betterment |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A319**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for A319**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- Addition and Betterment Date Done cannot be earlier than Built Date (BLDT).
- Additions & Betterments Date Done cannot be later than today's date.

| A&B Type                                                              | A318 |
|-----------------------------------------------------------------------|------|
| The type of individual addition and betterment as defined by Rule 107 |      |

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A318**

GNRL General - Capitalized Additions and Betterments  
INIT Initial load of historical A&B amount as of Umler 4.6 implementation date

**Validation Rule for A318**

- For each equipment, only one Individual A&B Type can have a value of INIT.
- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.

## Car Management

| Pool Number                                                                       | P001 |
|-----------------------------------------------------------------------------------|------|
| Unique number used to indicate the grouping of equipment for a particular purpose |      |

Used for Transportation Codes. This element is not eligible for Input. Value does not carry forward for Equipment Group Change / Add Back.

| User Routing Instructions                    | TCUR |
|----------------------------------------------|------|
| The routing instruction reported by the user |      |

Used for Transportation Codes.

**Permissible Values for TCUR**

2 Trailer Service Rule 2  
G Contaminated commodity service  
M Mark canceled  
O Owner requested return  
U Unassigned equipment

**NOTES:**

- For further explanation reference Appendix E.

| Umler Transportation Code                                                   | TCOD |
|-----------------------------------------------------------------------------|------|
| The type of assigned service, empty routing or restriction of the equipment |      |

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

## Data Specification Manual

carry forward for Add Back.

| Transportation Cond Code                    | TCCD |
|---------------------------------------------|------|
| The AAR or FRA interchange restriction code |      |

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

| Mechanical Restriction                                           | TCME |
|------------------------------------------------------------------|------|
| User reported or system generated type of mechanical restriction |      |

Used for Transportation Codes.

**Permissible Values for TCME**

- S Scrap
- X AAR Interchange Restriction

**NOTES:**

- For further explanation reference Appendix D.1

| Mech Restriction Reason                              | TCMR |
|------------------------------------------------------|------|
| The explanation of the Mechanical Restriction (TCME) |      |

Used for Transportation Codes.

**Permissible Values for TCMR**

- X Restricted Due to Scrap or Early Warning
- Z Restricted Due to Umler Conflict (Not Valid for User Input)

**NOTES:**

- For further explanation reference Appendix D.2.
- The assignment of the Transportation Codes S, SX, XA, XZ and YA generate the Rate Indicator Code 6 to the CHARM file to zero (0) rate the car hire and mileage rate.

## Miscellaneous

| Commercial Owner CIF                                                                        | B049 |
|---------------------------------------------------------------------------------------------|------|
| The Customer Identification File (CIF) number for a commercial owner at a specific location |      |

| Commercial Lessee CIF                                                                        | B048 |
|----------------------------------------------------------------------------------------------|------|
| The Customer Identification File (CIF) number for a commercial lessee at a specific location |      |

| Umler Effective Date                                                                     | EFDT |
|------------------------------------------------------------------------------------------|------|
| The date the rating activity (pre-registration, modification, etc.) is expected to occur |      |

This element is not eligible for Query. Does not Carry Forward.

**Validation Rule for EFDT**

-Effective Date cannot be set to more than 13 months in the future.

**NOTES:**

- Effective Date will default to the 1st of the following month that equipment is registered

## Inspection

| Inspection Date Done                                                                       | DTDN |
|--------------------------------------------------------------------------------------------|------|
| The date the inspection was completed; used for all inspection types reported on equipment |      |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Validation Rule for DTDN**

-The inspection date must not be 60 days before the Build Date

| Inspection Due Date                                                                      | INDD |
|------------------------------------------------------------------------------------------|------|
| The due date of the next inspection; used for all inspection types reported on equipment |      |

System Generated Field. This element is not eligible for Input. Value does not

| Inspection Performer                                                                        | PERF |
|---------------------------------------------------------------------------------------------|------|
| The SCAC that completed the inspection; used for all inspection types reported on equipment |      |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

| Inspection Reporter                                                                        | REPT |
|--------------------------------------------------------------------------------------------|------|
| The SCAC that reported the inspection; used for all inspection types reported on equipment |      |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

| Location/SPLC                                                                            | SPLC |
|------------------------------------------------------------------------------------------|------|
| The SPLC of the inspecting location; used for all inspection types reported on equipment |      |

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

## Data Specification Manual

## Chassis

|                                  |            |
|----------------------------------|------------|
| <b>General</b>                   | <b>293</b> |
| Status Code (USCD)               | 293        |
| Equipment ID (0001)              | 293        |
| Mechanical Designation (UMMD)    | 293        |
| Equipment Descriptor (B341)      | 293        |
| Equipment Type Code (UMET)       | 293        |
| Built Date (BLDT)                | 293        |
| Rebuilt / ILS Date (RBDT)        | 293        |
| Rebuilt Flag (RBFL)              | 293        |
| Owner (UMOW)                     | 293        |
| Equipment Group (0002)           | 293        |
| Lessee (LESE)                    | 293        |
| Maintenance Party (MNPT)         | 294        |
| Mark Owner Category (B201)       | 294        |
| Prior Equipment ID (PRID)        | 294        |
| Last Update Date (B122)          | 294        |
| Equipment Add Date (B082)        | 294        |
| Status Change Reason (USCR)      | 294        |
| Status Change Date (USCT)        | 294        |
| Licensing State/Province (A154)  | 294        |
| Equipment Identification (EINN)  | 295        |
| Conflict Status (B050)           | 295        |
| Date of Original Conflict (B063) | 295        |
| Next Conflict Status (B135)      | 295        |
| Notice Indicator (B137)          | 295        |
| Conflict Status Next Date (B062) | 295        |
| Rate Indicator (A070)            | 295        |
| First Movement Date (USAT)       | 295        |
| Equipment Add Company (B083)     | 295        |
| Registration Reason (B174)       | 295        |
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| <b>Weight</b>                    | <b>296</b> |
| Gross Rail Load/Weight (A266)    | 296        |
| Tare Weight (A259)               | 296        |
| Load Limit (LDLT)                | 296        |
| <b>Dimension</b>                 | <b>296</b> |
| Outside Length (OSLG)            | 296        |
| Outside Extreme Width (A186)     | 297        |
| Outside Extreme Height (A185)    | 297        |
| Outside Height Extr Width (A187) | 297        |
| Undercarriage Width (B217)       | 297        |
| <b>Specification</b>             | <b>297</b> |
| Undercarriage Type (B216)        | 297        |
| Extendable CHSS Leng Rnge (B307) | 297        |
| Chassis Loading Combo (B404)     | 297        |
| King Pin Setting (A149)          | 297        |
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| Brake Type (A034)                | 297        |
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| Remote Monitoring Device (B176)  | 297        |
| Equipment Builder (A035)         | 298        |
| Builder Lot Code (B030)          | 299        |
| Built Country (B031)             | 299        |
| Rebuilt Country (B170)           | 299        |
| <b>Feature</b>                   | <b>299</b> |
| Vertical CHSS Storage (B340)     | 299        |
| <b>Cost</b>                      | <b>299</b> |
| Original Cost (A184)             | 299        |
| Ledger Value (A150)              | 300        |
| Total A&B (A003)                 | 300        |
| Ind for Pos/Neg Total A&B (A128) | 300        |
| A&B Pos/Neg Ind (A316)           | 300        |
| A&B Amount (A317)                | 300        |
| A&B Date Done (A319)             | 300        |
| A&B Type (A318)                  | 300        |
| <b>Car Management</b>            | <b>300</b> |
| Pool Number (P001)               | 300        |
| User Routing Instructions (TCUR) | 300        |
| Umler Transportation Code (TCOD) | 301        |
| Transportation Cond Code (TCCD)  | 301        |
| Mechanical Restriction (TCME)    | 301        |
| Mech Restriction Reason (TCMR)   | 301        |
| <b>Miscellaneous</b>             | <b>301</b> |
| Commercial Owner CIF (B049)      | 301        |
| Commercial Lessee CIF (B048)     | 301        |
| Umler Effective Date (EFDT)      | 301        |

|                             |            |
|-----------------------------|------------|
| <b>Inspection</b>           | <b>301</b> |
| Inspection Date Done (DTDN) | 301        |
| Inspection Due Date (INDD)  | 301        |
| Inspection Performer (PERF) | 301        |
| Inspection Reporter (REPT)  | 301        |
| Location/SPLC (SPLC)        | 301        |

## Data Specification Manual

## General

**Status Code** *Mandatory* USCDIdentifies the current operational state ●

Does not Carry Forward.

**Permissible Values for USCD**

A ACTIVE I INACTIVE  
P PRE-REGISTERED

**NOTES:**

- For Restencil and Clone process the initial Status of a car should be Pre-Registered.
- All Add-Back processes should initially set the Status to Pre-Registered
- A Pre-registered car will automatically have its Status changed to Active for the initial change when TRAIN detects three (3) movements on the car
- If the Status changes to Active due to movement and the car was created from a Restencil, the Prior Equipment ID (PRID) or source car will have its status changed to Inactive automatically by Umler

**Equipment ID** 0001

The equipment stenciled number

**Validation Rule for 0001**

-Equipment Number must not be larger than 6 digits (i.e., 999999)

**NOTES:**

- Equipment ID includes the mark and number stenciled on the equipment. Marks can be up to 4 characters and number up to 6 digits (i.e., ABCD999999).
- Up to 500 cars can be added or updated in a transaction.
- When adding an equipment record, ensure that Prior Equipment ID (PRID) is reported, unless the equipment is new.

**Mechanical Designation** *Mandatory* UMMDEquipment description without physical dimensions ●

Used for Transportation Codes.

**Permissible Values for UMMD**

Z Chassis/Trailer

**Equipment Descriptor** *Mandatory* B341Additional information about the type of equipment used in conjunction with the Mechanical Designation to generate the Equipment Type Code (ETC) for Intermodal Flat, Locomotive, Chassis, Container, and Trailer equipment groups ●

Value does not carry forward for Equipment Group Change.

**Permissible Values for B341**

ZC Straight Chassis  
ZCC Combo Chassis  
ZCE Extendible Chassis  
ZCG Gooseneck Chassis  
ZCT Tri-Purpose Chassis

**Validation Rule for B341**

-Equipment Designator does not agree with the CHSS allowable Mechanical Designations

**Equipment Type Code** UMET

An alpha numeric code that describes the physical attributes of equipment

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Please Refer to Appendix I for More information Regarding ETC Generation

**Built Date** *Mandatory* BLDTThe date the construction of the equipment is complete ●

Data is Confidential. Used for Transportation Codes. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for BLDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for BLDT**

- For Trailers, Containers and Chassis, the age of the equipment if not rebuilt cannot be in excess of 50 years from today
- Prior and target equipment's Built Date (BLDT) must match for restenciling

**NOTES:**

- Data is public for railroad marked equipment.
- For connected unit cars report the oldest car in the set.

**Rebuilt / ILS Date** RBDT

The date the re-construction of the equipment is complete

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for RBDT**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for RBDT**

- For Trailers, Containers and Chassis, the Built Date cannot be on or before 25 years before the Rebuilt Date
- For Trailers, Containers and Chassis, the Built Date cannot be on or after the Rebuilt Date

**NOTES:**

- Railroad cars -- applicable only to cars meeting status as provided in both STB Accounting Rules, and the AAR Mechanical Interchange Rule 88, Office Manual.
- Private cars -- applicable to all cars meeting AAR Mechanical Interchange Rule 88, Section C, Office Manual and Sections A and B of the Field Manual.
- For connected unit cars report the oldest car in the set. Do not report Rebuilt Date unless car has been approved by the AAR.

**Rebuilt Flag** RBFL

Identifies the equipment is nearing its end of life cycle

Data is Confidential. System Generated Field. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for RBFL**

N No Y Yes

**Owner** *Mandatory* UMOWPrimary reporting mark of the railroad or private company owning the car ●

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**NOTES:**

- Report the primary reporting mark of the railroad or private company owning the car. When car's lease or lien is held by a bank, trust holder, capital lease company, etc. not having an assigned mark, report the primary reporting mark affiliated with the stenciled reporting mark.

**Equipment Group** *Mandatory* 0002Identifies the various major car types ● ●

Used for Transportation Codes. Affects Rating.

**Lessee** LESE

The reporting mark of the company leasing the equipment

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil.

**Validation Rule for LESE**

-Umler Owner (UMOW) and Lessee are not allowed to be equal

**NOTES:**

- In order to assign privately marked cars to a pool, a railroad reporting mark must be reported.

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| Maintenance Party                                                                                     | MNPT |
|-------------------------------------------------------------------------------------------------------|------|
| The parent reporting mark of the company responsible for the maintenance and repairs of the equipment |      |

Does not Carry Forward.

| Mark Owner Category                                 | B201 |
|-----------------------------------------------------|------|
| The company that owns the stenciled mark on the car |      |

System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**Permissible Values for B201**

|   |                            |
|---|----------------------------|
| B | US Private                 |
| C | Canadian Private           |
| F | Foreign Private            |
| H | Canadian Class II          |
| I | Canadian Class I           |
| J | Mexican Class I            |
| K | Canadian Class III         |
| M | Mexican Private            |
| N | US Private Steamship       |
| O | Canadian Private Steamship |
| P | Mexican Private Steamship  |
| Q | Foreign Private Steamship  |
| R | US Class II Railroad       |
| U | US Class I Railroad        |
| V | US Class III Railroad      |
| W | Mexican Class II Railroad  |
| Y | Mexican Class III Railroad |

**NOTES:**

- This value is stored in the Umler Database for informational purposes and is retrieved from the Roadmark Registry.

| Prior Equipment ID                                      | PRID |
|---------------------------------------------------------|------|
| The previous reporting mark and number of the equipment |      |

Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for PRID**

- Prior and target equipment's Built Date (BLDT) must match
- The Prior Equipment ID (0001) must belong to the same or comparable Equipment Group (0002) as the current car initial and number

**NOTES:**

- Prior ID enables equipment records to share the same historical lineage. Equipment Identification Number (EIN) is a generated id that enables these equipment records to share inspections and transaction history.

| Last Update Date                      | B122 |
|---------------------------------------|------|
| Date of the last Umler element change |      |

System Generated Field. This element is not eligible for Input.

| Equipment Add Date                                               | B082 |
|------------------------------------------------------------------|------|
| Date the reporting mark and number was added to the Umler system |      |

System Generated Field. This element is not eligible for Input.

| Status Change Reason                                    | USCR |
|---------------------------------------------------------|------|
| Identifies the reason for the current operational state |      |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for USCR**

|   |                         |
|---|-------------------------|
| I | Initial Load            |
| M | Movement                |
| O | Status Changed Manually |
| R | Restencil               |

**NOTES:**

- If movement is detected on equipment, status is changed to Active.
- If an equipment record is changed to Active, any prior equipment record is placed in Inactive status.

| Status Change Date                                             | USCT |
|----------------------------------------------------------------|------|
| Identifies the effective date of the current operational state |      |

System Generated Field. This element is not eligible for Input. Does not Carry Forward.

| Licensing State/Province   | A154 |
|----------------------------|------|
| Licensing State / Province |      |

**Permissible Values for A154**

|    |                             |
|----|-----------------------------|
| AB | Canada-Alberta              |
| AG | Mexico-Aguascalientes       |
| AK | US-Alaska                   |
| AL | US-Alabama                  |
| AR | US-Arkansas                 |
| AZ | US-Arizona                  |
| BC | Canada-British Columbia     |
| BJ | Mexico-Baja California      |
| BS | Mexico-Baja California Sur  |
| CA | US-California               |
| CH | Mexico-Chiapas              |
| CI | Mexico-Chihuahua            |
| CL | Mexico-Colima               |
| CO | US-Colorado                 |
| CP | Mexico-Campeche             |
| CT | US-Connecticut              |
| CU | Mexico-Coahuila De Zaragoza |
| DC | US-District of Columbia     |
| DE | US-Delaware                 |
| DF | Mexico-Districto Federal    |
| DG | Mexico-Durango              |
| EM | Mexico-Estado Mexico        |
| FL | US-Florida                  |
| GA | US-Georgia                  |
| GJ | Mexico-Guanajuato           |
| GR | Mexico-Guerrero             |
| HG | Mexico-Hidalgo              |
| HI | US-Hawaii                   |
| IA | US-Iowa                     |
| ID | US-Idaho                    |
| IL | US-Illinois                 |
| IN | US-Indiana                  |
| JA | Mexico-Jalisco              |
| KS | US-Kansas                   |
| KY | US-Kentucky                 |
| LA | US-Louisiana                |
| MA | US-Massachusetts            |
| MB | Canada-Manitoba             |
| MD | US-Maryland                 |
| ME | US-Maine                    |
| MH | US-Marshall Islands         |
| MI | US-Michigan                 |
| MN | US-Minnesota                |
| MO | US-Missouri                 |
| MR | Mexico-Morelos              |
| MS | US-Mississippi              |
| MT | US-Montana                  |
| MX | Mexico-Other                |
| NA | Mexico-Nayarit              |
| NB | Canada-New Brunswick        |
| NC | US-North Carolina           |
| ND | US-North Dakota             |

## Data Specification Manual

|    |                                           |
|----|-------------------------------------------|
| NE | US-Nebraska                               |
| NF | Canada-Newfoundland                       |
| NH | US-New Hampshire                          |
| NJ | US-New Jersey                             |
| NL | Mexico-Nuevo Leon                         |
| NM | US-New Mexico                             |
| NS | Canada-Nova Scotia                        |
| NT | Canada-Northwest Territories              |
| NU | Canada-Nunavut                            |
| NV | US-Nevada                                 |
| NW | Northwest Territory                       |
| NY | US-New York                               |
| OA | Mexico-Oaxaca                             |
| OH | US-Ohio                                   |
| OK | US-Oklahoma                               |
| ON | Canada-Ontario                            |
| OR | US-Oregon                                 |
| PA | US-Pennsylvania                           |
| PE | Canada-Prince Edward Island               |
| PQ | Canada-Quebec                             |
| PR | US-Puerto Rico                            |
| PU | Mexico-Puebla                             |
| QA | Mexico-Querataro                          |
| QR | Mexico-Quintana Roo                       |
| RI | US-Rhode Island                           |
| SC | US-South Carolina                         |
| SD | US-South Dakota                           |
| SI | Mexico-Sinaloa                            |
| SK | Canada-Saskatchewan                       |
| SL | Mexico-San Luis Potosi                    |
| SO | Mexico-Sonora                             |
| TA | Mexico-Tabasco                            |
| TL | Mexico-Tlaxcala                           |
| TM | Mexico-Tamaulipas                         |
| TN | US-Tennessee                              |
| TX | US-Texas                                  |
| UT | US-Utah                                   |
| VA | US-Virginia                               |
| VI | US-Virgin Islands                         |
| VL | Mexico-Veracruz-Llave                     |
| VT | US-Vermont                                |
| WA | US-Washington                             |
| WI | US-Wisconsin                              |
| WV | US-West Virginia                          |
| WY | US-Wyoming                                |
| XX | Exception (Intl. TOFC/COFC or No License) |
| YC | Mexico-Yucatan                            |
| YK | Canada-Yukon                              |
| YT | Canada-Yukon                              |
| ZT | Mexico-Zacatecas                          |

## 3 Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

**Date of Original Conflict****B063**

The date the equipment was originally placed in the current conflict

System Generated Field. This element is not eligible for Input.

**Next Conflict Status****B135**

Identifies the next escalation level of an equipment in active conflict

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B135**

- 1 Subject to Zero-Rating
- 2 Subject to Restricted in Interchange
- 3 Subject to Deletion

**NOTES:**

- Subject to Zero-Rating, goes into effect 30 days after Conflict Status occurs
- Subject to Restricted in Interchange, goes into effect 90 days after Conflict Status occurs
- Subject to Deletion, goes into effect 365 days after Conflict Status occurs

**Notice Indicator****B137**

Identifies equipment in error in Umler Notice Management

System Generated Field. This element is not eligible for Input.

**Conflict Status Next Date****B062**

The date the conflict status will be escalated

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Rate Indicator****A070**

Indicates the rate type applicable to the unit

System Generated Field. Used for Transportation Codes. Affects Rating. This element is not eligible for Input. Does not Carry Forward.

**Permissible Values for A070**

- 0 Zero-Rated Due to Conflict Errors
- 1 Units subject to special lease arrangement
- 6 Zero-Rated - Scrap (S\_SX), AAR Overage (XA), FRA Overage (YA), Umler Conflict - CHR 1/Tariff 6007 (XZ). Zero-Rated Private Owner Election to Zero Rate [See Private Zero Rate (B150)].

**NOTES:**

- If unit is zero-rated, correction of conflicts will reinstate the appropriate rate indicator code.

**First Movement Date****USAT**

The first movement date under the stenciled mark of the equipment

This element is not eligible for Input. Does not Carry Forward.

**Equipment Add Company****B083**

The reporting mark of the company that added the equipment

System Generated Field. This element is not eligible for Input.

**Registration Reason****B174**

The code indicating the reason this equipment is added

Does not Carry Forward.

**Permissible Values for B174**

- |   |                   |   |           |
|---|-------------------|---|-----------|
| A | Add-Back          | N | New       |
| P | Pending Restencil | R | Restencil |

**Equipment Identification****EINN**

Unique equipment identifier regardless of stenciled mark

System Generated Field. This element is not eligible for Input.

**NOTES:**

- Specify the Prior ID (PRID) on equipment records to ensure the historical lineage is preserved. Equipment with the same EIN share history and inspections.

**Conflict Status****B050**

Identifies the escalation level of equipment in active conflict

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Permissible Values for B050**

- 1 Subject to Zero-Rating
- 2 Subject to Restricted in Interchange



## Data Specification Manual

**Restencil Program Ind****B177**

Identifies the equipment is under a restencil program

**Permissible Values for B177**

Y Yes

**Delete Reason Code****B064**

A code that designates the reason the equipment has been deleted

Value does not carry forward for Add Back.

**Permissible Values for B064**

A Restenciled  
 D Destroyed or wrecked  
 L Lease terminated, removed from fleet  
 P Retired unserviceable beyond economic repair  
 R Rebuilt  
 S Sold Serviceable  
 T Lost  
 W Over age retired for dismantling  
 Y Error, reporting did not exist  
 Z Other

**Weight****Gross Rail Load/Weight****A266**

The maximum permissible weight on rail of the equipment and the load, reported in pounds

**Range of Values for A266**

| Minimum | Maximum |
|---------|---------|
| 4300    | 105500  |

**Validation Rule for A266**

-Gross Rail Load must be equal to the Load Limit (LDLT) plus the Tare Weight (A259)

**NOTES:**

- Gross Rail Load must be equal to the Load Limit (LDLT) plus the Tare Weight (A259)
- For connected unit cars report the total gross rail load of the entire set

Use Table 1 below to determine Gross Rail Load, if Qualification for Increased Gross Rail Load (B344) does not exist.

TABLE 1 -

| Journal Size     | Load per Axle | Gross Rail Load for 4-axle Equipment |
|------------------|---------------|--------------------------------------|
| B - 4 1/2" x 8"  | 25,750 lbs.   | 103,000 lbs.                         |
| C - 5" x 9"      | 35,500 lbs.   | 142,000 lbs.                         |
| D - 5 1/2" x 10" | 44,250 lbs.   | 177,000 lbs.                         |
| E - 6" x 11"     | 55,000 lbs.   | 220,000 lbs.                         |
| F - 6 1/2" x 12" | 65,750 lbs.   | 263,000 lbs.                         |
| G - 7" x 12"     | 78,750 lbs.   | 315,000 lbs.                         |
| K - 6 1/2" x 9"  | 71,500 lbs.   | 263,000 lbs.                         |
| M - 7" x 9"      | 78,750 lbs.   | 315,000 lbs.                         |

Use Table 2 below to determine Gross Rail Load for 4-axle equipment if Qualification for Increased Gross Rail Load (B344) exists.

TABLE 2 -

| Qualification for Increased Gross Rail Load (B344) | Journal Size     | Gross Rail Load |
|----------------------------------------------------|------------------|-----------------|
| 1                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 1                                                  | G - 7" x 12"     | 286,000 lbs.    |
| 1                                                  | M - 7" x 9"      | 286,000 lbs.    |
| 2                                                  | F - 6 1/2" x 12" | 286,000 lbs.    |
| 2                                                  | K - 6 1/2" x 9"  | 286,000 lbs.    |
| 3                                                  | F - 6 1/2" x 12" | 268,000 lbs.    |
| 3                                                  | K - 6 1/2" x 9"  | 268,000 lbs.    |

A Gross Rail Load less than the listed or calculated values may be entered; however:

- Star Code (A247) must be R or S, and
- Load Limit (LDLT) must also be reduced, ensuring Tare Weight (A259) plus Load Limit (LDLT) equals the reported Gross Rail Load.

For equipment having two or more different journal sizes, see following examples:

Example for Drawbar Connected:

- A 3-unit drawbar connected car has 12 axles.
- The end units (Locations A and B) each have 4 axles with E - 6" x 11" journals.
- The intermediate unit (Locations C) has 4 axles with F - 6 1/2" x 12" journals

Using TABLE 1, the Gross Rail Load would be:

$$\begin{aligned}
 &8 \text{ ea. E-6" x 11" journal axles X } 55,000 \text{ lbs. per axle} = 440,000 \text{ lbs.} \\
 &+ 4 \text{ ea. F-6 1/2" x 12" journal axles X } 65,750 \text{ lbs. per axle} = 263,000 \text{ lbs.} \\
 &\text{Gross Rail Load} = 703,000 \text{ lbs.}
 \end{aligned}$$

Example for IFLT &amp; VFLT:

- A 5-unit articulated intermodal car has 6 trucks (12 axles).
- The end trucks (Locations A and B) each have 2 axles with E - 6" x 11" journals.
- The intermediate trucks (Locations C, D, E, and F) each have 2 axles with G - 7" x 12" journals.

Using TABLE 1, the Gross Rail Load would be:

$$\begin{aligned}
 &4 \text{ ea. E-6" x 11" journal axles X } 55,000 \text{ lbs. per axle} = 220,000 \text{ lbs.} \\
 &+ 8 \text{ ea. G-7" x 12" journal axles X } 78,750 \text{ lbs. per axle} = 630,000 \text{ lbs.} \\
 &\text{Gross Rail Load} = 850,000 \text{ lbs.}
 \end{aligned}$$

**Tare Weight****A259**

The equipment weight on rail when empty, sometimes referred to as Light Weight, reported in pounds

**Range of Values for A259**

| Minimum | Maximum |
|---------|---------|
| 3500    | 33000   |

**NOTES:**

Do not report an average Tare Weight for car series, except for Pre-Registered cars

- When cars are made active, the actual Tare Weight must be recorded

**Load Limit****LDLT**

The maximum permissible weight of the commodity that can be loaded into the equipment, reported in pounds

**Range of Values for LDLT**

| Minimum | Maximum |
|---------|---------|
| 0       | 91000   |

**Dimension****Outside Length Mandatory****OSLG**

The outside length over pulling faces of couplers in normal position

Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for OSLG**

| Minimum        | Maximum        |
|----------------|----------------|
| 15 ft 7 inches | 57 ft 0 inches |

**Validation Rule for OSLG**

-For CHSS Equipment Descriptor of ZC the Outside Length must be greater than 40 feet

## Data Specification Manual

**NOTES:**

- For connected unit cars report the maximum coupled length of the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"
- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

**Outside Extreme Width** *Mandatory* A186The outside extreme width of the equipment ●

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A186**

| Minimum       | Maximum       |
|---------------|---------------|
| 7 ft 3 inches | 8 ft 6 inches |

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Outside Extreme Height** *Mandatory* A185Height from top of rail to extreme projecting height ●▲

Used in ETC Generation. Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A185**

| Minimum        | Maximum       |
|----------------|---------------|
| 2 ft 10 inches | 4 ft 9 inches |

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Outside Height Extr Width** A187

The highest point at which the extreme width of the equipment occurs

Displayed in feet and inches on the Web. Stored in inches.

**Range of Values for A187**

| Minimum        | Maximum       |
|----------------|---------------|
| 2 ft 10 inches | 4 ft 9 inches |

**Validation Rule for A187**

-Outside Height Extreme Width must be less than or equal to Outside Extreme Height

**NOTES:**

- For connected unit cars report the dimension of the largest unit in the set.
- Round fraction to the higher inch, e.g., 05 1/4" = 06"

**Undercarriage Width** B217Undercarriage Width ▲

Used in ETC Generation.

**Permissible Values for B217**

102 102 inches 96 96 inches

**Validation Rule for B217**

-Undercarriage Width must be set if Undercarriage Type is set

**Specification****Undercarriage Type** B216

Undercarriage Type

**Permissible Values for B216**

F Fix Forward R Fixed Rear S Sliding

**Validation Rule for B216**

-Undercarriage Type must be set if Undercarriage Width is set

**Extendable CHSS Leng Rnge** B307Extendable Chassis Length Range ▲

Used in ETC Generation.

**Permissible Values for B307**A 40' to 45'  
B 40' to 53'

C 45' to 53'

D 48' to 53' (new - ETC Impact Make Effective 072010)

E 53' to 57' (new - ETC Impact Make Effective 072010)

**Chassis Loading Combo** B404Chassis loading combinations, used in ETC Generation for Z1\_\_ ▲

Used in ETC Generation.

**Permissible Values for B404**A 20ft/24ft Chassis Combination  
B 20ft/40ft Chassis Combination**King Pin Setting** A149

King Pin Setting

**Permissible Values for A149**18 18 Inches  
24 24 inches  
28 28 inches  
30 30 inches  
32 32 inches  
36 36 inches (standard)  
42 42 inches**Forward Extension** A106

Forward Extension

**Range of Values for A106**

| Minimum | Maximum |
|---------|---------|
| 18      | 60      |

**Brake Type** A034

Brake System

**Permissible Values for A034**

A Air E Electric V Vacuum

**Axle Count** *Mandatory* A024The total number of axles on the equipment ●●

Affects Rating.

**Range of Values for A024**

| Minimum | Maximum |
|---------|---------|
| 1       | 999     |

**Validation Rule for A024**

-Axle Count for an articulated car must be greater than or equal to

((Connected Unit Count (A020) x 2) + 2)

-Axle Count for a draw bar connected car must be greater than or equal to

(Connected Unit Count (A020) x 4)

**NOTES:**

- This element is programmed into AEI tags for railcar identification and serves an important operating and train handling function.

**Tire Size & Wheel Size** A261

Tire Size &amp; Wheel Size

**Range of Values for A261**

| Minimum | Maximum  |
|---------|----------|
| 7351400 | 12002500 |

**Remote Monitoring Device** B176

Indicates the equipment has a device that transmits a signal or records data

**Permissible Values for B176**

Y Yes

**NOTES:**

- Per AAR S-2045, This may be data related to ride quality, geographic location, temperature/condition of the load, load/empty status, etc.

## Data Specification Manual

| Equipment Builder                                     |                                           | A035 |
|-------------------------------------------------------|-------------------------------------------|------|
| Identifies the original manufacturer of the equipment |                                           | ✱    |
| <b>Permissible Values for A035</b>                    |                                           |      |
| 2                                                     | GLENAYRE (DSL)                            |      |
| 3                                                     | GLENAYRE                                  |      |
| 4                                                     | PULSE ELEC. INC.                          |      |
| 5                                                     | WABTEC                                    |      |
| 6                                                     | HARMON                                    |      |
| 7                                                     | U.S. & S                                  |      |
| 8                                                     | NOT USED                                  |      |
| 9                                                     | NORFOLK SOUTHERN RWY                      |      |
| AB                                                    | AMF BEAIRD                                |      |
| ABB                                                   | Asea Brown Baviari                        |      |
| ACC                                                   | American Crane Company                    |      |
| ACCI                                                  | Accurate Industries                       |      |
| ACF                                                   | American Car & Foundry                    |      |
| ACFX                                                  | ACF Industries                            |      |
| ALCC                                                  | Alloy Crafts Company                      |      |
| ALCO                                                  | American Locomotive Company               |      |
| ALGE                                                  | Alco-GE                                   |      |
| ALST                                                  | Alstom                                    |      |
| ALTN                                                  | Altoona                                   |      |
| ALWO                                                  | Alco-Worthington                          |      |
| ARI                                                   | ARI Industries                            |      |
| B                                                     | BALDWIN-LIMA-HAMILTON                     |      |
| BERW                                                  | Berwick Forge                             |      |
| BETH                                                  | Bethlehem Car Works                       |      |
| BL                                                    | Boise Locomotive                          |      |
| BLH                                                   | Baldwin Lima Hamilton                     |      |
| BLW                                                   | Baldwin Locomotive Works                  |      |
| BOMB                                                  | Bombardier                                |      |
| BRIL                                                  | Brill                                     |      |
| BRKS                                                  | Brooks Locomotive Works                   |      |
| BS                                                    | Barney & Smith                            |      |
| BSP                                                   | Bethlehem Steel Corporation               |      |
| BUDD                                                  | Ed G Budd Company                         |      |
| BURR                                                  | Burro Crane Works                         |      |
| C                                                     | BALDWIN-LOCOMOTIVE CO.                    |      |
| CAN                                                   | Canadian Car                              |      |
| CE                                                    | CHESAPEAKE & OHIO                         |      |
| CFF                                                   | Canadian Car & Foundry                    |      |
| CHIN                                                  | Chinese builders (various)                |      |
| CLC                                                   | Canadian Locomotive Company               |      |
| CLW                                                   | Climax Locomotive Works                   |      |
| CN                                                    | Canadian National                         |      |
| CNCF                                                  | Carros De Ferrocarril, SA                 |      |
| CNR                                                   | Canadian National Railway                 |      |
| CONC                                                  | Concarrill                                |      |
| CPR                                                   | Canadian Pacific                          |      |
| CRMX                                                  | Colorado Railcar Manufacturing            |      |
| CSXR                                                  | CSX Remanufacture                         |      |
| D                                                     | BOMBARDIER                                |      |
| DARB                                                  | Darby                                     |      |
| DAV                                                   | Davenport Locomotive Company              |      |
| DETR                                                  | Detroit Car Works                         |      |
| DIFC                                                  | Difco                                     |      |
| DO                                                    | DORSEY                                    |      |
| DSL                                                   | Davies Ship Building                      |      |
| E                                                     | CANADIAN GENERAL ELECTRIC                 |      |
| EASX                                                  | East Rail Car Division                    |      |
| EMAB                                                  | ElectroMotive Diesel - Asea Brown Baviari |      |
| EMC                                                   | ElectroMotive Corporation                 |      |
| EMD                                                   | ElectroMotive Diesel                      |      |
| ETIS                                                  | QUANTUM                                   |      |
| EVAN                                                  | Evans Products                            |      |
| F                                                     | CANADIAN LOCOMOTIVE CO.                   |      |
| FCA                                                   | Freight Car America                       |      |

|      |                                               |
|------|-----------------------------------------------|
| FGRW | FRTGRW                                        |
| FM   | Fairbanks Morse                               |
| FMC  | FMC Corporation                               |
| FRCE | Freight Car Engineering                       |
| FREU | Freuhauf Corporation                          |
| G    | DAVENPORT LOCOMOTIVE CO.                      |
| GATX | General American Transportation Corp          |
| GE   | General Electric                              |
| GEC  | GEC Alsthom                                   |
| GENS | General Steel                                 |
| GJ   | GUANGZHOU JINDO                               |
| GLOB | Global Lot                                    |
| GMB  | Greenbrier                                    |
| GMDD | General Motors Diesel Division                |
| GR   | GREAT DANE                                    |
| GREX | Georgetown Rail Equipment Company             |
| GROV | Grove                                         |
| GSC  | Greenville Steel Car                          |
| GSWI | Gunderson Southwest Inc                       |
| GULF | Gulf Railcar                                  |
| GUN4 | Gunderson - Trenton Works                     |
| GUND | Gunderson Inc                                 |
| GUNM | Gunderson - Mexico                            |
| H    | ELECTRO-MOTIVE DIVISION, GENERAL MOTORS CORP. |
| HA   | HARGIS RAILCAR                                |
| HAMB | Hamburg Fab Shop                              |
| HARS | Harsco                                        |
| HB   | Haskell & Baker                               |
| HEIS | Heisler Locomotive Works                      |
| HIIX | Hamburg                                       |
| HP   | HPA MONON                                     |
| HPA  | HPA Monon Corporation                         |
| HST  | Hawker Siddeley                               |
| HYUN | Hyundai                                       |
| I    | FAIRBANKS MORSE                               |
| IA   | INGALLS                                       |
| IBH  | Industrial Brown Hoist                        |
| ICC  | International Car Company                     |
| ICG  | Interglobal Capital                           |
| IR   | Ingersoll Rand                                |
| J    | GENERAL ELECTRIC                              |
| JAC  | Johnstown America Corporation                 |
| JACK | Jackson Equipment Company                     |
| JLW  | Juniata Locomotive Works                      |
| JNS  | JINDO SEOUL                                   |
| JORD | Jordan Machine Works                          |
| JS   | Jackson & Sharp                               |
| K    | GENERAL ELECTRIC AGUASCALIENTES               |
| KASG | Kasgro Railcar                                |
| KM   | Krauss Maffei                                 |
| KRCA | Kawasaki Railcar America                      |
| L    | GENERAL ELECTRIC DE BRAZIL                    |
| LAVE | Lavelin                                       |
| LH   | Lima-Hamilton                                 |
| LIMA | Lima Locomotive Works                         |
| LOCO | AMERICAN LOCOMOTIVE CO.                       |
| LOX  | Lox Equipment Company                         |
| M    | GENERAL MOTORS-DIESEL DIV. CANADA             |
| MA   | MANAC                                         |
| MC   | MARATHON TANK CAR                             |
| MCDW | McDowell Wellman                              |
| MF   | MECHTRON                                      |
| MH   | MURFREESBORO (BUTLER)                         |
| MILW | CMSTP & P Railroad                            |
| MK   | Morrison-Knudson                              |
| MLW  | Montreal Locomotive Works                     |
| MO   | MONON                                         |
| MRCO | Millennium Railcar, Dome Division             |

## Data Specification Manual

|      |                                                  |
|------|--------------------------------------------------|
| MRNE | Marine Industries                                |
| N    | GENERAL MOTORS-DIESEL DIV.                       |
| NACC | North American Car                               |
| NG   | NORFOLK & WESTERN                                |
| NIPP | Nippon-Sharyo                                    |
| NRE  | National Railway Equipment                       |
| NSC  | National Steel Car                               |
| O    | J.G. BRILL CO.                                   |
| OB   | Osgood Bradley Car Company                       |
| OK   | OSHKOSH                                          |
| ORTN | Ortner                                           |
| P    | KRAUSS-MAFFEL, A.G.                              |
| PC   | PINES                                            |
| PCF  | Pacific Car & Foundry                            |
| PCM  | Pullman Car & Manufacturing                      |
| PE   | PORTEC                                           |
| PLAS | Plasser America                                  |
| PLC  | Paducah Locomotive Company                       |
| PORT | Porter Locomotive Company                        |
| PORW | Thrall-Winder                                    |
| PRAT | Pratt Enterprises                                |
| PRO  | Procor Limited                                   |
| PS   | Pullman-Standard                                 |
| PSCC | Pressed Steel Car Company                        |
| PSP  | Pullman-Standard, Division of Trinity Industries |
| PT   | Plasser & Theurer                                |
| Q    | LIMA-HAMILTON                                    |
| R    | MORRISON-KNUDSEN                                 |
| RCC  | Raceland Car Corporation                         |
| REBD | Reilly Beard                                     |
| RELC | Relco                                            |
| RICH | Richmond Locomotive Works                        |
| ROAN | Roanoke Shops                                    |
| ROTA | Rota Car Company                                 |
| RP   | RailPower                                        |
| RTCX | Richmond Tank Car                                |
| RUSS | Russian builders (various)                       |
| S    | MONTREAL LOCOMOTIVE WORKS                        |
| SC   | SOUTHEASTERN                                     |
| SCM  | Standard Car Manufacturing                       |
| SG   | STRICK                                           |
| SI   | SOUTH IRON                                       |
| SIEM | Siemens                                          |
| SLC  | Saint Louis Car Company                          |
| SRSC | Springfield Railcar                              |
| SSCC | Standard Steel Car Company                       |
| SU   | STOUGHTON                                        |
| T    | PLYMOUTH LOCOMOTIVE WORKS                        |
| TA   | Transit America                                  |
| TERX | Terex Corporation                                |
| THR  | Thrall Car Service Parts                         |
| THR4 | Thrall - Cartersville                            |
| THRL | Thrall                                           |
| TLGA | Talgo America                                    |
| TM   | TRAILMOBILE                                      |
| TRAN | Tranzrail                                        |
| TRIN | Trinity                                          |
| TRIS | Trinity - Springfield MO                         |
| TRIX | Trinity Mexico                                   |
| TT   | TEXANA TANK                                      |
| U    | H.J.POTTER                                       |
| UNAM | United America                                   |
| UNKN | Unknown                                          |
| UT   | UTILITY                                          |
| UTLX | Union Tank Car                                   |
| V    | OWNER RAILROAD                                   |
| VENT | Ventrns                                          |
| VULC | Vulcan Locomotive Works                          |

|      |                            |
|------|----------------------------|
| W    | WHITECOMP LOCOMOTIVE WORKS |
| WABN | Wabash National            |
| WAG  | Wagner Car Company         |
| X    | PEORIA LOCOMOTIVE WORKS    |
| Y    | REPUBLIC LOCOMOTIVES       |

**Validation Rule for A035**

- Equipment built or rebuilt on or after July 1, 2010 cannot have a Equipment Builder of Unknown
- Equipment with a Built Date (BLDT) on or after July 1, 2010 cannot have an Equipment Builder Code of OWNER RAILROAD.
- Equipment Builder can have a value of MULT only if the equipment has multiple units.

**Builder Lot Code****B030**

A unique identifier for a group of equipment built by one manufacturer under the same contract

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Validation Rule for B030**

- Equipment built or rebuilt on or after June 28, 2012 must have a value for Builder Lot Code

**NOTES:**

- If the value is unknown, enter six zeroes (000000).

**Built Country****B031**

The country where the equipment was constructed

Data is Confidential.

