

Appendix D of the Association of American Railroads (AAR) Field Manual

American Rail Car Institute (ARCI) Codes

The following are job codes and data elements required for performing repairs and the associated billing for mechanical repairs not included in standard AAR Job Codes. The purpose of these job codes is to provide more consistent information to the car owner for the purposes of estimating, billing, auditing, and analysis.



Appendix D is maintained and updated quarterly by the Railway Supply Institute (RSI) Appendix D Task Force. All questions regarding the use of or information in the Appendix D document or the included tables should be directed to info@rsiweb.org.

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The following are the job codes and data elements required for performing repairs and the associated billing for mechanical repairs not included in standard AAR Job Codes. The purpose of these job codes is to provide more consistent information to the car owner for the purposes of estimating, billing, auditing, and analysis.

COVERED HOPPERS

A. Cause for Attention

1. Contact car owner for criteria

B. Correct Repairs

1. Per manufacturer or car owner's procedure

C. Reconditioning Requirements

1. Per manufacturer or car owner's procedure

D. Welding Requirements

1. Per manufacturer or car owner's procedure

E. General Information

F. Billing Repair Data Requirements

1. Location
 - a. Use standard AAR location codes.
2. Quantity
 - a. Show quantity.
3. Condition Code
 - 1= New Material Applied
 - 2 = Secondhand Material Applied
 - 3 = Reconditioned Material Applied
 - 6 = Owner's Material Applied
 - 8 = Remove, Repair and Replace Same Part
 - 9 = Remove and Replace Same Part
4. Job Code Applied
 - a. Show applicable code
5. Qualifier
 - a. Show manufacturer from Car Part Code Table 10.b.
6. Description
 - a. Show narrative description to properly identify part (Limit description to 50 letters)
7. Why Made Code
 - 01 = Worn Out
 - 02 = Broken
 - 03 = Missing
 - 04 = Defective
 - 06 = Bent beyond repair
 - 07 = Obsolete material
 - 08 = Wrong (not standard to car)
 - 09 = Account repairs
 - 10 = Damaged in removal
 - 11 = Removed in good condition
 - 12 = Inoperative
 - 15 = Leaking
 - 18 = Loose
 - 21 = Over date
 - 25 = Owner's request
 - 26 = Decayed or metal deterioration
 - 33 = Derailment damage per Rule 95
8. Job Code Removed
 - a. Show applicable code
9. Responsibility Code
 - a. Use standard AAR responsibility codes
10. Job Codes and Standard Reporting Descriptions
 - a. Job Code and Standard reporting requirements.

Job Code Description (not for BRC)

Pneumatic Gates

7000	Outlet Gate Repairs
7002	Cap Assembly (includes cap gasket)
7004	End Adaptor (includes eye bolts, J bolts)
7006	Control Valve (also known as the TUBE)
7008	Outlet Pan
7010	Lock Assembly
7012	Outlet Gasket
7014	Outlet Gate Replacement or R&R

Gravity Fluidized Butterfly Gate

7050	Outlet Gate Repairs
7052	Membrane
	<u>Qualifiers to use with 7052</u>
	01 = Inspect membrane/no defects
	02 = Replace with new one-piece membrane
	03 = Replace with repaired membrane
	04 = Repair existing one-piece membrane
	05 = Replace with new half membrane
	06 = Replace with repaired half membrane
	07 = Repaired existing half membrane
	08 = Inspect membrane/make repairs
7054	Sanitary Shield
7056	Operating Handle
7058	Fluidizing Connection and Cap
7060	Valve Damper
7062	Membrane Gasket
7064	Outlet Gate Replacement or R&R

Micromatic

7100	Outlet Gate Repairs
7102	Locking Bail Assembly
7104	Cap and/or Chain
7106	Handle, Roto Handle Body
7108	Gaskets, Except Outlet Body
7110	Extension Tube
7112	Bearing Retainer
7114	Pivot Pins
7116	Cam Shaft Lever
7118	Retime Micromatic Gate
7120	Ream and Repair Outlet Rod Bushings
7122	Outlet Gate Replacement or R&R

Roto-Tube

7150	Outlet Gate Repairs
7152	Bail Assembly
7154	Cap or Control Tube Cover Assembly and Gasket
7156	Handle Body, Bushing, Cap Screw
7158	Gasket (all gaskets but control tube cover assembly gasket)
7160	Cam Shaft Lever or Pivot Pin
7162	Control Tube
7164	Outlet Gate Replacement or R&R

Plain Gravity Gate

7200	Outlet Gate Weld – On
7201	Outlet Gate Bolt - On
7202	Outlet Gate Capstan Extension
7203	Outlet Gate Slide

Gravity Pneumatic Gate

7250	Gravity Pneumatic gate – complete
7251	Pneumatic portion only

Sparger Gate

7300	Outlet Gate Repairs
7302	2-inch Halo Pipe
7303	4-inch Outlet Pipe
7304	2-inch Valve
7305	4-inch Valve
7306	Riser Assembly
7308	Gasket
7310	Outlet Gate Replacement or R&R

Fabco Double Groove Gate

7400	Outlet Gate Repairs
7402	Closure Cap and Gaskets
7406	Valve
7408	Handle
7410	Transition Tube
7412	Outlet Gate Replacement or R&R

Gravity Butterfly Gate

7500	Outlet Gate Repairs
7502	Outlet Handle
7504	Safety Bolts
7506	Sanitary Cover (also covers sanitary cover lock bolts, chain, and hanger)

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7508 Outlet Gate Replacement or R&R

Granulator Bag

7600 Granulator Bag, Repair or Replace (carbon black service)
7602 Inflator Piping
7604 Inflator Caps
7606 Inflator Valves
7608 Inflator Seal Rings

Pressure Differential Hopper Car Parts

7700 Aerator Pad/Membrane
7702 Rupture Disc
7704 Check Valve
7706 Pressure Gauge
7708 Gauge Box
7709 Gauge Box, Glass
7710 Butterfly Valve, 5 inch
7712 Butterfly Valve, 4 inch
7714 Butterfly Valve, 3 inch
7715 Aluminum Pipe, 5 inch
7716 Aluminum Pipe, 4 inch
7718 Aluminum Pipe, 3 inch
7719 Steel Pipe, 5 inch
7720 Steel Pipe, 4 inch
7722 Steel Pipe, 3 inch
7724 Aluminum Casting for Supply or Product Line
7726 Steel Casting for Supply or Product Line
7728 Stand/Blow-Down Pipe
7730 Gasket
7732 Cap, 5 inch
7734 Cap, 4 inch
7736 Cap, 3 inch
7738 Coupling/Hose, 5 inch
7740 Coupling/Hose, 4 inch
7742 Coupling/Hose, 3 inch
7744 Coupling/Hose, 2 inch
7745 Air Inlet Ball Valve, 2 inch
7746 R & R Partial PD System for Car Body Entry/Cleaning
7748 R & R Entire PD System, Complete Disassembly and Reassembly
7750 Leak Test PD System

General Hopper Car Parts

7800 Hatch Cover (other than vented)
7801 Hatch Cover, Vented
7802 Hand Wheels, hatch cover
7803 Hatch cover lock
7804 Gaskets, hatch cover – general service
7805 Gaskets, hatch cover – food grade
7806 Batten Bar
7808 Mono Retaining Ring
7810 Fastener Assembly
7850 Bulkhead (Partition Sheet) Repairs
7852 Pressure Relief Device
7854 Vacuum Relief Device
7858 Insulation
7860 Slope Sheet Repairs
7862 Vent Plug Repairs or Replacement
7864 End Post
7866 Scaffold Rings or Interior Ladder Rungs
7868 Side Stakes
7870 Vibrator Brackets
7872 Side Sample Valve, Pin, and/or Chain (carbon black service)
7874 Outlet Gate Mounting Frame

b. CAR PART QUALIFIER Table

Car Part Qualifier	Vendor	Description	Job Code
YAA	Amsted - ATSD	Ellcon Pneumatic Pellet Outlet Gate Bolt-on	7014
YEA	Greenbrier	13 x 42 Gravity Gate Bolt-on	7201