**Permissible Values for B031**

|    |               |    |        |
|----|---------------|----|--------|
| CA | Canada        | MX | Mexico |
| US | United States |    |        |

**Rebuilt Country****B170**

The country where the equipment was re-constructed

**Permissible Values for B170**

|    |               |    |        |
|----|---------------|----|--------|
| CA | Canada        | MX | Mexico |
| US | United States |    |        |

**Feature****Vertical CHSS Storage****B340**

Equipped For Vertical Chassis Storage

**Permissible Values for B340**

Y Yes

**Cost****Original Cost****A184**

The original manufacturer selling price

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A184**

| Minimum | Maximum |
|---------|---------|
| 0       | 999999  |

**Validation Rule for A184**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Original Cost must be equal to the Ledger Value if Additions & Betterments Indicator is not reported.
- Railroad marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost
- Private marked freight cars except MISC, LOCO, TRLR, CONT, CHSS, STWH, EOTD, and PSGR are required to have an Original Cost if Built Date (BLDT) is on or after January 1, 2015

**NOTES:**

- Original Cost is never altered. It is the cost of the equipment to the original owner.

## Data Specification Manual

- For railroad-marked cars, report in US dollars the original ledger value of the original owner. For cars rebuilt, report the cost prescribed in MR Interchange Rule 88 and Circular Letter OT-24
- The original cost is used in the settlement of AAR Interchange Rule 107 Office Manual.
- For connected unit cars report the total original cost for all units in the set.
- Numeric, applicable to all railroad-marked cars. Also, applicable to privately marked covered hopper (LO) cars.
- Raise all cents to the next dollar, e.g. \$5,501.02 = 0005502

**Ledger Value** **A150**

The sum of original cost and additions &amp; betterments

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A150**

| Minimum | Maximum |
|---------|---------|
| 0       | 999999  |

**Validation Rule for A150**

- Original Cost must be equal to the Ledger Value if there are no Additions & Betterments.
- Ledger Value must equal the Original Cost (A184) plus the additions & betterments, if Total A&B (A003) has been reported. Otherwise Ledger Value should equal Original Cost (A184).

**Total A&B** **A003**

System generated sum of all reported amounts in A&amp;B Amount (A317), in US dollars

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A003**

| Minimum | Maximum  |
|---------|----------|
| 0       | 99999999 |

**NOTES:**

- For railroad-marked cars, report the sum of all additions and betterments applied to the car. This value is for record keeping purposes only and will not be used to report Ledger Value.
- For private Cars report the additions and betterments as qualified under AAR interchange Rule 107 for determination of settlement value.
- For privately marked covered hopper (LO) cars, report (if not in original cost) the cost of original into-service freight, capitalized linings, capitalized additions and betterments as authorized by Freight Tariff 6007-series. This field is used to determine Adjusted Value for mileage rate calculations.
  - Additions are costs of all new components applied subsequent to the date the car was built or rebuilt and carried in the capital investment account.
  - Betterments are costs of all improvements of components of existing equipment through the substitution of superior parts for inferior parts subsequent to the date the car was built or rebuilt.
- For connected unit cars report the total Truck Location A for all units in the set

**Ind for Pos/Neg Total A&B** **A128**

A code indicating the positive or negative adjustment to the original cost of the equipment

Data is Confidential. System Generated Field. This element is not eligible for Input. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A128**

N Negative P Positive

**A&B Pos/Neg Ind** **A316**

A code indicating the positive or negative adjustment to the individual addition and betterment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A316**

N Negative P Positive

**Validation Rule for A316**

-When entering an individual Addition &amp; Betterment, you must enter a value in all 4 fields.

-The A&amp;B Indicator is required when Additions &amp; Betterments are reported.

-The A&amp;B Indicator must not be reported if Additions &amp; Betterments are not reported.

**A&B Amount****A317**

The amount of the individual addition and betterment added to or subtracted from the original cost of the equipment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A317**

| Minimum | Maximum |
|---------|---------|
| 1       | 999999  |

**Validation Rule for A317**

-When entering an individual addition & betterment; A&B Date Done (A319), A&B Type (A318), A&B Pos/Neg Ind (A316), and A&B Amount (A317) must be reported

**A&B Date Done****A319**

The date of the individual addition and betterment

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Range of Values for A319**

| Minimum  | Maximum    |
|----------|------------|
| 1/1/1900 | 12/31/9999 |

**Validation Rule for A319**

- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.
- Addition and Betterment Date Done cannot be earlier than Built Date (BLDT).
- Additions & Betterments Date Done cannot be later than today's date.

**A&B Type****A318**

The type of individual addition and betterment as defined by Rule 107

Data is Confidential. Value does not carry forward for Single Clone / Multi-Clone.

**Permissible Values for A318**

GNRL General - Capitalized Additions and Betterments  
INIT Initial load of historical A&B amount as of Umler 4.6 implementation date

**Validation Rule for A318**

- For each equipment, only one Individual A&B Type can have a value of INIT.
- When entering an individual Addition & Betterment, you must enter a value in all 4 fields.

**Car Management****Pool Number****P001**

Unique number used to indicate the grouping of equipment for a particular purpose

Used for Transportation Codes. This element is not eligible for Input. Value does not carry forward for Equipment Group Change / Add Back.

**User Routing Instructions****TCUR**

The routing instruction reported by the user

Used for Transportation Codes.

**Permissible Values for TCUR**

2 Trailer Service Rule 2  
G Contaminated commodity service  
M Mark canceled  
O Owner requested return

## Data Specification Manual

U Unassigned equipment

**NOTES:**

- For further explanation reference Appendix E.

**Umler Transportation Code** **TCOD**

The type of assigned service, empty routing or restriction of the equipment  
System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

**Transportation Cond Code** **TCCD**

The AAR or FRA interchange restriction code

System Generated Field. Used for Transportation Codes. This element is not eligible for Input.

**NOTES:**

- For further explanation reference Appendix E.

**Mechanical Restriction** **TCME**

User reported or system generated type of mechanical restriction

Used for Transportation Codes.

**Permissible Values for TCME**

- S Scrap
- X AAR Interchange Restriction

**NOTES:**

- For further explanation reference Appendix D.1

**Mech Restriction Reason** **TCMR**

The explanation of the Mechanical Restriction (TCME)

Used for Transportation Codes.

**Permissible Values for TCMR**

- X Restricted Due to Scrap or Early Warning
- Z Restricted Due to Umler Conflict (Not Valid for User Input)

**NOTES:**

- For further explanation reference Appendix D.2.
- The assignment of the Transportation Codes S\_, SX, XA, XZ and YA generate the Rate Indicator Code 6 to the CHARM file to zero (0) rate the car hire and mileage rate.

**Miscellaneous****Commercial Owner CIF** **B049**

The Customer Identification File (CIF) number for a commercial owner at a specific location

**Commercial Lessee CIF** **B048**

The Customer Identification File (CIF) number for a commercial lessee at a specific location

**Umler Effective Date** **EFDT**

The date the rating activity (pre-registration, modification, etc.) is expected to occur

This element is not eligible for Query. Does not Carry Forward.

**Validation Rule for EFDT**

-Effective Date cannot be set to more than 13 months in the future.

**NOTES:**

- Effective Date will default to the 1st of the following month that equipment is registered

**Inspection****Inspection Date Done** **DTDN**

The date the inspection was completed; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Validation Rule for DTDN**

-The inspection date must not be 60 days before the Build Date

**Inspection Due Date** **INDD**

The due date of the next inspection; used for all inspection types reported on equipment

System Generated Field. This element is not eligible for Input. Value does not carry forward for Add Back.

**Inspection Performer** **PERF**

The SCAC that completed the inspection; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Inspection Reporter** **REPT**

The SCAC that reported the inspection; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.

**Location/SPLC** **SPLC**

The SPLC of the inspecting location; used for all inspection types reported on equipment

Value does not carry forward for Single Clone / Multi-Clone / Add Back.



## Customer Specific Group

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## Data Specification Manual

## General

**Equipment ID** 0001

The equipment stenciled number

Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**Validation Rule for 0001**

-Equipment Number must not be larger than 6 digits (i.e., 999999)

**NOTES:**

- Equipment ID includes the mark and number stenciled on the equipment. Marks can be up to 4 characters and number up to 6 digits (i.e., ABCD999999).
- Up to 500 cars can be added or updated in a transaction.
- When adding an equipment record, ensure that Prior Equipment ID (PRID) is reported, unless the equipment is new.

**CSEG Field Q** GRFQ

Company Specific Equipment Group Field Q

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**CSEG Field R** GRFR

Company Specific Equipment Group Field R

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**CSEG Field S** GRFS

Company Specific Equipment Group Field S

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**CSEG Field T** GRFT

Company Specific Equipment Group Field T

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**CSEG Field P** GRFP

Company Specific Equipment Group Field P

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**CSEG Field W** GRFW

Company Specific Equipment Group Field W

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**CSEG Field V** GRFV

Company Specific Equipment Group Field V

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**CSEG Field O** GRFO

Company Specific Equipment Group Field O

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**CSEG Field U**

GRFU

Company Specific Equipment Group Field U

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**CSEG Field X**

GRFX

Company Specific Equipment Group Field X

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**CSEG Field Z**

GRFZ

Company Specific Equipment Group Field Z

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**CSEG Group ID**

GRID

Group ID

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**CSEG Field N**

GRFN

Company Specific Equipment Group Field N

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**CSEG Field C**

GRFC

Company Specific Equipment Group Field C

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**CSEG Group Name**

GRNM

Company Specific Equipment Group Name

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**CSEG Field Y**

GRFY

Company Specific Equipment Group Field Y

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**CSEG Field B**

GRFB

Company Specific Equipment Group Field B

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

**CSEG Field E**

GRFE

Company Specific Equipment Group Field E

## Data Specification Manual

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

| CSEG Field A                             | GRFA |
|------------------------------------------|------|
| Company Specific Equipment Group Field A |      |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

| CSEG Field M                             | GRFM |
|------------------------------------------|------|
| Company Specific Equipment Group Field M |      |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

| CSEG Field D                             | GRFD |
|------------------------------------------|------|
| Company Specific Equipment Group Field D |      |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

| CSEG Field F                             | GRFF |
|------------------------------------------|------|
| Company Specific Equipment Group Field F |      |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

| CSEG Field G                             | GRFG |
|------------------------------------------|------|
| Company Specific Equipment Group Field G |      |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

| CSEG Field H                             | GRFH |
|------------------------------------------|------|
| Company Specific Equipment Group Field H |      |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

| CSEG Field I                             | GRFI |
|------------------------------------------|------|
| Company Specific Equipment Group Field I |      |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

| CSEG Field J                             | GRFJ |
|------------------------------------------|------|
| Company Specific Equipment Group Field J |      |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

| CSEG Field K                             | GRFK |
|------------------------------------------|------|
| Company Specific Equipment Group Field K |      |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

| CSEG Field L                             | GRFL |
|------------------------------------------|------|
| Company Specific Equipment Group Field L |      |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

| CSEG Group Description                       | GRDS |
|----------------------------------------------|------|
| Company Specific Equipment Group Description |      |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

| Pool Description <i>Mandatory</i> | P002 |
|-----------------------------------|------|
| Pool Description                  | ●    |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

| Pool Loading Location <i>Mandatory</i> | P003 |
|----------------------------------------|------|
| Pool Loading Location                  | ●    |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

| Pool Loading State/Prov <i>Mandatory</i> | P004 |
|------------------------------------------|------|
| Pool Loading Location State/Province     | ●    |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

| Pool Reporter | P005 |
|---------------|------|
| Pool Reporter |      |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

| Pool Type <i>Mandatory</i> | P006 |
|----------------------------|------|
| Pool Type                  | ●    |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

## Permissible Values for P006

|   |   |   |   |   |
|---|---|---|---|---|
| C | G | J | N | O |
| P | T |   |   |   |

| Extended Pool Description | P008 |
|---------------------------|------|
| Extended Pool Description |      |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

| Pool Operator 1 | P011 |
|-----------------|------|
| Pool Operator 1 |      |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

| Pool Operator 2 | P012 |
|-----------------|------|
| Pool Operator 2 |      |

This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back.

|                                                                                                                                                                                                |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Pool Operator 3                                                                                                                                                                                | P013 |
| Pool Operator 3                                                                                                                                                                                |      |
| This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back. |      |
| Pool Operator 4                                                                                                                                                                                | P014 |
| Pool Operator 4                                                                                                                                                                                |      |
| This element is not eligible for Input, Output or Query. Value does not carry forward for Single Clone / Multi-Clone / Single Restencil / Multi-Restencil / Equipment Group Change / Add Back. |      |

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## Appendix A: Business Rules

The Pool Assignment/Unassignment and Equipment Management Codes Business Rules reflect the compilation of business rules based on the following criteria.

- Documented business rules
- Knowledge of business practices (undocumented business rules)
- Business knowledge of current application functionality

It is possible that the business rules in the existing application code differ from the business rules stated herein. Rules codified in existing applications cannot be assumed to override those rules stated herein or vice-versa. If discrepancies are identified when reviewing the existing code, each discrepancy must be brought to the attention of the business team for resolution.

The current system provides two one-position codes – the Transportation Code (TC) and the Transportation Condition Code (TCC) – for application to its car management systems.

In order to simplify the codification structure and industry processing, the Transportation Code and the Transportation Condition Code have been defined as five distinct data elements called Equipment Management Codes (EMC) consisting of:

- User Reported Equipment Management Code
- System Generated Equipment Management Code
- Pool Control Equipment Management Code
- Mechanical Restriction Equipment Management Code
- Mechanical Restriction Reason Equipment Management Code

When one of these data elements is individually referenced, they will be identified as:

- User Reported (UR)
- System Generated (SG)
- Pool Control (PC)
- Mechanical Restriction (MR)
- Mechanical Restriction Reason (MRR)

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**Note:** The Mechanical Restriction (MR) and Mechanical Restriction Reason (MRR) are referenced in this document as Mechanical Codes.

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The current system codes (TC and TCC) co-exist with the new Equipment Management Codes in Umler. Existing Event Repository and legacy TRAIN II messages will continue to accept submissions of the TC/TCC codes. When these codes are submitted through the legacy systems, the Umler system will generate the appropriate Umler Equipment Management Codes based on the rules outlined herein. For direct users of Umler, the TC/TCC codes are output-only fields that are generated by Equipment Management Codes based on the rules outlined in this document.

This document defines the Umler processing associated with equipment management as it relates to the use of the Equipment Management codes versus the legacy TC/TCC codes. For example, the Event Repository system may generate a TC/TCC which is processed by the Umler system resulting in the generation of the appropriate Equipment Management Codes. Only the resulting EMC codes are discussed. The conversion of TC/TCC to Equipment Management Codes can be found in [E.5 Equipment Management Codes /Umler Transportation Codes](#). Also refer to Section 4. Equipment Management Codes for more details regarding the usage and values associated with these new Umler data elements.

In this document “Owner” pertains to the owner of the Mark that is stenciled on the side of the car, not the data element that is defined as the “Equipment Owner” in Umler. The stenciled mark owner is defined in the IRF Mark File.

### A.1 Pool Assignment/Reassignment/Unassignment Requirements

#### A.1.1 Definition of a Pool

The AAR Industry pools are a collection of equipment grouped for a specific purpose and identified by a unique 7-digit (alphanumeric) pool identifier. Pools may be established for several reasons such as cited below.

- To handle the needs of a specific railroad or a railroad’s customers (these pools are identified by a 3-digit prefix using the railroad’s Accounting/Rule260 Code).
- To handle multiple railroads operating jointly to service one customer or service type (these pools are identified by a 3-digit prefix of 998).
- To handle rail industry needs through National Pools established by the AAR (these pools are identified by a 3-digit prefix of 999) and managed by the stenciled mark owner or a rail industry assigned manager; i.e., Reload National Pools, Box Car National Pools.

## A.1.2 Creation of Pool Header

Before equipment is assigned to a pool, a pool header is established. The pool header identifies the pool Identifier, the type of pool (commodity, agent, shipper, contaminated, or national), a descriptive name for the pool, pool location information, and the pool operator(s) if applicable. After a Pool Header is established, equipment may be assigned (added) to the pool. The business rules for the creation and management of a Pool Header can be found in Railinc's Pool Header Business Rules document.

## A.1.3 Assignment of Unassigned Equipment to a Pool

Pool assignment is defined as the assignment (addition) of equipment to a pool that was not previously in a pool. In this respect, equipment assignment pertains to the addition of a 7-digit Pool Identifier that is not equal to zeros ('0000000'). Equipment unassignment pertains to the removal of the equipment from a pool by the addition of a 7-digit Pool Identifier with a value of zeros ('0000000'). There are very strict rules associated with pool assignments which are imbedded into the Umler application. These rules must be met in order for equipment to be successfully assigned to a pool.

The Pool Type Code in the Pool Header is one of the key elements used to determine whether equipment can be assigned to the pool. The Pool Type Code is used to identify the Mechanical Designations (or Equipment Types) that can be assigned to a pool based on the Car Service Directives applicable to the Pool Type. The relationship between the Car Directives and Orders, the Pool Type Code and the Mechanical Designations and Equipment Types is defined in [B.1 Mechanical Designations Applicable to Car Directives and Orders](#).

In addition to the rules associated with the relationship between the Pool Type and the Mechanical Designations (Equipment Types), there are rules associated with the Pool Category (railroad pool, joint pool or national pool), the Submitter Authorization (refer to [C.2 Pool Assignment and Unassignment Security Rules](#)), Rule 260 Validation, Railroad Control Status, and existing Equipment Management Codes Status.

These rules are summarized in [Appendix C: Pool Assignment Rules](#) and are based on the following pool categories.

- Railroad Pools
- Joint Pools
- National Pools
- National Pools Managed by TTX

If the equipment passes the applicable assignment rules, the equipment is assigned to the pool and assigned a Pool Control Code based on the Pool Type of the existing Pool Header. Refer to [B.2 Pool Type and Equipment Management Code \(EMC\) Relationship](#) and [E.1 EMC Application for Pool](#).

Equipment, which is defined as being overage according to Rules 88 and 90, is restricted in interchange service, and therefore will be assigned a Mechanical Restriction Code of 'X' and a Mechanical Restriction Reason Code of 'A' automatically by the system. If this equipment is assigned to a pool, this equipment will also carry the applicable Pool Control Code. Refer to Section [A.1.5.4.2](#) for more details on this processing. Also refer to [Appendix F: Overage Processing for XA or YA for Freight Equipment](#).

Refer to [B.2 Pool Type and Equipment Management Code \(EMC\) Relationship](#) which identifies the Equipment Management Code assigned to equipment based on the Pool Type of the Pool Header and identifies those pool types which may have Umler Mechanical Codes of XA (Mechanical Restriction Code of X and Mechanical Restriction Reason Code of A).

## A.1.4 Reassignment of Equipment to Another Pool

The reassignment of equipment is defined as moving equipment from one pool to another pool, or in the Umler system, changing the Pool Identifier data element. The Pool Assignment Rules, defined in [Appendix B](#); and [Appendix C](#); are used in qualifying the equipment for reassignment to the new pool. In addition, authority to remove (unassign) the equipment from its existing pool, as defined in [C.2](#), is added to the equation.

Below are a few additional rules for reassignment From/To Railroad/Joint pools.

- If the Pool Operator 1 or designated reporter/agent of the From Pool is the Pool Operator 1 or designated reporter/agent of the To Pool, then the equipment can be re-assigned.
- If the Pool Operator 1 or designated reporter/agent of the To Pool is the stenciled mark owner in the From Pool, the equipment can be re-assigned.
- The Railinc Administrator can re-assign equipment.

Re-assignment from a Railroad/Joint/National pool to a National pool can only be done by the stenciled mark owner, the Railinc Administrator, or Railinc assigned administrator for authorized National pools (Refer to [C.2 Pool Assignment and Unassignment Security Rules](#)).

For reassignment from a National pool to a Railroad/Joint pool, the stenciled mark owner must be the Pool Operator 1 of the 'To Pool' or the designated reporter/agent of the 'To Pool'.

If the equipment is being reassigned to the same pool by the Pool Operator 1 or the designated reporter/agent, the submitter will receive an error identifying that the equipment is already assigned to the pool. If the Pool Operator identifies that their database is not in agreement with Railinc's database, a refresh request can be submitted which will generate output to the submitter on the current status of the equipment.

## A.1.5 Unassignment of Equipment from a Pool

Pool unassignment is defined as the removal of equipment from a pool. Equipment may be unassigned by providing a Pool Identifier of zeros ('0000000').

Equipment assigned to a pool, can be unassigned (removed) from the pool by a pool operator or a designated reporter/agent of the pool operator. For railroad stenciled equipment, equipment can also be unassigned by the stenciled mark owner or a designated reporter/agent of the stenciled mark owner. For railroad or private stenciled equipment with a railroad lessee, the equipment can also be unassigned by the Lessee or a designated reporter/agent of the Lessee. When equipment is unassigned (removed) from a pool, the Pool Identifier is set to zeros ('0000000') and the associated Pool Control Code is set to blank.

For private stenciled equipment, the equipment owner cannot unassign (remove) the equipment from a pool by setting the Pool Identifier to zeros; however, they can remove the equipment from a pool by removing or changing the railroad Lessee. Refer to Section [A.1.5.3.2](#).

The Pool Assignment and Unassignment Authorization Rules for the various pool categories are defined in [C.2 Pool Assignment and Unassignment Security Rules](#).

### A.1.5.1 Unassignment of Covered Hoppers from a Pool

When a railroad stenciled Covered Hopper (Mechanical Designation of 'LO' defined under Car Service Directive '435'), or a private Covered Hopper with a railroad Lessee is removed from a pool, the Pool Identifier is zeroed '0000000' and the Umler Pool Control Code is set to 'W'. Refer to [E.2 EMC Application for Pool Unassignments](#).

### A.1.5.2 Unassignment from Contaminated Pools

Although equipment may be unassigned (removed) from railroad contaminated pools (Umler Pool Control = G) by the stenciled mark owner or the owner's designated reporter/agent or the Pool Operator or the Pool Operator's designated reporter/agent, the contaminated G status is retained. In this case, the Pool Identifier is set to zeros ('0000000'), the Umler Pool Control Code is set to blank, and the Umler User Reported Code is set to 'G'.

For the stenciled mark owner to remove the Umler User Reported 'G' (non-pool G), a second transaction must be created to remove the G from the Umler User Reported Code. Although this requires double entry for the owner to remove the equipment from a contaminated status, it assures that the equipment will not be used in non-contaminated service without the owner specifically taking the necessary steps to remove the Umler User Reported 'G' Code.

### A.1.5.3 Unassignment Due to Change in Equipment Status

Equipment may be removed from a pool due to a change in any of the Umler information which disqualifies the equipment for pool assignment, such as a change in the Umler Equipment Type Code, a change in the Umler Built or Rebuilt Year if it impacts its age, a change in the Umler Lessee, a change to a non-assignable Equipment Management Code, etc. Refer to Sections [A.1.5.3.1](#) thru [A.1.5.3.2](#) and [A.1.5.4.1](#) thru [A.1.5.4.6](#) for the various conditions that could cause a unit to be unassigned automatically by the Umler system due to Umler data elements changes.

#### A.1.5.3.1 Changes in Mechanical Designation

If the Mechanical Designation (related to Equipment Type Code) changes on the equipment such that the Mechanical Designation no longer qualifies for pool assignment, then the equipment is removed from the pool and the Umler Pool Control Code is set to blank. Refer to [B.1 Mechanical Designations Applicable to Car Directives and Orders](#) and [E.2 EMC Application for Pool Unassignments](#).

#### A.1.5.3.2 Removal of a Railroad Lessee on Private Equipment

On private stenciled equipment, if the railroad Lessee is removed or changed, the equipment no longer qualifies for pool assignment. If the equipment is in a pool, the equipment is removed from the pool and the Pool Control Code is set to blank. This rule does not apply to railroad stenciled equipment if the Lessee is removed or changed. Also, this rule does not apply to private equipment with a private lessee since this equipment cannot be assigned to pools. Refer to [Appendix C: Pool Assignment Rules](#).

### A.1.5.4 Assignment of Mechanical Restriction Code to S, X or Y

The assignment of the Mechanical Restriction Codes of S, X, or Y to equipment restricts the use of that equipment in interchange service. If the equipment is in a pool (excluding XA, refer to Section 1.5.4.2 for more details), the equipment is removed from the pool and the Pool Control Code

is set to blank. In addition, since the equipment no longer qualifies to receive Car Hire/Mileage rates, the Rate Indicator is changed to the applicable Rate Indicator and applicable rate fields are zeroed. Refer to [Appendix D: Section D.1 Codes S, X, Y and Rate Indicator Changes](#).

#### A.1.5.4.1 User Reported Mechanical Restriction Codes of S, X, or Y

If the Mechanical Restriction Code is changed by the stenciled mark owner to a “restricted in interchange” code or identified as Scrap, then the equipment no longer qualifies for pool assignment. If the equipment is in a pool, the equipment is removed from the pool and the Pool Control Code is set to blank. In addition, when equipment is assigned an S, X, or Y Mechanical Restriction Code, the equipment no longer qualifies to receive Car Hire/Mileage rates, so the Rate Indicator is changed to the applicable Rate Indicator and applicable rate fields are zeroed. Refer to [Appendix D: Section D.1 Codes S, X, Y and Rate Indicator Changes](#).

For the list of User Reported Mechanical Codes, refer to Section [E.3](#). For associating Umler Equipment Formats to Equipment Groups, refer to Section [B.2](#).

#### A.1.5.4.2 Assignment of Mechanical Codes of XA/YA – Overage Processing

The Umler system must determine the age of the equipment, whenever the Built or Rebuilt Date or Extended Life changes. If the system determines that the equipment is over-age according to AAR Interchange Rules 88 and 90, the applicable Mechanical Codes of XA or YA are assigned.

**XA Code**—If the equipment does not qualify for an extended life or rebuilt status and it is over 40 years of age and less than 50 years of age, a Mechanical Restriction Code of X and a Mechanical Restriction Reason Code of A is assigned. Refer to [Appendix F: Overage Processing for XA or YA for Freight Equipment](#).

If the equipment is assigned to a pool type which allows the equipment to carry an XA, then the equipment may remain in the pool and the applicable Pool Control Code will remain on Umler. However, if the equipment is assigned to a pool type which does not allow it to carry an XA, then the equipment is automatically removed from the pool and the Pool Control Code is set to blank. Refer to Section [B.2 Pool Type and Equipment Management Code \(EMC\) Relationship](#) which identifies the Equipment Management Codes assigned to equipment based on the Pool Type of the Pool Header and identifies those Pool Types which may have the Mechanical Codes of XA (overage).

In addition, when equipment is assigned Umler Codes of XA, the Rate Indicator is changed to the applicable Rate Indicator and applicable rate fields are zeroed. Refer to Section [D.1 Codes S, X, Y and Rate Indicator Changes](#).

**YA Code**—If the equipment qualifies for an extended life or rebuilt status and it is 50 years of age, a Mechanical Restriction Code of Y and a Mechanical Restriction Reason Code of A is assigned. If the equipment does not qualify for an extended life or rebuilt status and it is over 50 years of age, a Mechanical Restriction Code of Y and a Mechanical Restriction Reason Code of A is assigned. If the equipment is in a pool, the equipment is removed from the pool and the Pool Control is set to blank. Refer to [Appendix F: Overage Processing for XA or YA for Freight Equipment](#).

In addition, when equipment is assigned the Mechanical Codes of YA, the Rate Indicator is changed to the applicable Rate Indicator and applicable rate fields are zeroed. Refer to [Appendix D: Section D.1 Codes S, X, Y and Rate Indicator Changes](#).

#### Assignment of Mechanical Codes of XD – Prohibited Couplers

If the coupler code on the equipment is identified as prohibited in interchange, the Umler system will assign a Mechanical Restriction Code of X and a Mechanical Restriction Reason Code of D. If the equipment is in a pool, it will automatically be removed from the pool and the Pool Control will be set to blank.

In addition, the Rate Indicator is changed to the applicable Rate Indicator and applicable rate fields are zeroed. Refer to [Appendix D: Section D.1 Codes S, X, Y and Rate Indicator Changes](#).

If the stenciled mark owner changes the coupler codes to non-prohibited codes, the Umler system will automatically remove the Mechanical Codes of XD (Mechanical Restriction Code and the Mechanical Restriction Reason Code will be set to blank). The stenciled mark owner must also correct the Rate Indicator to the applicable Rate Indicator to receive car hire or mileage rates.

#### Assignment of Mechanical Codes of XJ – Prohibited Bearings

If the Bearing and Brake Shoe on the equipment has plain bearings, which are prohibited in interchange, the Umler system will assign the Mechanical Restriction Code of X and the Mechanical Restriction Reason of J. If the equipment is in a pool, it will automatically be removed from the pool and the Pool Control will be set to blank. In addition, the Rate Indicator is changed to the applicable Rate Indicator and applicable rate fields are zeroed. Refer to [Appendix D: Section D.1 Codes S, X, Y and Rate Indicator Changes](#).

If the stenciled mark owner changes the Bearing and Brake Shoe Code to a non-prohibited code, the Umler system will remove the Umler Mechanical Codes of XJ (Mechanical Restriction Code and the Mechanical Restriction Reason will be set to blank). The owner must also correct the Rate Indicator to the applicable Rate Indicator Code to receive car hire or mileage rates.

## Assignment of Mechanical Codes of XN – Prohibited LO w/o Stability Devices

A Covered Hopper car (LO) with a cubic feet capacity of 4000 through 4800 inclusive and not equipped with stability devices in the Truck Type and Axle Spacing is prohibited in interchange. Therefore, the Umler system assigns the Mechanical Restriction Code of X and the Mechanical Restriction Reason of N. If the equipment is in pool assignment, it will automatically be removed from the pool and the Umler Pool Control will be set to blank. In addition, the Rate Indicator is changed to an applicable Rate Indicator and applicable rate fields are zeroed. Refer to [Appendix D: Section D.1 Codes S, X, Y and Rate Indicator Changes](#).

If the stenciled mark owner changes the Truck and Axle Spacing Code to a non-prohibited code, the Umler system will remove the Mechanical Codes of XN (Mechanical Restriction Code and the Mechanical Restriction Reason will be set to blank). The owner must also correct the Rate Indicator to the applicable Rate Indicator to receive car hire or mileage rates.

## Mechanical Restriction Code S, X or Y Priorities

The S, X, and Y Mechanical Codes may be assigned by the Umler System or the stenciled mark owner. The assignment of these codes overrides all other Equipment Management Codes. In addition, there is a priority within these codes from highest to lowest – SX, S/Blank, YA, XA, YZ. Refer to Section [D.2 Mechanical Restriction Code Priority \(S, X, Y\)](#), which identifies the priority when over-riding existing Mechanical Codes.

### A.1.6 Pool Type Changes to the Pool Header

If the Pool Operator 1, the designated reporter/agent or the Railinc Administrator changes the Pool Type on the Pool Header for a particular pool, the system will automatically verify that the equipment qualifies for assignment to the new pool type. If any equipment within the pool does not qualify for the new pool type, the Pool Type change will be rejected with a unique error code indicating that not all equipment qualifies for assignment to the new pool type. In addition, all equipment, which does not qualify for the new pool type, will be identified. If the user wants to progress the Pool Type change, the non-qualifying equipment must be manually removed from the pool before the Pool Type change will be accepted.

Once all equipment within the existing pool qualifies for the new pool type, the system will automatically generate an Equipment Management Code change on all equipment in the pool based on the newly assigned Pool Type of the Pool Header.

Refer to Section [B.2 Pool Type and Equipment Management Code \(EMC\) Relationship](#) and [Appendix C: Pool Assignment Rules](#).

## A.2 Event Repository (ER) Assigned/Unassigned System Generated Codes D,E,T

The ER system is responsible for the assignment of the System Generated Codes of “D, E, and T” and these transactions are processed by the Umler system for distribution to the industry. The results of assignment and unassignment of the “D, E, and T” codes to existing Equipment Management Codes are defined. Refer to [Appendix G: ER System Generated D, E, T](#).

### A.2.1 ER Assigned/Unassigned System Generated Code of ‘D’

Special Car Order No. 200, AAR Circular OT-10, prescribes the business rules for the empty movements of cars that have been assigned the Transportation Code “D”. The ER system evaluates movement events to determine whether the newly added RR marked car has not been loaded on the owner’s line, RR lessee’s line or to the RR where car is assigned. Delivery of the car to the owner, lessee or pool assignee generates a transaction to remove the “D”.

The AAR, Mechanical Designations eligible for the TC code “D” are prescribed in AAR Circular CSD-145 and CSD-435, AAR Circular OT-10.

For the Privately-marked car, the ER will generate the Transportation code “D” prior to the cars first loaded move. Such a loaded move will remove the “D” code.

### A.2.2 ER Assigned/Unassigned System Generated Code of ‘E’

Special Car Order No. 90, AAR Circular OT-10, prescribes the business rules for the empty movements of (E -Excepted) pools for assigned RR marked and Privately-marked (RR leased) cars that did not participate in the last loaded movement are assigned the Transportation Code “E” subject to Note 2 of the Order. The ER system evaluates movement events to determine whether the (E - Excepted) assigned car has been delivered to the owner’s line, RR lessee’s line or RR assignment line and generates a transaction to remove the “E”. The termination of the car’s assignment from the (E -Excepted) pool will generate a transaction to delete the “E” code.

The AAR, Mechanical Designations eligible for the TC code “E” is prescribed in AAR Circular CSD-145.

RRs can request specific pool numbers be reported to the E-Code Exception Table to generate the reporting of the Transportation Code “E” to the Umler record by submitting a request to CSC@Railinc.com providing contact information and the following pool information:

| Pool No. | Pool Operator | Pool Type | Description | Effective Date | Expiration |
|----------|---------------|-----------|-------------|----------------|------------|
| 5550001  | NS            | C         | Ford        | 01/01/2013     | 12/31/9999 |

### A.2.3 ER Assigned/Unassigned System Generated Code of ‘T’

Special Car Order No. 90, AAR Circular OT-10, prescribes the business rules for the empty movements of non-pool assigned RR marked and Privately-marked (RR leased) cars that have been assigned the Transportation Code “T”. The ER system evaluates movement events to determine whether the non-assigned car did not participate in the last loaded movement on the owning railroad or the leasing railroad. When the car assigned the TC of “T” is delivered to the owner railroad or the leasing railroad, the TC code “T” is deleted from the car.

## A.3 ER Assigned/Unassigned User Reported Codes

### User Reported Code of ‘G’ (Ruminant Protein)

When a waybill is reported to the Event Repository (ER) system with a Standard Transportation Commodity Code (STCC) identified as ‘proteins derived from ruminants’ on a railroad or private Covered Hopper (ETC C \_ \_ \_) unit, the ER system assigns a Car Grade of ‘N’ and sends an update to the Umler system which assigns an User Reported Code of ‘G’. Refer to [Appendix H: ER Ruminant Protein Assignment](#) for the business rules associated with the handling of these contaminated equipment.

### A.3.1 User Reported Equipment Management Codes

The stenciled mark owner or their designated reporter/agent may assign or remove specific Umler Equipment Management Codes. Refer to Section [E.3 User Reported Equipment Management Codes by Equipment Groups](#), and Section [E.4 User Reported Equipment Management Code \(EMC\) Assignment](#).

For details on the assignment of user reported Equipment Management Codes of S, X, Y, refer to Section [A.1.5.4.1](#) “User Reported Equipment Management Codes of S, X, or Y”.



## A.4 Equipment Management Codes

The Equipment Management Codes structure consists of the following data elements:

- System Generated Code
- User Reported Code
- Pool Control Codes
- Mechanical Restriction Codes
- Mechanical Restriction Reason Codes

A brief description of the various Equipment Management Codes is defined below. In addition, Section [E.5 Equipment Management Codes /Umler Transportation Codes](#) defines the valid Equipment Management Code combinations and the resulting Umler Transportation Codes. To fully comprehend the Pool and Equipment Management Code process, the Equipment Management Code table must be used in conjunction with the business rules defined in this document.

### A.4.1 System Generated Code

The 'D', 'E' and 'T' System Generated Codes are assigned and removed by the ER system based on the rules associated with SCO 90.

In order to distinguish a User reported restricted in interchange condition and an Umler system generated Mechanical Codes of XJ (Mechanical Restriction of X and Mechanical Restriction Reason of J) and XN (Mechanical Restriction of X and Mechanical Restriction Reason of N), an X will be assigned to the System Generated Code when the Umler system assigns the restricted condition.

Valid values for the System Generated Code are:

- D** Car newly added. For railroad marked freight equipment, this code indicates that the equipment has not been delivered to the owner. For private marked freight equipment, this code indicates that the equipment has not yet had a loaded movement.
- E** A railroad marked car assigned to a system pool under CSD 145 and 155 that has been reloaded by other than the pool assigned road. Empty to be returned via SCO 90 routing rules.
- T** Empty to be returned via SCO 90 routing rules.
- X** Restricted in Interchange is assigned by the Umler system and applicable to XJ and XN codes. Refer to Mechanical Restriction Codes for more details.

### A.4.2 User Reported Code

The User Reported Code is usually assigned by the stenciled mark owner. However, under certain conditions, it can be assigned by Railinc's Event Repository (ER) system.

Valid values for the User Reported Code are:

- G** Contaminated service – empty reverse route
- I** Return to owner via reverse route or owner's instructions.
- M** Mark cancelled by AAR.
- O** Stenciled Mark Owner requested return for lease termination, repair program or assignment.
- U** Unassigned railroad stenciled equipment – load to or via owner or empty reverse route
- 2** Trailer/Container must be handled in accordance with Trailer Service Rule 2.

There are two types of 'G' User Reported Codes assigned in this data element:

- A User Reported 'G' Code—The user (stenciled mark owner) may assign a 'G' User Reported Code on Railroad/Private equipment designating the equipment is contaminated. In this case, the equipment is not assigned to a contaminated 'G' pool (see [A.4.3 Pool Control Code](#)).
- An Event Repository User Reported 'G' Code—The ER system will assign a User Reported 'G' Code when a ruminant protein is identified as the waybill commodity by Railinc's Event Repository (ER) system on a railroad/private covered hopper. In addition, the ER system will assign a Car Grade of 'N' on this equipment. Note: The User Reported Code was used instead of the System Generated Code because of the conflict with the 'D' Code.

Not all codes reported by the user are assigned under the User Reported Code. A user can assign an S, X, or Y code and these codes are reported under the Mechanical Restriction and /Mechanical Restriction Reason Codes.

### A.4.3 Pool Control Codes

The Pool Control Codes are assigned by the Umler pool system. Except for the W, the codes are applicable to equipment in pool service.

Valid values for the Pool Control Code are:

- C** Shipper pool service – empty reverse route
- G** Contaminated pool service – empty reverse route
- J** Agent pool service – empty reverse route
- N** National pool service – empty return via reverse route or pool operator's instructions
- P** Commodity pool service – empty reverse route
- R** Agent pool service – empty reverse route
- W** Unassigned covered hopper equipment – empty reverse route

There are two types of 'G' Pool Control Codes assigned in this data element:

- Pool Operator Assigned to 'G' Pool – The pool operator may assign the equipment to a contaminated pool type of 'G' and the car management system will assign a 'G' to the Pool Control Code. Pool assignment is only applicable to railroad owned/railroad leased equipment. In addition, the pool operator may assign a railroad owned/railroad leased unit previously defined as a User Reported 'G' to a pool, including unassigned "ruminant" covered hopper equipment.
- Event Repository Assigned to Municipal Garbage Waste (STCC 40 291 14) 'G' Pool - When a municipal garbage waste STCC 40 291 14 is identified as the waybill commodity by Railinc's Event Repository system on a box car, the Event Repository system will assign a Pool Control Code of 'G' and a Car Grade of 'W' on this equipment. Once assigned, the Car Grade 'W' can only be removed by sending a written request to the [csc@railinc.com](mailto:csc@railinc.com) justifying the reason for removing the equipment from this pool.

### A.4.4 Mechanical Restriction Codes

The Mechanical Restriction may be assigned by the Umler system or by the stenciled mark owner and identifies equipment that is restricted in interchange service. Normally, there is a mechanical restriction reason associated with the mechanical restriction (refer to Mechanical Restriction Reason below).

Valid values for the Mechanical Restriction Code are:

- S** Scrap/condemned equipment
- X** Car restricted by AAR Interchange Rules
- Y** Car restricted by FRA regulations

### A.4.5 Mechanical Restriction Reason Code

The Mechanical Restriction Reason may be assigned by the Umler system or by the stenciled mark owner and is associated with the Mechanical Restriction Code defined above.

Valid values for the Mechanical Restriction Reason Code are:

- X** If X, valid Mechanical Restriction Reason Codes are A, B, C, D, F, G, J, N, T, U, W, X, Z
- Y** If Y, valid Mechanical Restriction Reason Codes are A
- S** If S, valid Mechanical Restriction Reason Codes are space or X

XA and YA can only be assigned by the Umler system. XD, XJ, XN and XZ may be assigned by the stenciled mark owner or the Umler system based on Umler reported prohibited coupler codes, prohibited bearings, prohibited truck type, or errors in critical fields. All other S, X, Y codes are assigned by the equipment owner.

To identify XJ and XN assigned by the Umler system, the System Generated Code is assigned an 'X'.

Refer to Section [E.3 User Reported Equipment Management Codes by Equipment Groups](#) for the list of Equipment Management Codes which can be reported by a stenciled mark owner.

## A.4.6 Umler TC/TCC Values

The Umler TC/TCC Values is the value assigned using the combination of the Umler System Generated, User Reported, Pool Control, Mechanical Restriction, and Mechanical Restriction Reason data elements to generate the two position Umler Transportation Code/Transportation Condition Code values.

## A.5 Processing Not Relevant to EMIS

The following section identifies certain processing that is handled differently in Umler than in EMIS, or in some cases, identifies functionality which is being retired. Existing UMLER TRAIN II messages are not affected by these changes.

### A.5.1 Participant List

In the Umler system, when equipment is added to a pool, the equipment's stenciled mark is added as a pool participant to the Pool Header Master. The participant list is used internally by Railinc to identify equipment marks assigned to the pool. During monthly processing, the Umler system removes participants from the list, if there is no longer equipment for the mark in the pool.

The pool participant list is not distributed to the industry. It is used only within Railinc. Since the EMIS system will provide easy access to the full list of equipment defined to a pool, there is no longer a need to maintain a participant list in the Pool Header Master. Therefore, all processing related to maintaining the participant list will be removed from Umler and will not be incorporated into EMIS processing.

### A.5.2 'From' Pool Identifier Removal

In Umler, the 'From' Pool Identifier is an input data element contained in the Pool Assignment Transaction. Regardless of the value input in 'From' Pool Identifier, the Umler system automatically overlays the data element with the existing Umler Pool Identifier. Since the 'From' Pool Identifier has no value in Umler or EMIS processing, this field will be eliminated as an input data element in the EMIS inbound messages.

## Appendix B: Car Management Processing Tables

### B.1 Mechanical Designations Applicable to Car Directives and Orders

| CSD Provision | Pool Header Pool Type | Mechanical Designation | Equipment Type Codes | SCO90              |
|---------------|-----------------------|------------------------|----------------------|--------------------|
| CSD 145, 150  | C,G,J,N,P,T           | XP                     | A 0                  | Yes                |
|               |                       | XPI                    | A 1                  | Yes                |
|               |                       | XL                     | A 3                  | Yes                |
|               |                       | XLI                    | A 4                  | Yes                |
|               |                       | XM                     | B 0                  | Yes                |
|               |                       | XM                     | B 1                  | Yes                |
|               |                       | XM                     | B 2                  | Yes                |
|               |                       | XM                     | B 3                  | Yes                |
|               |                       | XM                     | B 4                  | Yes                |
|               |                       | XM                     | B 5                  | Yes                |
|               |                       | XM                     | B 6                  | Yes                |
|               |                       | GTS                    | E 0                  |                    |
|               |                       | GTR                    | E 1                  |                    |
|               |                       | GBR                    | E 2                  | Yes                |
|               |                       | GBS                    | E 3                  | Yes                |
|               |                       | GBSR                   | E 4                  | Yes                |
|               |                       | GSS                    | E 6                  | Yes                |
|               |                       | GWS                    | E 8                  | Yes                |
|               |                       | GWSR                   | E 9                  |                    |
|               |                       | GB                     | G 1                  | Yes                |
|               |                       | GB                     | G 2                  | Yes                |
|               |                       | GB                     | G 3                  | Yes                |
|               |                       | GB                     | G 4                  | Yes                |
|               |                       | GS                     | G 8                  | Yes                |
|               |                       | HKS                    | K 0                  |                    |
|               |                       | HMS                    | K 2                  |                    |
|               |                       | HTR                    | K 3                  |                    |
|               |                       | HTS                    | K 4                  |                    |
|               |                       | HKR                    | K 5                  |                    |
|               |                       | HMSR                   | K 7                  |                    |
|               |                       | HMA                    | K 8                  |                    |
|               |                       | FM                     | F 0                  | Yes (4 axles only) |
|               |                       | FMS                    | F 1                  | Yes                |
|               |                       | FMS                    | F 2                  | Yes                |
|               |                       | FD                     | F 3                  |                    |
|               |                       | FB                     | F 4                  | Yes                |
|               |                       | FBS                    | F 5                  | Yes                |
|               |                       | FW                     | F 6                  |                    |
|               |                       | FL                     | F 7                  | Yes                |
|               |                       | FBC                    | F 8                  | Yes                |
|               |                       | FDC                    | F 9                  | Yes                |
|               |                       | LF                     | L 0 (flat)           |                    |
|               |                       | LG                     | L 1 (gondola)        | Yes                |
|               |                       | LP                     | L 2 (flat)           |                    |
|               |                       | LU                     | L 4 (box)            | Yes                |
|               |                       | LM                     | L 6 (hopper)         |                    |
|               |                       | LC                     | L 7 (box)            | Yes                |
|               |                       | LS                     | L 9 (flat)           |                    |
|               |                       | FC <sup>1</sup>        | P                    | Yes                |
|               |                       | FC <sup>1</sup>        | Q 1                  | Yes                |
|               |                       | FCA                    | Q 2                  | Yes                |
|               |                       | FCA                    | Q 3                  | Yes                |
|               |                       | FCA                    | Q 4                  | Yes                |
|               |                       | FCA                    | Q 5                  | Yes                |
|               |                       | FCA                    | Q 6                  | Yes                |
|               |                       | FCA                    | Q 7                  | Yes                |

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| CSD Provision | Pool Header Pool Type       | Mechanical Designation | Equipment Type Codes | SCO90 |
|---------------|-----------------------------|------------------------|----------------------|-------|
|               |                             | FCA                    | Q 9                  | Yes   |
|               |                             | FC <sup>1</sup>        | S 0                  | Yes   |
|               |                             | FCA                    | S 2                  | Yes   |
|               |                             | FCA                    | S 3                  | Yes   |
|               |                             | FCA                    | S 4                  | Yes   |
|               |                             | FCA                    | S 5                  | Yes   |
|               |                             | FCA                    | S 6                  | Yes   |
|               |                             | FCA                    | S 7                  | Yes   |
|               |                             | FCA                    | S 8                  | Yes   |
|               |                             | T                      | T                    |       |
|               |                             | FA                     | V                    |       |
|               |                             | RB                     | R 0                  | Yes   |
|               |                             | RBL                    | R 1                  | Yes   |
|               |                             | RP                     | R 6                  | Yes   |
|               |                             | RPL                    | R 7                  | Yes   |
|               |                             | RC                     | R 9                  |       |
| CSD 435       | C,G,P, T                    | LO                     | C 1                  |       |
| CSD 000       | Not Assignable <sup>2</sup> | ST                     | Q 8                  |       |
|               |                             | Maintenance of Way     | M                    |       |
|               |                             | D                      | D                    |       |
|               |                             | U                      | U                    |       |
|               |                             | Z                      | Z                    |       |
|               |                             | NF                     | M970                 |       |

**Note:** Currently, the Car Service Directive Number is defined as a field in Railinc's Equipment Type Code (ETC) Table with the values of 145, 435, or 000 based on the whether the equipment is applicable to a Car Service Directive or not. This field is currently in Railinc's ETC table and is used to determine if the equipment qualifies for pool assignment.

<sup>1</sup> Intermodal flat equipment with FC Mechanical Designations is not permitted in pools with a J (agent pool) Pool Type.

<sup>2</sup> Box, gondola, hopper, flat, intermodal flat and tank equipment groups (excludes Maintenance of Way), assignable to railroad, joint or national pools or equipment not assignable to these pools, since the Critical Error, results in the assignment of Mechanical Codes which are restricted in interchange, will remove railroad, joint, or other national pool assignments. Refer to [Appendix C: Pool Assignment Rules](#). In addition, tank equipment may be assigned if the equipment does not contain double shelf couplers. Refer to [Appendix C: Pool Assignment Rules](#).

## B.2 Pool Type and Equipment Management Code (EMC) Relationship

| Pool Header Pool Type | Umler Transportation Code                                    | Umler EMC                                                                              |
|-----------------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------|
| C                     | C<br>XA (restricted over 40)<br>XB (Requires ABT inspection) | Pool Control = C<br>Mechanical Restriction = X<br>Mechanical Restriction Reason = A, B |
| G                     | G<br>XA (restricted over 40)<br>XB (Requires ABT inspection) | Pool Control = G<br>Mechanical Restriction = X<br>Mechanical Restriction Reason = A, B |
| N                     | N                                                            | Pool Control = N                                                                       |
| T                     | R<br>XA (restricted over 40)<br>XB (Requires ABT inspection) | Pool Control = R<br>Mechanical Restriction = X<br>Mechanical Restriction Reason = A, B |
| J                     | J<br>XA (restricted over 40)<br>XB (Requires ABT inspection) | Pool Control = J<br>Mechanical Restriction = X<br>Mechanical Restriction Reason = A, B |
| P                     | P<br>XA (restricted over 40)<br>XB (Requires ABT inspection) | Pool Control = P<br>Mechanical Restriction = X<br>Mechanical Restriction Reason = A, B |

The above table identifies the Umler Transportation Code and Umler Equipment Management Codes (EMC) assigned based on the Pool Type. In addition, the table identifies which Pool Types allow equipment to be assigned to it when the equipment is overage. Refer to Section [A.1.5.4.2 Assignment of Mechanical Codes of XA/YA – Overage Processing](#).

## Appendix C: Pool Assignment Rules



## C.1 Pool Assignment Rules

| Pool Category                                                                                                                                                  | Pool Header<br>Pool Type | Security Rules                                                                                                                                                          | Rule 260 Code                                                                                                  | Railroad Controlled                                                                                               | Equipment Type Code<br>(Mechanical Designation)                                                                                                                                                                                                                                         | Existing Equipment<br>Management Codes                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Railroad Pool Identifiers are identified with a 3 digit prefix of 001 through 997 inclusive matching the first three positions of the carrier's Rule 260 code. | C,J,P,T                  | The submitter of the activity must be the Pool Operator 1 defined in the Pool Header or the designated reporter/agent for the Pool Operator 1 or Railinc Administrator. | The Rule 260 Code applicable to Pool Operator 1 must be equal to the first 3 positions of the Pool Identifier. | The equipment must be a stenciled railroad unit or under railroad control (a private unit with a Railroad Lessee) | <p>The Equipment Type Code (Mechanical Designation) of the equipment must be valid for the Pool Type Code defined in the Pool Header (refer to Appendix 'A')</p> <p><b>Exception:</b> FC Mechanical Designations are not permitted in J Pool Type as per Car Service Directive 145.</p> | <p>The existing Equipment Management Codes (EMC) must not indicate that the equipment is restricted in interchange (X,Y) or identified as Scrap (S) or identified with a cancelled mark (M).</p> <p><b>Exception:</b> XA and XB are the only EMCs that may be included in these pools.</p> <p><b>Note:</b> For Pool Types C, J, and P, the corresponding Pool Control is assigned. For Pool Type T, an 'R' Pool Control Code is assigned.</p> |

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| Pool Category                                                                                                                                                  | Pool Header<br>Pool Type | Security Rules                                                                                                                                                          | Rule 260 Code                                                                                                  | Railroad Controlled                                                                                               | Equipment Type Code<br>(Mechanical Designation)                                                                  | Existing Equipment<br>Management Codes                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Railroad Pool Identifiers are identified with a 3 digit prefix of 001 through 997 inclusive matching the first three positions of the carrier's Rule 260 code. | G                        | The submitter of the activity must be the Pool Operator 1 defined in the Pool Header or the designated reporter/agent for the Pool Operator 1 or Railinc Administrator. | The Rule 260 Code applicable to Pool Operator 1 must be equal to the first 3 positions of the Pool Identifier. | The equipment must be a stenciled railroad unit or under railroad control (a private unit with a Railroad Lessee) | Applicable to equipment types under , B, and C (Refer to <a href="#">Appendix I: Equipment Type Codes</a> (ETC)) | The existing Equipment Management Codes (EMC) must not indicate that the equipment is restricted in interchange (X,Y) or identified as Scrap (S) or identified with a cancelled mark (M).<br><br><b>Exception:</b> XA and XB are the only EMCs that may be included in these pools. |

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| Pool Category                                                                                                  | Pool Header<br>Pool Type | Security Rules                                                                                                                                              | Rule 260 Code   | Railroad Controlled                                                                                               | Equipment Type Code<br>(Mechanical Designation)                                                                                                                                                            | Existing Equipment<br>Management Codes                                                                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Joint Pool Identifiers are identified with a 3 digit prefix of 998.                                            | C,G,P,T                  | The submitter of the activity must be Pool Operator 1 defined in the Pool Header, their agent as granted through security or Railinc Administrator.         | Not Applicable. | The equipment must be a stenciled railroad unit or under railroad control (a private unit with a Railroad Lessee) | The Equipment Type Code (Mechanical Designation) of the equipment must be valid for the Pool Type Code defined in the Pool Header (refer to <a href="#">Appendix B: Car Management Processing Tables</a> ) | The existing Equipment Management Codes (EMC) must not indicate that the equipment is restricted in interchange (X,Y) or identified as Scrap (S) or identified with a cancelled mark (M).<br><b>Exception:</b> XA and XB are the only EMCs that may be included in these pools.<br><b>Note:</b> For Pool Types C, J, and P, the corresponding Pool Control is assigned. For Pool Type T, an 'R' Pool Control Code is assigned. |
| National Pool (Header Managed by Railinc Administrator) Numbers 9990001 thru 9990011 and 9990700 thru 9999999. | N                        | The submitter of the activity must be the railroad owner of the stenciled mark, the railroad lessee of the private equipment, or the Railinc Administrator. | Not Applicable. | The equipment must be a stenciled railroad unit or under railroad control (a private unit with a Railroad Lessee) | The Equipment Type Code of the equipment must be valid for the Pool Type Code defined in the Pool Header ( <a href="#">Appendix B: Car Management Processing Tables</a> )                                  | The existing Equipment Management Codes (EMC) must not indicate that the equipment is restricted in interchange (X,Y) or identified as Scrap (S) or identified with a cancelled mark (M).<br><b>Note:</b> Overage equipment (XA) is not permitted in National Pool.<br><b>Note:</b> XB requiring ABT inspection are permitted in National Pool.                                                                                |

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| Pool Category                                                                                                                                                                                                                                    | Pool Header<br>Pool Type | Security Rules                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Rule 260 Code   | Railroad Controlled                                                                                                                                                                                                                                                                                 | Equipment Type Code<br>(Mechanical Designation)                                                                                                                                         | Existing Equipment<br>Management Codes                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>National Pools Managed by TTX will consist of pool numbers 9990012 thru 9990699 inclusive. These pool numbers are designated for Heavy Duty, Reload, and Box Car Pools.</p> <p>Railinc will assign TTX authority to maintain these pools.</p> | N                        | <p>If the Pool Operator is TTX (Heavy Duty pools operated under a pooling agreement), then the submitter of the activity must be 'TTX' or Railinc Administrator</p> <p>If the Pool Operator is RLOD (Reload pools operated under a pooling agreement), the submitter of the activity must be TTX, the railroad owner of the stenciled mark, be the railroad lessee of the private equipment, or the Railinc Administrator.</p> <p>If the Pool Operator is RBXC (Box car pools operated under a pooling agreement), the submitter of the activity must be TTX, the railroad owner of the stenciled mark, the railroad lessee of the private equipment, or the Railinc Administrator.</p> | Not Applicable. | <p>The equipment may be a private or railroad</p> <p>The equipment must be a stenciled railroad unit or under railroad control (a private unit with a Railroad Lessee)</p> <p>The equipment must be a stenciled railroad unit or under railroad control (a private unit with a Railroad Lessee)</p> | <p>The Equipment Type Code of the equipment must be valid for the Pool Type Code defined in the Pool Header (refer to <a href="#">Appendix B: Car Management Processing Tables</a>)</p> | <p>The existing Equipment Management Codes (EMC) must not indicate that the equipment is restricted in interchange (X,Y) or identified as Scrap (S) or identified with a cancelled mark (M).*</p> <p><b>Note:</b> Overage equipment (XA) is not permitted in National Pool.</p> <p><b>Note:</b> XB requiring ABT inspection are permitted in National Pool.</p> |
| <p>* The asterisk identifies rules that will change if the Equipment Asset Management Working Committee (EAMWC) approves new EMIS codes proposed by the EMIS Core team. Refer to Appendix N.</p>                                                 |                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                 |                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                 |

## C.2 Pool Assignment and Unassignment Security Rules

| Pool Category                                                                 | Submitter of Pool Assignment/Unassignment Activity |          |                                                                                                   |          |                       |          |                          |          |
|-------------------------------------------------------------------------------|----------------------------------------------------|----------|---------------------------------------------------------------------------------------------------|----------|-----------------------|----------|--------------------------|----------|
|                                                                               | Pools Operator or Designated Reporter/Agent        |          | RR Stenciled Mark Owner or Umler Lessee or Designated Reporter/Agent for stenciled mark or lessee |          | Railinc Administrator |          | Other (System Generated) |          |
|                                                                               | Assign                                             | Unassign | Assign                                                                                            | Unassign | Assign                | Unassign | Assign                   | Unassign |
| Railroad Pool<br>(Pool Identifier Prefix 001-997)                             | Yes                                                | Yes      | No                                                                                                | Yes      | Yes                   | Yes      | N/A                      | N/A      |
| Joint Pool<br>(Pool Identifier Prefix 998)                                    | Yes                                                | Yes      | No                                                                                                | Yes      | Yes                   | Yes      | N/A                      | N/A      |
| National Managed by Railinc Umler group<br>(9990001-9990011, 9990700-9999999) | N/A                                                | N/A      | Yes                                                                                               | Yes      | Yes                   | Yes      | N/A                      | N/A      |
| National Managed by TTX with TTX in Pool Operator 1<br>(9990012- 9990699)     | Yes                                                | Yes      | No                                                                                                | Yes      | Yes                   | Yes      | N/A                      | N/A      |
| National Managed by TTX with RLOD in Pool Operator 1<br>(9990012- 9990699)    | Yes                                                | Yes      | Yes                                                                                               | Yes      | Yes                   | Yes      | N/A                      | N/A      |
| National Managed by TTX with RBXC in Pool Operator 1<br>(9990012- 9990699)    | Yes                                                | Yes      | Yes                                                                                               | Yes      | Yes                   | Yes      | N/A                      | N/A      |

## Appendix D: Umler Mechanical Restriction Codes

### D.1 Codes S, X, Y and Rate Indicator Changes

| Ownership<br>(Stenciled Mark Owner)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Valid<br>Rate<br>Indicator | Umler Mechanical<br>Restriction S, X, Y<br>with Errors | Umler Mechanical<br>Restriction S, X, Y<br>without Errors | Zero<br>Rates                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------|
| Private Freight<br>(, B, C, see <a href="#">Appendix J:</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2/4/6                      | 0                                                      | 6                                                         | Zero CHARM*<br>Mileage Rate             |
| Railroad Sub19<br>(Equipment Group = Box, see <a href="#">Appendix J:</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | B                          | P                                                      | P                                                         | Zero CHARM*<br>Mileage and Hourly Rates |
| Railroad Non-Sub19<br>(, B, and C, see <a href="#">Appendix J:</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | M                          | Q                                                      | Q                                                         | Zero CHARM*<br>Mileage and Hourly Rates |
| Trailer/Container/Chassis (see <a href="#">Appendix J:</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1                          | 0                                                      | 0                                                         | Already Zero Rated in CHARM*            |
| Locomotive, EOT, and Maintenance of Way<br>(see <a href="#">Appendix J:</a> )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6                          | 6                                                      | 6                                                         | Already Zero Rated in CHARM*            |
| <p>Additional Processing: Use the following rules to re-instate the Rate Indicator when an S, X, Y Rate Indicator condition is removed.</p> <ol style="list-style-type: none"> <li>1. If a Locomotive, End of Train Device or Maintenance of Way with ETC Prefix M, Steel Wheel Set (ETC Prefix Q8), assign a Rate Indicator of 0 if in error or a 6 if not in error.</li> <li>2. If a Trailer/Container/Chassis, assign a Rate Indicator of 0 if in error or a 1 if not in error.</li> <li>3. If a Private Freight unit, assign a Rate Indicator of 0 if in error. If not in error and a TTX unit assign a 4 and if not a TTX unit assign a 2. The stenciled mark owner will be responsible for assigning a Rate Indicator of 6 (zero rate) if applicable.</li> <li>4. If a Railroad Freight unit with a Rate Indicator of P, retain the Rate Indicator of P if in error or assign a Rate Indicator of B if not in error.</li> <li>5. If a Railroad Freight unit with a Rate Indicator of Q, retain the Rate Indicator of Q if in error or assign a Rate Indicator of M if not in error.</li> </ol> <p>To relate Umler Formats to the Umler Equipment Group, refer to Section <a href="#">B.2</a>.</p> <p>*CHARM – The Car Hire Accounting Rate Master is a monthly industry file created by Railinc’s CHARM system.</p> |                            |                                                        |                                                           |                                         |

## D.2 Mechanical Restriction Code Priority (S, X, Y)

| Input EMC Change                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Umler Equipment Management Codes |               |                          |                |         |         |         |               |                          |               |                      |                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------|--------------------------|----------------|---------|---------|---------|---------------|--------------------------|---------------|----------------------|------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | S,Blank                          | S,X           | X,A                      | X,D            | X,J     | X,N     | X,Z     | X,B to X,Z    | Y,A                      | Y,Z           | M,Blank              | Other                                    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | User Assigned                    | User Assigned | Umler Assigned (Over 40) | Umler Assigned |         |         |         | User Assigned | Umler Assigned (Over 50) | User Assigned | Umler Admin Assigned | All Other TC/TCC                         |
| User Assigned S,Blank                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | S,Blank                          | S,X           | S,Blank                  | S,Blank        | S,Blank | S,Blank | S,Blank | S,Blank       | S,Blank                  | S,Blank       | S,Blank              | S,Blank                                  |
| User Assigned S,X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | S,X                              | S,X           | S,X                      | S,X            | S,X     | S,X     | S,X     | S,X           | S,X                      | S,X           | S,X                  | S,X                                      |
| Umler Assigned X,A (Age-Over 40)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | S,Blank                          | S,X           | X,A                      | X,A            | X,A     | X,A     | X,A     | X,A           | X,A (recalculated age)   | X,A           | X,A                  | X,A                                      |
| Umler Assigned X,D Couplers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | S,Blank                          | S,X           | X,A                      | X,D            | X,J     | X,N     | X,Z     | X,D           | Y,A                      | X,D           | X,D                  | X,D                                      |
| Umler Assigned X,J Plain bearings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | S,Blank                          | S,X           | X,A                      | X,D            | X,J     | X,N     | X,Z     | X,J           | Y,A                      | X,J           | X,J                  | X,J                                      |
| Umler Assigned X,N LO w/o stability devices                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | S,Blank                          | S,X           | X,A                      | X,D            | X,J     | X,N     | X,Z     | X,N           | Y,A                      | X,N           | X,N                  | X,N                                      |
| Umler Assigned X,X (expired EW)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | S,Blank                          | S,X           | X,A                      | X,D            | X,J     | X,N     | X,Z     | X,B to X,Z    | Y,A                      | Y,Z           | X,X                  | X,X                                      |
| Umler Assigned X,Z critical error                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | S,Blank                          | S,X           | X,A                      | X,D            | X,J     | X,N     | X,Z     | X,Z           | Y,A                      | X,Z           | X,Z                  | X,Z                                      |
| User Assigned X,B to X,Z                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | S,Blank                          | S,X           | X,A                      | X,D            | X,J     | X,N     | X,Z     | X,B to X,Z    | Y,A                      | Y,Z           | X,B to X,Z           | X,B to X,Z                               |
| Umler Assigned Y,A (Age 50)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | S,Blank                          | S,X           | Y,A                      | Y,A            | Y,A     | Y,A     | Y,A     | Y,A           | Y,A                      | Y,A           | Y,A                  | Y,A                                      |
| User Assigned Y,Z                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | S,Blank                          | S,X           | X,A                      | X,D            | X,J     | X,N     | X,Z     | Y,Z           | Y,A                      | Y,Z           | Y,Z                  | Y,Z                                      |
| Umler Admin Assigned M,Blank                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | S,Blank                          | S,X           | X,A                      | X,D            | X,J     | X,N     | X,Z     | X,B to X,Z    | Y,A                      | Blank, Blank  | M,Blank              | M,Blank                                  |
| Umler Admin Blank,Blank                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Blank, Blank                     | Blank, Blank  | X,A                      | X,D            | X,J     | X,N     | X,Z     | Blank, Blank  | Y,A                      | Blank, Blank  | Blank, Blank         | Blank, Blank Except Pools Assigned Codes |
| User Assigned Blank,Blank                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Blank, Blank                     | S,X           | X,A                      | X,D            | X,J     | X,N     | X,Z     | Blank, Blank  | Y,A                      | Blank, Blank  | M,Blank              | reject                                   |
| All Other input TC/TCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | S,Blank                          | S,X           | X,A                      | X,D            | X,J     | X,N     | X,Z     | Input TC/TCC  | Y,A                      | Input C/TCC   | M,Blank              | Input /TCC                               |
| <p>The first column of this table titled "Input EMC Change" indicates what is being submitted as a change. The column headings following the double lines indicate the various Equipment Management Codes that could exist prior to the processing of the EMC change. The value in the cell at the intersection of the two is the resulting EMC value after processing is completed.</p> <p>Note that the resulting (processed) EMC may differ from that submitted due to the relative priority of the Codes. The S and Y Transportation Codes have a higher priority then all other EMC codes and can only be removed by the reporting (i.e. input) of an EMC values of all blanks with the exception of S,X which can only be removed by the Railinc Administrator.</p> <p>For UMLER assigned X and YA Equipment management Codes, which are assigned based on equipment data elements, the codes can only be removed by changing the applicable data element(s).</p> |                                  |               |                          |                |         |         |         |               |                          |               |                      |                                          |



## Appendix E: Equipment Management Code (EMC)

### E.1 EMC Application for Pool

| Seq # | Pool Assignment<br>Trans. Code | Before Assignment |                                          | After Assignment |                                              |
|-------|--------------------------------|-------------------|------------------------------------------|------------------|----------------------------------------------|
|       |                                | Umler TC/TCC      | Umler EMC                                | Umler TC/TCC     | Umler EMC                                    |
| 1     | C                              | Blank,Blank       | All Blank                                | C,Blank          | Pool Control = C                             |
| 2     | G                              | Blank,Blank       | All Blank                                | G,Blank          | Pool Control = G                             |
| 3     | J                              | Blank,Blank       | All Blank                                | J,Blank          | Pool Control = J                             |
| 4     | N                              | Blank,Blank       | All Blank                                | N,Blank          | Pool Control = N                             |
| 5     | P                              | Blank,Blank       | All Blank                                | P,Blank          | Pool Control = P                             |
| 6     | R                              | Blank,Blank       | All Blank                                | R,Blank          | Pool Control = R                             |
| 7     | C                              | D,Blank           | System Generated = D                     | D,C              | System Generated = D<br>Pool Control = C     |
| 8     | G                              | D,Blank           | System Generated = D                     | D,G              | System Generated = D<br>Pool Control = G     |
| 9     | J                              | D,Blank           | System Generated = D                     | D,J              | System Generated = D<br>Pool Control = J     |
| 10    | N                              | D,Blank           | System Generated = D                     | D,N              | System Generated = D<br>Pool Control = N     |
| 11    | P                              | D,Blank           | System Generated = D                     | D,P              | System Generated = D<br>Pool Control = P     |
| 12    | R                              | D,Blank           | System Generated = D                     | D,R              | System Generated = D<br>Pool Control = R     |
| 13    | C                              | O,Blank           | User Reported = O                        | C,Blank          | User Reported = Blank<br>Pool Control = C    |
| 14    | G                              | O,Blank           | User Reported = O                        | G,Blank          | User Reported = Blank<br>Pool Control = G    |
| 15    | J                              | O,Blank           | User Reported = O                        | J,Blank          | User Reported = Blank<br>Pool Control = J    |
| 16    | N                              | O,Blank           | User Reported = O                        | N,O              | User Reported = O<br>Pool Control = N        |
| 17    | P                              | O,Blank           | User Reported = O                        | P,Blank          | User Reported = Blank<br>Pool Control = P    |
| 18    | R                              | O,Blank           | User Reported = O                        | R,Blank          | User Reported = Blank<br>Pool Control = R    |
| 19    | C                              | T,Blank           | System Generated = T                     | C,Blank          | System Generated = Blank<br>Pool Control = C |
| 20    | G                              | T,Blank           | System Generated = T                     | G,Blank          | System Generated = Blank<br>Pool Control = G |
| 21    | J                              | T,Blank           | System Generated = T                     | J,Blank          | System Generated = Blank<br>Pool Control = J |
| 22    | N                              | T,Blank           | System Generated = T                     | N,Blank          | System Generated = Blank<br>Pool Control = N |
| 23    | P                              | T,Blank           | System Generated = T                     | P,Blank          | System Generated = Blank<br>Pool Control = P |
| 24    | R                              | T,Blank           | System Generated = T                     | R,Blank          | System Generated = Blank<br>Pool Control = R |
| 25    | C                              | U,Blank           | User Reported = U                        | C,Blank          | User Reported = Blank<br>Pool Control = C    |
| 26    | G                              | U,Blank           | User Reported = U                        | G,Blank          | User Reported = Blank<br>Pool Control = G    |
| 27    | J                              | U,Blank           | User Reported = U                        | J,Blank          | User Reported = Blank<br>Pool Control = J    |
| 28    | N                              | U,Blank           | User Reported = U                        | N,Blank          | User Reported = Blank<br>Pool Control = N    |
| 29    | P                              | U,Blank           | User Reported = U                        | P,Blank          | User Reported = Blank<br>Pool Control = P    |
| 30    | R                              | U,Blank           | User Reported = U                        | R,Blank          | User Reported = Blank<br>Pool Control = R    |
| 31    | C                              | W,Blank           | Pool Control = W                         | C,Blank          | Pool Control = C                             |
| 32    | G                              | W,Blank           | Pool Control = W                         | G,Blank          | Pool Control = G                             |
| 33    | N                              | W,Blank           | Pool Control = W                         | N,Blank          | Pool Control = N                             |
| 34    | P                              | W,Blank           | Pool Control = W                         | P,Blank          | Pool Control = P                             |
| 35    | R                              | W,Blank           | Pool Control = W                         | R,Blank          | Pool Control = R                             |
| 36    | C                              | D,W               | System Generated = D<br>Pool Control = W | D,C              | System Generated = D<br>Pool Control = C     |
| 37    | G                              | D,W               | System Generated = D<br>Pool Control = W | D,G              | System Generated = D<br>Pool Control = G     |
| 38    | N                              | D,W               | System Generated = D<br>Pool Control = W | D,N              | System Generated = D<br>Pool Control = N     |
| 39    | P                              | D,W               | System Generated = D<br>Pool Control = W | D,P              | System Generated = D<br>Pool Control = P     |
| 40    | R                              | D,W               | System Generated = D<br>Pool Control = W | D,R              | System Generated = D<br>Pool Control = R     |

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| Seq # | Pool Assignment<br>Trans. Code | Before Assignment                                              |                                                                                                             | After Assignment |                                                                       |
|-------|--------------------------------|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------|
|       |                                | Umler TC/TCC                                                   | Umler EMC                                                                                                   | Umler TC/TCC     | Umler EMC                                                             |
| 41    | C                              | T,U                                                            | System Generated = T<br>User Reported = U                                                                   | C,Blank          | System Generated = Blank<br>User Reported = Blank<br>Pool Control = C |
| 42    | G                              | T,U                                                            | System Generated = T<br>User Reported = U                                                                   | G,Blank          | System Generated = Blank<br>User Reported = Blank<br>Pool Control = G |
| 43    | J                              | T,U                                                            | System Generated = T<br>User Reported = U                                                                   | J,Blank          | System Generated = Blank<br>User Reported = Blank<br>Pool Control = J |
| 44    | N                              | T,U                                                            | System Generated = T<br>User Reported = U                                                                   | N,Blank          | System Generated = Blank<br>User Reported = Blank<br>Pool Control = N |
| 45    | P                              | T,U                                                            | System Generated = T<br>User Reported = U                                                                   | P,Blank          | System Generated = Blank<br>User Reported = Blank<br>Pool Control = P |
| 46    | R                              | T,U                                                            | System Generated = T<br>User Reported = U                                                                   | R,Blank          | System Generated = Blank<br>User Reported = Blank<br>Pool Control = R |
| 47    | C                              | T,O                                                            | System Generated = T<br>User Reported = O                                                                   | C,Blank          | System Generated = Blank<br>User Reported = Blank<br>Pool Control = C |
| 48    | G                              | T,O                                                            | System Generated = T<br>User Reported = O                                                                   | G,Blank          | System Generated = Blank<br>User Reported = Blank<br>Pool Control = G |
| 49    | J                              | T,O                                                            | System Generated = T<br>User Reported = O                                                                   | J,Blank          | System Generated = Blank<br>User Reported = Blank<br>Pool Control = J |
| 50    | N                              | T,O                                                            | System Generated = T<br>User Reported = O                                                                   | N,O              | System Generated = Blank<br>User Reported = O<br>Pool Control = N     |
| 51    | P                              | T,O                                                            | System Generated = T<br>User Reported = O                                                                   | P,Blank          | System Generated = Blank<br>User Reported = Blank<br>Pool Control = P |
| 52    | R                              | T,O                                                            | System Generated = T<br>User Reported = O                                                                   | R,Blank          | System Generated = Blank<br>User Reported = Blank<br>Pool Control = R |
| 53    | C                              | C,Blank<br>J,Blank<br>N,Blank<br>P,Blank<br>R,Blank            | Pool Control = C<br>Pool Control = J<br>Pool Control = N<br>Pool Control = P<br>Pool Control = R            | C,Blank          | Pool Control = C                                                      |
| 54    | G                              | G,Blank<br>C,Blank<br>J,Blank<br>N,Blank<br>P,Blank<br>R,Blank | G,Blank<br>Pool Control = C<br>Pool Control = J<br>Pool Control = N<br>Pool Control = P<br>Pool Control = R | G,Blank          | Pool Control = G                                                      |
| 55    | J                              | C,Blank<br>J,Blank<br>N,Blank<br>P,Blank<br>R,Blank            | Pool Control = C<br>Pool Control = J<br>Pool Control = N<br>Pool Control = P<br>Pool Control = R            | J,Blank          | Pool Control = J                                                      |
| 56    | N                              | C,Blank<br>J,Blank<br>N,Blank<br>P,Blank<br>R,Blank            | Pool Control = C<br>Pool Control = J<br>Pool Control = N<br>Pool Control = P<br>Pool Control = R            | N,Blank          | Pool Control = N                                                      |
| 57    | P                              | C,Blank<br>J,Blank<br>N,Blank<br>P,Blank<br>R,Blank            | Pool Control = C<br>Pool Control = J<br>Pool Control = N<br>Pool Control = P<br>Pool Control = R            | P,Blank          | Pool Control = P                                                      |
| 58    | R                              | C,Blank<br>J,Blank<br>N,Blank<br>P,Blank<br>R,Blank            | Pool Control = C<br>Pool Control = J<br>Pool Control = N<br>Pool Control = P<br>Pool Control = R            | R,Blank          | Pool Control = R                                                      |
| 59    | C,J,N,P,R                      | G,Blank                                                        | Pool Control = G or<br>User Reported = G                                                                    | Reject           | Must remove 'G' to assign<br>equipment to a non-G pool.               |

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| Seq # | Pool Assignment<br>Trans. Code | Before Assignment                      |                                                                                                                                                                                                                                                                      | After Assignment |                                                                                                                        |
|-------|--------------------------------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------|
|       |                                | Umler TC/TCC                           | Umler EMC                                                                                                                                                                                                                                                            | Umler TC/TCC     | Umler EMC                                                                                                              |
| 60    | C                              | D,C<br>D,J<br>D,N<br>D,P<br>D,R        | System Generated = D<br>Pool Control = C<br>System Generated = D<br>Pool Control = J<br>System Generated = D<br>Pool Control = N<br>System Generated = D<br>Pool Control = P<br>System Generated = D<br>Pool Control = R                                             | D,C              | System Generated = D<br>Pool Control = C                                                                               |
| 61    | G                              | D,G<br>D,C<br>D,J<br>D,N<br>D,P<br>D,R | System Generated = D<br>Pool Control = G<br>System Generated = D<br>Pool Control = C<br>System Generated = D<br>Pool Control = J<br>System Generated = D<br>Pool Control = N<br>System Generated = D<br>Pool Control = P<br>System Generated = D<br>Pool Control = R | D,G              | System Generated = D<br>Pool Control = G                                                                               |
| 62    | J                              | D,C<br>D,J<br>D,N<br>D,P<br>D,R        | System Generated = D<br>Pool Control = C<br>System Generated = D<br>Pool Control = J<br>System Generated = D<br>Pool Control = N<br>System Generated = D<br>Pool Control = P<br>System Generated = D<br>Pool Control = R                                             | D,J              | System Generated = D<br>Pool Control = J                                                                               |
| 63    | N                              | D,C<br>D,J<br>D,N<br>D,P<br>D,R        | System Generated = D<br>Pool Control = C<br>System Generated = D<br>Pool Control = J<br>System Generated = D<br>Pool Control = N<br>System Generated = D<br>Pool Control = P<br>System Generated = D<br>Pool Control = R                                             | D,N              | System Generated = D<br>Pool Control = N                                                                               |
| 64    | P                              | D,C<br>D,J<br>D,N<br>D,P<br>D,R        | System Generated = D<br>Pool Control = C<br>System Generated = D<br>Pool Control = J<br>System Generated = D<br>Pool Control = N<br>System Generated = D<br>Pool Control = P<br>System Generated = D<br>Pool Control = R                                             | D,P              | System Generated = D<br>Pool Control = P                                                                               |
| 65    | R                              | D,C<br>D,J<br>D,N<br>D,P<br>D,R        | System Generated = D<br>Pool Control = C<br>System Generated = D<br>Pool Control = J<br>System Generated = D<br>Pool Control = N<br>System Generated = D<br>Pool Control = P<br>System Generated = D<br>Pool Control = R                                             | D,R              | System Generated = D<br>Pool Control = R                                                                               |
| 66    | C,J,N,P,R                      | D,G                                    | System Generated = D and<br>Pool Control = G or<br>User Reported = G                                                                                                                                                                                                 | Reject           | Must remove 'G' to assign<br>equipment to a non-G pool.                                                                |
| 67    | C                              | E,C<br>E,J<br>E,P<br>E,R               | System Generated = E<br>Pool Control = C<br>System Generated = E<br>Pool Control = J<br>System Generated = E<br>Pool Control = P<br>System Generated = E<br>Pool Control = R                                                                                         | C,Blank          | System Generated = Blank<br>Pool Control = C<br><br>Note: E is removed when<br>equipment reassigned to<br>another pool |

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| Seq # | Pool Assignment<br>Trans. Code | Before Assignment               |                                                                                                                                                                                                                          | After Assignment |                                                                                                                  |
|-------|--------------------------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------|
|       |                                | Umler TC/TCC                    | Umler EMC                                                                                                                                                                                                                | Umler TC/TCC     | Umler EMC                                                                                                        |
| 68    | G                              | E,G<br>E,C<br>E,J<br>E,P<br>E,R | System Generated = E<br>Pool Control = G<br>System Generated = E<br>Pool Control = C<br>System Generated = E<br>Pool Control = J<br>System Generated = E<br>Pool Control = P<br>System Generated = E<br>Pool Control = R | G,Blank          | System Generated = Blank<br>Pool Control = G<br><br>Note: E is removed when equipment reassigned to another pool |
| 69    | J                              | E,C<br>E,J<br>E,P<br>E,R        | System Generated = E<br>Pool Control = C<br>System Generated = E<br>Pool Control = J<br>System Generated = E<br>Pool Control = P<br>System Generated = E<br>Pool Control = R                                             | J,Blank          | System Generated = Blank<br>Pool Control = J<br><br>Note: E is removed when equipment reassigned to another pool |
| 70    | N                              | E,C<br>E,J<br>E,P<br>E,R        | System Generated = E<br>Pool Control = C<br>System Generated = E<br>Pool Control = J<br>System Generated = E<br>Pool Control = P<br>System Generated = E<br>Pool Control = R                                             | N,Blank          | System Generated = Blank<br>Pool Control = N<br><br>Note: E is removed when equipment reassigned to another pool |
| 71    | P                              | E,C<br>E,J<br>E,P<br>E,R        | System Generated = E<br>Pool Control = C<br>System Generated = E<br>Pool Control = J<br>System Generated = E<br>Pool Control = P<br>System Generated = E<br>Pool Control = R                                             | P,Blank          | System Generated = Blank<br>Pool Control = P<br><br>Note: E is removed when equipment reassigned to another pool |
| 72    | R                              | E,C<br>E,J<br>E,P<br>E,R        | System Generated = E<br>Pool Control = C<br>System Generated = E<br>Pool Control = J<br>System Generated = E<br>Pool Control = P<br>System Generated = E<br>Pool Control = R                                             | R,Blank          | System Generated = Blank<br>Pool Control = R<br><br>Note: E is removed when equipment reassigned to another pool |
| 73    | C,J,N,P,R                      | E,G                             | System Generated = E and<br>Pool Control = G or<br>User Reported = G                                                                                                                                                     | Reject           | Must remove 'G' to assign equipment to a non-G pool.                                                             |
| 74    | C                              | X,A                             | Mech Rest=X<br>Mech Reason=A, B                                                                                                                                                                                          | X,A              | Pool Control = C<br>Mech Rest=X<br>Mech Reason=A                                                                 |
| 75    | G                              | X,A                             | Mech Rest=X<br>Mech Reason=A, B                                                                                                                                                                                          | X,A              | Pool Control = G<br>Mech Rest=X<br>Mech Reason=A                                                                 |
| 76    | J                              | X,A                             | Mech Rest=X<br>Mech Reason=A, B                                                                                                                                                                                          | X,A              | Pool Control = J<br>Mech Rest=X<br>Mech Reason=A                                                                 |
| 77    | N                              | X,A                             | Mech Rest=X<br>Mech Reason=A, B                                                                                                                                                                                          | Reject           |                                                                                                                  |
| 78    | P                              | X,A                             | Mech Rest=X<br>Mech Reason=A, B                                                                                                                                                                                          | X,A              | Pool Control = P<br>Mech Rest=X<br>Mech Reason=A                                                                 |
| 79    | R                              | X,A                             | Mech Rest=X<br>Mech Reason=A, B                                                                                                                                                                                          | X,A              | Pool Control = R<br>Mech Rest=X<br>Mech Reason=A                                                                 |
| 80    | C                              | X,A                             | Pool Control = C,J,N,P,R<br>Mech Rest=X<br>Mech Reason=A, B                                                                                                                                                              | X,A              | Pool Control = C<br>Mech Rest=X<br>Mech Reason=A                                                                 |
| 81    | G                              | X,A                             | Pool Control = C,G,J,N,P,R<br>Mech Rest=X<br>Mech Reason=A, B                                                                                                                                                            | X,A              | Pool Control = G<br>Mech Rest=X<br>Mech Reason=A                                                                 |
| 82    | J                              | X,A                             | Pool Control = C,J,N,P,R<br>Mech Rest=X<br>Mech Reason=A, B                                                                                                                                                              | X,A              | Pool Control = J<br>Mech Rest=X<br>Mech Reason=A                                                                 |
| 83    | P                              | X,A                             | Pool Control = C,J,N,P,R<br>Mech Rest=X<br>Mech Reason=A, B                                                                                                                                                              | X,A              | Pool Control = P<br>Mech Rest=X<br>Mech Reason=A                                                                 |
| 84    | R                              | X,A                             | Pool Control = C,J,N,P,R<br>Mech Rest=X<br>Mech Reason=A, B                                                                                                                                                              | X,A              | Pool Control = R<br>Mech Rest=X<br>Mech Reason=A                                                                 |

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| Seq # | Pool Assignment<br>Trans. Code | Before Assignment                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | After Assignment        |                                                     |
|-------|--------------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------------------------------------|
|       |                                | Umler TC/TCC                                                                                     | Umler EMC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Umler TC/TCC            | Umler EMC                                           |
| 85    | C,J,N,P,R                      | X,A                                                                                              | Pool Control = G<br>Mech Rest=X<br>Mech Reason=A, B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Reject                  | Must remove 'G' to assign equipment to a non-G pool |
| 86    | C,J,N,P,R                      | A,B                                                                                              | User Reported = 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Reject                  | Not assignable ETC                                  |
| 87    | C,J,N,P,R                      | M                                                                                                | User Reported = M                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Reject                  | Not assignable TC/TCC                               |
| 88    | C,J,N,P,R                      | S, Blank                                                                                         | Mech Rest=S<br>Mech Reason=Blank                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Reject                  | Not assignable TC/TCC                               |
| 89    | C,J,N,P,R                      | S,X                                                                                              | Mech Rest=S<br>Mech Reason=X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Reject                  | Not assignable TC/TCC                               |
| 90    | C,J,N,P,R                      | X,J<br><br>X,N                                                                                   | Mech Rest=X<br>Mech Reason=J<br>System Generated = X<br>Mech Rest=X<br>Mech Reason=N<br>System Generated = X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Reject                  | Not assignable TC/TCC                               |
| 91    | C,J,N,P,R                      | X,D<br><br>X,Z                                                                                   | Mech Rest=X<br>Mech Reason=D<br>Mech Rest=X<br>Mech Reason=Z<br>Note: Umler assigned Mechanical Codes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Reject                  | Not assignable TC/TCC                               |
| 92    | C,J,N,P,R                      | X,B<br>X,C<br>X,D<br>X,F<br>X,J<br><br>X,G<br>X,P<br>X,N<br>X,T<br>X,U<br>X,W<br>X, X<br><br>X,Z | Mech Rest=X<br>Mech Reason=B (brakes)<br>Mech Rest=X<br>Mech Reason=C (axles)<br>Mech Rest=X<br>Mech Reason=D (coupler)<br>Mech Rest=X<br>Mech Reason=F (yokes)<br>Mech Rest=X<br>Mech Reason=J (plain bearings)<br>Mech Rest=X<br>Mech Reason=G (draft gear)<br>Mech Rest=X<br>Mech Reason=P (side frame) Mech Rest=X<br>Mech Reason=N (trucks)<br>Mech Rest=X<br>Mech Reason=T (bolster)<br>Mech Rest=X<br>Mech Reason=U (AAR or owner reported)<br>Mech Rest=X<br>Mech Reason=W (wheels) Mech Rest=X<br>Mech Reason=X Generated expired EW notice<br>Mech Reason=X<br>Mech Reason=Z<br>Note: User assigned TC/TCC | C,J,N,P,R<br><br>Reject | System generated<br><br>Not assignable TC/TCC       |
| 93    | C,J,N,P,R                      | Y,A                                                                                              | Mech Rest=Y<br>Mech Reason=A (age)<br>Note: Umler assigned TC/TCC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Reject                  | Not assignable TC/TCC                               |

**Note:** The above processing assumes that the equipment has passed all the pool assignment business rules defined in Section [C.1](#).