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Car Part Qualifier	Vendor	Description	Job Code
YEB	Greenbrier	13 x 42 Low Profile Gravity Gate Bolt-on	7201
YEC	Greenbrier	13 x 42 Gravity Pneumatic Gate Bolt-on	7250
YED	Greenbrier	24 x 48 Gravity Gate Bolt-on	7201
YEF	Greenbrier	30 x 30 Gravity Gate Bolt-on	7201
YEG	Greenbrier	30 x 30 Gravity Pneumatic Gate Bolt-on	7250
YEH	Greenbrier	Pneumatic Pellet Outlet Gate Bolt-on	7014
YEI	Greenbrier	Sparger Outlet Bolt-on	7310
YEJ	Greenbrier	Gravity Butterfly Outlet Bolt-on	7508
YEK	Greenbrier	Fluidized Butterfly Outlet Bolt-on	7064
YAE	Holden	13x42 Standard Bolt-on	7201
YAF	Holden	13x42 Standard Weld-on	7200
YAG	Holden	13x42 Low-Profile Bolt-on	7201
YAH	Holden	30x30 Standard Bolt-on	7201
YAI	Holden	30x30 Standard Weld-on	7200
YAJ	Holden	42x42 Light Commodity Bolt-on	7201
YAK	Holden	24x30 Standard Weld-on	7200
YAL	Holden	21x29 Canadian Size Weld-on	7200
YBA	Miner - MINR	13x42 Gravity Gate Bolt-on	7201
YBB	Miner - MINR	13x42 Low Profile Gr Bolt-on	7201
YBC	Miner - MINR	13x42 SaniLok Vac/Gr Bolt-on	7201
YBD	Miner - MINR	15x48 Ultra-Low Prof Bolt-on	7201
YBE	Miner - MINR	24x30 Gravity Gate Bolt-on	7201
YBF	Miner - MINR	24x30 Gravity Gate Weld-on	7200
YBG	Miner - MINR	24x48 Gravity Gate Bolt-on	7201
YBH	Miner - MINR	24x48 Gravity Gate Weld-on	7200
YBI	Miner - MINR	24x54 Ultra-Low Prof Bolt-on	7201
YBJ	Miner - MINR	27x30 SaniLok Vac/Gr Bolt-on	7250
YBK	Miner - MINR	28x36 Gravity Gate Weld-on	7200
YBL	Miner - MINR	30x30 Gravity Gate Bolt-on	7201
YBM	Miner - MINR	30x30 Gravity Gate Weld-on	7200
YBN	Miner - MINR	30x30 Low Profile Gr Bolt-on	7201
YBO	Miner - MINR	30x30 Wide Runner Gr Bolt-on	7201
YBP	Miner - MINR	42x42 Gravity Gate Bolt-on	7201
YBQ	Miner - MINR	42x52 Gravity Gate Bolt-on	7201
YBR	Miner - MINR	Plastic Pellet Gate Bolt-on	7014
YCA	Salco - SALC	26 x 40 Carbon Black Gate Bolt-on	7508
YCB	Trinity	EDSCO Pneumatic Pellet Outlet Gate Bolt-on	7014
YCD	Trinity	13x42 TC1342 Gravity Gate	7201
YCE	Trinity	30x30 TC3030 Gravity Gate	7201
YDA	Wabtec - WABT	13 x 42 A87 - Low Profile Bolt-on	7201
YDB	Wabtec - WABT	13 x 42 W20 Replacement Weld-on	7200

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Car Part Qualifier	Vendor	Description	Job Code
YDC	Wabtec - WABT	13 x 42 A74 Standard Bolt-on	7201
YDE	Wabtec - WABT	13 x 42 A161 Universal Bolt-on	7201
YDF	Wabtec - WABT	13 x 42 A113 PVC - Vac/Grav Bolt-on	7250
YDG	Wabtec - WABT	21 x 54 A113 Special Bolt-on	7201
YDH	Wabtec - WABT	24 x 30 W10 Replacement Weld-on	7200
YDI	Wabtec - WABT	24 x 30 W15 Replacement Weld-on	7200
YDJ	Wabtec - WABT	24 x 48 Standard A71 Bolt-on	7201
YDK	Wabtec - WABT	30 x 30 Low Profile A133 Bolt-on	7201
YDL	Wabtec - WABT	30 x 30 S-Serie A139 Bolt-on	7201
YDM	Wabtec - WABT	30 x 30 A83 PVC Vac/Grav Bolt-on	7250
YDN	Wabtec - WABT	30x30 AV27 Vac/Grav Stainless Bolt-on	7250
YDO	Wabtec - WABT	30 x 30 A73 Standard Bolt-on	7201
YDP	Wabtec - WABT	30 x 30 A73 Standard Weld-on	7200
YDQ	Wabtec - WABT	42 x 42 A83 Standard Bolt-on	7201
YDR	Wabtec - WABT	43 x 54 A127 Standard Bolt-on	7201

Tank Cars

A. Wear Limits, Gaging, Cause for Renewal or Attention

1. Condemnable at Any Time
 - a. Broken, missing, bent beyond repair

B. Correct Repairs

1. Replace in kind

C. Reconditioning Requirements

1. Not applicable

D. Welding Requirements

1. Not applicable

E. General Information

F. Billing Repair Data Requirements

1. Location
 - a. Use standard AAR location codes
2. Quantity
 - a. Show quantity.
3. Condition Codes
 - 0 = Labor Attention
 - 1 = New Material Applied
 - 2 = Secondhand Material Applied 3 = Reconditioned
 - 6 = Owner's Material Applied
 - 8 = Remove, Repair and Replace Same Part
 - 9 = Remove and Replace Same Part
4. Job Code Applied
 - a. Show applicable code
5. Qualifier
 - a. Show applicable code from Car Part Code or Qualifier Table
6. Description
 - a. Show applicable description from item 11. See Catalog of Vendor Codes describing manufacturer and types of appurtenances. Left justify code numbers in description
7. Why Made Code
 - 01 = Worn out
 - 02 = Broken
 - 03 = Missing
 - 04 = Defective
 - 05 = Bent
 - 06 = Bent beyond repair

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- 07 = Obsolete material
- 08 = Wrong (not standard to car)
- 09 = Account repairs
- 10 = Damaged in removal
- 11 = Removed in good condition
- 12 = Inoperative
- 15 = Leaking
- 18 = Loose
- 21 = Over date other than TQ
- 22 = Date markings omitted, obliterated, illegible, incorrect, or failure to scrape off and paint over previous markings
- 25 = Owner's request
- 26 = Decayed or metal deterioration
- 33 = Derailment damage per Rule 95
- TQ = Tank Car Qualification
- 8. Job Code Removed
 - a. Show applicable code
- 9. Qualifier Removed
 - a. Show applicable code from Car Part Code or Qualifier
 - b. Responsibility Code - Use standard AAR responsibility codes
- 10. Job Codes and Standard Descriptions

Gauging Devices

- 9000* Gauge Device Complete (includes seat gasket)
- 9002* Dismantle, Repair, Test Gauging Device (includes Teflon packing kit)
- 9004 Control Valve
- 9006* Rod, ~~Stainless Steel~~-Any Material
- 9008 Plug, 1/4 inch, with Chain, Gauge Device
- 9010 Outage Marker (general purpose car)
- 9012 Excess Flow Valve, Gauge Device
- 9015 Magnetic Ball
- 9018* Gauge Device Housing Cover
- 9020 Gauge Rod Armor (sic) (slip tube type only)

Qualifiers for Gauging Device Codes Marked '**'

- 01 Slip tube type
- 02 Magnetic type

Air Inlet Valves

- 9040* Air Inlet Valve, screw type
- 9042* Air Inlet Valve, flange type (includes gaskets)
- 9044* Plug, with Chain, Air Inlet Valve
- 9046* Nipple, Air Inlet Valve
- 9048* Cover, Blind Flange
- 9050* Cover, Blind Flange, Rubber Covered
- 9053* Cover, Blind Flange with NPT Hole
- 9055 ~~Gasket, Cover~~
- 9057* Repair Kit, Air Inlet Valve
- 9059* Ball Replacement, Air Inlet
- 9061* Stem Replacement, Air Inlet
- 9065 Valve Handle, Air Inlet
- 9067* Fitting, Air Inlet

Qualifiers for Air Inlet Valves with Codes Marked '**'

- 01 1-inch Carbon Steel
- 02 2-inch Carbon Steel
- 03 1-inch Stainless Steel
- 04 2-inch Stainless Steel
- 05 3/4-inch Stainless Steel w/insect screen

Siphon (Eduction) Pipes

- 9075* Siphon Pipe, Threaded One End
- 9077* Siphon Pipe, Threaded Both Ends
- 9079* Siphon Pipe, Flange
- 9081* Siphon Pipe, Bent
- 9082* Siphon, Pipe Steam Jacketed
- 9084* Guide, Siphon Pipe
- 9086 Guide, Rubber Spider, Siphon Pipe
- 9088 Gasket, Siphon Pipe
- 9090 Studs and Nuts, Siphon Pipe
- 9095* Short Nipple, Siphon Pipe (threaded both ends)

Qualifiers for Siphon Pipes with Codes Marked '**'

- 01 1-inch Carbon steel
- 02 1 1/4-inch Carbon steel (Chlorine Cars)
- 03 2-inch Carbon steel
- 04 3-inch Carbon steel
- 05 1-inch Stainless steel
- 06 1 1/4-inch Stainless steel (Sulphur dioxide cars)

- 07 2-inch Stainless steel
- 08 3-inch Stainless steel
- 09 1-inch Monel
- 10 2-inch Monel
- 11 3-inch Monel
- 12 2-inch Rubber Covered (2 1/2-inch steel with 1/4-inch rubber lining)
- 13 2-inch Fiberglass
- 14 2-inch PVC (polyvinyl chloride)
- 15 2-inch Rubber pipe
- 16 2-inch Carbon steel, lined

Siphon (Eduction) Pipe Valves

- 9100* Siphon Pipe Valve, Ball Type
- 9102* Plug, with Chain, Siphon Pipe Valve
- 9104* Check Valve, Siphon Pipe Valve
- 9106 Flange, Welded or Threaded type (includes gaskets)
- 9108 Cover, Blind Flange
- 9110 Cover, Blind Flange, Rubber Covered
- 9112 Cover, Blind Flange, with NPT Hole
- 9114 Handle, Siphon Pipe Valve
- 9115* Ball Replacement, Siphon Pipe Valve
- 9119* Stem Replacement, Siphon Pipe Valve
- 9120 Adaptor (flange, with nipple)
- 9121* Repair Kit, Siphon Pipe Valve
- 9123 Gasket, Siphon Pipe or Cover
- 9126* Cap, with Chain, Siphon Pipe Valve

Qualifiers for Siphon Pipe Valves with Codes Marked **

- 01 1-inch Carbon steel
- 02 2-inch Carbon steel
- 03 3-inch Carbon steel
- 04 1-inch Stainless steel
- 05 2-inch Stainless steel
- 06 3-inch Stainless steel
- 07 1-inch Monel
- 08 2-inch Monel
- 09 3-inch Monel
- 10 2-inch Rubber covered (2 1/2-inch steel)
- 11 2-inch Fiberglass

Vacuum Relief Valves

- 9135* Vacuum Relief Valve

Qualifiers for Vacuum Relief Valves with Codes Marked **

- 01 1-1/2-inch Carbon steel
- 02 2-inch Carbon steel
- 03 1-1/2-inch Stainless steel
- 04 2-inch Stainless steel
- 05 2-1/2-inch Carbon steel
- 06 2-1/2-inch Stainless steel

Valve Protective Housing

- 9150* Cover
- 9151* Handle, Cover
- 9154* Hinge
- 9155* Hinge Bracket
- 9156* Hinge Pin
- 9159* Seal Pin
- 9161* Port Hole Covers (for angle valves)
- 9164* Pressure Plate, General Purpose Car
- 9166* Base Plate
- 9168* Safety Valve Flap
- 9180 Housing Cover Helper Spring

Qualifiers for Protective Housing Codes Marked **

- 01 Pressure car
- 02 General purpose car

Excess Flow Valves

- 9186* Excess Flow Valve, welded
- 9188* Excess Flow Valve, Threaded
- 9191 Inspection for Loose Retainer
- 9195 Remove Float (includes stenciling of tank)
- 9197 Replace Float (includes removing stencil from tank)
- 9199* Replace Seat, Excess Flow Valve

Qualifiers for Excess Flow Valves Marked **

- 01 1 1/4-inch Carbon steel

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- 02 2-inch Carbon steel
- 03 3-inch Carbon steel
- 04 1 1/4-inch Stainless steel
- 05 2-inch Stainless steel
- 06 3-inch Stainless steel

Bottom Outlet Valves

- 9200 Valve Handle, Bottom Outlet
- 9201* Operating Handle and Stem Extension
- 9202* Outlet Cap, with Plug and Chain (complete assembly)
- 9205* Outlet Cap with Chain
- 9209* Outlet Cap Plug with Chain
- 9212* Outlet Nozzle Extension (includes gasket)
- 9215* Outlet Valve, Butterfly
- 9219* Outlet Valve, Plug Type
- 9222* Outlet Valve, Ball Type
- 9224* Outlet Valve, Top Operated
- 9229* Outlet Valve, Outside Mounted
- 9230* Outlet Valve, Steam Jacketed
- 9242* Repair Kit, Outlet Valve
- 9245* Ball, Stainless, Outlet Valve
- 9248* Stem, Outlet Valve
- 9260 Seal Pin, Outlet Valve
- 9264 Seal Pin Bracket
- 9266 Handle with Chain, Top Operated Valve
- 9268* Secondary Valve
- 9272 Nipple, Secondary Valve
- 9275 Quick Disconnect Fitting
- 9277 Quick Disconnect Dust Cap
- 9279 Bottom Outlet Saddle (mounting plate)
- 9290 Bottom Outlet Skid Protection
- 9292 Bottom Outlet Closure Flange (includes 1 inch Plug and Chain)
- 9294 Linkage, Bottom Outlet Valve

Qualifiers for Bottom Outlet Valves Marked **

- 01 Exterior, carbon steel, 4 inch
- 02 Exterior, carbon steel, 6 inch
- 03 Interior, carbon steel, 4 inch
- 04 Interior, stainless steel, 4 inch
- 05 Exterior, stainless steel, 6 inch
- 06 Interior, stainless steel, 6 inch
- 07 Interior, carbon steel, 6 inch
- 08 Exterior, stainless steel, 4 inch

Safety Vents

- 9400 Safety Vent, Bolt-On Type
- 9402 Safety Vent, On 2-inch Nipple
- 9404 Safety Vent, Rubber Covered
- 9406* Rupture Disc
- 9408 Air Connection, Safety Vent
- 9420 Top Cover, Safety Vent
- 9422 Eye Bolts, Safety Vent
- 9424 Seal Pin, Safety Vent

Qualifiers for Safety Vent Codes Marked **

- 01 Stainless steel, 60 psi
- 02 Stainless steel, 100 psi
- 03 Graphite
- 04 Plastic
- 05 Monel
- 06 Tantalum

Angle Valves

- 9430* Angle Valve
- 9432* Ball, Angle Valve
- 9434 Stem, Angle Valve
- 9435 Stem Packing, Angle Valve
- 9437 Wheel, Angle Valve (handle)
- 9440 Face Plate O Ring, Angle Valve
- 9442 Gasket, Angle Valve
- 9444 Reducer 3 inch to 2-inch, Angle Valve
- 9446* Plug with Chain, 2-inch Angle Valve
- 9448* Repair Kit, Ball Type, Angle Valve
- 9449* Repair Kit, Plug Type, Angle Valve
- 9451 Ball Valve Handle, Angle Valve
- 9455 Stud and Nut, Angle Valve

Qualifiers for Angle Valves Marked **

- 01 1-inch steel
- 02 2-inch steel
- 03 3-inch steel
- 04 1-inch Stainless steel
- 05 2-inch Stainless steel
- 06 3-inch Stainless steel

Safety Valves

- 9480* Safety Valve
- 9486 Safety Valve Repair Work (other than retest)
- 9488 Safety Valve Weather Cover
- 9489 Safety Valve Stud and Nut
- 9819 Safety Valve Retest
- 9494 Safety Valve Gasket

Qualifiers for Safety Valves Marked **

- 01 Four bolt, 6-1/4-inch bolt circle
- 02 Eight bolt, 10-1/2-inch bolt circle

Sample Lines

- 9555 Valve, Stainless Steel, Sample Line
- 9557 Plug 1/4-inch w/Chain, Sample Line
- 9559 Nipple, Stainless Steel,
- 9560 Sample Line Sample Line, 1/4-inch Sch 80 pipe
- 9564 Union, 1/4-inch, Sample Line
- 9566 Reducer, 3/4 × 1/4-inch, Sample Line
- 9568 Excess Flow Valve, Sample Line

Thermometer Well

- 9575* Thermometer Well Tube Assembly (3/4-inch Sch 80 pipe, welded closed at bottom)
- 9578* Fitting, Thermometer Well
- 9595 Antifreeze

Qualifiers for Thermometer Well Codes Marked **

- 01 Carbon steel
- 02 Stainless steel

Sump

- 9700* Sump

Qualifiers for Sump Codes Marked **

- 01 Skid protected
- 02 Rubber covered
- 03 Pressed
- 04 Inserted

Bottom Washout and Fittings

- 9705* Washout Plug (complete with gasket, stud, nut, and spider)
- 9707* Washout Closure Flange
- 9709 Washout Closure Flange Gasket
- 9727* Washout Test Plug and Chain
- 9729 Washout Plug Gasket