## E.2 EMC Application for Pool Unassignments

| Seq #                                                                                                                                                                                                     | Pool Unassignment                               | Before Assignment |                                                  | After Assignment |                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------|--------------------------------------------------|------------------|---------------------------------------------------------------------------|
|                                                                                                                                                                                                           |                                                 | Umler TC/TCC      | Umler EMC Codes                                  | Umler TC/TCC     | Umler EMC Codes                                                           |
| 1                                                                                                                                                                                                         | Pool Identifier = zeros<br>Pool Control = Blank | C,Blank           | Pool Control = C                                 | Blank,,Blank     | Pool Control = Blank                                                      |
| 2                                                                                                                                                                                                         | Same as above                                   | G,Blank           | Pool Control = G                                 | G,Blank          | User Reported = G<br>Pool Control = Blank                                 |
| 3                                                                                                                                                                                                         | Same as above                                   | J,Blank           | Pool Control = J                                 | Blank,,Blank     | Pool Control = Blank                                                      |
| 4                                                                                                                                                                                                         | Same as above                                   | N,Blank           | Pool Control = N                                 | Blank,,Blank     | Pool Control = Blank                                                      |
| 5                                                                                                                                                                                                         | Same as above                                   | P,Blank           | Pool Control = P                                 | Blank,,Blank     | Pool Control = Blank                                                      |
| 6                                                                                                                                                                                                         | Same as above                                   | R,Blank           | Pool Control = R                                 | Blank,,Blank     | Pool Control = Blank                                                      |
| 7                                                                                                                                                                                                         | Same as above                                   | D,C               | System Gen = D<br>Pool Control = C               | D,Blank          | System Gen = D<br>Pool Control = Blank                                    |
| 8                                                                                                                                                                                                         | Same as above                                   | D,G               | System Gen = D<br>Pool Control = G               | D,Blank          | System Gen = D<br>User Reported = G<br>Pool Control = Blank               |
| 9                                                                                                                                                                                                         | Same as above                                   | D,J               | System Gen = D<br>Pool Control = J               | D,Blank          | System Gen = D<br>Pool Control = Blank                                    |
| 10                                                                                                                                                                                                        | Same as above                                   | D,N               | System Gen = D<br>Pool Control = N               | D,Blank          | System Gen = D<br>Pool Control = Blank                                    |
| 11                                                                                                                                                                                                        | Same as above                                   | D,P               | System Gen = D<br>Pool Control = P               | D,Blank          | System Gen = D<br>Pool Control = Blank                                    |
| 12                                                                                                                                                                                                        | Same as above                                   | D,R               | System Gen = D<br>Pool Control = R               | D,Blank          | System Gen = D<br>Pool Control = Blank                                    |
| 13                                                                                                                                                                                                        | Same as above                                   | E,G               | System Gen = E<br>Pool Control = G               | G,Blank          | System Gen = Blank<br>User Reported = G<br>Pool Control = Blank           |
| 14                                                                                                                                                                                                        | Same as above                                   | E,C               | System Gen = E<br>Pool Control = C               | Blank,,Blank     | System Gen = Blank<br>Pool Control = Blank                                |
| 15                                                                                                                                                                                                        | Same as above                                   | E,J               | System Gen = E<br>Pool Control = J               | Blank,,Blank     | System Gen = Blank<br>Pool Control = Blank                                |
| 16                                                                                                                                                                                                        | Same as above                                   | E,P               | System Gen = E<br>Pool Control = P               | Blank,,Blank     | System Gen = Blank<br>Pool Control = Blank                                |
| 17                                                                                                                                                                                                        | Same as above                                   | E,R               | System Gen = E<br>Pool Control = R               | Blank,,Blank     | System Gen = Blank<br>Pool Control = Blank                                |
| 18                                                                                                                                                                                                        | Same as above                                   | X,A,B             | Pool Control = C<br>Mech Rest=X<br>Mech Reason=A | X,A,B            | Pool Control = Blank Mech<br>Rest=X<br>Mech Reason=A                      |
| 19                                                                                                                                                                                                        | Same as above                                   | X,A,B             | Pool Control = G<br>Mech Rest=X<br>Mech Reason=A | X,A,B            | User Reported = G<br>Pool Control = Blank<br>Mech Rest=X<br>Mech Reason=A |
| 20                                                                                                                                                                                                        | Same as above                                   | X,A,B             | Pool Control = J<br>Mech Rest=X<br>Mech Reason=A | X,A,B            | Pool Control = Blank Mech<br>Rest=X<br>Mech Reason=A                      |
| 21                                                                                                                                                                                                        | Same as above                                   | X,A,B             | Pool Control = P<br>Mech Rest=X<br>Mech Reason=A | X,A,B            | Pool Control = Blank Mech<br>Rest=X<br>Mech Reason=A                      |
| 22                                                                                                                                                                                                        | Same as above                                   | X,A,B             | Pool Control = R<br>Mech Rest=X<br>Mech Reason=A | X,A,B            | Pool Control = Blank Mech<br>Rest=X<br>Mech Reason=A                      |
| <b>Note:</b> When a railroad Covered Hopper or a private Covered Hopper leased to a railroad (C_1_ ; CSD=435) is removed from a pool, the pool number is set to 0000000 and the Pool Control is set to W. |                                                 |                   |                                                  |                  |                                                                           |

### E.3 User Reported Equipment Management Codes by Equipment Groups

| User Input Data                                                                   | Box Gondola Hopper | Tank | Flat and Intermodal Flat | Maintenance of Way | Trailer Container Chassis | Locomotive | EOT Steelwheels |
|-----------------------------------------------------------------------------------|--------------------|------|--------------------------|--------------------|---------------------------|------------|-----------------|
| 2 <sup>1</sup>                                                                    | N/A                | N/A  | N/A                      | N/A                | Yes                       | N/A        | N/A             |
| G                                                                                 | Yes                | Yes  | Yes                      | Yes                | Yes                       | N/A        | N/A             |
| M <sup>2</sup>                                                                    | Yes                | Yes  | Yes                      | Yes                | Yes                       | Yes        | Yes             |
| O                                                                                 | Yes                | Yes  | Yes                      | Yes                | Yes                       | Yes        | Yes             |
| S                                                                                 | Yes                | Yes  | Yes                      | Yes                | Yes                       | Yes        | Yes             |
| S,X                                                                               | Yes                | Yes  | Yes                      | Yes                | N/A                       | N/A        | N/A             |
| U <sup>3</sup>                                                                    | Yes                | N/A  | Yes                      | N/A                | N/A                       | N/A        | N/A             |
| X,B<br>X,C<br>X,D<br>X,F<br>X,G<br>X,J<br>X,N<br>X,P<br>X,T<br>X,W<br>X, X<br>X,Z | Yes                | Yes  | Yes                      | Yes                | X,Z only                  | X,Z only   | X,Z only        |
| X,U                                                                               | N/A                | Yes  | N/A                      | N/A                | N/A                       | N/A        | N/A             |
| Y,Z                                                                               | Yes                | Yes  | Yes                      | Yes                | N/A                       | Yes        | N/A             |

<sup>1</sup> The User Reported Code of '2' is only applicable to trailers and is identified in Umler by the TC/TCC of 'AB'.

<sup>2</sup> The User Reported Code of 'M' can only be reported by the Railinc Administrator.

<sup>3</sup> The User Reported Code of 'U' is only applicable to equipment defined under CSD 150 and 155 in Section [B.1 Mechanical Designations Applicable to Car Directives and Orders](#)

To relate Umler Equipment Groups to Umler Formats and Equipment Type Codes, refer to Section [B.2](#).



## E.4 User Reported Equipment Management Code (EMC) Assignment

| Seq # | User Input Data | Before Assignment                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | After Assignment |                                                                                                                                                                                                                                                              |
|-------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                 | TC/TCC                                                                                                                                                        | Umler EMC                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | TC/TCC           | Umler EMC                                                                                                                                                                                                                                                    |
| 1     | O               | Blank, Blank                                                                                                                                                  | All fields Blank                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | O,Blank          | User Reported=O (all equipment)                                                                                                                                                                                                                              |
| 2     | O               | T, Blank                                                                                                                                                      | System Generated=T                                                                                                                                                                                                                                                                                                                                                                                                                                                                | T,O              | System Generated=T<br>User Reported=O                                                                                                                                                                                                                        |
| 3     | O               | N,Blank                                                                                                                                                       | Pool Control=N                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | N,O              | Pool Control=N<br>User Reported=O                                                                                                                                                                                                                            |
| 4     | U               | Blank, Blank                                                                                                                                                  | All fields Blank                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | U,Blank          | User Reported=U<br>Only applicable to CSD 150 equipment (Refer to <a href="#">Appendix B:</a> )                                                                                                                                                              |
| 5     | U               | T, Blank                                                                                                                                                      | System Generated=T                                                                                                                                                                                                                                                                                                                                                                                                                                                                | T,U              | System Generated=T<br>User Reported=U<br>Only applicable to CSD 150 (Refer to <a href="#">Appendix B:</a> )                                                                                                                                                  |
| 6     | 2               | Blank, Blank                                                                                                                                                  | All Fields Blank                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | A,B              | User Reported=2<br>Applicable to Trailers (ETC Prefix Z) handled under Trailer Service Rule 2                                                                                                                                                                |
| 7     | G               | Blank, Blank                                                                                                                                                  | All fields Blank                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | G,Blank          | User Reported=G (refer to <a href="#">Appendix J:</a> )                                                                                                                                                                                                      |
| 8     | G               | W                                                                                                                                                             | Pool Control=W                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | G,W              | User Reported=G<br>Pool Control=W<br>(Pool Control of W applicable to unassigned covered hopper cars defined under CSD 435, refer to <a href="#">Appendix B:</a> )                                                                                           |
| 9     | G               | D                                                                                                                                                             | System Generated=D                                                                                                                                                                                                                                                                                                                                                                                                                                                                | D,G              | User Reported=G<br>System Generated=D                                                                                                                                                                                                                        |
| 10    | G               | C,Blank<br>D,C<br><br>E,C<br><br>J,Blank<br>D,J<br><br>E,J<br><br>N,Blank<br>D,N<br><br>N,O<br><br>P,Blank<br>D,P<br><br>E,P<br><br>R,Blank<br>D,R<br><br>E,R | Pool Control=C<br>System Generated=D<br>Pool Control=C<br>System Generated=E<br>Pool Control=C<br>Pool Control=J<br>System Generated=D<br>Pool Control=J<br>System Generated=E<br>Pool Control=J<br>Pool Control=N<br>System Generated=D<br>Pool Control=N<br>User Reported=O<br>Pool Control=P<br>System Generated=D<br>Pool Control=P<br>System Generated=E<br>Pool Control=P<br>Pool Control=R<br>System Generated=D<br>Pool Control=R<br>System Generated=E<br>Pool Control=R | G,Blank          | User Reported=G<br>Control Pool=Blank<br>System Generated=Blank<br><br><b>Note:</b> If the equipment is in a pool, it will be removed from the pool.<br><br><b>Note 2:</b> A User Reported G cannot be applied to equipment identified as being in a G pool. |

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| Seq # | User Input Data | Before Assignment                      |                                                           | After Assignment |                                                                              |
|-------|-----------------|----------------------------------------|-----------------------------------------------------------|------------------|------------------------------------------------------------------------------|
|       |                 | TC/TCC                                 | Umler EMC                                                 | TC/TCC           | Umler EMC                                                                    |
| 11*   | G               | S,blank                                | Mech Restriction=S                                        | S,blank          | User Reported=G<br>Mech Restriction=S<br>Mech Reason=Blank                   |
|       |                 | S,X                                    | Mech Restriction=S<br>Mech Reason=X                       | S,X              | User Reported=G<br>Mech Restriction=S<br>Mech Reason=X                       |
|       |                 | X,A                                    | Mech Restriction=X<br>Mech Reason=A                       | X,A              | User Reported=G<br>Mech Restriction=X<br>Mech Reason=A                       |
|       |                 | X,B <sup>1</sup>                       | Mech Restriction=X<br>Mech Reason=B <sup>1</sup>          | X,B <sup>1</sup> | User Reported=G<br>Mech Restriction=X<br>Mech Reason=B <sup>1</sup>          |
|       |                 | Y,A                                    | Mech Restriction=Y<br>Mech Reason=A                       | Y,A              | User Reported=G<br>Mech Restriction=Y<br>Mech Reason=A                       |
| 12*   | G               | X,D<br>(prohibited couplers)           | System Generated=X<br>Mech Restriction=X<br>Mech Reason=D | X,D              | User Reported=G<br>System Generated=X<br>Mech Restriction=X<br>Mech Reason=D |
|       |                 | X,J<br>(prohibited Bearing/Brake Shoe) | System Generated=X<br>Mech Restriction=X<br>Mech Reason=J | X,J              | User Reported=G<br>System Generated=X<br>Mech Restriction=X<br>Mech Reason=J |
|       |                 | X,N<br>(LO w/o stability devices)      | System Generated=X<br>Mech Restriction=X<br>Mech Reason=N | X,N              | User Reported=G<br>System Generated=X<br>Mech Restriction=N<br>Mech Reason=N |

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| Seq # | User Input Data     | Before Assignment                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | After Assignment                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                     | TC/TCC                                                                                                                                                                                                                                                                                                    | Umler EMC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | TC/TCC                                                           | Umler EMC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 13*   | M<br>(Railinc Only) | 2,Blank<br>G,Blank<br><br>G,W<br><br>G,D<br><br>D,G<br><br>O,Blank<br>T,O<br><br>U,Blank<br>T,U<br><br>C,Blank<br>D,C<br><br>E,C<br><br>G,Blank<br>D,G<br><br>E,G<br><br>J, Blank<br>D,J<br><br>E,J<br><br>N, Blank<br>D,N<br><br>N,O<br><br>P, Blank<br>D,P<br><br>E,P<br><br>R, Blank<br>D,R<br><br>E,R | User Reported=2<br>User Reported=G<br><br>User Reported=G<br>Pool Control=W<br>User Reported=G<br>System Generated=D<br>Car Grade=N<br>User Reported=G<br>System Generated=D<br>User Reported=O<br>System Generated=T<br>User Reported=O<br>User Reported=U<br>System Generated=T<br>User Reported=U<br>Pool Control=C<br>System Generated=D<br>Pool Control=C<br>System Generated=E<br>Pool Control=C<br>Pool Control=G<br>System Generated=D<br>Pool Control=G<br>System Generated=E<br>Pool Control=G<br>Pool Control=J<br>System Generated=D<br>Pool Control=J<br>System Generated=E<br>Pool Control=J<br>Pool Control=N<br>System Generated=D<br>Pool Control=N<br>Pool Control=N<br>User Reported=O<br>Pool Control=P<br>System Generated=D<br>Pool Control=P<br>System Generated=E<br>Pool Control=P<br>Pool Control=R<br>System Generated=D<br>Pool Control=R<br>System Generated=E<br>Pool Control=R | M, Blank                                                         | User Reported=M<br>Pool Control=Blank<br>Mech Restriction=Blank<br>Mech Reason=Blank<br><br><b>Note:</b> If the equipment is in a pool, it will be removed from the pool.<br><br><b>Note 2:</b> The User Reported Codes of M and G can not both be retained since these codes are defined to the same data element. The User Reported M (Mark cancelled) code has a higher priority then the User Reported G (contaminated) code.<br><br><b>Note 3:</b> If the equipment is a ruminant protein contaminated unit, the User Reported M will overlay the G. However, the ruminant protein contaminated unit is identifiable by a Car Grade of N. |
| 14*   | M<br>(Railinc Only) | X,A<br><br>X,B <sup>1</sup><br><br>S,Blank<br><br>S,X<br><br>Y,A                                                                                                                                                                                                                                          | Mech Restriction=X<br>Mech Reason=A<br><br>Mech Restriction=X<br>Mech Reason=B <sup>1</sup><br><br>Mech Restriction=S<br>Mech Reason=Blank<br><br>Mech Restriction=S<br>Mech Reason=X<br><br>Mech Restriction=Y<br>Mech Reason=A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | X,A<br><br>X,B <sup>1</sup><br><br>S,Blank<br><br>S,X<br><br>Y,A | User Reported=M<br>Mech Restriction=X<br>Mech Reason=A<br>User Reported=M<br>Mech Restriction=X<br>Mech Reason=B <sup>1</sup><br>User Reported=M<br>Mech Restriction=S<br>Mech Reason=Blank<br>User Reported=M<br>Mech Restriction=S<br>Mech Reason=X<br>User Reported=M<br>Mech Restriction=Y<br>Mech Reason=A                                                                                                                                                                                                                                                                                                                                |

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| Seq # | User Input Data     | Before Assignment                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | After Assignment |                                                                                                                                                                                                                                           |
|-------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                     | TC/TCC                                                                                                                                                                                                                   | Umler EMC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | TC/TCC           | Umler EMC                                                                                                                                                                                                                                 |
| 15*   | M<br>(Railinc Only) | X,D<br>(prohibited couplers)                                                                                                                                                                                             | System Generated=X<br>Mech Restriction=X<br>Mech Reason=D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | X,D              | User Reported=M<br>System Generated=X<br>Mech Restriction=X<br>Mech Reason=D                                                                                                                                                              |
|       |                     | X,J<br>(prohibited Bearing/Brake Shoe)                                                                                                                                                                                   | System Generated=X<br>Mech Restriction=X<br>Mech Reason=J                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | X,J              | User Reported=M<br>System Generated=X<br>Mech Restriction=X<br>Mech Reason=J                                                                                                                                                              |
|       |                     | X,N<br>(LO w/o stability devices)                                                                                                                                                                                        | System Generated=X<br>Mech Restriction=X<br>Mech Reason=N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | X,N              | User Reported=M<br>System Generated=X<br>Mech Restriction=X<br>Mech Reason=N                                                                                                                                                              |
| 16    | X,B <sup>1</sup>    | Blank,Blank<br>O,Blank<br>T,O<br><br>U,Blank<br>T,U<br><br>C,Blank<br>D,C<br><br>E,C<br><br>J,Blank<br>D,J<br><br>E,J<br><br>N,Blank<br>D,N<br><br>N,O<br><br>P,Blank<br>D,P<br><br>E,P<br><br>R,Blank<br>D,R<br><br>E,R | All fields blank<br>User Reported=O<br>System Generated=T<br>User Reported=O<br>User Reported=U<br>System Generated=T<br>User Reported=U<br>Pool Control=C<br>System Generated=D<br>Pool Control=C<br>System Generated=E<br>Pool Control=C<br>Pool Control=J<br>System Generated=D<br>Pool Control=J<br>System Generated=E<br>Pool Control=J<br>Pool Control=N<br>System Generated=D<br>Pool Control=N<br>Pool Control=N<br>User Reported=O<br>Pool Control=P<br>System Generated=D<br>Pool Control=P<br>System Generated=E<br>Pool Control=P<br>Pool Control=R<br>System Generated=D<br>Pool Control=R<br>System Generated=E<br>Pool Control=R | X,B <sup>1</sup> | Mech Restriction=X<br>System Generated=Blank<br>User Reported=Blank<br>Pool Control=Blank                                                                                                                                                 |
| 17*   | X,B <sup>1</sup>    | G,Blank<br>G,W<br><br>G,D<br><br>D,G<br><br>G,Blank<br>D,G<br><br>E,G                                                                                                                                                    | User Reported=G<br>User Reported=G<br>Pool Control=W<br>User Reported=G<br>System Generated=D<br>Car Grade=N<br>User Reported=G<br>System Generated=D<br>Pool Control=G<br>System Generated=D<br>Pool Control=G<br>System Generated=E<br>Pool Control=G                                                                                                                                                                                                                                                                                                                                                                                         | X,B <sup>1</sup> | Mech Restriction=X<br>Mech Reason=B <sup>1</sup><br>System Generated=Blank<br>User Reported=G<br>Pool Control=Blank<br><br><b>Note:</b> If the equipment is a ruminant protein contaminated unit, it is identifiable by a Car Grade of N. |
| 18    | X,Z                 | 2,Blank                                                                                                                                                                                                                  | User Reported=2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | X,Z              | Mech Restriction=X<br>Mech Reason=Z<br>User Reported=2                                                                                                                                                                                    |

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| Seq # | User Input Data  | Before Assignment       |                         | After Assignment |                                                                                                                     |
|-------|------------------|-------------------------|-------------------------|------------------|---------------------------------------------------------------------------------------------------------------------|
|       |                  | TC/TCC                  | Umler EMC               | TC/TCC           | Umler EMC                                                                                                           |
| 19    | Y,Z              | Same as Seq. # 16 above | Same as Seq. # 16 above | Y,Z              | Mech Restriction=Y<br>Mech Reason=Z<br>System Generated=Blank<br>User Reported=Blank<br>Pool Control=Blank          |
| 20*   | Y,Z              | Same as Seq. # 17 above | Same as Seq. # 17 above | Y,Z              | Mech Restriction=Y<br>Mech Reason=Z<br>System Generated=Blank<br>User Reported=G<br>Pool Control=Blank              |
| 21    | S,Blank          | Same as Seq. # 16 above | Same as Seq. # 16 above | S,Blank          | Mech Restriction=S<br>Mech Reason=Blank<br>System Generated=Blank<br>User Reported=Blank<br>Pool Control=Blank      |
| 22*   | S,Blank          | Same as Seq. # 17 above | Same as Seq. # 17 above | S,Blank          | Mech Restriction=S<br>Mech Reason=Blank<br>System Generated=Blank<br>User Reported=G<br>Pool Control=Blank          |
| 23    | S,X              | Same as Seq. # 16 above | Same as Seq. # 16 above | S,X              | Mech Restriction=S<br>Mech Reason=X<br>System Generated=Blank<br>User Reported=Blank<br>Pool Control=Blank          |
| 24*   | S,X              | Same as Seq. # 17 above | Same as Seq. # 17 above | S,X              | Mech Restriction=S<br>Mech Reason=X<br>System Generated=Blank<br>User Reported=G<br>Pool Control=Blank              |
| 25*   | X,B <sup>1</sup> | M,Blank                 | User Reported=M         | X,B <sup>1</sup> | Mech Restriction=X<br>Mech Reason=B <sup>1</sup><br>System Generated=Blank<br>User Reported=M<br>Pool Control=Blank |
| 26*   | Y,Z              | M,Blank                 | User Reported=M         | Y,Z              | Mech Restriction=Y<br>Mech Reason=Z<br>System Generated=Blank<br>User Reported=M<br>Pool Control=Blank              |
| 27*   | S,Blank          | M,Blank                 | User Reported=M         | S,Blank          | Mech Restriction=S<br>Mech Reason=Blank<br>System Generated=Blank<br>User Reported=M<br>Pool Control=Blank          |
| 28    | S,X              | M,Blank                 | User Reported=M         | S,X              | Mech Restriction=S<br>Mech Reason=X<br>System Generated=Blank<br>User Reported=M<br>Pool Control=Blank              |

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| Seq # | User Input Data                              | Before Assignment                        |                                                                          | After Assignment |                                                                                                                                                                                                                                                                            |
|-------|----------------------------------------------|------------------------------------------|--------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                                              | TC/TCC                                   | Umler EMC                                                                | TC/TCC           | Umler EMC                                                                                                                                                                                                                                                                  |
| 29*   | X,B <sup>1</sup>                             | X,B <sup>1</sup>                         | Mech Restriction=X<br>Mech Reason=B <sup>1</sup>                         | X,B <sup>1</sup> | Mech Restriction=X<br>Mech Reason=B <sup>1</sup>                                                                                                                                                                                                                           |
|       |                                              | X,B <sup>1</sup>                         | Mech Restriction=X<br>Mech Reason=B <sup>1</sup><br>User Reported=G      | X,B <sup>1</sup> | Mech Restriction=X<br>Mech Reason=B <sup>1</sup><br>User Reported=G                                                                                                                                                                                                        |
|       |                                              | X,B <sup>1</sup>                         | Mech Restriction=X<br>Mech Reason=B <sup>1</sup><br>User Reported=M      | X,B <sup>1</sup> | Mech Restriction=X<br>Mech Reason=B <sup>1</sup><br>User Reported=M<br><br><b>Note:</b> User may overlay existing User Reported Mechanical Codes. User cannot overlay Umler system assigned Mechanical Codes, i.e. XA, XD, XJ, etc. Refer to Section <a href="#">D.2</a> . |
| 30*   | S,Blank                                      | X,B <sup>1</sup>                         | Mech Restriction=X<br>Mech Reason=B <sup>1</sup>                         | S,Blank          | Mech Restriction=S<br>Mech Reason=Blank                                                                                                                                                                                                                                    |
|       |                                              | X,B <sup>1</sup>                         | Mech Restriction=X<br>Mech Reason=B <sup>1</sup><br>User Reported=G      | S,Blank          | Mech Restriction=S<br>Mech Reason=Blank<br>User Reported=G                                                                                                                                                                                                                 |
|       |                                              | X,B <sup>1</sup>                         | Mech Restriction=X<br>Mech Reason=B <sup>1</sup><br>User Reported=M      | S,Blank          | Mech Restriction=S<br>Mech Reason=Blank<br>User Reported=M<br><br><b>Note:</b> User Reported S,Blank may overlay Umler system assigned Mechanical Codes, i.e. XA, XD, XJ, etc. Refer to Section <a href="#">D.2</a> .                                                      |
| 31*   | S,X                                          | X,B <sup>1</sup>                         | Mech Restriction=X<br>Mech Reason=B <sup>1</sup>                         | S,X              | Mech Restriction=S<br>Mech Reason=X                                                                                                                                                                                                                                        |
|       |                                              | X,B <sup>1</sup>                         | Mech Restriction=X<br>Mech Reason=B <sup>1</sup><br>User Reported=G      | S,X              | Mech Restriction=S<br>Mech Reason=X<br>User Reported=G                                                                                                                                                                                                                     |
|       |                                              | X,B <sup>1</sup>                         | Mech Restriction=X<br>Mech Reason=B <sup>1</sup><br>User Reported=M      | S,X              | Mech Restriction=S<br>Mech Reason=X<br>User Reported=M                                                                                                                                                                                                                     |
|       |                                              | S,Blank                                  | Mech Restriction=S<br>Mech Reason=Blank                                  |                  | <b>Note:</b> User Reported S,X may overlay Umler system assigned Mechanical Codes, i.e. XA, XD, XJ, etc. Refer to Section <a href="#">D.2</a> .                                                                                                                            |
|       |                                              | S,Blank                                  | Mech Restriction=S<br>Mech Reason=Blank<br>User Reported=G               |                  |                                                                                                                                                                                                                                                                            |
|       |                                              | S,Blank                                  | Mech Restriction=S<br>Mech Reason=Blank<br>User Reported=M               |                  |                                                                                                                                                                                                                                                                            |
| 32    | Blank<br>(remove User Reported 2, G, O or U) | 2,Blank<br>G,Blank<br>O,Blank<br>U,Blank | User Reported=2<br>User Reported=G<br>User Reported=O<br>User Reported=U | Blank,Blank      | User Reported=Blank                                                                                                                                                                                                                                                        |
| 33    | Blank<br>(remove User Reported G)            | D,G                                      | User Reported=G System Generated=D                                       | D,Blank          | User Reported=Blank<br>System Generated=D                                                                                                                                                                                                                                  |
| 34    | Blank<br>(remove User Reported G)            | G,W                                      | User Reported=G<br>Pool Control=W                                        | W,Blank          | User Reported=Blank<br>Pool Control=W                                                                                                                                                                                                                                      |

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| Seq # | User Input Data                          | Before Assignment                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                      | After Assignment                                |                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                                          | TC/TCC                                                                                                                                                                                             | Umler EMC                                                                                                                                                                                                                                                                                                                                                                                                            | TC/TCC                                          | Umler EMC                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 35    | Blank<br>(remove User Reported O or U)   | T,O<br><br>T,U                                                                                                                                                                                     | System Generated=T<br>User Reported=U<br>System Generated=T<br>User Reported=O                                                                                                                                                                                                                                                                                                                                       | T,Blank                                         | System Generated=T<br>User Reported=Blank                                                                                                                                                                                                                                                                                                                                                                                                |
| 36    | Blank<br>(remove User Reported O)        | N,O                                                                                                                                                                                                | Pool Control=N<br>User Reported=O                                                                                                                                                                                                                                                                                                                                                                                    | N,Blank                                         | Pool Control=N<br>User Reported=Blank                                                                                                                                                                                                                                                                                                                                                                                                    |
| 37    | Blank,Blank<br>(remove Mechanical Codes) | X,B <sup>1</sup><br><br>S,Blank                                                                                                                                                                    | Mech Restriction=X<br>Mech Reason=B <sup>1</sup><br><br>Mech Restriction=S<br>Mech Reason=Blank                                                                                                                                                                                                                                                                                                                      | Blank, Blank                                    | Mech Restriction=Blank<br>Mech Reason=Blank                                                                                                                                                                                                                                                                                                                                                                                              |
| 38*   | Blank,Blank<br>(remove Mechanical Codes) | X,B <sup>1</sup><br>(with User Reported M)<br><br>S,Blank                                                                                                                                          | User Reported=M<br>Mech Restriction=X<br>Mech Reason=B <sup>1</sup><br>User Reported=M<br><br>Mech Restriction=S<br>Mech Reason=Blank                                                                                                                                                                                                                                                                                | M,Blank                                         | User Reported=M<br>Mech Restriction=Blank<br>Mech Reason=Blank                                                                                                                                                                                                                                                                                                                                                                           |
| 39*   | Blank,Blank<br>(remove Mechanical Codes) | X,B <sup>1</sup><br>(with User Reported G)<br><br>S,Blank                                                                                                                                          | User Reported=G<br>Mech Restriction=X<br>Mech Reason=B <sup>1</sup><br><br>User Reported=G<br>Mech Restriction=S<br>Mech Reason=Blank                                                                                                                                                                                                                                                                                | G,Blank                                         | User Reported=G<br>Mech Restriction=Blank<br>Mech Reason=Blank                                                                                                                                                                                                                                                                                                                                                                           |
| 40*   | Blank,Blank<br>(remove User Reported G)  | X,B <sup>1</sup><br><br>S,Blank                                                                                                                                                                    | User Reported=G<br>Mech Restriction=X<br>Mech Reason=B <sup>1</sup><br><br>User Reported=G<br>Mech Restriction=S<br>Mech Reason=Blank                                                                                                                                                                                                                                                                                | X,B <sup>1</sup><br><br>S,Blank                 | User Reported=Blank<br>Mech Restriction=X<br>Mech Reason=B <sup>1</sup><br><br>User Reported=Blank<br>Mech Restriction=S<br>Mech Reason=Blank<br><br><b>Note:</b> If defined as a ruminant protein unit with a Car Grade N, reject the activity.                                                                                                                                                                                         |
| 41*   | Blank<br>(remove User Reported G)        | X,D<br>(prohibited couplers)<br><br>X,J<br>(prohibited Bearing/Brake Shoe)<br><br>X,N<br>(LO w/o stability devices)<br><br>X,D<br>(tanks w/o double shelf couplers)<br><br>X,Z<br>(critical error) | User Reported=G<br>System Generated=X<br>Mech Restriction=X<br>Mech Reason=D<br><br>User Reported=G<br>System Generated=X<br>Mech Restriction=X<br>Mech Reason=J<br><br>User Reported=G<br>System Generated=X<br>Mech Restriction=N<br>Mech Reason=N<br><br>User Reported=G<br>Pool Control=N<br>Mech Restriction=X<br>Mech Reason=D<br><br>User Reported=G<br>Pool Control=N<br>Mech Restriction=X<br>Mech Reason=Z | X,D<br><br>X,J<br><br>X,N<br><br>X,D<br><br>X,Z | User Reported=Blank<br>System Generated=X<br>Mech Restriction=X<br>Mech Reason=D<br><br>User Reported=Blank<br>System Generated=X<br>Mech Restriction=X<br>Mech Reason=J<br><br>User Reported=Blank<br>System Generated=X<br>Mech Restriction=X<br>Mech Reason=N<br><br>User Reported=Blank<br>Pool Control=N<br>Mech Restriction=X<br>Mech Reason=D<br><br>User Reported=Blank<br>Pool Control=N<br>Mech Restriction=X<br>Mech Reason=Z |

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| Seq #                                                                                                    | User Input Data                                        | Before Assignment                        |                                                                              | After Assignment |                                                                                  |
|----------------------------------------------------------------------------------------------------------|--------------------------------------------------------|------------------------------------------|------------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------------|
|                                                                                                          |                                                        | TC/TCC                                   | Umler EMC                                                                    | TC/TCC           | Umler EMC                                                                        |
| 42*                                                                                                      | Blank,Blank<br>(remove User Reported M – Railinc Only) | X,B <sup>1</sup>                         | User Reported=M<br>Mech Restriction=X<br>Mech Reason=B <sup>1</sup>          | X,B <sup>1</sup> | User Reported=Blank<br>Mech Restriction=X<br>Mech Reason=B <sup>1</sup>          |
|                                                                                                          |                                                        | S,Blank                                  | User Reported=M<br>Mech Restriction=S<br>Mech Reason=Blank                   | S,Blank          | User Reported=Blank<br>Mech Restriction=S<br>Mech Reason=Blank                   |
| <b>Note:</b> If defined as a ruminant protein unit with a Car Grade N, assign a User Reported Code of G. |                                                        |                                          |                                                                              |                  |                                                                                  |
| 43*                                                                                                      | Blank<br>(remove User Reported M – Railinc Only)       | M,Blank                                  | User Reported=M                                                              | Blank,Blank      | User Reported=Blank                                                              |
|                                                                                                          |                                                        | X,D<br>(prohibited couplers)             | User Reported=M<br>System Generated=X<br>Mech Restriction=X<br>Mech Reason=D | X,D              | User Reported=Blank<br>System Generated=X<br>Mech Restriction=X<br>Mech Reason=D |
|                                                                                                          |                                                        | X,J<br>(prohibited Bearing/Brake Shoe)   | User Reported=M<br>System Generated=X<br>Mech Restriction=X<br>Mech Reason=J | X,J              | User Reported=Blank<br>System Generated=X<br>Mech Restriction=X<br>Mech Reason=J |
|                                                                                                          |                                                        | X,N<br>(LO w/o stability devices)        | User Reported=M<br>System Generated=X<br>Mech Restriction=N<br>Mech Reason=N | X,N              | User Reported=Blank<br>Pool Control=N<br>Mech Restriction=X<br>Mech Reason=N     |
|                                                                                                          |                                                        | X,D<br>(tanks w/o double shelf couplers) | User Reported=M<br>Pool Control=N<br>Mech Restriction=X<br>Mech Reason=D     | X,D              | User Reported=Blank<br>Pool Control=N<br>Mech Restriction=X<br>Mech Reason=D     |
|                                                                                                          |                                                        | X,Z<br>(critical error)                  | User Reported=M<br>Pool Control=N<br>Mech Restriction=X<br>Mech Reason=Z     | X,Z              | User Reported=Blank<br>Pool Control=N<br>Mech Restriction=X<br>Mech Reason=Z     |

<sup>1</sup> Processing for XB would be the same for the User Reported codes of XC, XD, XF, XG, XJ, XN, XP, XT, XU, XW, or XZ. Refer to Section [E.3](#) for a list of valid User Reported Equipment Management Codes for the various Umler Equipment Groups.

## Errors Messages:

- If the user reports a code that is not applicable to the equipment based on the equipment type, i.e., XU is applicable to all equipment types, etc, provide a message indicating that the equipment type is not valid for the reported EMC. Refer to [Appendix K](#).
- If the user reports the same Umler code which already existing in Umler, then provide a message indicating that the equipment is already assigned with the applicable Umler EMC Code.
- If the user reports a User Reported G and the equipment has a Pool Control of G, provide a message indicating that the equipment is assigned to a G pool. The submitter must use a Pool Unassignment (Pool Identifier set to '0000000') to remove equipment from a G pool. When it is removed from a G pool, the system will automatically assign a User Reported G. Do not generate this message if the activity was generated by the ER system.
- If the user reports an Umler User Reported code that is not defined above, provide a message indicating that the code is not valid based on the existing Umler Equipment Management Codes.

\* A Sequence Number (Seq #) followed by an asterisk (\*) identify new EMIS codes proposed by the EMIS Core team pending approval by the Equipment Asset Management Working Committee (EAMWC). These codes allow for more information to be provided on the status of the equipment then currently available through the Umler system. Section [E.5](#) describes the EMIS Equipment Management Codes. Sequence Numbers followed by an asterisk (\*) identify the new EMIS Core proposed codes.

Note 1: The assignment of the TCs S\_\_\_, SX, XA, XZ and YA generate the Rate Indicator Code 6 to the CHARM file to zero (0) rate the car hire and mileage rate.

Note 2: Cars assigned the TCs XA and XB can be assigned to pools. See Seq. #'s 33 – 44 in Section [E.5](#).