Qualifiers for Bottom Washout Codes Marked **

- 01 Steel
- 02 Stainless steel
- 03 Rubber covered
- 04 Monel

Jacket and Insulation

- 4204 Jacket Flashing (Use AAR Code 4204 with qualifier RN)
- 9750* Insulation
- 9759 High Temperature Coating, Pressure Car Manway

Qualifiers for Insulation

- 01 Fiberglass
- 02 Urethane foam
- 03 Intumescent
- 04 Wool

Heater Coils

- 9760 Heater Coils, Interior
- 9764 Heater Coils, Exterior
- 9765 Heater Coils, Electric
- 9766 Coil Retest, Interior (Furnish test certificate)
- 9768 Coil Test, Exterior (at owner's request only, this is not required)
- 9770 Heater Coil Cap and Chain
- 9777 Heater Coil Nipple

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Manway Covers

- 9780* Manway Cover—General Purpose Car
- 9782 Gaskets, Manway—General Purpose Car
- 9784* Bolt, Manway (show number of bolts in quantity field)
- 9786* Eye Bolt, Manway—Car with Seal Slot (show number of bolts in quantity field)
- 9788* Eye Bolt, Manway—Car without Seal Slot (show number of bolts in quantity field)
- 9790 Stud bolt, Manway (1 1/8 inch—pressure car; show number of bolts in quantity field)
- 9792 Manway Plate—Pressure Car (includes gasket)
- 9794 Manway Cover, Rubber Covered (with fill-hole nozzle)
- 9795* Fill Hole Cover, Acid Type
- 9797 Hold Down Lever, Fill Hole Cover
- 9799 Eye Bolt, Hold Down Lever

Qualifiers for Manway Covers Marked “*”

- 01 18-inch I.D. Carbon steel
- 02 20-inch I.D. Carbon steel
- 03 18-inch I.D. Stainless steel
- 04 20-inch I.D. Stainless steel
- 05 9-inch I.D. Carbon steel
- 06 9-inch I.D. Rubber Covered

Miscellaneous Testing

- 9805 Air Test of Tank and Valves (low pressure)
- 9808 Hydrostatic Test—Pressure Car (Notes: 1—water for tank test is covered with AAR Job Code 4744; 2—furnish test certificate)
- 9809 Hydrostatic Test-General Purpose Car (Notes: 1—water for tank test is covered with AAR Job Code 4744; 2—furnish test certificate)
- 9815 Non-Destructive Testing

Qualifiers for Non-Destructive Testing

- 01 Acoustic Emission Testing (AE)
 - 02 Electromagnetic Testing (ET)
 - 03 Infrared and Thermal Testing (IR)
 - 04 Leak Testing (LT)
 - 05 Liquid Penetrant Testing (PT)
 - 06 Magnetic Particle Testing (MT)
 - 07 Radiographic Testing (RT)
 - 08 Radiographic Film Interpretation (RFI)
 - 09 Visual Inspection (VT)
-
- 9817 Flaw Test (UT)
 - 9818 Thickness Test (UTT)
 - 9819 Safety Valve Retest (Notes: furnish test certificate)
 - 9821 Service Equipment Inspection and Test
 - 9822 Interior Lining Inspection and Test
 - 9845 Localized Stress Relief

Tank Car Qualification Job Codes

Tank qualification job codes are provided to group BRC charges for the qualification events required on tank cars. The combination of Job Codes and Car Part Codes support car owners' historical records of qualifications. All qualification costs should be reported using the Why Made Code "TQ."

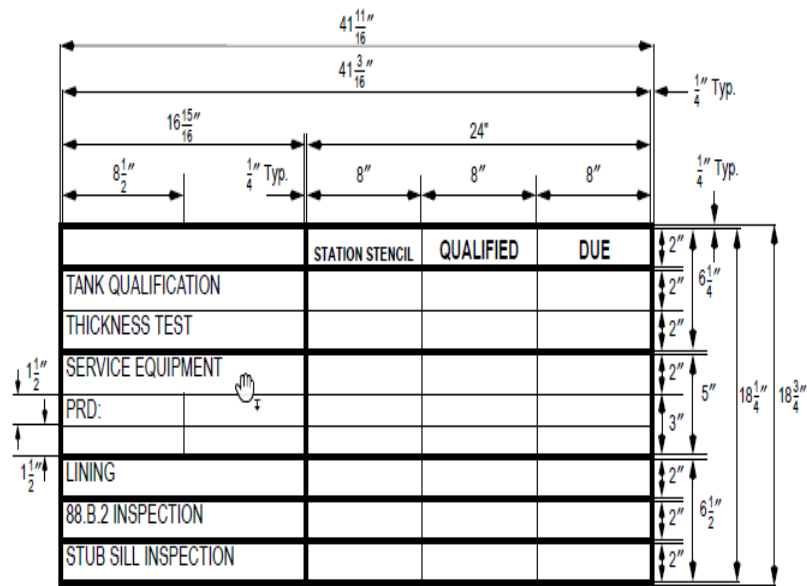


Fig. C.5 Qualification stencil—blank
(see Fig. C.8 for sample of completed stencil)

	Applicable Job Codes	Car Part Qualifiers
Tank Qualification	9820, 9823, 9824, 9825, 9826, 9827	ZQA, ZQB, ZQC, ZQD, ZQE, ZQF, ZQJ, ZQK, ZRA, ZRB, ZRC
Thickness Test	9817, 9818	ZQD, ZQE, ZQF, ZQG, ZQH, ZQI, ZQJ, ZQK
Service Equipment	9821	
PRD	9819	
Lining	9822	ZQL
88.B.2 Inspection	9828	
Stub Sill Inspection	9829	

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Job Code	Why Made	Car Part / Qualifier	Description
9820	TQ	ZQA	Tank Car Qualification-Jacketed, Insulated, coiled or not, non-pressure cars CS Tank
9820	TQ	ZQB	Tank Car Qualification-Jacketed, Insulated, coiled or not, non-pressure cars SS Tank
9823	TQ	ZQC	Tank Car Qualification-Jacketed, Insulated, coiled or not non-pressure 117 or 120 cars
9824	TQ	ZQD	Tank Car Qualification non-jacketed general-purpose cars CS Tank
9824	TQ	ZQE	Tank Car Qualification non-jacketed general-purpose cars SS Tank
9825	TQ	ZQF	Tank Car Qualification Pressure cars - Jacketed with thermal insulation < or = 25,000 gal
9825	TQ	ZQG	Tank Car Qualification Pressure cars - Jacketed with thermal insulation >25,000 gal
9826	TQ	ZQH	Tank Car Qualification non-jacketed pressure cars with head shields
9827	TQ	ZQI	Tank Car Qualification - Other tank cars CS Tanks
9827	TQ	ZQJ	Tank Car Qualification - Other tank cars SS Tanks
9827	TQ	ZQK	Tank Car Qualification Compartmented cars
982X	TQ	ZRA	Girth seam inspection (incremental charges to JC's 9820, 9823, 9824, 9825, 9826 & 9827)
982X	TQ	ZRB	Additional Jacket cut outs (Incremental charges to JC's 9820, 9823, 9825 & 9827)
982X	TQ	ZRC	Other incremental inspections to Qualification Job Codes (Describe)
Charges include everything defined in 49 CFR section 180.509(a) 1-4 used with the top line of the stencil block Not included - Corrosion mapping, jacking, safety attendant,			
9817	TQ	ZYF	Ultrasonic testing – Flaw (UT)
9818	TQ	ZYT	Ultrasonic testing – Thickness (UTT)
9819			Pressure Relief Valve
9821	TQ		Service Equipment Inspection and Test
Includes leak testing following re-application Does not include R&R of Valves, rebuild of valves or gaskets			
9822		ZYL	Coating Qualification spray on (C3 Chapter 1)
9822		ZYM	Lining Qualification Rubber etc. (C3 Chapter 1)
Qualification only - (not inspection)- that gets stenciled on the car			
9828	TQ		Rule 88B Tank Cars only