## E.5 Equipment Management Codes /Umler Transportation Codes

| Sequence Number | Umler Equipment Management Codes |               |              |                        |                               | Umler TC/TCC | Description                                                                                                                                                                                                                                                                                                                                  |
|-----------------|----------------------------------|---------------|--------------|------------------------|-------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 | System Generated                 | User Reported | Pool Control | Mechanical Restriction | Mechanical Restriction Reason |              |                                                                                                                                                                                                                                                                                                                                              |
| 1               |                                  |               |              |                        |                               |              | No Equipment Management Codes (EMC)                                                                                                                                                                                                                                                                                                          |
| 2               |                                  | M             |              |                        |                               | M_           | Railinc assigned M. The reporting mark has been canceled by the AAR. Railroad company no longer exists. Empty car to be handled via reverse route.                                                                                                                                                                                           |
| 3               |                                  | O             |              |                        |                               | O_           | Stenciled Mark Owner assigned O. Stenciled Mark Owner has requested return of equipment for lease termination or repairs. Car may not be loaded by any carrier. Empty car to be handled under provisions of CSD 175.                                                                                                                         |
| 4               |                                  | U             |              |                        |                               | U_           | Stenciled Mark Owner assigned U - After unloading, handling covered under CSD 150                                                                                                                                                                                                                                                            |
| 5               | T                                |               |              |                        |                               | T            | Railinc ER generated T                                                                                                                                                                                                                                                                                                                       |
| 6               | T                                | U             |              |                        |                               | TU           | Railinc ER generate T with a user reported U                                                                                                                                                                                                                                                                                                 |
| 7               | T                                | O             |              |                        |                               | TO           | Railinc ER generated T with a user reported O                                                                                                                                                                                                                                                                                                |
| 8               |                                  | G             |              |                        |                               | G            | Stenciled Mark Owner assigned G - Car is in contaminated service.                                                                                                                                                                                                                                                                            |
| 9               |                                  | G             | W            |                        |                               | GW           | Railinc ER generated G when ruminant protein commodity is identified in the TRAIN II Waybill on a railroad or private covered hopper (ETC C ____).                                                                                                                                                                                           |
| 10              |                                  |               | W            |                        |                               | W            | Railinc Umler generated W for an unassigned Covered Hopper under CSD 435.                                                                                                                                                                                                                                                                    |
| 11              |                                  |               | C            |                        |                               | C_           | Railinc Umler generated C - Railroad car assigned to a specific shipper at a specific location (CSD 145 or 435). Car cannot be loaded. Empty car to be handled via reverse route. Pool Type is 'C'.                                                                                                                                          |
| 12              |                                  |               | G            |                        |                               | G_           | Car is in contaminated commodity service.<br>Stenciled Mark Owner assigned to a railroad contaminated pool or<br>Railinc ER generated G when municipal garbage waste commodity (STCC 4029114) is identified in the TRAIN II Waybill on a box car (ETC A, B, or R).                                                                           |
| 13              |                                  |               | J            |                        |                               | J_           | Railinc Umler generated J - Car is assigned to an Agent Pool (CSD 145 or 435). Loaded car may be loaded by any carrier without regard to route or destination. Empty car to be handled via reverse route. Pool Type is 'J'.                                                                                                                  |
| 14              |                                  |               | N            |                        |                               | N_           | Railinc Umler generated N - Car is in a National Pool (CSD 145). When the National pool has a pool operator defined (applicable to Heavy capacity flat car, box car and Reload pools), the equipment may only be loaded with the pool operator's permission. Empty cars to be handled per pool operator's instructions or via reverse route. |
| 15              |                                  | O             | N            |                        |                               | NO           | Car is in a National Pool (CSD 145) (refer to sequence number 14) and stenciled mark owner has assigned an O to request the return of equipment under CSD 175.                                                                                                                                                                               |
| 16              |                                  |               | P            |                        |                               | P_           | Railinc Umler generated P - Car is assigned to a Commodity Pool (CSD 145 or 435). Empty car cannot be loaded. When empty, car should move via reverse route. Pool Type is 'P'.                                                                                                                                                               |
| 17              |                                  |               | R            |                        |                               | R_           | Railinc Umler generated R - Car is assigned to an Agent Pool (CSD 145 or 435). Empty car cannot be loaded. When empty, car should move via reverse route. Pool Type is 'T'.                                                                                                                                                                  |
| 18              | D                                |               |              |                        |                               | D_           | Railinc ER generated D to identify a newly added freight car. For railroad marked freight equipment, indicates that the equipment has not been delivered to the owner. For private marked freight equipment, indicates that the equipment has not had a loaded Event reported to the ER.                                                     |
| 19              | D                                |               | C            |                        |                               | DC           | Railinc ER generated D (refer to sequence number 18) - system car assigned to a C Pool (refer to sequence number 11)                                                                                                                                                                                                                         |
| 20              | D                                |               | G            |                        |                               | DG           | Railinc ER generated D (refer to sequence number 18) - system car assigned to a G pool (refer to sequence number 12)                                                                                                                                                                                                                         |

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| Sequence Number | Umler Equipment Management Codes |               |              |                        |                               | Umler TC/TCC | Description                                                                                                                                                                                                     |
|-----------------|----------------------------------|---------------|--------------|------------------------|-------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 | System Generated                 | User Reported | Pool Control | Mechanical Restriction | Mechanical Restriction Reason |              |                                                                                                                                                                                                                 |
| 21              | D                                | G             |              |                        |                               | GD           | Railinc ER generated D (refer to sequence number 18) – and Railinc ER generated G on railroad or private covered hopper loaded with ruminant protein (refer to sequence number 9)                               |
| 22              | D                                | G             |              |                        |                               | DG           | Railinc ER generated D (refer to sequence number 18) - system car assigned a 'G' by the stenciled mark owner (refer to sequence number 8)                                                                       |
| 23              | D                                |               | J            |                        |                               | DJ           | Railinc ER generated D (refer to sequence number 18) - system car assigned to J pool (refer to sequence number 13)                                                                                              |
| 24              | D                                |               | N            |                        |                               | DN           | Railinc ER generated D (refer to sequence number 18) - system car assigned to an N pool (refer to sequence number 14)                                                                                           |
| 25              | D                                |               | P            |                        |                               | DP           | Railinc ER generated D (refer to sequence number 18) - system car assigned to P pool (refer to sequence number 16)                                                                                              |
| 26              | D                                |               | R            |                        |                               | DR           | Railinc ER generated D (refer to sequence number 18) - system car assigned to T pool (refer to sequence number 17)                                                                                              |
| 27              | D                                |               | W            |                        |                               | DW           | Railinc ER generated D (refer to sequence number 18) on unassigned Covered Hopper (refer to sequence number 10 ETC 'C ____')                                                                                    |
| 28              | E                                |               | C            |                        |                               | EC           | Railinc ER generated E (Assigned cars in system pool loaded by other than pool operator. Empty to be returned via SCO90 routing sequence numbers) - system car assigned to C pool (refer to sequence number 11) |
| 29              | E                                |               | G            |                        |                               | EG           | Railinc ER generated E (refer to sequence number 28) - system car assigned to a G pool (refer to sequence number 12)                                                                                            |
| 30              | E                                |               | J            |                        |                               | EJ           | Railinc ER generated E (refer to sequence number 28) - system car assigned to J pool (refer to sequence number 13)                                                                                              |
| 31              | E                                |               | P            |                        |                               | EP           | Railinc ER generated E (refer to sequence number 28) - system car assigned to P pool (refer to sequence number 16)                                                                                              |
| 32              | E                                |               | R            |                        |                               | ER           | Railinc ER generated E - system car assigned to T pool (refer to sequence number 17)                                                                                                                            |
| 33              |                                  |               |              | X                      | A                             | XA           | Railinc Umler generated XA – Based on service life of the equipment. Prohibited in interchange service by AAR Interchange Rules                                                                                 |
| 34              |                                  |               | C            | X                      | A                             | XA           | Railinc Umler generated XA – Assigned to C pool (refer to sequence number 11) but restricted in interchange                                                                                                     |
| 35              |                                  |               | G            | X                      | A                             | XA           | Railinc Umler generated XA – Assigned to G pool (refer to sequence number 12) but restricted in interchange                                                                                                     |
| 36              |                                  |               | J            | X                      | A                             | XA           | Railinc Umler generated XA – Assigned to J pool (refer to sequence number 13) but restricted in interchange                                                                                                     |
| 37              |                                  |               | P            | X                      | A                             | XA           | Railinc Umler generated XA – Assigned to P pool (refer to sequence number 16) but restricted in interchange                                                                                                     |
| 38              |                                  |               | R            | X                      | A                             | XA           | Railinc Umler generated XA – Assigned to T pool (refer to sequence number 17) but restricted in interchange                                                                                                     |
| 39              |                                  |               |              | X                      | B                             | XB           | Stenciled Mark Owner assigned XB – Restricted in Interchange due to Brakes                                                                                                                                      |
| 40              |                                  |               | C            | X                      | B                             | XB           | Railinc Umler generated XB – Assigned to C pool (refer to sequence number 11) but restricted in interchange                                                                                                     |
| 41              |                                  |               | G            | X                      | B                             | XB           | Railinc Umler generated XB – Assigned to G pool (refer to sequence number 12) but restricted in interchange                                                                                                     |
| 42              |                                  |               | J            | X                      | B                             | XB           | Railinc Umler generated XB – Assigned to J pool (refer to sequence number 13) but restricted in interchange                                                                                                     |
| 43              |                                  |               | P            | X                      | B                             | XB           | Railinc Umler generated XB – Assigned to P pool (refer to sequence number 16) but restricted in interchange                                                                                                     |

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| Sequence Number | Umler Equipment Management Codes |               |              |                        |                               | Umler TC/TCC | Description                                                                                                                                                                                                                                                                                                  |
|-----------------|----------------------------------|---------------|--------------|------------------------|-------------------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 | System Generated                 | User Reported | Pool Control | Mechanical Restriction | Mechanical Restriction Reason |              |                                                                                                                                                                                                                                                                                                              |
| 44              |                                  |               | R            | X                      | B                             | XB           | Railinc Umler generated XB -- Assigned to T pool (refer to sequence number 17) but restricted in interchange                                                                                                                                                                                                 |
| 45              |                                  |               |              | X                      | C                             | XC           | Stenciled Mark Owner assigned XC -- Restricted in Interchange due to Axles                                                                                                                                                                                                                                   |
| 46              | X                                |               |              | X                      | D                             | XD           | Railinc Umler generated XD -- Restricted in interchange due to having prohibited coupler                                                                                                                                                                                                                     |
| 47              |                                  |               | N            | X                      | D                             | XD           | Railinc Umler generated XD -- Restricted in interchange because tank does not have double shelf couplers defined in the Draft Gear/Coupler field in Umler. Must change the Draft Gear/Coupler in Umler to remove the XD.                                                                                     |
| 48              |                                  |               |              | X                      | D                             | XD           | Stenciled Mark Owner assigned XD -- Restricted in interchange due to Couplers                                                                                                                                                                                                                                |
| 49              |                                  |               |              | X                      | F                             | XF           | Stenciled Mark Owner assigned XF-- Restricted in interchange due to Coupler Yokes                                                                                                                                                                                                                            |
| 50              |                                  |               |              | X                      | G                             | XG           | Stenciled Mark Owner assigned XG -- Restricted in interchange due to Draft Gears                                                                                                                                                                                                                             |
| 51              | X                                |               |              | X                      | J                             | XJ           | Railinc Umler generated XJ -- Restricted in interchange due to the equipment having Plain Bearings in the Bearing and Brake Shoe field in Umler. Must change the Bearing /Brake Shoe to removed XJ.                                                                                                          |
| 52              |                                  |               |              | X                      | J                             | XJ           | Stenciled Mark Owner assigned XJ -- Restricted in interchange due to Bearings                                                                                                                                                                                                                                |
| 53              | X                                |               |              | X                      | N                             | XN           | Railinc Umler generated XN -- Restricted in interchange due to the Covered Hopper (LO) equipment having- a cubic feet capacity 4000 to 4800 inclusive and not equipment with stability devices in the Truck Type and Axle Spacing field in Umler. Must change the Truck Type and Axle Spacing to removed XN. |
| 54              |                                  |               |              | X                      | N                             | XN           | Stenciled Mark Owner assigned XN -- Restricted in interchange due to Truck                                                                                                                                                                                                                                   |
| 55              |                                  |               |              | X                      | P                             | XP           | Stenciled Mark Owner assigned XP-- Restricted in interchange due to Truck Side Frames                                                                                                                                                                                                                        |
| 56              |                                  |               |              | X                      | T                             | XT           | Stenciled Mark Owner assigned XT-- Restricted in interchange due to Truck Bolsters                                                                                                                                                                                                                           |
| 57              |                                  |               |              | X                      | U                             | XU           | Stenciled Mark Owner assigned XU -- Equipment restricted in Interchange by AAR or owner                                                                                                                                                                                                                      |
| 58              |                                  |               |              | X                      | W                             | XW           | Stenciled Mark Owner assigned XW -- Restricted in Interchange due to Wheels                                                                                                                                                                                                                                  |
| 59              |                                  |               |              | X                      | X                             | XX           | Railinc Umler generated XX -- Expired EW Notice                                                                                                                                                                                                                                                              |
| 60              |                                  |               | N            | X                      | Z                             | XZ           | System generated XZ -- Restricted in interchange due to data element conflicts                                                                                                                                                                                                                               |
| 61              |                                  |               |              | X                      | Z                             | XZ           | Stenciled Mark Owner assigned XZ -- Restricted in Interchange due to other restrictions defined by owner                                                                                                                                                                                                     |
| 62              |                                  |               |              | S                      |                               | S_           | Stenciled Mark Owner assigned S,Blank to identify a condemned car or car destined for scrap or dismantling. Car should only be moving empty by agreement of handling carriers.                                                                                                                               |
| 63              |                                  |               |              | S                      | X                             | SX           | Stenciled Mark Owner assigned SX to identify a car sold for scrap under AAR Interchange, Rule 88, can never re-enter (rail) service. If reported in error, can only be removed by the Railinc Administrator.                                                                                                 |
| 64              |                                  |               |              | Y                      | A                             | YA           | Railinc Umler Generated YA -- Based on the age of the equipment 50 years. Restricted in interchange service by FRA regulations.                                                                                                                                                                              |
| 65              |                                  | 2             |              |                        |                               | AB           | Stenciled Mark Owner assigned AB -- Only applicable to Trailers and Containers. Trailer/Container cannot be designated a general service unit by owner. Must be handled in accordance with Trailer Service Rule 2.                                                                                           |
| 66              |                                  | G             |              | X                      | A                             | XA           | Railinc Umler generated XA -- Restricted in Interchange due to Age and User Reported G (refer to sequence number 8 and 33).                                                                                                                                                                                  |
| 67              |                                  | G             |              | X                      | B                             | XB           | Stenciled Mark Owner assigned or generated by Umler for no ABT inspection reported XB -- Restricted in Interchange due to Brakes and User Reported G (refer to sequence number 8 and 39).                                                                                                                    |
| 68              |                                  | G             |              | X                      | C                             | XC           | Stenciled Mark Owner assigned XC -- Restricted in Interchange due to Axles and User Reported G (refer to sequence number 8 and 45).                                                                                                                                                                          |

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| Sequence Number | Umler Equipment Management Codes |               |              |                        |                               | Umler TC/TCC | Description                                                                                                                                                                                                                                                                                              |
|-----------------|----------------------------------|---------------|--------------|------------------------|-------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 | System Generated                 | User Reported | Pool Control | Mechanical Restriction | Mechanical Restriction Reason |              |                                                                                                                                                                                                                                                                                                          |
| 69              | X                                | G             |              | X                      | D                             | XD           | Railinc Umler generated XD – Restricted in interchange due to having prohibited coupler and User Reported G (refer to sequence number 8 and 46).                                                                                                                                                         |
| 70              |                                  | G             | N            | X                      | D                             | XD           | Railinc Umler generated XD – Restricted in interchange because tank does not have double shelf couplers defined in the Draft Gear/Coupler field in Umler and User Reported G (refer to sequence number 8 and 47).                                                                                        |
| 71              |                                  | G             |              | X                      | D                             | XD           | Stenciled Mark Owner assigned XD – Restricted in Interchange due to Couplers and User Reported G (refer to sequence number 8 and 48).                                                                                                                                                                    |
| 72              |                                  | G             |              | X                      | F                             | XF           | Stenciled Mark Owner assigned XF – Restricted in Interchange due to Coupler Yokes and User Reported G (refer to sequence number 8 and 49).                                                                                                                                                               |
| 73              |                                  | G             |              | X                      | G                             | XG           | Stenciled Mark Owner assigned XG – Restricted in Interchange due to Draft Gears and User Reported G (refer to sequence number 8 and 50).                                                                                                                                                                 |
| 74              | X                                | G             |              | X                      | J                             | XJ           | Railinc Umler generated XJ – Restricted in interchange due to the equipment having Plain Bearings in the Bearing and Brake Shoe field in Umler and User Reported G (refer to sequence number 8 and 51).                                                                                                  |
| 75              |                                  | G             |              | X                      | J                             | XJ           | Stenciled Mark Owner assigned XJ – Restricted in Interchange due to Bearings and User Reported G (refer to sequence number 8 and 52).                                                                                                                                                                    |
| 76              | X                                | G             |              | X                      | N                             | XN           | Railinc Umler generated XN – Restricted in interchange due to the Covered Hopper (LO) equipment having- a cubic feet capacity 4000 to 4800 inclusive and not equipment with stability devices in the Truck Type and Axle Spacing field in Umler and User Reported G (refer to sequence number 8 and 53). |
| 77              |                                  | G             |              | X                      | N                             | XN           | Stenciled Mark Owner assigned XN – Restricted in Interchange due to Trucks and User Reported G (refer to sequence number 8 and 54).                                                                                                                                                                      |
| 78              |                                  | G             |              | X                      | P                             | XP           | Stenciled Mark Owner assigned XP – Restricted in Interchange due to Truck Side Frames and User Reported G (refer to sequence number 8 and 55).                                                                                                                                                           |
| 79              |                                  | G             |              | X                      | T                             | XT           | Stenciled Mark Owner assigned XT – Restricted in Interchange due to Trucks Bolsters and User Reported G (refer to sequence number 8 and 56).                                                                                                                                                             |
| 80              |                                  | G             |              | X                      | U                             | XU           | Stenciled Mark Owner assigned XU – Equipment restricted in Interchange reported by AAR or owner and User Reported G (refer to sequence number 8 and 57).                                                                                                                                                 |
| 81              |                                  | G             |              | X                      | W                             | XW           | Stenciled Mark Owner assigned XW – Restricted in Interchange due to Wheels and User Reported G (refer to sequence number 8 and 58).                                                                                                                                                                      |
| 82              |                                  | G             |              | X                      | X                             | XX           | Railinc Umler Generated XX – Restricted in Interchange due to expiration of an EW Notice (refer to sequence number 59).                                                                                                                                                                                  |
| 83              |                                  | G             | N            | X                      | Z                             | XZ           | Railinc Umler generated XZ – Restricted in interchange due to critical fields in Umler being in error and User Reported G (refer to sequence number 8 and 60).                                                                                                                                           |
| 84              |                                  | G             |              | S                      |                               | S_           | Stenciled Mark Owner assigned S,Blank to identify a condemned car or car destined for scrap or dismantling and User Reported G (refer to sequence number 8 and 62).                                                                                                                                      |
| 85              |                                  | G             |              | S                      | X                             | SX           | Stenciled Mark Owner assigned SX to identify a car sold for scrap under AAR Interchange, Rule 88, can never re-enter (rail) service and User Reported G (refer to sequence number 8 and 63).                                                                                                             |
| 86              |                                  | G             |              | Y                      | A                             | YA           | Railinc Umler Generated YA – Based on the age of the equipment exceeding 50 years. Restricted in interchange service by FRA regulations and User Reported G (refer to sequence number 8 and 64).                                                                                                         |
| 87              |                                  | M             |              | X                      | A                             | XA           | Railinc Umler generated XA – Restricted in Interchange due to Age and Railinc Reported M (refer to sequence number 2 and 34).                                                                                                                                                                            |
| 88              |                                  | M             |              | X                      | B                             | XB           | Stenciled Mark Owner assigned XB – Restricted in Interchange due to Brakes and Railinc Reported M (refer to sequence number 2 and 39).                                                                                                                                                                   |

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| Sequence Number | Umler Equipment Management Codes |               |              |                        |                               | Umler TC/TCC | Description                                                                                                                                                                                                                                                                                                 |
|-----------------|----------------------------------|---------------|--------------|------------------------|-------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                 | System Generated                 | User Reported | Pool Control | Mechanical Restriction | Mechanical Restriction Reason |              |                                                                                                                                                                                                                                                                                                             |
| 89              |                                  | M             |              | X                      | C                             | XC           | Stenciled Mark Owner assigned XC – Restricted in Interchange due to Axles and Railinc Reported M (refer to sequence number 2 and 45).                                                                                                                                                                       |
| 90              | X                                | M             |              | X                      | D                             | XD           | Stenciled Mark Owner assigned XD – Restricted in Interchange due to Couplers and User Reported M (refer to sequence number 2 and 46).                                                                                                                                                                       |
| 91              |                                  | M             | N            | X                      | D                             | XD           | Stenciled Mark Owner assigned XD – Restricted in Interchange due to Couplers and Railinc Reported M (refer to sequence number 2 and 47).                                                                                                                                                                    |
| 92              |                                  | M             |              | X                      | D                             | XD           | Stenciled Mark Owner assigned XD – Restricted in Interchange due to Couplers and Railinc Reported M (refer to sequence number 2 and 48).                                                                                                                                                                    |
| 93              |                                  | M             |              | X                      | F                             | XF           | Stenciled Mark Owner assigned XF – Restricted in Interchange due to Coupler Yokes and Railinc Reported M (refer to sequence number 2 and 49).                                                                                                                                                               |
| 94              |                                  | M             |              | X                      | G                             | XG           | Stenciled Mark Owner assigned XG – Restricted in Interchange due to Draft Gears and Railinc Reported M (refer to sequence number 2 and 50).                                                                                                                                                                 |
| 95              | X                                | M             |              | X                      | J                             | XJ           | Stenciled Mark Owner assigned XJ – Restricted in Interchange due to Bearings and Railinc Reported M (refer to sequence number 2 and 51).                                                                                                                                                                    |
| 96              |                                  | M             |              | X                      | J                             | XJ           | Stenciled Mark Owner assigned XJ – Restricted in Interchange due to Bearings and Railinc Reported M (refer to sequence number 2 and 52).                                                                                                                                                                    |
| 97              | X                                | M             |              | X                      | N                             | XN           | Railinc Umler generated XN – Restricted in interchange due to the Covered Hopper (LO) equipment having- a cubic feet capacity 4000 to 4800 inclusive and not equipment with stability devices in the Truck Type and Axle Spacing field in Umler and Railinc Reported M (refer to sequence number 2 and 53). |
| 98              |                                  | M             |              | X                      | N                             | XN           | Stenciled Mark Owner assigned XN – Restricted in Interchange due to Trucks and Railinc Reported M (refer to sequence number 2 and 54).                                                                                                                                                                      |
| 99              |                                  | M             |              | X                      | P                             | XP           | Stenciled Mark Owner assigned XP – Restricted in Interchange due to Truck Side Frames and Railinc Reported M (refer to sequence number 2 and 55).                                                                                                                                                           |
| 100             |                                  | M             |              | X                      | T                             | XT           | Stenciled Mark Owner assigned XT – Restricted in Interchange due to Trucks Bolsters and Railinc Reported M (refer to sequence number 2 and 56).                                                                                                                                                             |
| 101             |                                  | M             |              | X                      | U                             | XU           | Stenciled Mark Owner assigned XU – Tank equipment restricted in Interchange and Railinc Reported M (refer to sequence number 2 and 57).                                                                                                                                                                     |
| 102             |                                  | M             |              | X                      | W                             | XW           | Stenciled Mark Owner assigned XW – Restricted in Interchange due to Wheels and Railinc Reported M (refer to sequence number 2 and 58).                                                                                                                                                                      |
| 103             | X                                |               |              | X                      | X                             | XX           | Railinc Umler generated XX – Restricted in Interchange due to Early Warning expiration.                                                                                                                                                                                                                     |
| 104             |                                  | M             | N            | X                      | Z                             | XZ           | Railinc Umler generated XZ – Restricted I interchange due to critical fields in Umler being in error and User Reported G (refer to sequence number 8 and 59).                                                                                                                                               |
| 105             |                                  | M             |              | X                      | Z                             | XZ           | Stenciled Mark Owner assigned XZ – Restricted in Interchange due to other restrictions defined by the owner and Railinc Reported M (refer to sequence number 2 and 61).                                                                                                                                     |
| 106             |                                  | M             |              | S                      |                               | S_           | Stenciled Mark Owner assigned S,Blank to identify a condemned car or car destined for scrap or dismantling and Railinc Reported M (refer to sequence number 2 and 62).                                                                                                                                      |
| 107             |                                  | M             |              | S                      | X                             | SX           | Stenciled Mark Owner assigned SX to identify a car sold for scrap under AAR Interchange, Rule 88, can never re-enter (rail) service and Railinc Reported M (refer to sequence number 2 and 63).                                                                                                             |
| 108             |                                  | M             |              | Y                      | A                             | YA           | Railinc Umler Generated YA – Based on the age of the equipment 50 years. Restricted in interchange service by FRA regulations and AAR Interchange Rule 88 and Railinc Reported M (refer to sequence number 2 and 64).                                                                                       |

## Appendix F: Overage Processing for XA or YA for Freight Equipment

| Overage Processing for Freight Equipment – Assignment of XA/YA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                           |                                |                   |                    |                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------|-------------------|--------------------|-------------------|
| Built Date < 01/64                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                           | Built Date > 12/63 and < 07/74 |                   | Built Date > 06/74 |                   |
| Extended Life = N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Extended Life = C and a Special Train Service Codes of WD | Extended Life = C              | Extended Life = U | Extended Life = E  | Extended Life = V |
| Permitted To 40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Permitted To 50                                           | Permitted To 50                | Permitted To 40   | Permitted To 50    | Permitted To 65   |
| <b>Extended Life = V, 65 years of age</b><br>If the freight equipment is certified for an extended life of 65 (Extended Life = V), then use the built month in calculating the age.<br><b>65 Age Calculation</b> = Current Processing Month and Year – Umler Built Month and Year<br>If the calculated age is 65 years or older, then assign 'Y' to the Mechanical Restriction and assign 'A' to the Mechanical Restriction Reason. YA will override all Equipment Management Codes except scrap codes (S, blank or S, X).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                           |                                |                   |                    |                   |
| <b>Rebuilt or Extended Life = C or E, 50 years of age</b><br>If the equipment is rebuilt or is built after 06/74, then use the month in calculating the age.<br>If the equipment is built prior to 07/74 and is certified for an extended life (Extended Life = C), then use the month in calculating the age.<br><b>50 Age Calculation</b> = Current Processing Month and Year – Umler Built Month and Year<br>If the calculated age is over 50, then assign 'Y' to the Mechanical Restriction and assign 'A' to the Mechanical Restriction Reason. YA will override all Equipment Management Codes except scrap codes (S, blank or S, X).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                           |                                |                   |                    |                   |
| <b>Extended Life = N or U</b><br><b>Over 50 years of age</b><br>If the equipment is not rebuilt and is built prior to 07/74 and is not certified for an extended life (Extended Life = U or N), then do not use the month in calculating the age.<br><b>50 Age Calculation</b> = Current Processing Year – Umler Built Year<br>If the calculated age is over 50, then assign 'Y' to the Mechanical Restriction and assign 'A' to the Mechanical Restriction Reason. YA will override all Equipment Management Codes except TC/TCC codes S, blank or S, X.<br><b>Over 40 years of age</b><br>If equipment is not over 50 and is not rebuilt and is not certified for an extended life (Extended Life = N or U), then determine if the equipment is over 40.<br><b>40 Age Calculation</b> = Current Processing Year – Umler Built Year<br>If the calculated age is greater than 40 and less than 50, then assign an Umler Mechanical Codes of XA. XA will override all Equipment Management Codes except TC/TCC codes S, blank or S, X.                                                                                                                                                                                                                                              |                                                           |                                |                   |                    |                   |
| <b>Additional Processing</b> <ol style="list-style-type: none"> <li>Overage Processing is applicable to freight equipment including Maintenance of Way.</li> <li>When an XA or YA is assigned, the equipment is assigned the applicable Rate Indicator 6 and zero in the rates, refer to Appendix <a href="#">D.1</a>.</li> <li>When the Built Date or Rebuilt Date or the Extended Life fields change in Umler, the XA/YA processing should be done to determine if the XA/YA condition still applies, i.e., the XA goes to a YA, a YA goes to an XA or the unit is no longer considered over-aged. If the unit is no longer overage, then the Rate Indicator will be corrected to the applicable Rate Indicator.                             <ul style="list-style-type: none"> <li>If a railroad box car subject to Sub 19 is in conflict with a Rate Indicator P, then assign a Rate Indicator of B when corrected.</li> <li>If a railroad equipment unit is in conflict with a Rate Indicator Q, then assign a Rate Indicator of M when corrected.</li> <li>If a private freight unit is in conflict with a Rate Indicator O, then assign a Rate Indicator of 2.</li> <li>If the equipment is a Maintenance of Way, then assign a Rate Indicator of 6.</li> </ul> </li> </ol> |                                                           |                                |                   |                    |                   |

## Appendix G: ER System Generated D, E, T

### G.1 D, E, T Assignment

| ER Code                                                                                                                                                                                                                                                                                                                                                                                              | Before Assignment                                 |                                                                   | After Assignment |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------------|------------------|-------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                      | Umler TC/TCC                                      | Umler EMC                                                         | Umler TC/TCC     | Umler EMC                                 |
| The Code 'D' is applicable to railroad and private equipment and applicable to Formats A, B, and C (see <a href="#">Appendix J</a> ): equipment. Only the ER system can assign a 'D' Code and the ER system and or the Railinc Administrator can remove a 'D' Code.<br>Note: Processing will need to use the Car Grade of 'N' to distinguish user assigned G and ER assigned G for ruminant protein. |                                                   |                                                                   |                  |                                           |
| D                                                                                                                                                                                                                                                                                                                                                                                                    | Blank,Blank                                       | All fields spaces                                                 | D, Blank         | System Generated = D                      |
| D                                                                                                                                                                                                                                                                                                                                                                                                    | C,Blank                                           | Pool Control = C                                                  | D, C             | System Generated = D<br>Pool Control = C  |
| D                                                                                                                                                                                                                                                                                                                                                                                                    | J,Blank                                           | Pool Control = J                                                  | D,J              | System Generated = D<br>Pool Control = J  |
| D                                                                                                                                                                                                                                                                                                                                                                                                    | N,Blank                                           | Pool Control = N                                                  | D,N              | System Generated = D<br>Pool Control = N  |
| D                                                                                                                                                                                                                                                                                                                                                                                                    | P,Blank                                           | Pool Control = P                                                  | D, P             | System Generated = D<br>Pool Control = P  |
| D                                                                                                                                                                                                                                                                                                                                                                                                    | R,Blank                                           | Pool Control = R                                                  | D, R             | System Generated = D<br>Pool Control = R  |
| D                                                                                                                                                                                                                                                                                                                                                                                                    | W,Blank                                           | Pool Control = W                                                  | D,W              | System Generated = D<br>Pool Control = W  |
| D                                                                                                                                                                                                                                                                                                                                                                                                    | G,Blank                                           | Pool Control = G                                                  | D,G              | System Generated = D<br>Pool Control = G  |
| D                                                                                                                                                                                                                                                                                                                                                                                                    | G,Blank                                           | User Reported = G<br>System Generated = D                         | D,G              | System Generated = D<br>User Reported = G |
| D                                                                                                                                                                                                                                                                                                                                                                                                    | G,W                                               | User Reported = G<br>Pool Control = W<br>Car Grade = N (ruminant) | G,D              | System Generated = D<br>User Reported = G |
| D                                                                                                                                                                                                                                                                                                                                                                                                    | Not one of the above TC/TCC (I, O, U, 2) - reject |                                                                   |                  |                                           |
| The Code 'E' is only applicable to railroad equipment and to equipment defined under SCO90 (Refer to <a href="#">Appendix B</a> ). In addition, the equipment must be assigned to a Pool. Only the ER system or the Railinc Administrator can assign and remove an 'E' Code.                                                                                                                         |                                                   |                                                                   |                  |                                           |
| E                                                                                                                                                                                                                                                                                                                                                                                                    | C,Blank<br>D,C                                    | Pool Control = C<br>System Generated = D<br>Pool Control = C      | E,C              | System Generated = E<br>Pool Control = C  |
| E                                                                                                                                                                                                                                                                                                                                                                                                    | G,Blank<br>D,G                                    | Pool Control = G<br>System Generated = D<br>Pool Control = G      | E,G              | System Generated = E<br>Pool Control = G  |
| E                                                                                                                                                                                                                                                                                                                                                                                                    | J,Blank<br>D,J                                    | Pool Assign = J<br>System Generated = D<br>Pool Control = J       | E,J              | System Generated = E<br>Pool Control = J  |
| E                                                                                                                                                                                                                                                                                                                                                                                                    | P,Blank<br>D,P                                    | Pool Control = P<br>System Generated = D<br>Pool Control = P      | E,P              | System Generated = E<br>Pool Control = P  |
| E                                                                                                                                                                                                                                                                                                                                                                                                    | R,Blank<br>D,R                                    | Pool Control = R<br>System Generated = D<br>Pool Control = R      | E,R              | System Generated = E<br>Pool Control = R  |
| E                                                                                                                                                                                                                                                                                                                                                                                                    | Not one of the above TC/TCC - reject              |                                                                   |                  |                                           |
| The Code 'T' is only applicable to railroad equipment and to equipment defined under SCO90 (Refer to <a href="#">Appendix B</a> ). In addition, the equipment cannot be assigned to a Pool. Only the ER system or the Railinc Administrator can assign and remove a 'T' Code.                                                                                                                        |                                                   |                                                                   |                  |                                           |
| T                                                                                                                                                                                                                                                                                                                                                                                                    | Blank,Blank                                       | All fields spaces                                                 | T,Blank          | System Generated = T                      |
| T                                                                                                                                                                                                                                                                                                                                                                                                    | U,Blank                                           | User Reported = U                                                 | T,U              | System Generated = T<br>User Reported = U |
| T                                                                                                                                                                                                                                                                                                                                                                                                    | O,Blank                                           | User Reported = O                                                 | T,O              | System Generated = T<br>User Reported = O |
| T                                                                                                                                                                                                                                                                                                                                                                                                    | Not one of the above TC/TCC - reject              |                                                                   |                  |                                           |



## G.2 D, E, T Unassignment

| ER Code                                                                                                                                             | Before Unassignment                  |                                                                       | After Unassignment |                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------------------------------------------|--------------------|---------------------------------------|
|                                                                                                                                                     | Umler TC/TCC                         | Umler EMC                                                             | Umler TC/TCC       | Umler EMC                             |
| The Code 'D' is removed by the ER system (or Railinc Administrator).                                                                                |                                      |                                                                       |                    |                                       |
| Remove D                                                                                                                                            | D, Blank                             | System Generated = D                                                  | Blank, Blank       | All fields Blank                      |
| Remove D                                                                                                                                            | D, C                                 | System Gent = D<br>Pool Control = C                                   | C, Blank           | Pool Control = C                      |
| Remove D                                                                                                                                            | D,J                                  | System Generated = D<br>Pool Control = J                              | J, Blank           | Pool Control = J                      |
| Remove D                                                                                                                                            | D,N                                  | System Generated = D<br>Pool Control = N                              | N, Blank           | Pool Control = N                      |
| Remove D                                                                                                                                            | D, P                                 | System Generated = D<br>Pool Control = P                              | P, Blank           | Pool Control = P                      |
| Remove D                                                                                                                                            | D, R                                 | System Generated = D<br>Pool Control = R                              | R, Blank           | Pool Control = R                      |
| Remove D                                                                                                                                            | D,W                                  | System Generated = D<br>Pool Control = W                              | W, Blank           | Pool Control = W                      |
| Remove D                                                                                                                                            | D,G                                  | System Gent = D<br>Pool Control = G                                   | G, Blank           | Pool Control = G                      |
| Remove D                                                                                                                                            | D,G                                  | System Generated = D<br>User Reported = G                             | G, Blank           | User Reported = G                     |
| Remove D                                                                                                                                            | G,D                                  | System Generated = D<br>User Reported = G<br>Car Grade = N (ruminant) | G, W               | User Reported = G<br>Pool Control = W |
| Remove D                                                                                                                                            | Not one of the above TC/TCC - reject |                                                                       |                    |                                       |
| The Code 'E' is removed by the ER system or by the Umler system if the equipment is unassigned from a pool.                                         |                                      |                                                                       |                    |                                       |
| Remove E                                                                                                                                            | E,C                                  | System Generated = E<br>Pool Control = C                              | C,Blank            | Pool Control = C                      |
| Remove E                                                                                                                                            | E,G                                  | System Generated = E<br>Pool Control = G                              | G,Blank            | Pool Control = G                      |
| Remove E                                                                                                                                            | E,J                                  | System Generated = E<br>Pool Control = J                              | J,Blank            | Pool Control = J                      |
| Remove E                                                                                                                                            | E,P                                  | System Generated = E<br>Pool Control = P                              | P,Blank            | Pool Control = P                      |
| Remove E                                                                                                                                            | E,R                                  | System Generated = E<br>Pool Control = R                              | R,Blank            | Pool Control = R                      |
| Remove E                                                                                                                                            | Not one of the above TC/TCC – reject |                                                                       |                    |                                       |
| The Code 'T' is removed by the ER system or by the Umler system if the equipment is assigned to a pool. The Railinc Administrator can remove a 'T'. |                                      |                                                                       |                    |                                       |
| Remove T                                                                                                                                            | T, Blank                             | System Generated = T                                                  | Blank,Blank        | All fields Blank                      |
| Remove T                                                                                                                                            | T, U                                 | System Generated = T<br>User Reported = U                             | U,Blank            | User Reported = U                     |
| Remove T                                                                                                                                            | T, O                                 | System Generated = T<br>User Reported = O                             | O,Blank            | User Reported = O                     |
| Remove T                                                                                                                                            | Not one of the above TC/TCC - reject |                                                                       |                    |                                       |



## Appendix H: ER Ruminant Protein Assignment

| Umler User Reported G Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Before Assignment                  |                                                                               | After Assignment |                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Umler TC/TCC                       | Umler EMC                                                                     | Umler TC/TCC     | Umler EMC                                                                                                |
| <b>Ruminant Protein – User Reported G Code Assignment</b><br><p>When the Event Repository (ER) system identifies a railroad or private Covered Hopper (C_1_), which has been loaded with a ruminant protein, the ER system bridges activity to the Umler system. The Umler system will generate an Umler User Reported G Code to the industry.</p> <p>In addition, the ER system will create an ER Car Grade (Car Grade N by waybill) to the industry (TRAIN82/83) and bridge a Car Grade transaction to the Umler system for distribution to the industry. The assignment of the Car Grade N can only be developed by an ER waybill reporting. It cannot be done through the Umler system.</p> <p>When the ER system identifies a “ruminant protein” loaded in a covered hopper for the first time, the Umler system does the following:</p> <ul style="list-style-type: none"> <li>• If the equipment is not in a pool, the system will set the Umler User Reported to a G.</li> <li>• If the equipment is in a pool, including a ‘G’ pool, the system will remove the equipment from the pool and set the Umler User Reported Code to G and set the Pool Control to W.</li> </ul> <p>When the ER system identifies a “ruminant protein” loaded again in a covered hopper, the Umler system does the following:</p> <ul style="list-style-type: none"> <li>• If the equipment is not assigned or assigned in a G pool, the system retains the current status of the equipment. Neither the pool assignment nor the Pool Control Code of G will be updated.</li> </ul> <p>After the initial assignment of the User Reported G Code, a railroad can assign the equipment to one of its G pools but it cannot assign it to any other Pool Type. When the equipment is assigned to the G pool, then the User Reported Code is set to blank and the Pool Control Code is set to G.</p> <p>When the ER system identifies a “ruminant protein” loaded in a covered hopper and the equipment has an Equipment Management Code of M, S, X, or Y, the existing codes cannot be overlaid. However, the Car Grade N will be created and distributed to the industry.</p> <p>Once the “ruminant protein” User Reported G Code is assigned, it can only be overlaid by a Transportation Code of M, S, X, or Y. Refer to <a href="#">Ruminant Protein –Equipment Management Code M, S, X, Y Assignment</a> below.</p> <p>Once the Car Grade N is reported, another Car Grade Inspection cannot be reported in the ER or Umler system that would supercede the Car Grade N.</p> <p>The combination of User Reported G Code or the Pool Control G Code or the Equipment Management Codes of M, S, X, or Y and the Car Grade N are needed to identify a “ruminant protein” car. These codes (N and G) are permanently assigned and will remain with the car until retired or dismantled. When the car grade N is assigned to a car as a result of the reporting of a waybill with an incorrect STCC, the erring railroad must provide documentation to correct the error. Such documentation is to be reported to Railinc’s Customer Success Center in order to have a Railinc administrator remove the car grade N and Transportation Code G (see Appendix A of Car Service Rule 14, #3).</p> <p>The assignment of the ruminant protein ‘G’ is defined below.</p> |                                    |                                                                               |                  |                                                                                                          |
| G (Ruminant Protein)<br>Private car not leased to a Railroad                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Blank, Blank<br>G,Blank<br>O,Blank | All fields blank<br>User Reported=G<br>User Reported=O                        | G,Blank          | User Reported=G<br>Car Grade=N                                                                           |
| G (Ruminant Protein)<br>Railroad car or Private car leased to a Railroad                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | W, Blank<br>G, Blank<br>O, Blank   | Pool Control=W<br>User Reported=G<br>User Reported=O                          | G,W              | User Reported=G<br>Pool Control=W<br>Car Grade=N                                                         |
| G (Ruminant Protein - Railroad or Private)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | D,G                                | System Generated=D<br>User Reported=G                                         | G,D              | User Reported=G<br>System Generated=D<br>Car Grade=N                                                     |
| G (Ruminant Protein - Railroad or Private)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | D,G                                | System Generated=D<br>Pool Control=G                                          | G,D              | User Reported=G<br>System Generated=D<br>Car Grade=N                                                     |
| G (Ruminant Protein)<br>Railroad car or Private car leased to a Railroad – not in a pool                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | D,W                                | System Generated=D<br>Pool Control=W<br>System Generated=D<br>User Reported=G | G,D              | <b>Note:</b> Equipment is removed from the pool.<br>User Reported=G<br>System Generated=D<br>Car Grade=N |

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| Umler User Reported<br>G Code                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Before Assignment                                                         |                                                                                                                                                                                                      | After Assignment                                       |                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Umler TC/TCC                                                              | Umler EMC                                                                                                                                                                                            | Umler TC/TCC                                           | Umler EMC                                                                                                                                                                |
| G (Ruminant Protein)<br><br>Railroad car or Private<br>car leased to a<br>Railroad – in a pool                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | D,C<br><br>D,J<br><br>D,N<br><br>D,P<br><br>D,R                           | System Generated=D<br>Pool Control=C System<br>Generated=D<br>Pool Control=J<br>System Generated=D<br>Pool Control=N<br>System Generated=D<br>Pool Control=P<br>System Generated=D<br>Pool Control=R | G,D                                                    | User Reported=G<br>System Generated=D<br>Car Grade=N<br><br>Note: Equipment is removed from the pool.                                                                    |
| G (Ruminant Protein)<br><br>Railroad car or Private<br>car leased to a<br>Railroad                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | C,Blank<br>G,Blank<br>J,Blank<br>N,Blank<br>N,O<br><br>P,Blank<br>R,Blank | Pool Control=C<br>Pool Control=G<br>Pool Control=J<br>Pool Control=N<br>Pool Control=N<br>User Reported=O<br>Pool Control=P<br>Pool Control=R                                                        | G,W                                                    | User Reported=G<br>Pool Control=W<br>Car Grade=N<br>Note: Equipment is removed from the pool                                                                             |
| G (Ruminant Protein)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | M,Blank<br>S,Blank<br><br>S,X<br><br>X,etc.<br><br>Y,A                    | User Reported=M<br>Mech Rest=S<br>Mech Reason=Blank<br>Mech Rest=S<br>Mech Reason=X<br>Mech Rest=X<br>Mech Reason=etc<br>Mech Rest=Y<br>Mech Reason=A                                                | M,Blank<br>S,Blank<br><br>S,X<br><br>X,etc.<br><br>Y,A | User Reported=M<br>Mech Rest=S<br>Mech Reason=Blank<br>Mech Rest=S<br>Mech Reason=X<br>Mech Rest=X<br>Mech Reason=etc<br>Mech Rest=Y<br>Mech Reason=A<br><br>Car Grade N |
| G (Ruminant Protein)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Not one of the above<br>Transportation Codes - not<br>applicable reject   |                                                                                                                                                                                                      |                                                        |                                                                                                                                                                          |
| <b>Ruminant Protein –Equipment Management Code M, S, X, Y Assignment</b><br><p>The Equipment Management Codes of M, S, X, or Y may be assigned to “ruminant protein” Covered Hoppers in addition to other types of equipment. These codes may be assigned by the stenciled mark owner, the Umler system (due to the equipment’s age or other events) or the Railinc Administrator. These codes will override the “ruminant protein” User Reported G Code or the Pool Control G Code. However, the Car Grade N will still identify the equipment as a “ruminant protein” car.</p> <p>If the M, S or X or Y is removed from the equipment, then the User Reported Code will be set to ‘G’ and the applicable prior Equipment Management Codes will be set to blank. For railroad equipment or private equipment leased to a railroad (railroad controlled), the Umler Pool Control will be set to W.</p> |                                                                           |                                                                                                                                                                                                      |                                                        |                                                                                                                                                                          |
| Blank, Blank<br>Railroad Controlled                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | M,Blank<br>S,Blank<br><br>S,X<br><br>X,etc.<br><br>Y,A                    | User Reported=M<br>Mech Rest=S<br>Mech Reason=Blank<br>Mech Rest=S<br>Mech Reason=X<br><br>Mech Rest=X<br>Mech Reason=etc<br>Mech Rest=Y<br>Mech Reason=A<br><br>Car Grade N                         | G,W                                                    | User Reported = G<br>Pool Control = W<br>Mech Rest=Blank<br>Mech Reason=Blank<br><br>Car Grade = N                                                                       |

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| Umler User Reported<br>G Code                        | Before Assignment                                      |                                                                                                                                                                          | After Assignment |                                                                            |
|------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------|
|                                                      | Umler TC/TCC                                           | Umler EMC                                                                                                                                                                | Umler TC/TCC     | Umler EMC                                                                  |
| Blank, Blank<br>Private without a<br>railroad lessee | M,Blank<br>S,Blank<br><br>S,X<br><br>X,etc.<br><br>Y,A | User Reported=M<br>Mech Rest=S<br>Mech Reason=Blank<br>Mech Rest=S<br>Mech Reason=X<br>Mech Rest=X<br>Mech Reason=etc<br>Mech Rest=Y<br>Mech Reason=A<br><br>Car Grade N | G, Blank         | User Reported=G<br>Mech Rest=Blank<br>Mech Reason=Blank<br><br>Car Grade N |

## Appendix I: Equipment Type Codes (ETC)

### Equipped Box Cars ETC A\_\_ \_

#### FIRST NUMERIC:

- 0–Not Used
- 1–Less than 49' inside length
- 2–Less than 49' inside length, cushion draft gear/underframe
- 3–49' and less than 59' inside length
- 4–49' and less than 59' inside length, cushion draft gear/underframe
- 5–59' and less than 79' inside length
- 6–59' and less than 79' inside length, cushion draft gear/underframe
- 7–79' and over, inside length
- 8–79' and over, inside length, cushion draft gear/underframe
- 9–Not Used

#### SECOND NUMERIC:

- 0–XP
- 1–XPI
- 2– Not Used
- 3–XL
- 4–XLI

#### THIRD NUMERIC:

- 0–Other type door/opening
- 1–Sliding door, opening, Side Door Width less than 9'
- 2–Sliding door, opening, 9' less than 11'
- 3–Sliding door, opening, 11' and over
- 4–Plug door, opening, less than 9'
- 5–Plug door, opening, 9' less than 11'
- 6–Plug door, opening, 11' and over
- 7–Combination (Sliding-Plug) doors
- 8, 9–Not Used

XL–Loader Equipped. Box car similar in design to "XM", with steel perforated side walls or equipped with interior side rails for securement of certain types of lading and/or permanently attached movable bulkheads.