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Job Code	Why Made	Car Part / Qualifier	Description
9829	TQ		Stub sill inspection Tank Cars only
ZQA			General Purpose Tank Car jacketed and insulated Carbon Steel Tank Coiled or not
ZQB			General Purpose Tank Car jacketed and insulated Stainless Steel Tank coiled or not
ZQC			General Purpose Tank Car 117 or 120 coiled or not
ZQD			Tank Car Qualification non-jacketed general-purpose cars CS Tank
ZQE			Tank Car Qualification non-jacketed general-purpose cars SS Tank
ZQF			Tank Car Qualification Pressure cars - Jacketed with thermal insulation < 25,000 gal
ZQG			Tank Car Qualification Pressure cars - Jacketed with thermal insulation >25,000 gal
ZQH			Tank Car Qualification non-jacketed pressure cars with head shields
ZQI			Tank Car Qualification - Other tank cars CS Tanks
ZQJ			Tank Car Qualification - Other tank cars SS Tanks
ZQK			Tank Car Qualification Compartmented cars
ZQL			Lining Qualification
ZQM			Coating Qualification
ZRA			Tank Car Qualification - Girth Seam Inspection
ZRB			Tank Car Qualification - Additional Jacket patches
ZRC			Tank Car Qualification - Other Incremental charges
ZYF			Ultrasonic testing - Flaw
ZYL			Coating Qualification spray on (C3 Chapter 1)
ZYM			Lining Qualification Rubber etc. (C3 Chapter 1)
ZYT			Ultrasonic testing - Thickness

Safety Platforms

- 9870* Dome Platform Grating
- 9878 Safety Chain, Dome Platform
- 9879 Eye Bolt, Safety Chain
- 9897 S Hook, Safety Chain

Qualifiers for Safety Platforms Marked **

- 01 Carbon steel, painted
- 02 Carbon steel, galvanized
- 03 Fiberglass

CLEANING AND BLASTING

A. Wear Limits, Gaging, Cause for Renewal or Attention

1. Contact car owner for criteria

B. Correct Repairs

1. Contact car owner for criteria

C. Reconditioning Requirements

1. Not applicable

D. Welding Requirements

1. Not applicable

E. General Information

F. Billing Repair Requirements

1. Location
 - a. Use Standard AAR location codes
2. Quantity
 - a. For blasting, show square feet
 - b. For cleaning, show hours
3. Condition Code
 - 0 = Labor
 - 1 = Material
4. Job Code Applied
 - a. Show applicable code
5. Qualifier
 - 01 = Change of service
 - 02 = Release from service
 - 03 = Account other repairs or lining
 - 04 = Lining inspection
 - 05 = Rejected at loading rack
6. Description
 - a. Show applicable description
7. Why Made Code
 - 09 = Account repairs
 - 25 = Owner's request
8. Job Code Removed
 - a. Show applicable code, if required
9. Responsibility Code
 - a. Use standard AAR responsibility codes
10. Job Code and Standard AAR Descriptions
 - 8000 Solvent Cleaning
SPC-SP1—Removal of oil, grease, dirt, soil, salts, and contaminants by cleaning with solvent, vapor, alkali, emulsion, or steam.
 - 8001 Hand Tool Cleaning
SSPC-SP2—Removal of loose rust, loose mill scale, and loose paint to degree specified, by hand chipping, scraping, sanding, and wire brushing
 - 8002 Power Tool Cleaning
SSPC-SP3—Removal of loose rust, loose mill scale, and loose paint to degree specified, by power tool chipping, de-scaling, sanding, wire brushing, and grinding
 - 8003 White Metal Blast Cleaning
SSPC-SP5, NACE 1—Removal of all visible rust, mill scale paint, and foreign matter by blast cleaning by wheel or nozzle (dry or wet) using sand, grit, or shot.
 - 8004 Commercial Blast Cleaning
SSPC-SP6, NACE 3—Blast cleaning unit at least two-thirds of the surface is free of all visible residues
 - 8005 Brush-Off Blast Cleaning
SSPC-SP7, NACE 4—Blast cleaning of all except tightly adhering residues of mill scale, rust, and coatings, exposing numerous evenly distributed flecks of underlying metal.
 - 8006 Near White Blast Cleaning
SSPC-SP10, NACE 2—Blast cleaning nearly to white metal cleanliness, until at least 95 percent of the surface area is free of all visible residues
 - 8007 Decal Removal
 - 8008 Steam Cleaning
 - 8009 High Pressure Water Blast
 - 8016 Wash Water Disposal
 - 8017 Liquid Heel Disposal
 - 8018 Solid Heel Disposal
 - 8019 Additional Solvent
 - 8020 Hand Labor to clean interior
 - 8021 Extra hours at the Cleaning Rack
 - 8022 Vent car to Flare
 - 8031 Soda blast for cleaning
 - 8032 Sand blast for cleaning

EXTERIOR COATINGS**A. Wear Limits, Gaging, Cause for Renewal or Attention**

2. Contact car owner for criteria

B. Correct Repairs

1. Per coating manufacturer's procedure

C. Reconditioning Requirements

1. Not applicable

D. Welding Requirements

1. Not applicable

E. General Information

1. Contact car owner for preferred coatings including manufacturer, specification, and color
2. Apply coatings per manufacturer's recommendations including proper surface preparation.
3. For touch up or patching, contact car owner to ensure capability with existing coatings.
4. For coatings not included in Car Part Code table (Section 9.b), use Qualifier code 'WZZ'

F. Billing Repair Requirements

1. Location
 - a. Use AAR standard location codes
2. Quantity
 - a. For job codes, 8033 thru 8039 and 8042 thru 8051, report square feet for touch-up (Condition Code – P), report 1 for complete repaint (Condition Code - 1)
3. Condition Code
 - 0 = Labor attention
 - 1 = New (complete repaint)
 - P = Patch/Touch Up
4. Job Code Applied
 - a. Show applicable code
 - b. Use applicable Car Part Code per table below for job codes 8033 thru 8039 and 8042 thru 8051
 - c. Use Qualifier for job code 8064 per table below (Section 9)
5. Description
 - a. Use Car Part Code table for specification and formulation.
6. Why Made Code
 - 01 = Worn Out
 - 04 = Defective
 - 09 = Account repairs
 - 11 = Removed in good condition, account of associated repairs
 - 22 = Markings illegible, obliterated
 - 25 = Owner's requests
 - 26 = Decayed or metal deterioration
 - 27 = Initial Application
7. Job Code Removed
 - a. Show applicable code
8. Responsibility Code
 - a. Use standard AAR responsibility codes
9. Job Codes
 - a. Job Code and Standard reporting requirements.

<u>Job Code</u>	<u>Description (not for BRC)</u>
8033	Paint, DTM Acrylic
8034	Paint, Urethane
8035	Paint, Alkyd DTM
8036	Paint, Alkyd Primer, Alkyd Topcoat
8037	Paint, Epoxy Primer, Urethane Topcoat
8038	Paint, Zinc Primer, Epoxy Intermediate, Urethane Topcoat
8039	Paint, Center Band
8040	Apply Decals (Other than consolidate stencil, home shop for repairs, lining type and date, outside heater coils, brake shoe type, reporting marks, which are contained in AAR Rule 80)
8041	Stenciling (Other than specific stenciling in Rule 80)
8042	Paint, Epoxy Primer, Epoxy Topcoat
8050	Paint, DTM, Epoxy
8051	Paint, DTM Urethane
8052	Paint, Other
8064	R&R Running Boards for repainting
	<u>Qualifiers to use with 8064</u>
	01 R&R running boards only
	02 Blast & repair running boards only (does not include R&R)
	03 Re-galvanize running boards only (does not include R&R)
8065	Caulk Running Board Supports

b. CAR PART QUALIFIER Table Active

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Car Part Qualifier	Vendor	Specification / Formulation	Description	Job Code
WUR	Advanced Poly Co	Triflex	Polyurethane, Polyaspartic, Polymer Resin Blend	8051
WKA	Axalta	Imron Series	Urethane	8034
WKH	Blair Rubber Co.	Blair VE524WC - 3/16"	Chlorobutyl Rubber, 50 Shore A	8030
WKI	Blair Rubber Co.	Blair VE524WC - 1/4"	Chlorobutyl Rubber, 50 Shore A	8030
WKJ	Blair Rubber Co.	Blair VE621BC - 3/16"	Chlorobutyl Rubber, 60 Shore A	8030
WKK	Blair Rubber Co.	Blair VE621BC - 1/4"	Chlorobutyl Rubber, 60 Shore A	8030
WKR	Blair Rubber Co.	Blair LS582 - 3/16"	Chlorobutyl Rubber, 60 Shore A	8030
WKS	Blair Rubber Co.	Blair LS582 - 1/4"	Chlorobutyl Rubber, 60 Shore A	8030
WKT	Blair Rubber Co.	Blair CC4624 - 3/16"	Chlorobutyl Rubber, 60 Shore A	8030
WКУ	Blair Rubber Co.	Blair CC4624 - 1/4"	Chlorobutyl Rubber, 60 Shore A	8030
WZB	Blair Rubber Co.	Blair C623BC - 3/16"	Chlorobutyl Rubber, 50 Shore A	8029
WZC	Blair Rubber Co.	Blair C623BC - 1/4"	Chlorobutyl Rubber, 50 Shore A	8029
WZD	Blair Rubber Co.	Blair C629WC - 3/16"	Chlorobutyl Rubber, 50 Shore A	8029
WZE	Blair Rubber Co.	Blair C629WC - 1/4"	Chlorobutyl Rubber, 50 Shore A	8029
WNO	Carboline	Carbomastic 90	High Build Mastic	8033
WNP	Carboline	Carbomastic 15	High Build Mastic	8033
WNQ	Carboline	Carboguard 90	Epoxy	8050
WNT	Carboline	876	HS Epoxy	8050
WNU	Carboline	60 T	Epoxy	8050
WNV	Carboline	Multi-Gard 901	Epoxy 100% DTM Epoxy	8050
WNW	Carboline	904 DTM - C900	98% Solids	8033
WNX	Carboline	8922	Alkyd Enamel	8033
WNY	Carboline	877 Primer/170 HS Topcoat	Polyurethane Enamel	8037
WNZ	Carboline	8812	Polyurethane Enamel DTM	8051
WOA	Carboline	8215	Polyurethane Enamel	8034
WOB	Carboline	8845	Polyurethane Enamel	8034
WOC	Carboline	Clear Coat 130	Clear Polyurethane	8034
WOD	Carboline	300 M	Coal Tar	8050
WOE	Carboline	3359 Topcoat	Waterbase Acrylic	8033
WOF	Carboline	3358 G	Waterbase Acrylic Enamel	8033
WOG	Carboline	134 HG	Polyurethane Enamel	8051
WPA	Davis-Frost, Inc.	W-371 HG	HG W/B DTM	8033
WPB	Davis-Frost, Inc.	Water-Tuff	HG W/B DTM	8033
WPC	Davis-Frost, Inc.	63-T601	LG Epoxy	8050
WPD	Davis-Frost, Inc.	53-B630	HG Epoxy	8050
WPG	Hempel	Hempadur Mastic 45883	DTM Epoxy	8050
WPI	Hempel	Hempel Epoxy 374US	High Solids, Low VOC Epoxy	8050
WPJ	Hempel	Hemucryl Topcoat 58030	Waterborne Topcoat	8050
WPL	Hempel	Hempadur Mastic 45880	Epoxy Primer	8050
WPM	Hempel	Hempathane 55610	DTM Urethane with Zinc	8051
WQI	International	Devran	224V Epoxy	8050
WQJ	International	Intergard 345/ Interthane 990 Series	Epoxy/Polyurethane	8037
WQK	International	Devthane 359H	Polyurethane	8051
WQL	International	Intergard 3500	Epoxy	8050
WQM	International	Devthane 349	Polyaspartic	8051
WQN	International	Ceillcote 2000	Epoxy Novolac	8050
WQO	International	Ceillcote 242HT Flakeline	Glass Flake Filled Vinyl Ester	8050
WVK	International	Intercure 4500	Polyaspartic	8051
WVL	International	Interfine 2700	Epoxy Polysiloxane	8050
WQX	Nanoclear	NCI	Urethane/Urea	8051
WSE	PPG	Amercoat 385/385PA	Multi-purpose epoxy	8050
WSI	PPG	Amercoat 385 Primer/Amercoat 450H	Gloss aliphatic polyurethane topcoat	8037
WSK	PPG	Amercoat 5105 Primer/Amercoat 5450	Alkyd gloss topcoat	8042
WSL	PPG	Amerlock 2	Fast drying, surface-tolerate maintenance epoxy	8050
WSQ	PPG	Amershield VOC	High-build, low VOC polyacrylic aliphatic polyurethane	8051
WST	PPG	Durethane FD	DTM Urethane	8051
WSY	PPG	PSX 700	Engineered siloxane with an epoxy primer	8037
WVG	PPG	Amercoat 5105 Primer/Amercoat 5450	Alkyd Primer	8036
WVH	PPG	PPG E202 / Amercoat 202LH	Fast Drying Epoxy	8050
WVI	PPG	Amercoat 1202	Ultra-high solids epoxy	8050
WVJ	PPG	SigmaFast 278	Multi-purpose epoxy	8050
WTG	Pruett-Schaffer	24-11-BNSF	DTM Waterbase	8033
WTH	Pruett-Schaffer	24-16492	DTM Waterbase	8033
WTJ	Sherwin-Williams	CarClad Macropoxy HS	Fast-Drying Epoxy	8050
WTI	Sherwin-Williams	CarClad ER Epoxy	100% Solids Epoxy	8050
WTJ	Sherwin-Williams	Macropoxy 646	Fast Cure Epoxy	8050
WTM	Sherwin-Williams	Envirolastic 940 DTM	Fast-Drying Urethane DTM	8051

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Car Part Qualifier	Vendor	Specification / Formulation	Description	Job Code
WTO	Sherwin-Williams	Acrolon Ultra	Gloss Finish	8037
WTP	Sherwin-Williams	Acrolon 218 HS	Gloss Finish	8037
WTQ	Sherwin-Williams	WB Acrolon 100	Gloss Water Based Urethane	8037
WTR	Sherwin-Williams	Sher-Cryl 1300	Gloss and Semi-Gloss Water based Acrylic DTM	8033
WTT	Sherwin-Williams	CarClad 801 DTM Alkyd	Gloss Finish	8033
WVA	Sherwin-Williams	CarClad Macropoxy 4200XL	Gloss Finish	8050
WVB	Sherwin-Williams	CarClad WB 2600	High Gloss Waterbased Topcoat	8033
WVC	Sherwin-Williams	CarClad WB 1400	High Gloss Waterbased Primer	8033
WVD	Sherwin-Williams	Sher-Loxane 800	Gloss Epoxy Siloxane Finish	8037
WVE	Sherwin-Williams	Resugrip 075	Acrylic non-skid	8033
WVF	Sherwin-Williams	Resugrip 150	Solvent non-skid	8050
WUB	U.S. Coatings	RailGard 2040 VOC	DTM Epoxy	8050
WUA	Valspar	Aquaspar Direct G1	Gloss Water Based Acrylic DTM	8033
WWA	WHPC	THERMALBOND SERIES	ALL PURPOSE DURABLE LATEX	8033
WWB	WHPC	THERMALBOND HR SERIES	HIGH RUBBER LATEX	8033
WWC	WHPC	AQUA-EPOXY SERIES	GLOSS RETENTIVE EPOXY LATEX	8050
WWD	WHPC	ACRATHANE/PUD	GLOSS RETENTIVE AC/PUD LATEX	8051
WWE	WHPC	ACRATHANE/POLYESTER	HIGH GLOSS CLEAR	8051
WWF	WHPC	THERMALBOND MASTIC	FLEXIBLE ELASTOMER	8033
WWG	WHPC	AQUALUST SERIES	HIGH GLOSS SOLUTION COATING	8033
WWH	WHPC	AQUAFLEX SERIES	ELASTOMERIC LINING	8025
WWI	WHPC	AQUASLIP	ELASTOMERIC LINING	8025
WWJ	WHPC	NOVOC & NOVOC HR	THERMALBOND & THERMALBOND HR SERIES " 0 VOC"	8033
WWK	WHPC	POWER GRIP SERIES	STANDARD HIGH SOLIDS 2K EPOXY	8050
WWL	WHPC	POWER GRIP SERIES	STANDARD HIGH SOLIDS 2K EPOXY	8025
WWM	WHPC	POWERFLEX SERIES	COPOLYMER HIGH SOLIDS EPOXY 80% EXT. & INT.	8025
WWN	WHPC	ACRATHANE SERIES	POLYURETHANE TOPCOAT	8034
WWO	WHPC	SUPER EPOL	HIGH GLOSS POYESTER	8037
WWP	WHPC	MOBILE GLOSS	HIGH GLOSS COPOLYMER	8033
WWS	WHPC	EUROFRAME	HIGH SOLIDS 20-60 GLOSS	8033
WWT	WHPC	THERMALBOND NANO	NANO ENGINEERED LATEX	8033
WWU	WHPC	AQUASLIP PTFE NOVOC	Polytetrafluoroethylene FILLED LATEX	8025
WWV	WHPC	FLUOROTBOND	Ultra-Weatherable (FEVE) LATEX	8033
WZZ	Unspecified			