XP–Boxcar similar in design to "XM", but which is specially equipped, designed, and/or structurally suitable for a specific commodity loading; except, boxcars. "XM" dedicated to the transportation of commodities in paragraph A, Rule 97, AAR Interchange Rules, must be designated "XP".

NOTE 1: When cars qualified as XP or XL are insulated, the suffix "I" must be affixed to the applicable designation and reported to the Umler file.

### Unequipped Box Cars ETC B\_\_ \_

#### FIRST NUMERIC:

- 0–Not Used
- 1–Less than 49' inside length
- 2–Less than 49' inside length, cushion draft gear/underframe
- 3–49' and less than 59' inside length
- 4–49' and less than 59' inside length, cushion draft gear/underframe
- 5–59' and less than 79' inside length
- 6–59' and less than 79' inside length, cushion draft gear/underframe
- 7–79' and over, inside length
- 8–79' and over, inside length, cushion draft gear/underframe
- 9–Not Used

#### SECOND NUMERIC:

- 0–XM–Sliding doors, inside width less than 9'06"
- 1–XM–Sliding door, inside width 9'06" & over
- 2–XM–Plug doors, inside width, less than 9'06"
- 3–XM–Plug doors, inside width 9'06" & over
- 4–XM–Combination (sliding-plug) doors, inside width less than 9'06"
- 5–XM–Combination (sliding-plug) doors, inside width 9'06" & over
- 6–XM–Other door, any width
- 7– Not Used
- 8–XMI–Inside width 9'06" and over
- 9–Not Used

#### THIRD NUMERIC:

- 0–Other type door/opening
- 1–Side Door Width less than 8' opening
- 2–Doors 8' less than 9' opening
- 3–Doors 9' less than 10' opening
- 4–Doors 10' less than 11' opening
- 5–Doors 11' less than 13' opening
- 6–Doors 13' less than 15' opening
- 7–Doors 15' & over opening
- 8, 9–Not Used

XM–Box car for general service equipped with side or side and end doors.

### Covered Hopper Cars ETC C\_\_ \_

#### FIRST NUMERIC:

- 0–Not Used
- 1–Gravity Unloading–non-pressurized gravity unloading.
- 2–Pneumatic Unloading–non-pressurized, for unloading by means of vacuum or suction equipment with receiver's facilities without capability of gravity discharge into a hopper.
- 3–Gravity-Pneumatic Unloading–non-pressurized car with capabilities either for unloading by means of vacuum or suction in conjunction with receiver's facilities or operation as a straight gravity mode.
- 4–Fluidized-Gravity Unloading–Air fluidization to expedite unloading; nonpressurized except in fluidization chambers, with gravity outlet.
- 5–Fluidized = Pneumatic Unloading–Air Fluidization to expedite unloading; non-pressurized except in fluidization chambers, with means for unloading by means of vacuum or suction in conjunction with receiver's facilities.
- 6–Pressure Differential–Car body pressurized to 5 psi. or greater, with or without supplementary fluidization; discharge through pneumatic pipes.
- 7–Other Unloading Systems–Any discharge system not defined by 1 through 6 above.
- 8, 9–Not Used

#### SECOND NUMERIC:

- 0–Not Used
- 1–LO (Covered Hopper)
- 2 through 9–Not Used

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## THIRD NUMERIC:

- 0—Not Used
- 1—Less than 3,000 cu. ft. capacity
- 2—3,000 but less than 4,000 cu. ft. capacity
- 3—4,000 but less than 5,000 cu. ft. capacity
- 4—5,000 cu. ft. capacity and over
- 5 through 9—Not Used

LO—A permanently enclosed car, other than a box car, regardless of exterior or interior shape, for handling bulk commodities, with or without insulation and provided with openings for loading through top or sides with weather-tight covers or doors. Car may be provided with one or more bottom openings for unloading, with tight fitting covers, doors, valves, or tight fitting slide or gate to prevent leakage of lading. Car may be provided with facilities for discharge of lading through openings in top or sides and may have one or more compartments. Mechanical or other means may be provided within car to expedite loading or unloading.

## Locomotives ETC D \_ \_ \_

## FIRST NUMERIC:

- 0—Not Used
- 1—Freight Locomotive
- 2—Passenger Locomotive
- 3—Switching Locomotive
- 4—Non-Cab Freight Locomotive
- 5—Non-Cab Passenger Locomotive
- 6—Auxiliary Unit (Includes slugs, boosters, etc., which draw their power from the "mother" unit.
- 7—Electric
- 8, 9—Not Used

## SECOND NUMERIC:

- 0—Not Used
- 1—AAR Truck type 'B-B'...4 powered axles
- 2—AAR Truck type 'C-C'...6 powered axles
- 3—AAR Truck type 'D-D'...8 powered axles
- 4—AAR Truck type 'A1A-A1A'...4 powered axles
- 5—AAR Truck type 'B-C'...5 powered axles
- 6—More than 8 powered axles
- 7—Less than 9 powered axles with a different configuration than 1 through 5
- 8, 9—Not Used

## THIRD NUMERIC:

- 0—Less than 1000 hp
- 1—1000 to 1499 hp
- 2—1500 to 1999 hp
- 3—2000 to 2499 hp
- 4—2500 to 2999 hp
- 5—3000 to 3499 hp
- 6—3500 to 3999 hp
- 7—4000 to 4499 hp
- 8—4500 to 4999 hp
- 9—5000 and over

## Equipped Gondolas ETC E \_ \_ \_

## FIRST NUMERIC:

- 0—Not Used
- 1—Less than 48' inside length
- 2—Less than 48' inside length with cushion draft gear/underframe
- 3—48' and less than 52' inside length
- 4—48' and less than 52' inside length with cushion draft gear/underframe
- 5—52' and less than 61' inside length
- 6—52' and less than 61' inside length with cushion draft gear/underframe
- 7—61' and over inside length
- 8—61' and over inside length with cushion draft gear/underframe
- 9—Not Used

## SECOND NUMERIC:

- \* 0—GTS
- 1—GTR
- 2—GBR
- 3—GBS
- 4—GBSR
- 5—Not used
- 6—GSS
- 7—Not Used
- 8—GWS
- 9—GWSR

## THIRD NUMERIC:

- \* 0—All cars
- 1—Coil steel/aluminum equipped car
- 2—Coil steel car with transverse trough
- 3—Not Used
- \* 4—Less than 3000 cu. ft.
- \* 5—3000 to less than 4000 cu. ft.
- \* 6—4000 to less than 5000 cu. ft.
- \* 7—5000 cu. ft. and over
- 8, 9—Not Used

NOTE 1: \* -GTS if NOT light density service, report third numeric 0; report fitting code "LD" and third numeric 4, 5, 6 or 7 for cars restricted to light density service.

NOTE 2: When gondola cars equipped with any or all of the modifications as provided for in the following NOTES 3 and 4, the suffixes as provided for shall be added to the primary classification in order of the notes as listed.

NOTE 3: Where cars are specially built, modified or equipped for handling particular commodities, the letter "S" must be affixed to the applicable designating letters. Such special equipment must be reported in the fitting code field in the Umler file.

NOTE 4: If any of these gondola cars are equipped with a roof for protection of contents, the letter "R" must be affixed to the regular symbol to designate its special class of service.

NOTE 5: For primary classifications, see Equipment Type Code G (plain gondola).

## Flat Cars ETC F \_ \_ \_

## FIRST NUMERIC:

- 0—Not Used
- 1—Less than 155,000 pounds load limit
- 2—155,000 to 184,999 pounds load limit
- 3—185,000 to 199,999 pounds load limit
- 4—200,000 pounds load limit and over
- 5—9—Not Used

## SECOND NUMERIC:

- \*0—FM
- 1—FMS, standard draft gear/solid drawbar
- 2—FMS, equipped with cushioned draft gear/underframe
- 3—FD
- 4—FB
- 5—FBS
- 6—FW
- 7—FL
- 8—FBC
- 9—FDC

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## THIRD NUMERIC:

- 0–Not Used
- 1–Less than 53' inside length
- 2–53' and less than 60' inside length
- 3–60' and less than 75' inside length
- 4–75' and less than 85' inside length
- 5–85' and less than 89' inside length
- 6–89' and over inside length
- 7 through 9–Not Used

FB–Bulkhead flat cars equipped with fixed or permanently attached movable bulkheads or ends a minimum of three feet in height and flat floor for general commodity loading.

FBC–Flat car constructed with a center beam above the car deck from bulkhead to bulkhead.

FD–Depressed center flat car of special construction having the portion of floor extending between trucks depressed to provide necessary overhead clearance for lading.

FDC–Flat car, constructed with a center beam above the deck from bulkhead to bulkhead and having the portion of the floor extending between trucks depressed to provide additional volume capacity.

FL–Flat car with or without straight deck consisting of two trucks fitted with cross supports over truck bolsters; the trucks are connected with a skeleton or flexible frame or solid underframe fitted with supports for transporting lading loaded lengthwise, e.g., logs, pipes, slab steel.

FM–Flat car with straight deck or platform with flooring over sills and without sides, end risers or bulkheads.

FW–Flat car with an opening in the deck to allow lading to be lowered to accommodate clearance restrictions.

NOTE: Where cars are specially modified or equipped for handling particular commodities, the letter "S" must be affixed to the applicable designating letters. Such special equipment must be reported in the fitting code field in the Umler file. This would not apply to cars with "FA", "FD", "FL", or "FW" designation.

## Unequipped Gondola ETC G \_ \_ \_

## FIRST NUMERIC:

- 0–Not Used
- 1–Less than 48' inside length
- 2–48' and less than 52' inside length, less than 9' inside width
- 3–48' and less than 52' inside length, 9' and over inside width
- 4–52' and less than 61' inside length, less than 9' inside width
- 5–52' and less than 61' inside length, 9' and over inside width
- 6–61' and over inside length, less than 9' inside width
- 7–61' and over inside length, 9' and over inside width
- 8, 9–Not Used

## SECOND NUMERIC:

- 0–Not Used
- 1–GB steel floor, solid ends
- 2–GB steel floor, drop ends
- 3–GB wood floor, solid ends
- 4–GB wood floor, drop ends
- 5–Not Used
- 6–Not Used
- 7–Not Used
- 8–GS
- 9–Not Used

## THIRD NUMERIC – Inside Height – Load Limit:

- 0 – 12" to 167" – 154,999 and less
- 1 – 12" to 46" – 155,000 to 184,999
- 2 – 47" to 167" – 155,000 to 184,999
- 3 – 12" to 46" – 185,000 to 204,999
- 4 – 47" to 52" – 185,000 to 204,999
- 5 – 53" to 58" – 185,000 to 204,999
- 6 – 59" to 64" – 185,000 to 204,999
- 7 – 65" to 167" – 185,000 to 204,999
- 8 – 12" to 59" – 205,000 and greater
- 9 – 60" to 167" – 205,000 and greater

GB–Open top car, having fixed sides, fixed or drop ends and solid bottom or swinging side doors to enable dumping.

GS–Open top car, having fixed sides and ends and drop bottom, consisting of doors hinged at center sills or side sills to dump outside and/or inside of rails.

GW–Open top well-hole car for transportation of special commodities. A solid bottom car with fixed sides and ends, having one or more openings or depressions provided in floor, permitting the lading to be lowered in order to obtain overhead clearance.

## Unequipped Hopper Cars ETC H \_ \_ \_

## FIRST NUMERIC:

- 0–Not Used
- 1–Less than 155,000 pounds load limit
- 2–155,000 to 184,999 pounds load limit
- 3–185,000 pounds load limit and over
- 4 through 9–Not Used

## SECOND NUMERIC:

- 0, 1–Not Used
- 2–Not Used
- 3–HK
- 4–HM
- 5–HT
- 6–HTA
- 7 through 9–Not Used

## THIRD NUMERIC:

- 0–Non-rotary couplers
- 1–Rotary coupler on one end
- 2–Rotary couplers on both ends
- 3 through 9–Not Used

HK–Open top self-clearing car, having fixed sides and ends and bottom consisting of two or more divided hoppers dumping outside and/or inside of rails. (Includes former "HFA")

HM–Open top self-clearing car, having fixed sides and ends and bottom consisting of two divided hoppers with doors hinged crosswise of car and dumping between rails.

HT–Open top self-clearing car, having fixed sides and ends and bottom consisting of three or more divided hoppers with doors hinged crosswise of car and dumping between rails.

HTA–Open top self-clearing car, having fixed sides and ends and bottom consisting of three or more divided hoppers with doors hinged lengthwise of car and dumping between rails.

## Data Specification Manual

## Gondola Cars (GT) ETC J \_ \_ \_

### FIRST NUMERIC:

- 0–Not Used
- 1–Less than 155,000 pounds load limit
- 2–155,000 to 184,999 pounds load limit
- 3–185,000 pounds load limit and over
- 4 through 9–Not Used

### SECOND NUMERIC:

- 0–GT Flat Bottom
- 1–GT Depressed Bottom
- 2 through 9–Not Used

### THIRD NUMERIC:

- 0–Less than 36' inside length (Ore Jenny)
- 1–36' inside length and less than 48'
- 2–48' inside length and less than 52'
- 3–52' inside length and less than 61'
- 4–61' inside length and over
- 5 through 9–Not Used

GT–Open top car, having high fixed sides and fixed or hinged ends and solid bottom, suitable for unloading on dumping machines only.

## Equipped Hoppers ETC K \_ \_ \_

### FIRST NUMERIC:

- 0–Not Used
- 1–Less than 155,000 pounds load limit
- 2–155,000 to 184,999 pounds load limit
- 3–185,000 pounds load limit and over
- 4 through 9–Not Used

### SECOND NUMERIC:

- 0–HKS
- 1–Not Used
- 2–HMS
- 3–HTR
- \* 4–HTS
- 5–HKR
- 6–Not Used
- 7–HMSR
- 8–HMA
- 9–Not Used

### THIRD NUMERIC:

- 0–Non-rotary couplers
- 1–Rotary coupler on one end
- 2–Rotary couplers on both ends
- 3–Not Used
- \* 4–Less than 3000 cu. ft.
- \* 5–3000 to less than 4000 cu. ft.
- \* 6–4000 to less than 5000 cu. ft.
- \* 7–5000 cu. ft. and over
- 8, 9–Not used

NOTE: \* HTS if NOT light density service, report third numeric 0, 1, 2, or 3; report "Y" Light Density (B124) and third numeric 4, 5, 6, or 7 for cars restricted to light density service.

HMA–Open top self-clearing car, having fixed sides and ends and bottom consisting of two divided hoppers with doors hinged lengthwise of car and dumping between rails.

NOTE 1: Where cars are specially built, modified or equipped for handling particular commodities, the letter "S" must be affixed to the applicable designating letters. Such special equipment must be reported in the fitting code field in the Umler file.

NOTE 2: If any of these hopper cars are equipped with a roof for protection of contents, the letter "R" must be affixed to the regular symbol to designate its special class of service.

NOTE 3: For primary classifications, see Equipment Type Code H (unequipped hopper cars).

## Special Type Cars ETC L \_ \_ \_

### FIRST NUMERIC:

- 0–All cars, except L999, see NOTE
- 1 through 9–Not Used

### SECOND NUMERIC:

- 0–LF (Flat)
- 1–LG (Gondola)
- 2–LP (Flat)
- 3–Not Used
- 4–LU (Box)
- 5–Not Used
- 6–LM (Hopper)
- 7–LC (Box)
- 8–Not Used
- 9–LS (Flat)

### THIRD NUMERIC:

- 0–Cubic Capacity and Length not applicable (LS only)
- 1–Less than 3,000 cu. ft. capacity–LM
- 2–3,000 but less than 4,000 cu. ft. capacity–LM
- 3–4,000 but less than 5,000 cu. ft. capacity–LM
- 4–5,000 cu. ft. capacity and over–LM
- 5–Not Used
- 6–Less than 49'8" inside length–LC, LF, LG, LP, LU
- 7–49'8" and less than 59'8" inside length–LC, LF, LG, LP, LU
- 8–59'8" and over inside length–LC, LF, LG, LP, LU
- 9–Not Used

LC–Box car with side doors and roof hatches. May be equipped with end doors.

LF–Flat car equipped to handle one or more demountable containers for the transportation of commodities not qualified for TOFC/COFC service.

NOTE: Not applicable to flat cars designed to handle containers in TOFC/COFC service or containers handling setup vehicles.

LG–Gondola car equipped to handle one or more demountable containers for the transportation of commodities not under refrigeration.

LM–A car equipped with one or more permanently enclosed tanks or containers, provided with one or more openings for loading and equipped for pneumatic or gravity unloading. Car is suitable for handling certain dry powered or granular commodities, and also low viscosity, non-dangerous liquid commodities.

LP–Open-Top car having solid bottom and fixed ends equipped with sloping floor or longitudinal floor risers or side-stakes for the handling of pulpwood and not suitable for general commodity loading.

LS–A car of special construction having two separable interlocking units which form a car body. Units may be separated and load interposed between and locked in place to form a complete transportation unit.

LU–An enclosed with roof, having a special metal beam of heavy design at top of each side to support a series of retractable overhead side doors and their appurtenances, or other types of doors, running substantially the length of car, which beams also support the roof details. Car may be equipped with special loading devices or racks for handling various commodities.

## ETC N \_ \_ \_ (Not used)



## Data Specification Manual

## M-O-W, Scale ETC M\_ \_ \_

PASSENGER, CABOOSE, END OF TRAIN INFORMATION SYSTEMS, MAINTENANCE OF WAY, AND SCALE.

### FIRST AND SECOND NUMERIC:

10–MW  
11–MWB  
12–MWD  
14–MWE  
15–MWF  
16–MWDC  
19–MWM  
20–MWP  
21–MWS  
23–Not Used  
25–MWW  
26–MWX  
27–MWSP  
28–MWG  
29–MWRC  
30–MWGN  
31–MWK  
32–MWH  
33–MWIF  
34–MWVF  
35–MS (SCALE)  
36–MWTK  
50–PA  
51–PB  
52–PD  
53–PS  
54–PAB  
55–PSD  
60–MT-training units and/or articulated combinations  
80–Fuel Tender, Diesel (Tank)  
81–Fuel Tender, Natural Gas (Tank)  
82–Fuel Tender, Diesel (Non-tank)  
83–Fuel Tender, Natural Gas (Non-tank)  
93–NE Caboose  
97–NF (SBT) Two way sensor Brake Unit/End-of-Train - Format G. A device mounted on the trailing coupler on the rear car of the train coupled to the brake pipe. The SBT senses brake-pipe pressure, and may sense motion and direction. This information is relayed by radio to the head end of the train to a RDU, CDU, or a CLU/IDU combination. In addition, the SBT acts as a marker to indicate the rear of the train and is equipped with an emergency braking feature to be used in the event of a loss of the normal braking capability from the head end of the train.

### THIRD NUMERIC:

0–All units  
1 through 9–Not Used

Grass Cutter–A car equipped with machinery for propelling itself, or otherwise and cutting grass along the track as it proceeds.  
MS–Scale Car–Cars used to test railroad track sales.  
MT–Training unit equipped with training aids or modified to demonstrate components of the unit.  
MWB–Ballast Cars. A car used to carry ballast for laying new right of way and repairs. The car used generally for this work is of the gondola type, with side or center dump.  
MWDC–Ditching Car. A car equipped for excavating ditches along the sides of tracks as it proceeds, self-propelled or not.  
MWD–Dump Cars. Type of contractor's car used for building up fills; the body of the car dumps being raised by means of counterweight (air or hand power) for dumping.  
MWE–Ballast Spreader and Trimmer. A car with blades or wings for spreading or trimming ballast.

MWF–Flat Car. Used for transporting rails, ties or ballast and for storage of wrecking trucks or gathering scraps along right of way. These cars are at times equipped with low sides, about 10 or 12 inches high.  
MWGN–Gondola used specifically in Maintenance-of-Way service.  
MWG–Section Gang or Track Inspection Car. Flat car with or without seats or tool boxes, and equipped with single or double cylinder gasoline engine serving as motive power.  
MWH–Hopper (open top or covered) used specifically in Maintenance-of-Way service.  
MWIF–IFlat used specifically in Maintenance-of-Way service.  
MWK–Snow-removing Car. A car equipped with any special device for removing snow from between or alongside of rails.  
MW–Miscellaneous (Otherwise not classified).  
MWM–Store-Supply Car. A box car used for handling material or storing tools, blocking or other material for railway use.  
MWP–Pile Driver. A car equipped with machinery for pile driving.  
MWRC–Unit equipped to receive and transmit radio signals via multiple-unit connections to coupled locomotive for remote control operation.  
MWSP–Shoving platform consists of a car equipped with hand safety rails and a shelter where a train crew can guide a train in a reverse or shoving operation.  
MWS–Steam Shovel. A car equipped with powered boom, the end of which is a shovel or scoop. Because it is equipped with safety appliances, it may be propelled by its own power or by means of a locomotive and be run as a car in freight trains. The cubic capacity of the shovels (in yards) can be indicated following the classification letters (for example, MWS 6 yards).  
MWTK–Similar in design to "T", but used specifically in Maintenance-of-Way service.  
MWVF–VFlat used specifically in Maintenance-of-Way service.  
MWV–Wrecking Derrick. A derrick used for wrecking purposes equipped with an engine housed on a separate platform to raise and lower booms and hoists.  
The separate platform and the attached boom are pivoted in the center of the car. A derrick is usually fitted with outrigger beams to stabilize the car for heavy lifting. Derricks are usually propelled by means of a locomotive, but can be equipped with self-propulsion equipment for traveling short distances. Lifting capacity (in tons) is clearly marked.  
MWX–Boarding Outfit Car. A car used for boarding, sleeping or cooking purposes in construction and similar work.  
NE–All cabooses.  
NF–A device mounted on the trailing coupler on the rear car of the train coupled to the brake pipe. The SBT senses brake pipe pressure, and may sense motion and direction. This information is relayed by radio to the head end of the train to a RDU, CDU or a CLU/IDU combination. In addition, the SBT acts as a marker to indicate the rear of the train and is equipped with an emergency braking feature to be used in the event of a loss of the normal braking capability from the head end of the train.  
PAB–Car equipped to handle passengers and equipped to handle baggage, express mail, merchandise or similar products.  
PA–Car equipped to handle passengers.  
PB–A car constructed for passenger train service and equipped to handle baggage, express, mail, merchandise or similar products.  
PD–Car equipped for food or beverage service.  
PS–Company service car, including office cars, instruction cars, display cars, etc.  
PSD–Company service car (including office, instruction, display, etc. equipped for food and/or beverage service.  
Rail Bender–A car equipped with machinery for bending track rails and similar material.  
Rail Saw–A car equipped with machinery for sawing track rails and similar material.  
Track Layer–A car equipped with machinery for propelling itself, or otherwise, and laying the track ahead of it as it proceeds.  
Weed Exterminator–A car equipped with machinery for propelling itself, or otherwise, and burning or spraying weeds along the track as it proceeds.



## Data Specification Manual

## Conventional Intermodal Cars ETC P \_ \_ \_

Mechanical Designation "FC"

If Tare Weight is 33M Pounds or Greater (See NOTES 1 through 5 below)

FIRST NUMERIC (See NOTES 1 and 2):

- 0—Not Used
- 1—Single Length—Low Level—8' Tandem
- 2—Single Length—Low Level—8 1/2' Tandem
- 3—Single Length—Standard Level—8' Tandem
- 4—Single Length—Standard Level—8 1/2' Tandem
- 5—Double Length—Low Level—8' Tandem
- 6—Double Length—Low Level—8 1/2' Tandem
- 7—Double Length—Standard Level—8' Tandem
- 8—Double Length—Standard Level—8 1/2' Tandem
- 9—Double Length Car with Deck Height 3'2" ATR—8' Tandem

SECOND NUMERIC:

- 0—Not Used
- 1—Circus and Lift On/Lift Off—TOFC Only
- 2—Circus, equipped for portable bridge plates, and Lift On/Lift Off—TOFC Only
- 3—Lift On/Lift Off Only—TOFC Only
- 4—Circus and Lift On/Lift Off—All Purpose (TOFC and COFC)
- 5—Circus, equipped for portable bridge plates, and Lift On/Lift Off—All Purpose (With Stub Bridge Plates)
- 6—Circus, equipped for portable bridge plates, and Lift On/Lift Off—All Purpose (No Stub Bridge Plates)
- 7—Lift On/Lift Off Only—All Purpose
- 8—Lift On/Lift Off Only—COFC Only
- 9—Not Used

THIRD NUMERIC (See NOTE 3):

**If First Numeric is 1 through 4 and Second Numeric is 1, 2, or 3, then, 0—Cars otherwise not classified—contact car owner**

- 1—Trailer up to 40' long
- 2—Trailer up to 45' long
- 3—Trailer up to 48' long
- 4—Trailer up to 50' long
- 5—Trailer up to 53' long
- 6—Trailer up to 57' long
- 7 through 9—Not Used

**If First Numeric is 1 through 4 and Second Numeric is 4 through 7, then, Third Numeric (TOFC/COFC) is:**

- 0—All cars
- 1 through 9—Not Used

**If First Numeric is 1 through 4 and Second Numeric is 8, then, (See NOTE 5)**

**0—Cars not otherwise classified—contact car owner**

- 1—1-40' and 1-20' container or 3-20' containers
- 2—1-40' or 1-40' 03" container
- 3 through 9—Not Used

**If First Numeric is 5 through 9 and Second Numeric is 1, 2, or 3, then,**

- 0—Cars not otherwise classified, contact owner
- 1—2-40' trailers with or without nose mounted reefers (If 1st Numeric equals 9, car will not handle nose mounted reefers).
- 2—1-40' trailer without and 1-45' trailer with nose mounted reefer, or 2-40' trailers with nose mounted reefer.
- 3—2-45' trailers (see NOTE 4)
- 4—Any two trailers with aggregate length up to 90'.
- 5—1-40' trailer without and 1-45' trailer with nose mounted reefer, or 3-28' "Pups" or 2-40' trailers with nose mounted reefer.
- 6—Any two trailers with aggregate length up to 90' or 3-28' Pups.
- 7 through 9—Not Used

**If First Numeric is 5 through 9 and Second Numeric is 4 through 7 (All Purpose) then,**

- 0—Cars not otherwise classified—contact car owner
- 1—Trailers and/or containers as follows – 1-40' trailer without and 1-45' trailer with nose mounted reefer, or 2-40' trailers with nose mounted reefer, or various combinations of 20' and 40' containers and/or trailers, or 1-45' container with one other container up to 35' long.
- 2—Trailers and/or containers as follows – 2-45' trailers without nose mounted reefers or various combinations of 20' and 40' containers and/or trailers, or 1-45' container with one other container up to 35' long. (See NOTE 4)
- 3 through 9—Not Used

**If First Numeric is 5 through 9 and Second Numeric is 8 (COFC Only) then, (See NOTE 5)**

- 0—Cars not otherwise classified—contact car owner
- 1—1-40' and 1-20' or 3-20' containers.
- 2—1-40' or 1-40' 3" container.
- 3—2-40' or 4-20' containers and various combinations or 1-45' container with one other container up to 35' long.
- 4 through 9—Not Used

NOTE 1: "Single Length" car will handle one unit at least 40' long. (Car will generally be 50'-75' long). "Double Length" car will handle two units at least 40' long. (Car will generally be 85'-89'4" long).

NOTE 2: "Low Level" is 2'9" or less ATR. "Standard Level" is 3'4" inches ATR or over.

NOTE 3: Although other king pin settings may be acceptable, trailer handling capabilities assume trailer king pin settings of 36".

NOTE 4: These cars will also handle 40' or 45' trailers with nose mounted reefer units at the "A" position (middle) hitch provided the "B" position (leading) hitch is carrying a 40' or shorter trailer. In no case will the "B" position hitch handle a trailer with nose mounted reefer regardless of the length of the trailer.

NOTE 5: These cars will not handle containers more than 8'0" wide. FC—Flat cars, specifically equipped to carry trailers, containers, and chassis in TOFC/COFC service.

## Lighter Weight Intermodal Cars ETC Q \_ \_ \_

LOW PROFILE INTERMODAL CARS

Mechanical Designation "FC" – If Less than 33M Pounds or "FCA" Articulated and Multi-Platform Cars or Steel Wheel Railsets for Car-less Technology (See NOTES 1 through 6 below)

FIRST NUMERIC:

- 0—Not Used
- 1—Trailers Only
- 2—Containers Only—8' wide—Single tier
- 3—Containers Only—8 1/2' wide—Single tier
- 4—Containers Only—8' or 8 1/2' wide—Single tier
- 5—Trailers or 8' wide containers
- 6—Trailers or 8 1/2' wide containers
- 7—Trailers or 8' or 8 1/2' wide containers
- 8—Steel wheel railsets for car-less technology (See NOTE 4)
- 9—Integrated multi-platform unit, trailers-containers various dimensions

SECOND NUMERIC (See NOTE 4):

- 1—1 Platform – FC
- 2—2 Platforms – FCA
- 3—3 Platforms – FCA
- 4—4 Platforms – FCA
- 5—5 Platforms – FCA
- 6—6 Platforms – FCA
- 7—7 Platforms – FCA
- 8—8 Platforms – FCA
- 9—9 Platforms – FCA
- 0—10 or more Platforms – FCA

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**THIRD NUMERIC—If First Numeric is 1 (See NOTES 5 and 6):**

- 0—Cars not otherwise classified—contact car owner
- 1—One 40'-45' trailer per platform
- 2—One 40'-48' trailer per platform
- 3—One 40'-53' trailer per platform
- 4—One 40'-57' trailer per platform
- 5—One 40'-45' trailer per platform with nose mounted reefer units on trailers on A and B platforms Only.
- 6—One 28'-48' trailer per platform
- 7—Four trailers up to 45' long, without nose-mounted reefer units per car; or three trailers, up to 56' long per car, where the center trailer must be 48' long or longer and Only the center trailer may be equipped with nose-mounted reefer unit and/or 42" king pin settings (deck height is 3'6" ATR).
- 8—Three trailers up to 56' long per car, with up to 42" king pin settings and/or nose-mounted reefer units per car. The center trailer must be 48' long or longer (deck height is 3'6" ATR).
- 9—Not Used

**THIRD NUMERIC—If First Numeric is 2, 3 or 4:**

- 0—Cars not otherwise classified—contact car owner
- 1—Two 20' or one 40', 45' or 48' by 96" by 96" or 102" container(s) on A, B, and D platforms and one 40', 45' or 48' by 96" or 102" container on C and E platforms.
- 2—Two 20' or one 40', 45' or 48' by 96" or 102" container(s) on all platforms.
- 3 through 9—Not Used

**THIRD NUMERIC—If First Numeric is 5, 6 or 7:**

- 0—Cars not otherwise classified—contact car owner
- 1—One 28' through 48' trailer on all platforms or one 40' through 48' by 96" or 102" container on all platforms, or two 20' by 96" or 102" containers on A and B platforms Only.
- 2—One 28' through 53' trailer on all platforms or one 40' through 53' by 96" or 102" container on all platforms, or two 20' by 96" or 102" containers on A and B platforms Only.
- 3-1-28', 1-40', 1-45', 1-48', 1-53' Trailer or 1-40', 1-45', 1-48', 1-53' Container on each segment.
- 4- Two 28' trailers, or One 40' or One 45' or One 48' or One 53' or One 57' trailer on all platforms, or One 40' or One 45' or One 48' or One 53' 96" or 102" container on all platforms
- 5 through 9—Not Used.

**THIRD NUMERIC—If First Numeric is 8:**

- 0—Bogey equipped with rail coupler
- 1—Bogey single air line with rail coupler
- 2—Bogey double air line with rail coupler
- 3—Intermediate Connector without rail coupler
- 4 through 9—Not Used

NOTE 1: All "Q" class cars have a deck height of 2'8" ATR or less, unless otherwise indicated.

NOTE 2: All "Q" class cars are suitable Only for Lift-On/Lift-Off terminal handling (no bridge plates and non-retractable hitches).

NOTE 3: All "Q" class cars will handle trailers with tandem wheels up to 102" wide.

NOTE 4: Multiples of two or more platforms are either fully articulated or are semi-permanently coupled together and cannot be separated except at a repair track. A "platform" is capable of carrying a trailer or container at least 40' long or two 20' containers. If 1st numeric is 8 (Steel wheel sets for carless technology) 2nd numeric must be a 1.

NOTE 5: Although other king pin settings may be acceptable, trailer handling capabilities are based on a trailer king pin setting of 36".

NOTE 6: All "Q" class cars with TOFC capability will handle trailers of the length indicated, plus nose mounted refrigeration units, unless otherwise indicated.

FCA—Flat car, articulated or drawbar connected multi-unit, specially equipped for transporting containers, chassis, and trailers in TOFC/COFC service.

**Refrigerator Cars ETC R \_ \_ \_****FIRST NUMERIC:**

- 0—Not Used
- 1—Less than 49' inside length
- 2—Less than 49' inside length with cushion draft gear/underframe
- 3—49' and less than 59' inside length
- 4—49' and less than 59' inside length with cushion draft gear/underframe
- 5—59' and less than 79' inside length
- 6—59' and less than 79' inside length with cushion draft gear/underframe
- 7—79' and over, inside length
- 8—79' and over inside length with cushion draft gear/underframe
- 9—Not Used

**SECOND NUMERIC:**

- 0—RB
- 1—RBL
- 2 through 5—Not Used
- 6—RP
- 7—RPL
- 8—Not Used
- 9—RC

**THIRD NUMERIC:**

- 0—All other cars
- 1—Body fiberglass, reinforced composite
- 2 through 9—Not Used

RB—Bunkerless refrigerator car with or without ventilating devices and with or without device for attaching portable heaters. Constructed with insulation in side ends, floor and roof to meet maximum UA factor requirement of 250 BTU/F/Hour for 50 foot cars and 300 BTU/F/Hour for 60 foot cars. Effective for cars ordered new after March 1, 1984.

NOTE: Cars built or rebuilt prior to March 1, 1984, must have been constructed with a minimum of 3 in. of insulation in the sides and ends and 3-1/2 in. in floor and roof based on the insulation requirements given in the AAR Manual of Standards and Recommended Practices, Section C, Recommended Practice RP-253 or a thickness reduced in proportion to the thermal conductivity of the insulation.

RBL—Car similar in construction to an "RB" type car, but equipped in addition with adjustable loading or stowing device.

NOTE: Cars equipped with interior side rails only, built new, rebuilt or reclassified on and after January 1, 1966, in order to qualify for the "RBL" designation, shall have a minimum of four (4) usable side rails on each wall of car, each extending from doorway to approximately four (4) feet from end of car.

RC—Refrigerator Car similar to an "RB" car using a cryogen to produce temperatures to transport frozen commodities.

RP—Mechanical Refrigerator car equipped with or without means of ventilation and provided with apparatus for furnishing protection against heat and/or cold.

RPL—Mechanical Refrigerator. Similar to "RP" but equipped in addition with adjustable loading or stowing device.

**Stack Cars ETC S \_ \_ \_**

Well Cars—COFC/TOFC Capable of Carrying Double Stacked Containers

**FIRST NUMERIC:**

- 0—Cars not otherwise classified—contact car owner
- 1—All 40' Wells
- 2—All 45' Wells
- 3—All 48' Wells
- 4—40' end and 45' Intermediate Wells
- 5—40' end and 48' Intermediate Wells
- 6—All 53' Wells
- 7—All 56' Wells
- 8, 9—Not Used

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## SECOND NUMERIC:

0—Cars not otherwise classified—contact car owner

1—Single Well – IBC Type –FC

2—Two Wells – IBC Type –FCA

3—Three Wells – IBC Type –FCA

4—Four Wells – IBC Type –FCA

5—Five Wells – IBC Type –Light Capacity (100 Ton Trucks) – FCA

6—Five Wells – IBC Type –Heavy Capacity (125 Ton Trucks) – FCA

7—Five Wells – Bulkhead Type – Light Capacity (100 Ton Trucks) – FCA

8—Five Wells – Bulkhead Type – Heavy Capacity (125 Ton Trucks) – FCA

9—Not Used

**THIRD NUMERIC—If Second Numeric is 1, 2, 3, or 4:**

0—Car classifiable in ETC, see element Single Length Loading Configuration (B288) for loading configuration

1—1-40', 45', or 48' container in well and 1-40', 45', 48', or 53' container stacked on top of well.

2—2-20', 1-40', 45', or 48' container in well and 1-40', 45', 48', or 53' container stacked on top of well.

3—2-20', 1-40', 45', or 48' container in well and 1-40', 48', or 53' container stacked on top of well or 2-28' trailers or 1-40' through 53' trailer in well. Trailers can be either 96" or 102" wide and can be equipped with nose-mounted refrigerator units.

4—2-20' or 28' containers or 1-40', 45', 48', or 53' container in well and 2-28' containers, 1-40', 45', 48' or 53' container stacked on top of well

5—2-20', 1-40', 45', 48' or 53' container in well and 1-40', 45', 48', or 53' (see NOTE 5) container stacked on top of well.

6—Container only, Bottom : 2-20' or 1-40' ; Top : 1-40', 45', 48', or 53'

7—Container only, Bottom : 2-20' or 1-40' ; Top : 1-40', 45', 48', or 53'; 53' container can be loaded on the A and B unit , if the C unit has a 40' or 45' container loaded on it.

8—Container and Trailer capability, Bottom : 2-20' or 1-40' container or 1-28' trailer ; Top : 1-40', 45', or 48' container ; 53' container can be loaded in the A and B units if the C unit has a 40' container.

9—Container capability, Bottom : 2-20', 1-40', 45', 48', or 53' container ; Top : 1-40', 45', 48', or 53' container. Trailer : 2-28', 1-40', 1-45', 1-48', 1-53', or 1-57'.

**THIRD NUMERIC—If Second Numeric is 5 or 6:**

0—Car classifiable in ETC, see element Single Length Loading Configuration (B288) for loading configuration

1—2-20' or 1-40' container(s) in end wells and 1-40' container only in intermediate wells with 1-40', 45' or 48' container stacked on top of all wells.

2—2-20' or 1-40' container(s) in all wells and 1-40', 45', or 48' container stacked on top of all wells.