c. CAR PART QUALIFIER Table No Longer in Production

Car Part Qualifier	Vendor	Specification / Formulation	Description	Job Code
WNR	Carboline	875	Epoxy	8050
WNS	Carboline	876	High Gloss Epoxy	8050
WPH	Hempel	Hempel High Gloss Epoxy 458US	High Gloss DTM Epoxy with color retention	8050
WPK	Hempel	Hempel 545US	Urethane	8051
WPN	Hempel	Hempel's Urethane 5595U	High Gloss Polyurethane enamel	8051
WPX	Hempel	48100 DTM	High Gloss Waterbase Topcoat	8033
WSF	PPG	Amercoat 399	Fast-drying epoxy	8050
WSJ	PPG	Amercoat 495	100% multi-purpose epoxy	8050
WSN	PPG	Amerlock 2 Aluminum	Fast drying, surface-tolerant maintenance epoxy	8050
WSO	PPG	Amerlock2 LV	Surface tolerant DTM Epoxy with no thinning required	8050
WSP	PPG	Amershield	High-build polyester- acrylic aliphatic polyurethane	8051
WTN	Sherwin-Williams	Acrolon 1280 DTM	Urethane Fast-Drying Urethane DTM	8051
WTS	Sherwin-Williams	CarClad 2200	Gloss Water Based Acrylic DTM	8033

INTERIOR COATINGS & LININGS

A. Wear Limits, Gaging, Cause for Renewal or Attention

1. Inspect and report condition to car owner as per their instruction
2. If interior coating/lining is responsibility of other than car owner, car owner must approve criteria.

B. Correct Repairs

1. Per vendor recommended procedure

C. Reconditioning Requirements

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1. Not applicable

D. Welding Requirements

1. If required to meet lining/coating requirements and per car owner instructions. See job code 8060 for more detail.

E. General Information

1. Contact car owner for preferred coatings including manufacturer and specification
2. Apply coatings per manufacturer's recommendations including proper surface preparation.
3. For touch up or patching, contact car owner to ensure capability with existing coatings.
4. For coatings not included in Car Part Code table (Section 9.c), use Qualifier code 'WZZ'

F. Billing Repair Requirements

1. Location
 - a. Use standard AAR location codes
2. Quantity
 - a. In square feet (always use 1 for complete interior lining/coating)
3. Condition Code
 - 0 = Labor attention (job codes 8060 and 8100 only)
 - 1 = New (complete lining)
 - P = Patch/Touch Up
4. Job Code Applied
 - a. Use applicable Job Code
 - b. Use applicable Car Part Code per table (Section 9.c.)
 - c. Use Qualifier for job codes 8060 as defined below (Section 9)
5. Narrative
 - a. Use Car Part Code Table for specification and formulation
6. Why Made Code
 - 01 = Worn Out
 - 04 = Defective
 - 09 = Account Repairs
 - 11 = Removed in Good Condition, Account of Associated Repairs
 - 25 = Owner's request
 - 26 = Decayed or metal deterioration
 - 27 = Initial application
7. Job Code Removed
 - a. Use applicable code
8. Responsibility Code
 - a. Use standard AAR responsibility codes
9. Job Codes and Standard Reporting Descriptions
 - a. Lining job codes are defined
 - b. Car Part Codes are required for job codes 8025 – 8030
 - c. Description from Car Part Code table

<u>Job Code</u>	<u>Description (not for BRC)</u>
8025	Air Cure
8026	Force Cure
8027	Low Bake
8028	High Bake
8029	Chemical Cure
8030	Vulcanize/Steam Cure
8056	Prebake prior to lining
8060	Weld repairs associate with lining
	<u>Qualifiers to use with 8060</u>
01	Weld prep prior to lining
02	Grinding prior to lining
03	Extra blast for coating removal
8100	Lining inspection
	<u>Qualifiers to use with 8100</u>
01	Inbound/initial inspection and report
02	Test of pin holes
03	Spark Test (Rubber lining)
04	Outbound/Final inspection and report

d. CAR PART QUALIFIER Table Active

Car Part Qualifier	Vendor	Interior Lining Cure Method	Specification / Formulation	Description	Job Code
WUP	Advanced Polymer	Low Bake	2 coat system	High functionality thermoset polymer	8027
WUQ	Advanced Polymer	Low Bake	2 coat system	High functionality thermoset polymer	8027
WKB	Blair Rubber Co.	Steam cure	Blair PG70 - 3/16"	Natural Rubber, 35 Shore A	8030
WKC	Blair Rubber Co.	Steam cure	Blair PG70 - 1/4"	Natural Rubber, 35 Shore A	8030
WKD	Blair Rubber Co.	Steam cure	Blair PG72 - 3/16"	Natural Rubber, 35 Shore A	8030
WKE	Blair Rubber Co.	Steam cure	Blair PG72 - 1/4"	Natural Rubber, 35 Shore A	8030
WKF	Blair Rubber Co.	Steam cure	Blair VE370WN - 3/16"	Natural Rubber, 35 Shore A	8030