3—1-40' or 45' container in all wells and 1-40', 45', 48', or 53' container stacked on top of all wells.

4—1-40', 45' or 48' container in all wells and 1-40', 45', 48', or 53' container stacked on top of all wells.

5—2-20' or 1-40' container(s) in end wells and 1-40' or 45' container in intermediate wells with 1-40', 45', or 48' container stacked on top of all wells and 53' containers stacked only on top of intermediate wells.

6—2-20' or 1-40' container(s) in end wells and 1-40', 45', or 48' container in intermediate wells with 1-40', 45' or 48' container stacked on top of all wells and 53' containers stacked only on top of intermediate wells.

7—2-20', 2-24', 1-40', 1-45', or 1-48' container(s) in all wells with 1-40', 1-45', 1-48', or 1-53' container stacked on top of all wells.

8—2-20', 24', 1-40', 1-45', or 1-48' container(s) in the end wells and 1-40', 1-45', or 1-48' container in the intermediate wells with 1-40', 1-45', 1-48', or 1-53' stacked on top of all wells.

9—Container only, Bottom: 2-20' or 1-40' ; Top :1-40', 45', or 48' ; a 53' container can be loaded on the A, B and D units if the C and E unit as a 40' container.

**THIRD NUMERIC—If Second Numeric is 7 or 8:**

0—Car classifiable in ETC, see element Single Length Loading Configuration (B288) for loading configuration

1—2-20' or 1-40' container(s) in end wells and 40' containers only in intermediate wells with 40' or 48' containers stacked on top of all wells.

2—2-20' or 1-40' container(s) in end wells and 40' containers only in intermediate wells with 40', 45', or 48' containers stacked on top of all wells.

3—2-20' or 1-40' container(s) in end wells and 40' containers only in intermediate wells with 40' containers stacked on end wells and 40' or 45' containers stacked on intermediate wells.

4—2-20' or 1-40' container(s) in all wells with 40' or 48' containers stacked on top of all wells.

5—2-20' or 1-40' container(s) in all wells with 40', 45', or 48' containers stacked on top of all wells.

6—1-40' container only in end wells and 2-20' or 1-40' container(s) in intermediate wells with 40' or 48' containers stacked on top of all wells.

7—1-40' container only in end wells and 2-20' or 1-40' container(s) in intermediate wells with 40', 45', or 48' containers stacked on top of all wells.

8—1-40' container in all wells with 1-40' or 1-45' container stacked on top of all wells.

9—2-20' or 1-40' container(s) in all wells with 1-40' or 1-45' container stacked on top of all wells.

**Tank Cars ETC T \_ \_ \_**

## FIRST AND SECOND NUMERIC:

Major Class Description (See [Appendix N:](#))

## THIRD NUMERIC:

0—Capacity not applicable

1—7,000 gal. and less capacity

2—8,000 through 9,000 gallons capacity

3—10,000 through 11,000 gallons capacity

4—12,000 through 18,000 gallons capacity

5—19,000 through 21,000 gallons capacity

6—22,000 through 24,000 gallons capacity

7—25,000 through 27,000 gallons capacity

8—28,000 through 31,000 gallons capacity

9—32,000 gallons capacity and over

For the purpose of determining capacity for coding, the following is used:

6,500 to 7,499 gallons—show as 7,000 gallons capacity

7,500 to 8,499 gallons—show as 8,000 gallons capacity

8,500 to 9,499 gallons—show as 9,000 gallons capacity, etc.

T—Tank Car. Tank car means any car which is used only for the transportation of liquids, liquefied gases, compressed gases, or solids that are liquefied prior to unloading. Car may be without underframe if container serving as superstructure is designed to serve as underframe. If car has underframe, it must be designed only for the carriage of one or more enclosed containers (with or without compartments) that form the superstructure and are integral parts of the car. All such containers must be securely attached to the underframe when offered for transportation but may have demountable features. Before any car can be considered a tank car hereunder, the design of all such containers thereon must have been approved 1) by the AAR Committee on Tank Cars as having met all applicable AAR specifications and requirements and 2) by said Committee or, in appropriate cases, the Department of Transportation, as having met all applicable specifications and requirements of Subpart I of the Regulations for Transportation of Explosives and Other Dangerous Articles.

NOTE: For a listing of all tank car specification, refer to the AAR Manual of Standards and Recommended Practices, Section C, Specification M-1002, Specification for Tank Cars and/or Field Manual of AAR Interchange Rules.

**Containers ETC U \_ \_ \_**

## FIRST NUMERIC:

0—Bulk Hopper

1—Not Used

2—General Service (Non-equipped Dry Vans)

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- 3—Flat Racks
- 4—Open Tops
- 5—Mechanical Refrigerator
- 6—Tank
- 7—Insulated
- 8—Not Used
- 9—Special Equipped Straight Floor Closed

### SECOND NUMERIC:

- 0—40 ft. and less than 42 ft., outside length
- 1—Less than 20 ft., outside length
- 2—20 ft. and less than 27 ft., outside length
- 3—27 ft. and less than 35 ft., outside length
- 4—35 ft. and less than 40 ft., outside length
- 5—45 ft. and less than 48 ft., outside length
- 6—42 ft. and less than 45 ft., outside length
- 7—48 ft. and less than 53 ft., outside length
- 8—53 ft. and less than 57 ft., outside length
- 9—57 ft. and over, outside length

### THIRD NUMERIC:

- 0—Container not otherwise classified, contact owner
- 1—O.S. Width 8' and under, Outside Height 8'6" and under
- 2—O.S. Width 8' and under, Outside Height over 8'6" and to 9' inclusive
- 3—O.S. Width 8' and under, Outside Height over 9' and to 9'6" inclusive
- 4—O.S. Width 8' and under, Outside Height over 9'6"
- 5—O.S. Width over 8', Outside Height 8'6" and under
- 6—O.S. Width over 8', Outside Height over 8'6" and to 9' inclusive
- 7—O.S. Width over 8', Outside Height over 9' and to 9'6" inclusive
- 8—O.S. Width over 8', Outside Height over 9'6"
- 9—Not Used

## Vehicular Flat Cars ETC V \_ \_ \_

### (FA ONLY)

#### FIRST NUMERIC:

- 0—Uni-level rack, single unit, fully enclosed with doors and roof
- 1—Tri-level rack, multiple unit, fully enclosed with doors and roof
- 2—Tri-level rack, articulated, fully enclosed with doors and roof
- 3—Tri-level rack, single unit, non-fully enclosed (includes non-side-shielded, roof but no doors, doors but no roof)
- 4—Tri-level rack, single unit, fully enclosed with doors and roof
- 5—Not used
- 6—Bi-level rack, multiple unit, fully enclosed with doors and roof
- 7—Bi-level rack, articulated, fully enclosed with doors and roof
- 8—Bi-level rack, single unit, non-fully enclosed (includes non-side-shielded, side-shielded, roof but no doors, doors but no roof)
- 9—Bi-level rack, single unit, fully enclosed with doors and roof

NOTE: Articulated = Articulated Connector at Intermediate Connection.

Multiple Unit = Solid Drawbar at Intermediate Connection.

#### SECOND NUMERIC:

- 0—Low level, extreme height less than 18'10"
- 1—Low level, extreme height 18'10" and less than 19'01"
- 2—Low level, extreme length 19'01" and less than 20'02"
- 3—Mid level, extreme height less than 18'10"
- 4—Mid level, extreme height 18'10" and less than 19'01"
- 5—Mid level, extreme height 19'01" and less than 20'02"
- 6—High level, extreme height less than 18'10"
- 7—High level, extreme height 18'10" and less than 19'01"
- 8—High level, extreme height 19'01" and less than 20'02"
- 9—Any level, extreme height 20'02" and greater

NOTE: Platform heights ATR are defined: Low level = less than 34"; Mid level = 34" and less than 40"; High level is 40" and greater.

#### THIRD NUMERIC:

- 0—No doors
- 1—Full height, Radial
- 2—Full height, RAVE, Trinity
- 3—Full height, RAVE, Portec
- 4—Full height, Tri-Arc
- 5—Full height, Tri-Fold
- 6—Full height, Pick
- 7—Full height, All other (including Bi-Fold, Three Piece, Wire Mesh, etc.)
- 8—Full height, Seal Safe Radial
- 9—Partial height, all (including Bi-Fold, Radial, Tri-Fold, Wire Mesh, etc.)
- FA—Flat car specifically equipped with a superstructure or the superstructure is an integral component of the car used for transporting set-up vehicles.

## Trailers ETC Z \_ \_ \_

### FIRST NUMERIC

- 0—Bulk Hopper or Tank
  - 1—Chassis (Refer to Second and Third Numeric under Chassis)
  - 2—General Service (Non-equipped Dry Vans)
  - 3—Flat Beds (includes removable sides, platforms and expandables)
  - 4—Open Tops
  - 5—Mechanical Refrigerators
  - \*\* 6—Rail Compatible Unit
  - 7—Insulated
  - 8—Drop Frames (includes Wedge Frames)
  - 9—Special Equipped Straight Floor Closed
- Note: Z0\_\_ must have Fitting Code "CN" for Tank.

### SECOND NUMERIC: (Not For Z1\_\_ or Z6\_\_)

- 0—40 ft. and less than 42 ft., outside length
- 1—Less than 20 ft., outside length
- 2—20 ft. and less than 27 ft., outside length
- 3—27 ft. and less than 35 ft., outside length
- 4—35 ft. and less than 40 ft., outside length
- 5—45 ft. and less than 48 ft., outside length
- 6—42 ft. and less than 45 ft., outside length
- 7—48 ft. and less than 53 ft., outside length
- 8—53 ft. and less than 57 ft., outside length
- 9—57 ft. and over, outside length

### \*\* SECOND NUMERIC (Z6\_\_ Only)

- 0—Not Used
- 1—Less than 48' Mark IV Type Van
- 2—48' and less than 53' Mark IV Type Van
- 3—53' and over Mark IV Type Van
- 4—Less than 48' Mark V Type Van
- 5—48' and less than 53' Mark V Type Van
- 6—53' and greater Mark V Type Van
- \* 7—Chassis less than 48', outside length
- \* 8—Chassis 48' and less than 53', outside length
- \* 9—Chassis 53' and over, outside length

NOTE: Use Chassis third numeric.

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THIRD NUMERIC: (Not for Z1\_\_ and Z6\_\_)

- 0–Trailer not otherwise classified, contact owner
- 1–O.S. Extreme Width 8' and under–Outside Height 12'6" and under
- 2–O.S. Extreme Width 8' and under–Outside Height over 12'6" and under 13'
- 3–O.S. Extreme Width 8' and under–Outside Height 13' and under 13'6"
- 4–O.S. Extreme Width 8' and under–Outside Height 13'6" and over
- 5–O.S. Extreme Width over 8'–Outside Height 13' and under–96" Wide Tandem
- 6–O.S. Extreme Width over 8'–Outside Height over 13'–96" Wide Tandem
- 7–O.S. Extreme Width over 8'–Outside Height 13' and under–over 96" Wide Tandem
- 8–O.S. Extreme Width over 8'–Outside Height over 13'–over 96" Wide Tandem

SECOND NUMERIC (Z1\_\_):

- 0–45 ft. to 53 ft. Extendible, outside length
- 1–40 ft. to 45 ft. Extendible, outside length
- 2–20 ft. Straight and 20/24 ft. Combo, outside length
- 3–48 ft. and over Straight, outside length
- 4–40 ft. to 53 ft. Extendible, outside length
- 5–45 ft. and less than 48 ft. Straight, outside length
- 6–40 ft. and less than 45 ft. Straight, outside length
- 7–40 ft. to 48 ft. Gooseneck, outside length
- 8–40 ft. Combo (20/40), outside length
- 9–40 ft. Tri-Purpose, outside length

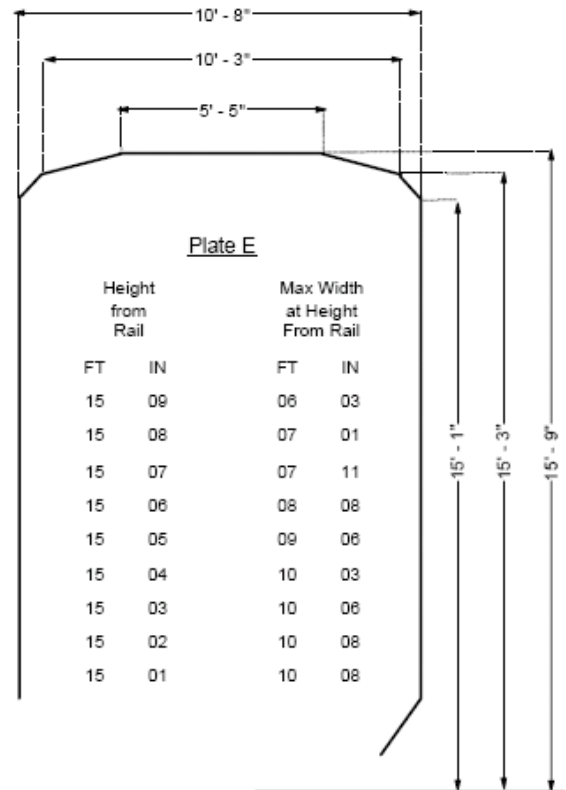
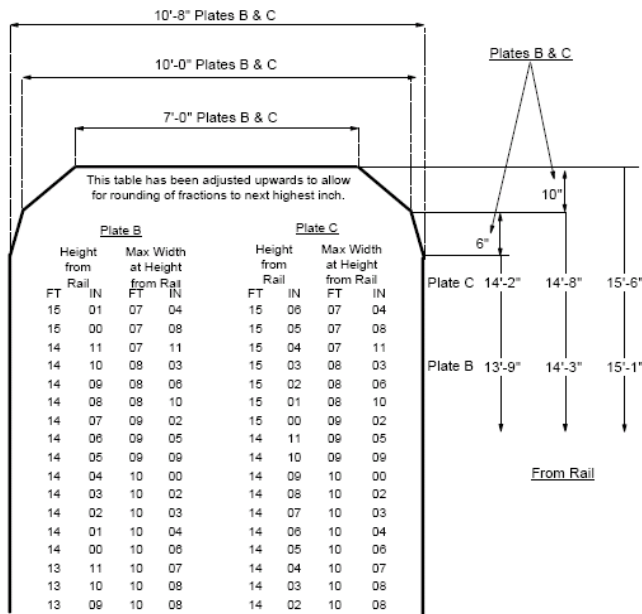
THIRD NUMERIC (Z1\_\_ and Z6\_\_ Only):

- 0–Chassis not otherwise classified, contact owner
- 1–O.S. Height 4'6" and under at locking plane, Tandem Width 96" or less
- 2–O.S. Height 4'6" and under at locking plane, Tandem Width over 96" to 102" inclusive
- 3–O.S. Height 4'6" and under at locking plane, Tandem Width over 102"
- 4–O.S. Height over 4'6" at locking plane, Tandem Width 96" or under
- 5–O.S. Height over 4'6" at locking plane, Tandem Width over 96" to 102" inclusive
- 6–O.S. Height over 4'6" locking plane, Tandem Width over 102"
- 7 through 9–Not Used

## Appendix J: Plate Codes (CLEARANCES)

Widths at one inch increments in height.

Top portion of equipment diagrams plates B and C.



### Widths at one inch increments in height. Top portion of equipment diagrams plates E and F FOR Umler EDITING CHECKS ONLY

FOR Umler EDITING CHECKS ONLY

HOW TO USE the plate graphics:

The plate graphic's purpose is to determine if the outside height and width data furnished in your Umler record is within the Plate Clearance code reported. (e.g., clearance-B, Height From Rail to Extreme Width-1500, Extreme Width-0704; you would then find the height reported (1500) under Plate B in the above table.

Directly to the right of 1500 is the maximum width at that height, in this case 0708. Therefore, the Extreme Width reported of 0704 is within Plate B.)

In the event that the data reported for the Extreme Width in the above example was 0711, Extreme Width would be flagged in the error listing as follows: 0711.

Relational errors (See Exhibit I1, Section IX), as in the above example, indicate one of the following could be wrong:

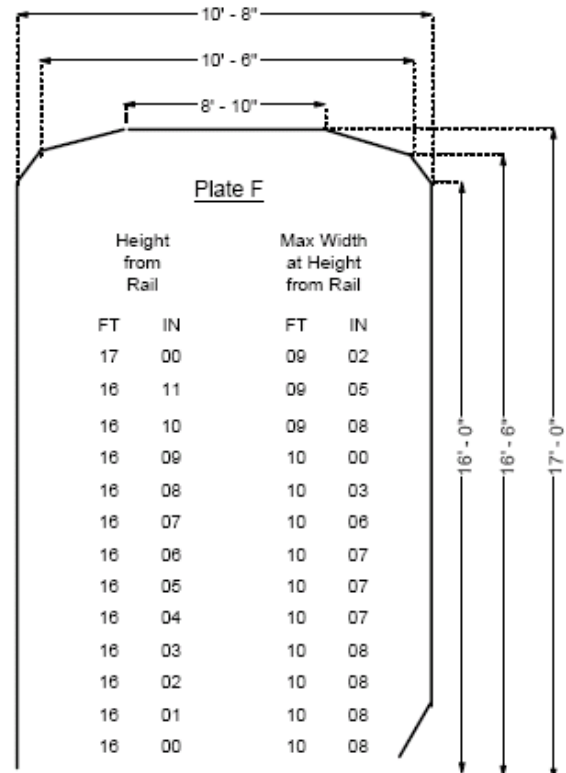
- 0711 Extreme Width is not correct. It was actually 0708 or less.
- 1500 height above rail to extreme width is not correct. It was actually 1411 or less.
- Clearance code B is incorrect, and the 2 dimensions are correct. The car is actually a Code C.

It will be the responsibility of the reporting party to resolve such errors with their mechanical department and submit the correct data.

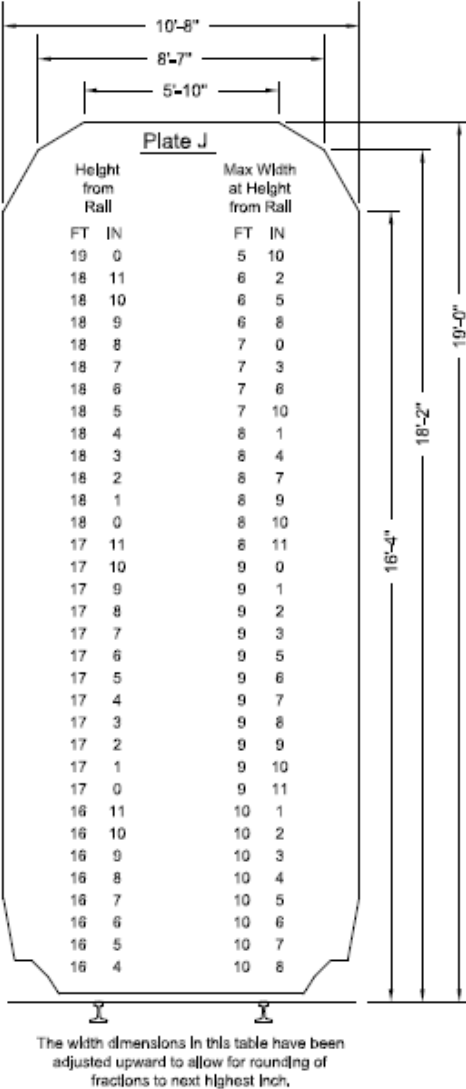
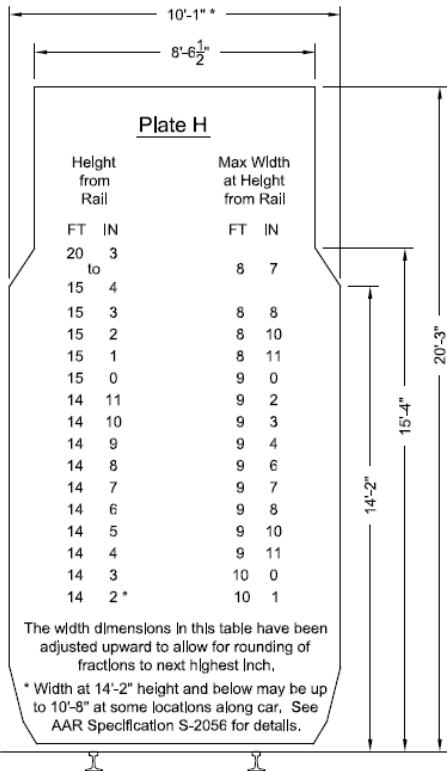
Dimensions in excess of Plate E or F, Report Clearance Code G

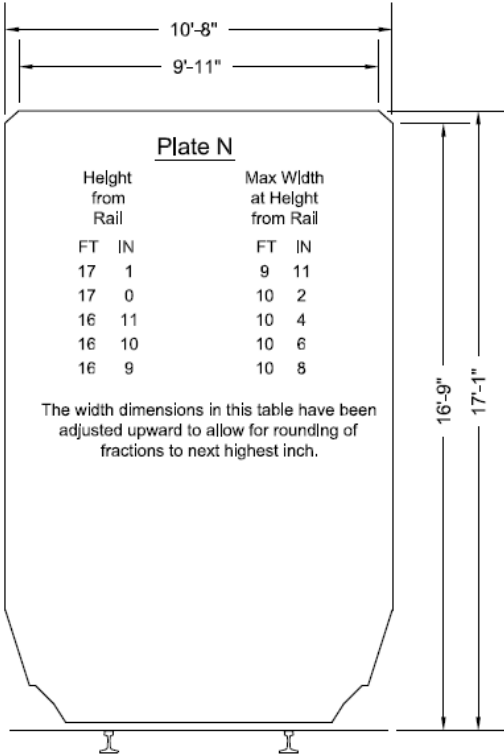
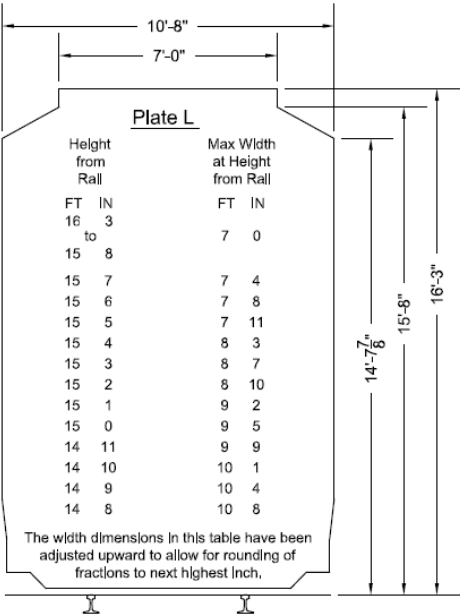
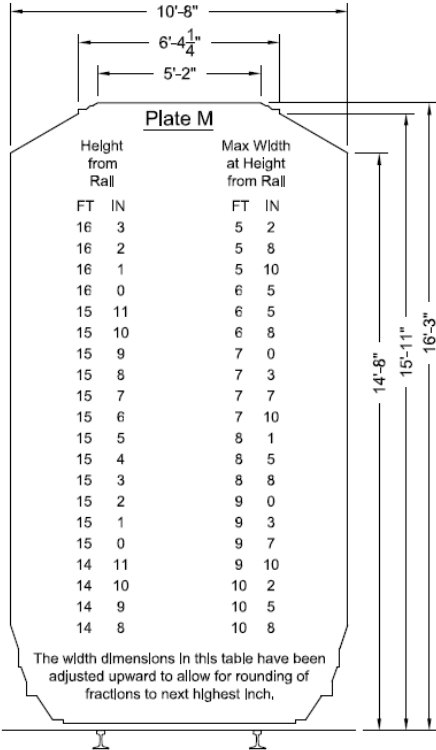
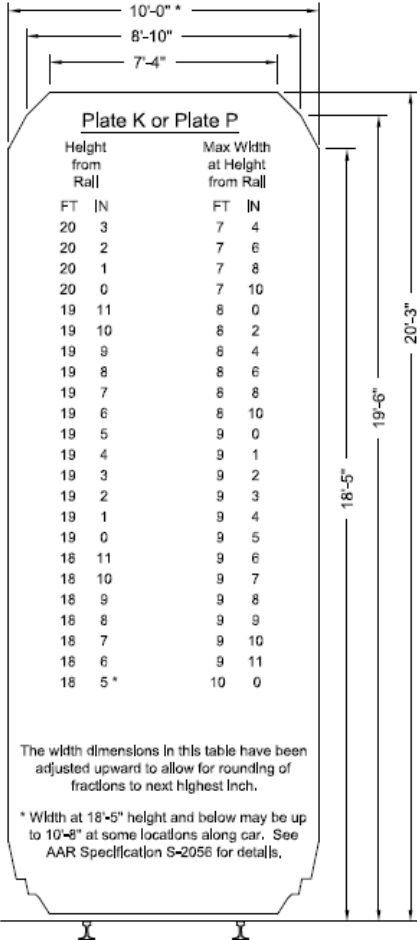
Related Plate Code Data Elements;

- o A046 - Plate Code
- o A187 - Outside Height Extreme Width
- o A186 - Outside Extreme Width
- o A185 - Outside Extreme Height













## Appendix K: Components

In the Umler System, most data elements like Built Date only occur one time in the equipment record. There are some data elements that occur multiple times.

Component Groups in the Umler System identify data elements that repeat in an equipment record. For example, there are two couplers on most equipment records. Coupler information is recorded for each Draft System Component in the equipment record. Draft Systems are identified by a location ID. Location IDs follow the CRB convention for locations on equipment. Locations are identified starting from the Brake-End of Equipment or the Front using either letters or numbers.

Numeric Location Ids: 1,2,3,4,5,....

CRB conventions starting from the Brake End: B, C, D, E, F, ..., A (Brake-End to the A-End)

Locomotive convention starting from the Front: F, A, B, C, D, ..., R (Front to Rear)

### Component Groups

**Draft Gear System** – contains information related to Draft Gear and Couplers

Elements: Alignment Control Equipped, Coupler Code, Coupler Style

Location IDs: [B,A]

**Truck System** – Truck Systems are a component containing sub-components Axle Spacing and Trucks. Truck Systems locations are lettered starting with B (Brake End) and ending with A. Equipment with 4 Truck Systems would have locations [B,C,D,...,A]. (Except for locomotives which have locations starting with F (Front End) and ending with R (Rear End). Locomotives with 4 truck systems would have locations [F,A,B,...,R].

Axle Spacing – Axle Spacing Distance information for axles on the equipment. Axle Spacing Locations are numbered (1,2,3...) starting from the brake end.

Elements: Axle Spacing Distance

Location IDs: [1,2,3,4,...]

Truck – information related to equipment trucks.

Elements: Journal Size, Locomotive Truck Type, Stability Device Equipped, Truck Axle Count, Wheel Diameter

Location IDs: [B,C,D,...,A] ([F,A,B,...,R] for Locos)

**Hitch** – Intermodal Trailer connections locations. These locations are identified numerically from the B-End to the A-End of the equipment.

Elements: Intermodal Flat King Pin Opening Orientation, Intermodal Flat King Pin Setting Inches, Trailer Hitch System Capacity

Location IDs: [1,2,3,4,...]

**Intermediate Connection** – locations where trailers can be loaded across two intermodal flatcars are identified numerically from the B-End to the A-End.

Elements: Bridging Allowable Load Length, Intermediate Truck Car Builder Load Limit

Location IDs: [1,2,3,4,...]

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**Unit Segment** – connected units (articulated or drawbar) have information regarding each platform. In addition to the data on the platforms, there is also information regarding the Loading capabilities of the platforms/units. Each Unit Segment is identified by location beginning at the B-End and ending at the A-End. 3-unit cars [B,C,A]. 5-Unit cars [B,C,D,E,A]. In addition to elements associated to each unit segment, there are also two sub-components; 1) Inter-Container Securement, and 2) Loading Capabilities.

Elements: Air Receptacle Equipped, Car Load Limit, COFC/TOFC/All Purpose/Environment Containers, Electrical Receptacle Equipped, Fuel Receptacle Equipped, Intermodal Flat Loading Method Circus, Intermodal Flat Loading Method LOLO, Intermodal Flat Loading Method Side, Loading Plane Height (Containers) Above Rail, Loading Plane Height (Trailer) Above Rail, Lock/Cone Profile, Lower Position Clearance, Lower Position Clearance Outline, Number of Handbrakes, Number of Hitches per unit, Permanent / Temp Receptacle, Side Wall Height, Side Wall Height from Cone, TOFC Width, Between Exterior Rub Rails, TOFC Width Between Interior Rub Rails, Unit Builders Load Limit, Unit Container Loading Capacity, Unit Cubic Feet Capacity, Unit Equipment Group, Unit Inside Length, Unit Load Limit, Unit Load Limit (COFC), Unit Load Limit (TOFC), Unit Load Limit Star Code, Unit Tare Weight, Unit Trailer Loading Capacity, Upper Position Clearance

Location IDs: [B,C,D,...,A]

**Inter Container** – locations that describe specific securement capabilities of containers

Elements: Inter-Container Securement

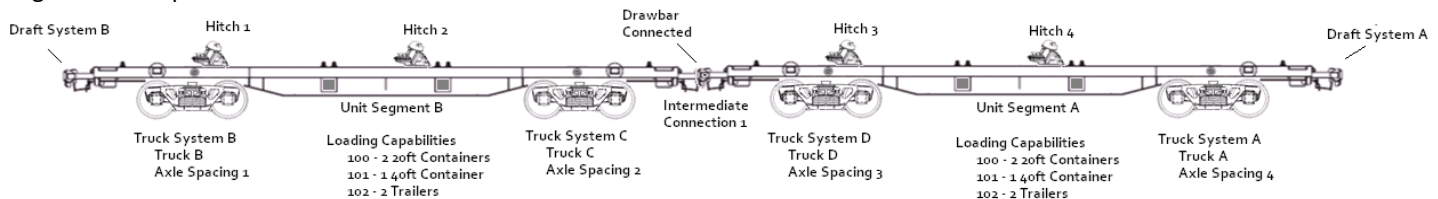
Location IDs: [1,2,3,4,...]

**Loading Capabilities** – each unit segment can be described as having many loading capabilities. Each loading capability is identified in a location. Multiple capabilities can be defined for a unit such as container combinations and trailer combinations.

Elements: LC Allowable Locations for HAZMAT, LC Allowable Lower Load Widths, LC Container Load Limit Restrictions, LC Flat Rack Capable, LC Intermodal Equipment Type, LC Load Height Combinations, LC Load Length Combinations, LC Location, LC Notes

Location IDs (Capability IDs): [100,101,102,103,...]

Diagram of Components on a 2-Unit Drawbar Connected Intermodal Flat.



## Appendix L: Umler Data Transfer Procedures

Requests for the transfer of a unit data from a specific reporting mark and/or number to a new mark or number will be processed under the following guidelines.

1. Request for transfers must be received by 5:00 p. m. Eastern Time on the 25th day of the month to be processed prior to the first day of the subsequent month in order to be included in the CHARM file.
2. Letters from both parties authorizing the transfer or copy of the bill of sale or copy of an executed Form 88-C must be filed.
3. All requests must be submitted via email to: [csc@railinc.com](mailto:csc@railinc.com) advising: (a) Owner's Mark, (b) Lessee's Mark (if applicable), (c) Rate Indicator, (d) A.E.I. Transponder Code, (e) Name of Contact, Company, address, telephone, and email to be invoiced, (d) "Subject: From Mark: \_\_\_\_ To Mark: \_\_\_\_".
4. The list of cars should be in the following s an attachment to the email. The file must be in Excel (.xls) or Text (.txt). For example, the Excel format will be four columns A-D with data elements - prior initial, number and new initial, number.
5. Requests for transfers will be time stamped and if not approved by the second party within ten (10) working days, the request will be considered null and void.
6. Each request for transfer will be assessed \$150.00 for the transfer of 1-25 units and \$1.50 per car for each additional car. These charges may be subject to change on thirty (30) days notice.
7. The deletion of cars is the responsibility of the owner/agent that authorized the transfer. Caution should be exercised to ensure that the cars being transferred have been stenciled to their new reporting marks.

**Note:** The email address for transfers is [csc@railinc.com](mailto:csc@railinc.com).

## Appendix M: Umler Exception Control File

### M.1 Exception Registration Process

Procedures for registering equipment with weights and/or dimensions outside the normal Umler edits in the Umler Exception Control File.

1. Owner must email [csc@railinc.com](mailto:csc@railinc.com) a request listing the car initials and numbers and the specific dimensions for applicable fields outside the Umler edit parameters. Exception records must be submitted to Railinc at least 5 working days prior to reporting of the of Umler records.
2. Unit does not have to be on the Umler file prior to being reported to the Umler Exception Control File and as many exception fields as necessary may be reported per car.
3. Owners may request a list of their equipment in the Umler Exception Control File.

### M.2 Railinc Exception Processing

Railinc will process the record as follows:

1. Railinc will key the data and construct an Umler Exception Control Record.
2. Data on an Umler transaction that does not match the data in the Umler Exception Control File will have the normal edits applied and Umler record will be flagged in error.
3. An Umler transaction for equipment that is outside the edit parameters that matches the Umler Exception Control File will be accepted as a valid record.
4. If a unit with an exception record is deleted from the Umler file, Railinc will automatically delete the Umler Exception Control record.

**Note:** In addition to weight and dimension information, other data elements may be eligible for reporting to the Exception Control File.

# Appendix N: Major Tank Class & Validation Matrices for DOT117, HM-246

Major Classes of Tank Cars AAR and DOT or ICC Container Specifications

|                                                                                                                        |
|------------------------------------------------------------------------------------------------------------------------|
| <b>01 Major Class (AAR) - ALUMINUM, NON-PRESSURE CARS</b>                                                              |
| <b>01 Major Class (ICC or DOT) - ALUMINUM, NON-PRESSURE CARS</b>                                                       |
| 111A100ALW1, 111A100ALW2, 111A60ALW1, 111A60ALW2, 111S100ALW1, 111S100ALW2, 111S60ALW1, 111S60ALW2                     |
| <b>02 Major Class (ICC or DOT) - HIGH PURITY ALUMINUM, NON-PRESSURE CARS</b>                                           |
| <b>04 Major Class (ICC or DOT) - NICKEL CARS</b>                                                                       |
| <b>05 Major Class (AAR) - ACID CARS, WELDED OR RIVETED</b>                                                             |
| <b>05 Major Class (ICC or DOT) - ACID CARS, WELDED OR RIVETED</b>                                                      |
| 111A100W2, 111A100W5, 111A60W2                                                                                         |
| <b>06 Major Class (AAR) - STAINLESS STEEL CARS (STAINLESS GRADE 304 or 430)</b>                                        |
| 211A100W6                                                                                                              |
| <b>06 Major Class (ICC or DOT) - STAINLESS STEEL CARS (STAINLESS GRADE 304 or 430)</b>                                 |
| 111A100W6, 111A60W6, 111A60W7                                                                                          |
| <b>07 Major Class (ICC or DOT) - STAINLESS STEEL CARS (STAINLESS GRADE 304L)</b>                                       |
| 111A100W6, 111A60W6, 111A60W7, 120J200W                                                                                |
| <b>08 Major Class (ICC or DOT) - STAINLESS STEEL CARS (STAINLESS GRADE 316)</b>                                        |
| 111A100W6                                                                                                              |
| <b>09 Major Class (ICC or DOT) - STAINLESS STEEL CARS (STAINLESS GRADE 316L)</b>                                       |
| 111A100W6, 111A60W7, 111S100W6                                                                                         |
| <b>10 Major Class (AAR) - GENERAL SERVICE CARS—CARBON STEEL TANK (WELDED OR RIVETED)(Includes Rubber Lined)</b>        |
| 203, 203W, 211A100W1, 211A60W1, 211J100W1                                                                              |
| <b>10 Major Class (ICC or DOT) - GENERAL SERVICE CARS—CARBON STEEL TANK (WELDED OR RIVETED)(Includes Rubber Lined)</b> |
| 111A100W1, 111A100W3, 111A100W4, 111A60W1                                                                              |
| <b>11 Major Class (AAR) - NON-PRESSURE TANK WITHIN A TANK (CARBON STEEL INNER TANK)</b>                                |
| 206W                                                                                                                   |
| <b>11 Major Class (ICC or DOT) - NON-PRESSURE TANK WITHIN A TANK (CARBON STEEL INNER TANK)</b>                         |
| 115A60W1                                                                                                               |
| <b>13 Major Class (AAR) - NON-PRESSURE TANK WITHIN A TANK (GRADE 304 or 430 STAINLESS STEEL INNER TANK)</b>            |
| 206W                                                                                                                   |
| <b>13 Major Class (ICC or DOT) - NON-PRESSURE TANK WITHIN A TANK (GRADE 304 or 430 STAINLESS STEEL INNER TANK)</b>     |
| 115A60W6                                                                                                               |
| <b>14 Major Class (AAR) - NON-PRESSURE TANK WITHIN A TANK (GRADE 304L STAINLESS STEEL INNER TANK)</b>                  |
| 206W                                                                                                                   |
| <b>14 Major Class (ICC or DOT) - NON-PRESSURE TANK WITHIN A TANK (GRADE 304L STAINLESS STEEL INNER TANK)</b>           |
| 115A60W6                                                                                                               |
| <b>15 Major Class (AAR) - NON-PRESSURE TANK WITHIN A TANK (GRADE 316 STAINLESS STEEL INNER TANK)</b>                   |
| 206W                                                                                                                   |
| <b>15 Major Class (ICC or DOT) - NON-PRESSURE TANK WITHIN A TANK (GRADE 316 STAINLESS STEEL INNER TANK)</b>            |
| 115A60W6                                                                                                               |
| <b>16 Major Class (AAR) - NON-PRESSURE TANK WITHIN A TANK (GRADE 316L STAINLESS STEEL INNER TANK)</b>                  |
| 206W                                                                                                                   |
| <b>16 Major Class (ICC or DOT) - NON-PRESSURE TANK WITHIN A TANK (GRADE 316L STAINLESS STEEL INNER TANK)</b>           |
| 115A60W6                                                                                                               |
| <b>17 Major Class (DOT) – NON-PRESSURE TANK HM-251</b>                                                                 |
| 117J100W, 117P100W, 117R100W                                                                                           |
| <b>18 Major Class (AAR) - STAINLESS CLAD STEEL CARS</b>                                                                |
| 203W                                                                                                                   |
| <b>18 Major Class (ICC or DOT) - STAINLESS CLAD STEEL CARS</b>                                                         |
| 105A300W, 105A500W, 111A100W1, 111A100W2, 111A100W3                                                                    |
| <b>19 Major Class (ICC or DOT) - NICKEL CLAD STEEL CARS</b>                                                            |
| 111A100W2                                                                                                              |
| <b>20 Major Class (DOT) -</b>                                                                                          |
| 111S100W1, 111S100W2, 111S100W3, 111S100W5                                                                             |
| <b>21 Major Class (DOT) -</b>                                                                                          |
| 111J100W2, 111J100W3, 111J100W4                                                                                        |

|                                                                             |
|-----------------------------------------------------------------------------|
| <b>37 Major Class (DOT) - STEEL PRESSURE NON-INSULATED CARS</b>             |
| 112J200W, 112S200W, 112T200W                                                |
| <b>38 Major Class (DOT) - STEEL PRESSURE NON-INSULATED CARS</b>             |
| 112J340W                                                                    |
| <b>39 Major Class (DOT) - STEEL PRESSURE NON-INSULATED CARS</b>             |
| 112S340W                                                                    |
| <b>40 Major Class (DOT) - STEEL PRESSURE NON-INSULATED CARS</b>             |
| 112T340W                                                                    |
| <b>41 Major Class (DOT) - STEEL PRESSURE NON-INSULATED CARS</b>             |
| 112J400W                                                                    |
| <b>42 Major Class (DOT) - STEEL PRESSURE NON-INSULATED CARS</b>             |
| 112S400W                                                                    |
| <b>43 Major Class (DOT) - STEEL PRESSURE NON-INSULATED CARS</b>             |
| 112T400W                                                                    |
| <b>44 Major Class (DOT) - STEEL PRESSURE NON-INSULATED CARS</b>             |
| 114J340W                                                                    |
| <b>45 Major Class (DOT) - STEEL PRESSURE NON-INSULATED CARS</b>             |
| 114S340W                                                                    |
| <b>46 Major Class (DOT) - STEEL PRESSURE NON-INSULATED CARS</b>             |
| 114T340W                                                                    |
| <b>47 Major Class (DOT) - STEEL PRESSURE NON-INSULATED CARS</b>             |
| 114J400W                                                                    |
| <b>48 Major Class (DOT) - STEEL PRESSURE NON-INSULATED CARS</b>             |
| 114S400W                                                                    |
| <b>49 Major Class (DOT) - STEEL PRESSURE NON-INSULATED CARS</b>             |
| 114T400W                                                                    |
| <b>50 Major Class (ICC or DOT) - ALUMINUM, PRESSURE CARS</b>                |
| 105A100ALW, 105A200ALW, 109A200ALW                                          |
| <b>51 Major Class (ICC or DOT) - ALUMINUM, HIGH PRESSURE CARS</b>           |
| 109A300ALW                                                                  |
| <b>52 Major Class (ICC or DOT) - STEEL PRESSURE INSULATED CARS</b>          |
| 105A100W                                                                    |
| <b>53 Major Class (ICC or DOT) - STEEL PRESSURE INSULATED CARS</b>          |
| 105A200W, 120J200W                                                          |
| <b>54 Major Class (ICC or DOT) - STEEL PRESSURE INSULATED CARS</b>          |
| 105A300W, 109A300W, 120A300W                                                |
| <b>55 Major Class (ICC or DOT) - STEEL PRESSURE INSULATED CARS</b>          |
| 105A400W, 120A400W                                                          |
| <b>56 Major Class (ICC or DOT) - STEEL PRESSURE INSULATED CARS</b>          |
| 105A500W, 120A500W                                                          |
| <b>57 Major Class (ICC or DOT) - STEEL PRESSURE INSULATED CARS</b>          |
| 105A600W                                                                    |
| <b>58 Major Class (ICC or DOT) - STEEL PRESSURE CARS (MULTI-UNIT TANKS)</b> |
| <b>59 Major Class (ICC or DOT) - STEEL PRESSURE NON-INSULATED CARS</b>      |
| 112A200W                                                                    |
| <b>60 Major Class (DOT) - STEEL PRESSURE NON-INSULATED CARS</b>             |
| 112S340W                                                                    |
| <b>60 Major Class (ICC or DOT) - STEEL PRESSURE NON-INSULATED CARS</b>      |
| 112A340W                                                                    |
| <b>61 Major Class (ICC or DOT) - STEEL PRESSURE NON-INSULATED CARS</b>      |
| 112A400W, 112S400W                                                          |
| <b>62 Major Class (DOT) - STEEL PRESSURE NON-INSULATED</b>                  |
| 112S500W                                                                    |
| <b>64 Major Class (ICC or DOT) - STEEL PRESSURE NON-INSULATED CARS</b>      |
| 114A340W                                                                    |
| <b>65 Major Class (ICC or DOT) - STEEL PRESSURE NON-INSULATED CARS</b>      |
| 114A400W                                                                    |
| <b>67 Major Class (ICC or DOT) - PRESSURE-TANK WITHIN A TANK</b>            |
| 113A60W, 113C120W, 113C120W9, 113D120W, 115A60ALW                           |
| <b>76 Major Class (AAR) - CRYOGENIC-TANK WITHIN A TANK</b>                  |
| 113C140W, 113C60W, 113D60W, 204W                                            |
| <b>76 Major Class (DOT) - CRYOGENIC-TANK WITHIN A TANK</b>                  |
| 113A90W                                                                     |
| <b>77 Major Class (ICC or DOT) - HELIUM CARS</b>                            |
| 107A                                                                        |
| <b>80 Major Class (DOT) - STAINLESS CLAD STEEL CARS</b>                     |
| 105J300W                                                                    |
| <b>81 Major Class (DOT) - STAINLESS CLAD STEEL CARS</b>                     |
| 105S300W, 105S400W                                                          |
| <b>84 Major Class (DOT) – PRESSURE TANK FOR TIH (HM-246)</b>                |
| 105J500I, 105H500W, 112J500I, 112S500I, 112H500W                            |

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|                                                              |
|--------------------------------------------------------------|
| <b>85 Major Class (DOT) – PRESSURE TANK FOR TIH (HM-246)</b> |
| 105J600I, 105H600W                                           |
| <b>86 Major Class (DOT) - STEEL PRESSURE INSULATED CARS</b>  |
| 105J100W                                                     |
| <b>87 Major Class (DOT) - STEEL PRESSURE INSULATED CARS</b>  |
| 105S100W                                                     |
| <b>88 Major Class (DOT) - STEEL PRESSURE INSULATED CARS</b>  |
| 105J200W                                                     |
| <b>89 Major Class (DOT) - STEEL PRESSURE INSULATED CARS</b>  |
| 105S200W                                                     |
| <b>90 Major Class (DOT) - STEEL PRESSURE INSULATED CARS</b>  |
| 105J300W                                                     |

|                                                             |
|-------------------------------------------------------------|
| <b>91 Major Class (DOT) - STEEL PRESSURE INSULATED CARS</b> |
| 105S300W, 105S400W                                          |
| <b>92 Major Class (DOT) - STEEL PRESSURE INSULATED CARS</b> |
| 105J400W                                                    |
| <b>94 Major Class (DOT) - STEEL PRESSURE INSULATED CARS</b> |
| 105J500W                                                    |
| <b>95 Major Class (DOT) - STEEL PRESSURE INSULATED CARS</b> |
| 105S500W                                                    |
| <b>96 Major Class (DOT) - STEEL PRESSURE INSULATED CARS</b> |
| 105J600W                                                    |
| <b>97 Major Class (DOT) - STEEL PRESSURE INSULATED CARS</b> |
| 105S600W                                                    |

Minimum requirements for DOT117J100W, DOT117R100W, and DOT117P100W per 49 CFR §179.202

| A237  | Stenciled Shipping Spec                    | DOT117J***    | DOT117R***3           | DOT117P***                   |
|-------|--------------------------------------------|---------------|-----------------------|------------------------------|
| B207  | Tank Major Class                           | 17            | 17                    | 17                           |
| B204  | Jacket Material Category                   | N             | N                     | Approval by FRA <sup>2</sup> |
| B541  | Jacket Thickness >=                        | 0.1196        | 0.1196                | Approval by FRA <sup>2</sup> |
| A257  | Tank Shell Material Spec =                 | 128B          | As Built <sup>1</sup> | Approval by FRA <sup>2</sup> |
| A258  | Tank Shell Thickness >=                    | 0.5625        | 0.4375                | Approval by FRA <sup>2</sup> |
| B208  | Tank Shell Material Norm                   | Y             | As Built <sup>1</sup> | Approval by FRA <sup>2</sup> |
| A254  | Tank Head Material Spec =                  | 128B          | As Built <sup>1</sup> | Approval by FRA <sup>2</sup> |
| A255  | Tank Head Thickness >=                     | 0.5625        | 0.4375                | Approval by FRA <sup>2</sup> |
| B203  | Tank Head Material Norm                    | Y             | As Built <sup>1</sup> | Approval by FRA <sup>2</sup> |
| A118  | Head Protection Type                       | F             | F                     | Approval by FRA <sup>2</sup> |
| B105  | Head Protection Thickness >=               | 0.5           | 0.5                   | Approval by FRA <sup>2</sup> |
| B555  | Thermal Protection System                  | E             | E                     | E                            |
| B259  | Insulation/Thermal Protection Thickness >= | 0.5           | 0.5                   | Approval by FRA <sup>2</sup> |
| B543* | Bottom Outlet Valve Actuation              | A, B, C, or D | A, B, C, or D         | A, B, C, or D                |
| A264  | Top Fittings Protection                    | E             | E or F                | E                            |
| A230  | Safety Relief Device Type                  | C or V        | C or V                | C or V                       |

1. Permissible value shall be “as built” based on the approved AAR Certificate of Construction
2. Approved by FRA - Selection of DOT117P requires approval from the FRA per 49 CFR 179.202-12(a)
3. The original built date for a DOT117R must occur before 10/1/2015

Minimum requirements for DOT105J500I, DOT105J600I, DOT112J500I, DOT112S600I, DOT112S500I, DOT105H500W, DOT105H600W, DOT112H500W, and DOT112H600W per 49 CFR §179.101 with additional requirements found in 179.102-3, 173.244, and 173.314.

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|      |                              |                                                     |                                                     |                                                     |                                                     |                                                     |                                                     |
|------|------------------------------|-----------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|
| A237 | Stenciled Shipping Spec      | DOT105J500I, DOT105H500W                            | DOT105J600I, DOT105H600W                            | DOT112J500I                                         | DOT112S600I, DOT112H600W                            | DOT112S500I                                         | DOT112H500W                                         |
| B207 | Tank Major Class             | 84                                                  | 85                                                  | 84                                                  | 85                                                  | 84                                                  | 84                                                  |
| B204 | Jacket Material Category     | Must not be U                                       | Must not be U                                       | Must not be U                                       | N or S or U                                         | N or S or U                                         | N or S or U                                         |
| B541 | Jacket Thickness >=          | 0.1196                                              | 0.1196                                              | 0.1196                                              | 0.1196 (if N or S) or Blank (if U)                  | 0.1196 (if N or S) or Blank (if U)                  | 0.1196 (if N or S) or Blank (if U)                  |
| A257 | Tank Shell Material Spec =   | 128B or 302B or 51670 or 5371 or 240304L or 240316L | 128B or 302B or 51670 or 5371 or 240304L or 240316L | 128B or 302B or 51670 or 5371 or 240304L or 240316L | 128B or 302B or 51670 or 5371 or 240304L or 240316L | 128B or 302B or 51670 or 5371 or 240304L or 240316L | 128B or 302B or 51670 or 5371 or 240304L or 240316L |
| A258 | Tank Shell Thickness >=      | 0.6875 or 0.5625 (if 128B)                          | 0.6875 or 0.5625 (if 128B)                          | 0.6875 or 0.5625 (if 128B)                          | 0.6875 or 0.5625 (if 128B)                          | 0.6875 or 0.5625 (if 128B)                          | 0.6875 or 0.5625 (if 128B)                          |
| B208 | Tank Shell Material Norm     | Y                                                   | Y                                                   | Y                                                   | Y                                                   | Y                                                   | Y                                                   |
| A254 | Tank Head Material Spec =    | 128B or 302B or 51670 or 5371 or 240304L or 240316L | 128B or 302B or 51670 or 5371 or 240304L or 240316L | 128B or 302B or 51670 or 5371 or 240304L or 240316L | 128B or 302B or 51670 or 5371 or 240304L or 240316L | 128B or 302B or 51670 or 5371 or 240304L or 240316L | 128B or 302B or 51670 or 5371 or 240304L or 240316L |
| A255 | Tank Head Thickness >=       | 0.6875 or 0.5625 (if 128B)                          | 0.6875 or 0.5625 (if 128B)                          | 0.6875 or 0.5625 (if 128B)                          | 0.6875 or 0.5625 (if 128B)                          | 0.6875 or 0.5625 (if 128B)                          | 0.6875 or 0.5625 (if 128B)                          |
| B203 | Tank Head Material Norm      | Y                                                   | Y                                                   | Y                                                   | Y                                                   | Y                                                   | Y                                                   |
| A118 | Head Protection Type         | F                                                   | F                                                   | F                                                   | F                                                   | F                                                   | F                                                   |
| B105 | Head Protection Thickness >= | 0.5                                                 | 0.5                                                 | 0.5                                                 | 0.5                                                 | 0.5                                                 | 0.5                                                 |
| A264 | Top Fittings Protection      | R or S                                              | R or S                                              | R or S                                              | R or S                                              | R or S                                              | R or S                                              |
| A230 | Safety Relief Device Type    | C or V                                              | C or V                                              | C or V                                              | C or V                                              | C or V                                              | C or V                                              |

Appendix O: Reporting Rail Car and Superstructure Cost

O.1 Overview of Application of Cost Information

- 1. The railcar and superstructure cost data reported to Umler is used in several industry applications. The Damaged & Defective Car Tracking (DDCT) system provides damaging carriers with preliminary car values based on the cost data in the Umler file.
- 2. Private tank car and covered hopper car rates in Freight Tariff RIC 6007 are calculated using the age and cost elements for this equipment.
- 3. Appurtenance rates (Appendix S, AAR Circular OT-10) for superstructures mounted on flat cars are calculated using the age and cost elements.

It is critical that the original cost, rebuilt cost and additions/betterments costs are correctly reported.

O.2 General guidelines apply to all car and superstructure costs registered in the Umler file

- 1. The costs must be capitalized (not expensed) costs. AAR auditors will verify that the costs are capitalized costs.
- 2. All cost data should be in U. S. dollars. The conversion of foreign currency to U. S. dollars is not required for cars built prior to 1978. Additions/betterments applied in 1978 and subsequent must be converted to U.S. dollars.
- 3. The reporting mark of the car (railroad or private) at time a car is built or addition/betterment is applied will determine whether the rules under Section III or IV applies.

O.3 Railroad Marked Cars

The original cost may include the following:

- |                                          |                                                                                                                                                                                                                                  |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Capitalized cost in U. S. Dollars     | Supported by the manufacturer’s invoice to the original buyer or in the case of a manufacturer-lessor, the fair market value or the value, which was certified, or would have been certified for investment tax credit purposes. |
| Plus initial into Service Transportation | If capitalized                                                                                                                                                                                                                   |
| Plus additions done prior to service     | If capitalized                                                                                                                                                                                                                   |
| Plus inspection costs                    | If capitalized                                                                                                                                                                                                                   |

- 2. Additions are capitalized costs of new components applied after the car was built/rebuilt.

Betterments are capitalized costs of improvements to components of existing equipment that extend the life of the car or increase the utility of the car. Betterments shall include the following.

- a. Capitalized cost in U. S. Dollars
- b. Minus current replacement costs of the previous component. If that component is registered as an addition in Umler, that addition should be deleted from Umler during the process of reporting the new costs for Umler.
- c. Minus labor costs to remove the previous component
- d. Minus labor to apply the new component

Examples of Betterment Cost Calculation:

|                                                                                                  |                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Example 1 - Convert tie-downs on vehicular rack cars from chains and ratchets to a chock system. |                                                                                                                                                                          |
| \$7,500                                                                                          | Invoice from shop applying chocks to a bi-level rack                                                                                                                     |
| -\$1,600                                                                                         | Estimated value of the old tie-downs at current replacement price and labor costs related to the removal of the previous components and application of the new component |
| \$5,900                                                                                          | Net betterment amount                                                                                                                                                    |



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Example 2 - Replace an epoxy lining in a covered hopper car with a rubber lining.

|          |                                                    |
|----------|----------------------------------------------------|
| \$14,000 | Invoice from shop applying the new lining          |
| -\$4,000 | Estimated current replacement cost of prior lining |
| -\$300   | Labor costs to remove the previous lining          |
| -\$500   | Labor costs to apply the new lining                |
| \$9,200  | Net betterment amount                              |

If the prior lining was part of the original cost of the car, report the net betterment of \$9,200 in Umler. If the prior lining was registered as an addition in Umler (i.e., \$3,500), that addition should be deleted from Umler and a net of \$12,700 should be reported in Umler. The combination would result in a \$9,200 net change to Umler.

Example 3 - Shortening of a car to increase the car's utility.

|          |                                                                |
|----------|----------------------------------------------------------------|
| \$20,000 | Invoice from shop shortening the car                           |
| -\$3,500 | Estimated value of material removed at current AAR scrap value |
| -\$2,000 | Labor costs to shorten car                                     |
| \$14,500 | Net Betterment Amount                                          |

Example 4 - Lengthening of a car to increase the car's utility.

|          |                                                                                 |
|----------|---------------------------------------------------------------------------------|
| \$25,000 | Invoice from shop lengthening the car                                           |
| -\$2,000 | Estimated value of any material removed from the car at the current scrap value |
| -\$4,000 | Labor costs to lengthen car                                                     |
| \$19,000 | Net Betterment Amount                                                           |

## O.4 Private Marked Cars (Covered by Tariff 6007)

The original cost may include the following.

1. Capitalized cost in U. S. Dollars
 

|                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> <li>a. Plus initial into service transportation</li> <li>b. Plus additions done prior to service</li> <li>c. Plus capitalized inspection costs</li> </ol> | <p>Supported by the manufacturer's invoice to the original buyer or in the case of a manufacturer-lessor, the fair market value or the value, which was certified, or would have been certified for investment tax credit purposes. (See RIC 6007, Items 195 and 621)</p> <p>Either capitalized or non-capitalized</p> <p>Allowed only for tank cars built in 1988 and later</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
2. Additions are capitalized costs of new components applied after the car was built/rebuilt.
3. Betterments are capitalized costs of improvements to components of existing equipment that extend the life of the car or increase the utility of the car. Betterments must include the following.
  - a. Capitalized cost in U. S. Dollars
  - b. Minus original costs of previous component. If that component is registered as an addition in Umler, that addition should be deleted from Umler during the process of reporting the new costs for Umler.
  - c. Minus labor costs to remove the previous component

Example 1 - Replace an epoxy lining in a tank car with a rubber lining.

|          |                                           |
|----------|-------------------------------------------|
| \$14,000 | Invoice from shop applying the new lining |
| -\$3,500 | Estimated value of the original lining)   |
| -\$300   | Labor costs to remove the previous lining |
| \$10,200 | Net Betterment Amount                     |

Note: The cost of the new lining must be capitalized and not expensed.

If the prior lining was part of the original cost of the car, just report the net betterment of \$10,200 in Umler. If the prior

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lining was registered as an addition in Umler (\$3,500), that addition should be deleted from Umler and a net of \$13,700 be reported in Umler. The combination would result in a \$10,200 net change to Umler.

Example 2 - Shortening of a car to increase the car's utility.

|          |                                                                |
|----------|----------------------------------------------------------------|
| \$20,000 | Invoice from shop shortening the car                           |
| -\$3,500 | Estimated value of material removed at current AAR scrap value |
| \$16,500 | Net Betterment Amount                                          |

Example 3 - Lengthening of a car to increase the car's utility.

|          |                                                                                 |
|----------|---------------------------------------------------------------------------------|
| \$25,000 | Invoice from shop lengthening the car                                           |
| -\$2,000 | Estimated value of any material removed from the car at the current scrap value |
| \$23,000 | Net Betterment Amount                                                           |

## O.5 Rebuilt Cars (Railroad Marked or Private Marked Cars) and Superstructures

1. The rebuilt cost should be reported in the Original Cost and Ledger Value fields in Umler.
2. Prior additions and betterments are eliminated.
3. The maximum valuation of a rebuilt private car shall not exceed the lesser of:
  - a. 75% of the original cost of a comparable new car
  - b. 75% of the calculated replacement cost of the rebuilt car prior to rebuilding, as computed per AAR Interchange Rule 107.
4. AAR Interchange Rule 88 governs the rebuilding of freight cars and superstructures. The value registered in Umler may include the following.

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a. Capitalized rebuilding costs | Original costs and additions and betterments must be written down to the depreciated value subject to a 10% floor as outlined in AAR Interchange Rule 107.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| b. Plus Reused Parts            | Depreciation must be calculated from the month-year built to the month-year rebuilt. Additions and betterments must be depreciated from the month-year the car or superstructures is built - not month-year installed on the car or superstructure.                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| c. Minus stripping labor costs  | Any labor to remove components from a unit, either temporarily, or permanently, should be computed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| d. Minus material credits       | Any scrap credits or major components not reused and not reflected in the net invoice price of a rebuilt car/superstructure should be computed. If such components are reused, then the secondhand price, before refurbishment should be used. If the components are scrapped, a scrap value must be calculated. This may be done by calculating the original cost of these components and depreciating them down, using the same calculations in 4.b above. If the original costs of the components are not known, one can take the current cost, and adjust it back to an approximation of the original cost, using Rule 107 cost factors, before depreciating it. See Example No. 1. |

## O.6 When refrigeration units are rebuilt or replaced, the value registered in Umler may include the following

1. Rebuilt refrigeration units
  - a. Capitalized rebuilding costs
  - b. Plus reused parts
  - c. Minus material credits
- d. The prior refrigeration unit costs registered in Umler should be deleted from Umler.

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For example:

|                                    |         |
|------------------------------------|---------|
| Capitalized rebuilding costs       | \$7,500 |
| Plus reused parts                  | + 500   |
| Minus material credits             | - 300   |
| Net capitalized rebuilding costs   | \$6,700 |
| Prior unit cost deleted from Umler | -4,000  |

The cost of the prior refrigeration unit would be deleted from Umler (\$4,000), and the new rebuilt net of \$6,700 would be reported in Umler, resulting in a net change of \$2,700.

## 2. Replaced refrigeration units

- a. Capitalized cost in U. S. Dollars
- b. Minus current replacement costs of the previous unit
- c. Minus labor costs to remove the previous unit
- d. Minus labor to apply the new unit

For example:

|                                                      |          |
|------------------------------------------------------|----------|
| Capitalized replacement costs                        | \$10,000 |
| Minus current replacement costs of the previous unit | - 5,000  |
| Minus labor costs to remove the previous unit        | - 700    |
| Minus labor to apply the new unit                    | - 600    |
| Net capitalized replacement costs                    | \$3,700  |

The cost of the prior refrigeration unit would be deleted from Umler (\$4,000), and the new net of \$7,700 would be reported in Umler, resulting in a net change of \$3,700.

## REBUILT SUPERSTRUCTURES (5% PER YEAR)

## REPRODUCTION FACTOR

|   | INIT | CAR # | BLT MON | BLT YR | RB MON | RB YR | ORIG COST | PRIOR A&B'S | LEDGER VALUE | REUSED PARTS** | REUSED PERCENT ** | RBLT MATERIAL | RBLT MAT. ADD. | RBLT LABOR | INVOICED | LESS STRIPPING | LESS MATERIAL CRED. | NEW COSTS NET | TOTAL COSTS | REPROD FACT YR BLT | REPROD FACT YR RB |
|---|------|-------|---------|--------|--------|-------|-----------|-------------|--------------|----------------|-------------------|---------------|----------------|------------|----------|----------------|---------------------|---------------|-------------|--------------------|-------------------|
| 1 | ABC  | 123   | 1       | 1984   | 4      | 2008  | 40,000    | 5,000       | 45,000       | 4,500          | -21.25%           | 12,000        | INC            | 16,250     | 28,250   | 416            | 100                 | 27,734        | 32,234      | 88                 | 183               |
| 1 | ABC  | 124   | 11      | 1992   | 4      | 2008  | 40,000    | 5,000       | 45,000       | 10,313         | 22.92%            | 12,000        | INC            | 16,250     | 28,250   | 416            | 229                 | 27,605        | 37,917      | 100                | 183               |
| 2 | ABC  | 123   | 1       | 1984   | 4      | 2008  | 45,000    | 0           | 45,000       | 4,500          | -21.25%           | 12,000        | INC            | 16,250     | 28,250   | 416            | 144                 | 27,690        | 32,190      | 88                 | 183               |
| 2 | ABC  | 124   | 11      | 1992   | 4      | 2008  | 45,000    | 0           | 45,000       | 10,313         | 22.92%            | 12,000        | INC            | 16,250     | 28,250   | 416            |                     | 27,834        | 38,147      | 100                | 183               |

Note 1: RULE 88 DEPRECIATION IS COMPUTED, FROM MONTH AND YEAR BUILT, TO MONTH AND YEAR REBUILT

Note 2: IF SUPERSTRUCTURE WAS RULE 88 REBUILT BEFORE, USE THE PRIOR REBUILT MONTH AND YEAR IN PLACE OF MONTH AND YEAR BUILT

Note 3: \*\* IF DEPRECIATION PERCENTAGE DROPS BELOW 10%, USE THE 10% FLOOR

Change computed to calculated and delete comma.

## KNOWN

CASE ONE \*\* COMPONENTS NOT REUSED IN REBUILD ORIGINAL COST 1000 PRIOR COSTS KNOW, USE REUSED PARTS PERCENTAGE (OR FLOOR OF 10%)  
CURRENT COST 3000 TO CALCULATE MATERIAL CREDIT OR ORIGINAL COMPENT, NOW DEPRECIATED

## COMPONENT

CASE TWC \*\* COMPONENTS NOT REUSED IN REBUILD ORIGINAL COST ? PRIOR COSTS UNKNOWN, USE TODAY'S COST, TO APPROXIMATE THE ORIGINAL COSTS  
CURRENT COST 3000 USING RULE 107 REPRODUCTION FACTORS TO ADJUST TODAY'S \$3,000

1984 88  
1992 100  
2008 183

## Appendix P: Identical Tare Weight Batch Process

Appendix P is the Umler Committee's (UC) summary of the automated method and detail for flagging cars in Umler with identical Tare Weights as well as ways for stencil mark owners to resolve the conflicts. The following is a summary of UC's solution and is split into three main parts:

- 1) A new Business Rule was added that flags cars in conflict when Status Code (USCT) is "A", Status Change Date (USCT) is 30 days in the past, and cars have Weighing Status of "A" or "E".**
- 2) Modification to data element Weighing Status (A289) as follows:**
  - In addition to the 2 already existing permissible values of "A – Actual" and "E – Estimated", an addition of two new permissible values were introduced:
    - **X** = Tare Weight subject to verification (NEW VALUE-SYSTEM GENERATED)
    - **V** = Verified correct tare weight (NEW VALUE)
- 3) A batch process has been created in Umler to run on the 15<sup>th</sup> of each month to place into conflict cars that meet all of the following characteristics:**
  - 10 or more numerically sequential stencil marks with identical Tare Weights
  - Status is Active (Keep in mind, if added as Active, Owner is forgoing their 30-day window outside of the batch process)
  - Built/Rebuilt Date is on or after April 9, 2015. For all cars built within the last several years, weight paperwork should be readily available from the builder.
  - No cars in the series of 10 have a Weighing Status of "V-Verified correct tare weight"
  - Status Change Date (USCT) is 30 days in the past (i.e., a car meeting the conditions in the other bullets points will not go into conflict until at least 30 days after Status Change Date)
  - Cars put into conflict will have Weighing Status (A289) of "X" (Tare Weight subject to verification) applied to car.

### Examples

The following example shows 20 consecutive Boxcars with identical Tare Weights. An initial run of the batch process would put all of them into conflict, as it should:

| Equipment ID | Tare Weight | Result of Batch Process |
|--------------|-------------|-------------------------|
| RAIL 5001    | 89300       | Conflict                |
| RAIL 5002    | 89300       | Conflict                |
| RAIL 5003    | 89300       | Conflict                |
| RAIL 5004    | 89300       | Conflict                |
| RAIL 5005    | 89300       | Conflict                |
| RAIL 5006    | 89300       | Conflict                |
| RAIL 5007    | 89300       | Conflict                |
| RAIL 5008    | 89300       | Conflict                |
| RAIL 5009    | 89300       | Conflict                |
| RAIL 5010    | 89300       | Conflict                |
| RAIL 5011    | 89300       | Conflict                |
| RAIL 5012    | 89300       | Conflict                |
| RAIL 5013    | 89300       | Conflict                |
| RAIL 5014    | 89300       | Conflict                |
| RAIL 5015    | 89300       | Conflict                |
| RAIL 5016    | 89300       | Conflict                |
| RAIL 5017    | 89300       | Conflict                |
| RAIL 5018    | 89300       | Conflict                |
| RAIL 5019    | 89300       | Conflict                |
| RAIL 5020    | 89300       | Conflict                |

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If the owner subsequently corrects RAIL 5005 and RAIL 5016, Umler would use the change in Tare Weight as a trigger to remove the conflict from those 2 cars. With that done, the results would then look as follows:

Likewise, if the owner validates the tare weights and updates Weighing Status (A289) to “A-Actual”, the Tare Weight was verified”, Umler would use the change in Weighing Status (A289) to remove the conflicts from cars that were marked as “A-Actual”.

| Equipment ID | Tare Weight | Result of Batch Process |
|--------------|-------------|-------------------------|
| RAIL 5001    | 89300       | Conflict                |
| RAIL 5002    | 89300       | Conflict                |
| RAIL 5003    | 89300       | Conflict                |
| RAIL 5004    | 89300       | Conflict                |
| RAIL 5005    | 89295       | (conflict removed)      |
| RAIL 5006    | 89300       | Conflict                |
| RAIL 5007    | 89300       | Conflict                |
| RAIL 5008    | 89300       | Conflict                |
| RAIL 5009    | 89300       | Conflict                |
| RAIL 5010    | 89300       | Conflict                |
| RAIL 5011    | 89300       | Conflict                |
| RAIL 5012    | 89300       | Conflict                |
| RAIL 5013    | 89300       | Conflict                |
| RAIL 5014    | 89300       | Conflict                |
| RAIL 5015    | 89300       | Conflict                |
| RAIL 5016    | 89305       | (conflict removed)      |
| RAIL 5017    | 89300       | Conflict                |
| RAIL 5018    | 89300       | Conflict                |
| RAIL 5019    | 89300       | Conflict                |
| RAIL 5020    | 89300       | Conflict                |

## Changes to Weighing Status (A289) data element

Two new permissible values in the Weighing Status (A289):

**A** = Actual

**E** = Estimated

**X** = Tare Weight subject to verification (NEW VALUE-SYSTEM GENERATED)

**V**= Tare Weight Verified (NEW VALUE)

In the scenario above with 10 cars entered with identical tare weight, the batch process would flag all 10 cars in conflict and the Weighing Status (A289) field would be **SYSTEM** updated to “X” for weight verification.

### Scenario #1:

Owner verifies correct weights for all 10 cars and updates Tare Weight (A259), Load Limit (LDLT), and Weighing Status (A289) to “A-Actual”. Conflict is removed from all 10 cars.

### Scenario #2:

Owner verifies weights on original release documentation and verifies that all 10 cars have identical tare weight. Owner updates Weighing Status (A289) to “V-Correct Tare Weight Verified” and conflict is removed from car. Cars with Weighing Status of “V” are no longer subject to monthly batch process that looks for identical tare weights.

### Scenario #3:

Owner verifies weights on original release documents and finds that 3 cars out of the 10 need to be corrected. For the three cars, user would follow scenario #1 above, and for remaining 7 cars, scenario #2 above applies. If owner does not follow scenario #2 for the remaining 7 cars, they will remain in conflict.

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The important thing to remember in the scenarios above is that once a Weighing Status (A289) of “X” is applied to a car, it remains in conflict and not part of the batch process until the stencil mark owner either changes the weight and weighing status to “A”, or marks as Tare Weight Verified “V”.

This identical tare weight (or weight subject to owner verification) conflict will follow the normal conflict escalation rules already in place.

Carry Forward Rules on Restencil Transactions

**A** = Actual - **Value carries forward**

**E** = Estimated - **Value carries forward**

**X** = Tare Weight Subject to verification - **Value does not carry forward**. Existing business rules prevent a restencil transaction if a conflict exists on a car. “X” code would need to be addressed before restencil could occur.

**V** = Correct Tare Weight Verified - **Value carries forward**

Carry Forward Rules on Clone Transactions

Existing business rules will still apply in clone transactions. The two new permissible values would not carry forward in a clone transaction.

Weighing Status (A289) codes subject to batch process

**A** = Actual - **Subject to batch process**

**E** = Estimated - **Not subject to batch process**

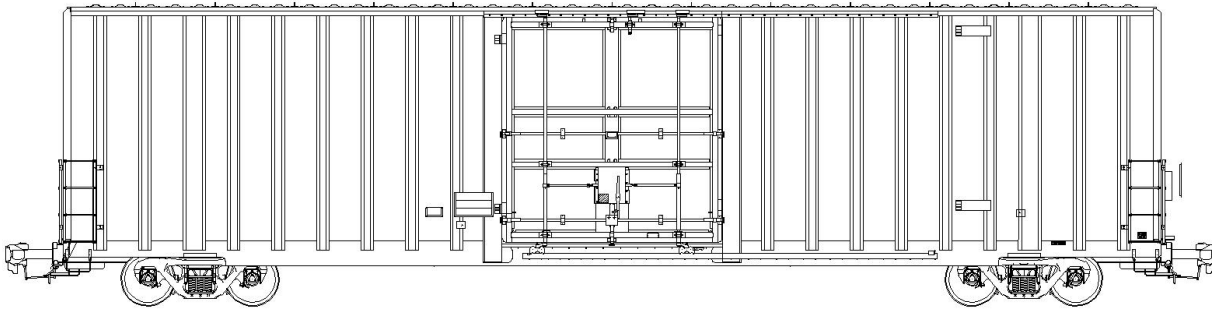
**X** = Tare Weight subject to verification – **Not subject to batch process**

**V** = Correct Tare Weight Verified - **Not subject to batch process**

## Appendix Q: Equipment Type Drawings

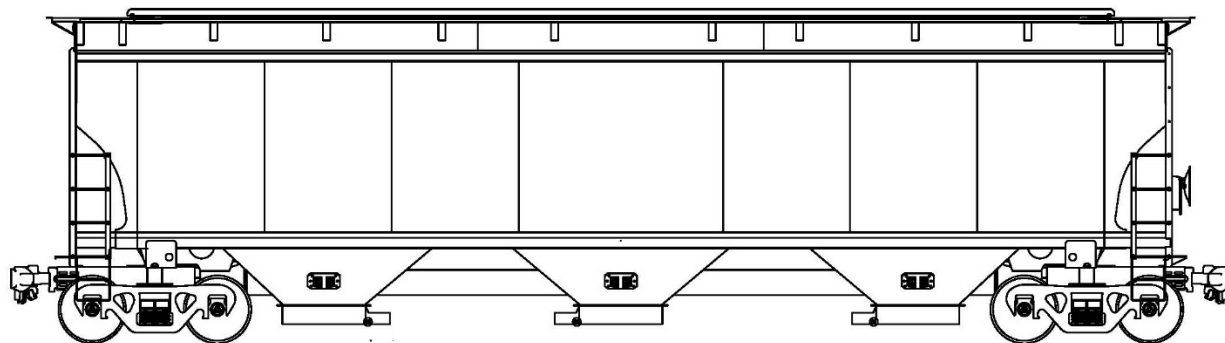
### Q.1 Box (A\_ \_ \_ , B\_ \_ \_ )

Mechanical Designations: XL, XM, and XP



### Q.2 Covered Hopper (C\_ \_ \_ )

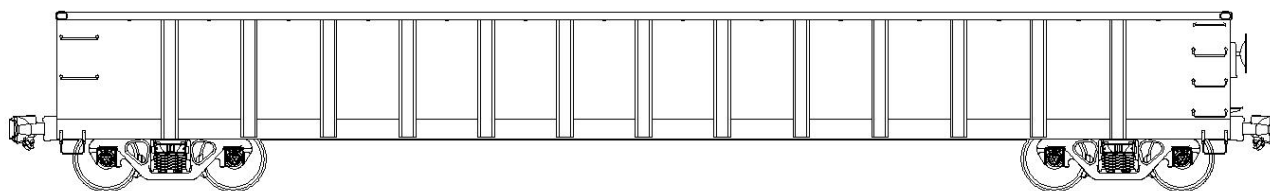
Mechanical Designation: LO



### Q.3 Gondola (E\_ \_ \_ , G\_ \_ \_ )

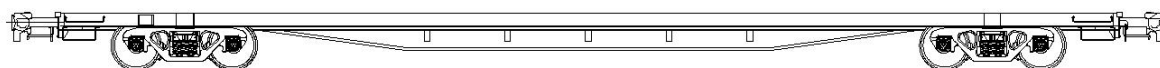
Mechanical Designations: GTS, GTR, GBR, GBS, GBSR, GSS, GWS, GWSR, GB, GS, GW





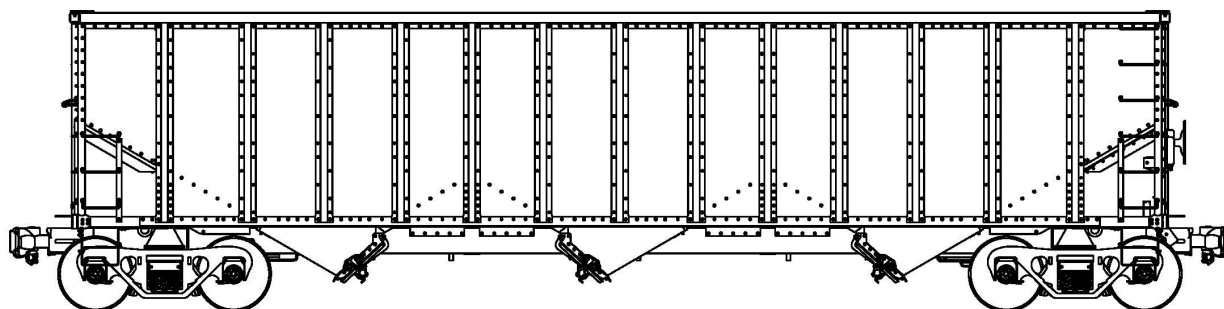
#### Q.4 Flat (F\_ \_ \_)

**Mechanical Designations: FM, FMS, FD, FB, FBS, FW, FL, FBC, FDC**

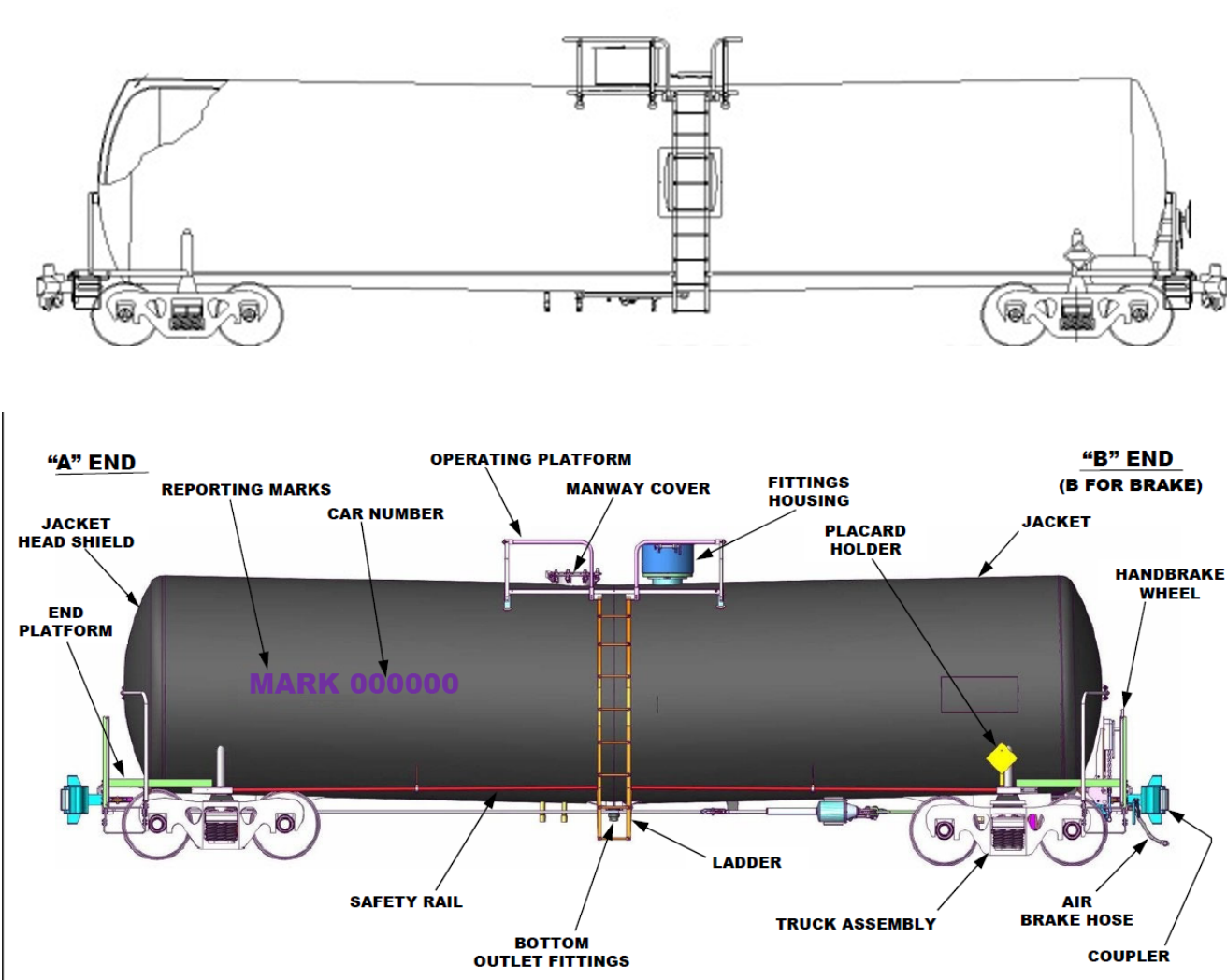


#### Q.5 Unequipped Hopper (H\_ \_ \_)

**Mechanical Designations: HK, HM, HT, HTA**



Q.6 Tank (T\_ \_ \_)  
Mechanical Designation: T



## Appendix R: Locomotive Air Brake Frequency Table

| <u>Air Brake Model<br/>(ABMD)</u> | <u>Air Dryer Equipped<br/>(AIRD)</u> | <u>Inspection<br/>Frequency</u> |
|-----------------------------------|--------------------------------------|---------------------------------|
| 3101                              | N                                    | 1840                            |
| 3101                              | Y                                    | 1840                            |
| 3102                              | N                                    | 1840                            |
| 3102                              | Y                                    | 1840                            |
| 24L                               | N                                    | 736                             |
| 24L                               | Y                                    | 736                             |
| 24M                               | N                                    | 736                             |
| 24M                               | Y                                    | 736                             |
| 24NL                              | N                                    | 736                             |
| 24NL                              | Y                                    | 736                             |
| 24RL                              | N                                    | 736                             |
| 24RL                              | Y                                    | 736                             |
| 24RL0                             | N                                    | 736                             |
| 24RL0                             | Y                                    | 736                             |
| 26C                               | N                                    | 1104                            |
| 26C                               | Y                                    | 1104                            |
| 26D                               | N                                    | 1104                            |
| 26D                               | Y                                    | 1104                            |
| 26L                               | N                                    | 1104                            |
| 26L                               | Y                                    | 1472                            |
| 26LMU                             | N                                    | 1104                            |
| 26LMU                             | Y                                    | 1104                            |
| 26LN                              | N                                    | 1104                            |
| 26LN                              | Y                                    | 1104                            |
| 26LUM                             | N                                    | 1104                            |
| 26LUM                             | Y                                    | 1104                            |
| 26N                               | N                                    | 1104                            |
| 26N                               | Y                                    | 1104                            |
| 26NL                              | N                                    | 1104                            |
| 26NL                              | Y                                    | 1104                            |
| 30CD                              | N                                    | 1104                            |
| 30CD                              | Y                                    | 1104                            |
| 30CDW                             | N                                    | 1104                            |
| 30CDW                             | Y                                    | 1472                            |
| 6L                                | N                                    | 736                             |
| 6L                                | Y                                    | 736                             |
| 6SL                               | N                                    | 736                             |
| 6SL                               | Y                                    | 736                             |
| CCB1                              | N                                    | 1840                            |
| CCB1                              | Y                                    | 1840                            |
| CCB2                              | N                                    | 1840                            |

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| <b><u>Air Brake Model<br/>(ABMD)</u></b> | <b><u>Air Dryer Equipped<br/>(AIRD)</u></b> | <b><u>Inspection<br/>Frequency</u></b> |
|------------------------------------------|---------------------------------------------|----------------------------------------|
| CCB2                                     | Y                                           | 1840                                   |
| CCB26                                    | N                                           | 1840                                   |
| CCB26                                    | Y                                           | 1840                                   |
| CCBI                                     | Y                                           | 1840                                   |
| CCBI                                     | N                                           | 1840                                   |
| CCBII                                    | Y                                           | 1840                                   |
| CCBII                                    | N                                           | 1840                                   |
| E3102                                    | N                                           | 1840                                   |
| E3102                                    | Y                                           | 1840                                   |
| EPIC2                                    | N                                           | 1840                                   |
| EPIC2                                    | Y                                           | 1840                                   |
| EPIC3                                    | N                                           | 1840                                   |
| EPIC3                                    | Y                                           | 1840                                   |
| FSB                                      | N                                           | 1840                                   |
| FSB                                      | Y                                           | 1840                                   |
| FSTBK                                    | N                                           | 1840                                   |
| FSTBK                                    | Y                                           | 1840                                   |
| KNORR                                    | N                                           | 1840                                   |
| KNORR                                    | Y                                           | 1840                                   |