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Car Part Qualifier	Vendor	Interior Lining Cure Method	Specification / Formulation	Description	Job Code
WKG	Blair Rubber Co.	Steam cure	Blair VE370WN - 1/4"	Natural Rubber, 35 Shore A	8030
WKH	Blair Rubber Co.	Steam cure	Blair VE524WC - 3/16"	Chlorobutyl Rubber, 50 Shore A	8030
WKI	Blair Rubber Co.	Steam cure	Blair VE524WC - 1/4"	Chlorobutyl Rubber, 50 Shore A	8030
WKJ	Blair Rubber Co.	Steam cure	Blair VE621BC - 3/16"	Chlorobutyl Rubber, 60 Shore A	8030
WKK	Blair Rubber Co.	Steam cure	Blair VE621BC - 1/4"	Chlorobutyl Rubber, 60 Shore A	8030
WKL	Blair Rubber Co.	Steam cure	Blair VE622BCN - 3/16"	Chlorobutyl Rubber, 60 Shore A	8030
WKM	Blair Rubber Co.	Steam cure	Blair VE622BCN - 1/4"	Chlorobutyl Rubber, 60 Shore A	8030
WKN	Blair Rubber Co.	Steam cure	Blair VE625BC - 3/16"	Chlorobutyl Rubber, 60 Shore A	8030
WKO	Blair Rubber Co.	Steam cure	Blair VE625BC - 1/4"	Chlorobutyl Rubber, 60 Shore A	8030
WKP	Blair Rubber Co.	Steam cure	Blair VE611BN - 3/16"	Natural Rubber, 60 Shore A	8030
WKQ	Blair Rubber Co.	Steam cure	Blair VE611BN - 1/4"	Natural Rubber, 60 Shore A	8030
WKR	Blair Rubber Co.	Steam cure	Blair LS582 - 3/16"	Chlorobutyl Rubber, 60 Shore A	8030
WKS	Blair Rubber Co.	Steam cure	Blair LS582 - 1/4"	Chlorobutyl Rubber, 60 Shore A	8030
WKT	Blair Rubber Co.	Steam cure	Blair CC4624 - 3/16"	Chlorobutyl Rubber, 60 Shore A	8030
WKU	Blair Rubber Co.	Steam cure	Blair CC4624 - 1/4"	Chlorobutyl Rubber, 60 Shore A	8030
WKV	Blair Rubber Co.	Chemical cure	Blair C413TN - 3/16"	Natural Rubber, 30 Shore A	8029
WKW	Blair Rubber Co.	Chemical cure	Blair C413TN - 1/4"	Natural Rubber, 30 Shore A	8029
WKX	Blair Rubber Co.	Chemical cure	Blair C417WN - 3/16"	Natural Rubber, 30 Shore A	8029
WKY	Blair Rubber Co.	Chemical cure	Blair C417WN - 1/4"	Natural Rubber, 30 Shore A	8029
WKZ	Blair Rubber Co.	Chemical cure	Blair C511BN - 3/16"	Natural Rubber, 55 Shore A	8029
WZA	Blair Rubber Co.	Chemical cure	Blair C511BN - 1/4"	Natural Rubber, 55 Shore A	8029
WZB	Blair Rubber Co.	Chemical cure	Blair C623BC - 3/16"	Chlorobutyl Rubber, 50 Shore A	8029
WZC	Blair Rubber Co.	Chemical cure	Blair C623BC - 1/4"	Chlorobutyl Rubber, 50 Shore A	8029
WZD	Blair Rubber Co.	Chemical cure	Blair C629WC - 3/16"	Chlorobutyl Rubber, 50 Shore A	8029
WZE	Blair Rubber Co.	Chemical cure	Blair C629WC - 1/4"	Chlorobutyl Rubber, 50 Shore A	8029
WLF	Carboline	Low Bake	Phenoline 333	Modified Epoxy	8027
WLG	Carboline	Low Bake	Phenoline 1205	Amine-Cured Novolac Epoxy	8027
WLH	Carboline	Air Dry	Z 11	Inorganic Zinc Tank Lining	8025
WLI	Carboline	Air Dry	Z 11 HS	Inorganic Zinc Tank Lining	8025
WLK	Carboline	Air Dry	Z 11 WB	Inorganic Zinc Water Based	8025
WLL	Carboline	Low Bake	333 Black	Epoxy	8027
WLN	Carboline	Low Bake	571	Epoxy	8027
WLP	Carboline	High Bake	3070	Bake Phenolic	8028
WLQ	Carboline	High Bake	3070L	Bake Phenolic	8028
WLV	Carboline	Air Dry/Low Bake	4007	Vinyl Ester	8025/8027
WLW	Carboline	Air Dry/Low Bake	4100	Vinyl Ester	8025/8027
WLX	Carboline	Air Dry/Low Bake	4300	Vinyl Ester	8025/8027
WLY	Carboline	Air Dry/Low Bake	4550	Novolac Epoxy	8025/8027
WLZ	Carboline	Air Dry/Low Bake	4550S	Novolac Epoxy	8025/8027
WMA	Carboline	Air Dry/Low Bake	4555S	Novolac Epoxy	8025/8027
WMB	Carboline	Air Dry/Low Bake	7122 H	Epoxy Phenolic	8025/8027
WMC	Carboline	Air Dry/Low Bake	7122HAR	Epoxy Phenolic	8025/8027
WMD	Carboline	Air Dry/Low Bake	7122TFE	Epoxy Phenolic	8025/8027
WME	Carboline	Air Dry/Low Bake	7122 VOC	Epoxy Phenolic	8025/8027
WMF	Carboline	Air Dry/Low Bake	7122 VTF	Epoxy Phenolic	8025/8027
WMG	Carboline	Air Dry/Low Bake	7122 VAR	Epoxy Phenolic	8025/8027
WMH	Carboline	Air Dry/Low Bake	7133	Epoxy Phenolic	8025/8027
WMI	Carboline	Air Dry/Low Bake	7133HS	Epoxy Amine	8025/8027
WML	Carboline	Air Dry/Low Bake	9060	Modified Epoxy	8025/8027
WMM	Carboline	Air Dry/Low Bake	9060 LT	Modified Epoxy	8025/8027
WMP	Carboline	Air Dry/Low Bake	9085	Epoxy Novolac	8025/8027
WMQ	Carboline	Air Dry/Low Bake	9133	Epoxy Polyamine	8025/8027
WMR	Carboline	Air Dry/Low Bake	9145	Epoxy Amine	8025/8027
WMS	Carboline	Air Dry/Low Bake	9145TFE	Epoxy Amine	8025/8027
WMV	Carboline	High Bake	9500	Epoxy Amine	8028
WMW	Carboline	Low Bake	9570	TFE Epoxy Amine	8027
WMX	Carboline	Low Bake	9570	Epoxy Amine	8027
WMY	Carboline	Low Bake	9571	Epoxy Phenolic	8027
WMZ	Carboline	Low Bake	9573	Epoxy Phenolic	8027
WNA	Carboline	High Bake	3073	Phenolic Linings	8027
WNB	Carboline	Air Dry/Low Bake	Plaschem 2310	Cross-linked Epoxy Phenolic	8025/8027
WNC	Carboline	Air Dry	Reactamine 760	Aromatic Hybrid Polyurethane	8025
WNF	Carboline	Air Dry/Low Bake	892	Epoxy, Direct Food Lining	8025/8027
WNG	Carboline	Air Dry/Low Bake	895	Epoxy, Direct Food Lining	8025/8027
WNH	Carboline	Air Dry/Low Bake	896	Epoxy, Direct Food Lining	8025/8027
WNI	Carboline	Air Dry/Low Bake	896 S	Epoxy, Direct Food Lining Striping Material	8025/8027
WNJ	Carboline	Air Dry/Low Bake	992	Epoxy 100% Solids Hopper Lining	8025/8027

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Car Part Qualifier	Vendor	Interior Lining Cure Method	Specification / Formulation	Description	Job Code
WNK	Carboline	Air Dry/Low Bake	995	Epoxy 100% Solids Hopper Lining	8025/8027
WNL	Carboline	Air Dry/Low Bake	729	Epoxy	8025/8027
WNM	Carboline	Air Dry/Low Bake	729TFE	Epoxy-Teflon	8025/8027
WOH	Carboline	Air Dry	890 GF2	Epoxy with Glass Flake	8025
WPO	Hempel	Air Cure	Hempel 35480	Interior Lining	8025
WPP	Hempel	Air Cure	Hempadur FX4 37300	Interior Lining	8025
WPQ	Hempel	Air Cure	Hempadur 37301	BPA Free Interior Lining	8025
WPR	Hempel	Heat Cure	Hemapdur 85671	High Temp Novolac Interior Lining	8027
WPS	Hempel	Heat Cure	Hempadur 15500	Chemical Resistant Interior Coating	8027
WPT	Hempel	Air Cure	Versiline TL-91S	Chemical and Heat Resistant	8025
WPU	Hempel	Air Cure	Versiline TL-47S	Chemical and Heat Resistant	8025
WPV	Hempel	Air Cure	Versiline TL-220S	Chemical and Heat Resistant	8025
WPW	Hempel	Air Cure	Versiline 1255	FDA epoxy tank lining	8025
WPY	Hempel/Heresite	High Bake	P-403L	Phenolic	8028
WPZ	Hempel/Heresite	High Bake	L-66L	Phenolic	8028
WQA	International	Low Bake	Interline 994	Phenolic Epoxy Novolac	8027
WQC	International	Low Bake	Enviroline 2405	Hybrid Epoxy	8027
WQD	International	Low Bake	Interzone 954	Modified Epoxy	8027
WQE	International	Low Bake	Devchem 253	Epoxy Novolac	8027
WQF	International	Low Bake	Devchem 253HS	Epoxy Novolac	8027
WQG	International	Low Bake	Enviroline 2900LV	Epoxy Phenolic	8027
WQH	International	Low Bake	Enviroline 3910	Epoxy Phenolic	8027
WZF	International	Low Bake	Interline 994	Phenolic Epoxy Novolac	8027
WUK	KCC	Air Cure or Force	Techni-Plus EN 25.5	100% solids Epoxy Novlac	8025/8026
WUL	KCC	Air Cure or Force	Techni-Plus VE 62	100% REACTIVE, LOW STYRENE, VINYL-ESTER LINING SYSTEM	8025/8026
WUM	KCC	Air Cure or Force	Techni-Plus AEP 18AR	100% solids amine adduct epoxy	8025/8026
WAY	Polycorp	Chemical Cure	Polycorp 2098 - 3/16"	Natural, black, 60 A hardness	8029
WQB	Polycorp	Steam Cure	Polycorp 1051 - 3/16"	Pure Chlorobutyl, Black, 50A hardness	8030
WQC	Polycorp	Steam Cure	Polycorp 1054 - 3/16"	Blended Chlorobutyl, White, 40A hardness	8030
WQD	Polycorp	Steam Cure	Polycorp 1055 - 3/16"	Blended Chlorobutyl, black, 50A hardness	8030
WQE	Polycorp	Chemical Cure	Polycorp 1058 - 3/16"	Blended Chlorobutyl , white, 40A hardness	8029
WQF	Polycorp	Steam Cure	Polycorp 1069 - 3/16"	Natural rubber, black, 60 A hardness	8030
WQH	Polycorp	Steam Cure	Polycorp 1099 - 3/16"	Natural rubber, tan, 35 A hardness	8030
WQI	Polycorp	Steam Cure	Polycorp 2000 - 3/16"	Natural rubber, tan, 40 A hardness	8030
WQJ	Polycorp	Steam Cure	Polycorp 2001 - 3/16"	Natural rubber, black, 40 A hardness	8030
WQM	Polycorp	Chemical Cure	Polycorp 2040 - 3/16"	Blended Chlorobutyl, black, 50 A hardness	8029
WQN	Polycorp	Chemical Cure	Polycorp 2042 - 3/16"	Natural, tan, 40 A hardness	8029
WQO	Polycorp	Chemical Cure	Polycorp 2041 - 3/16"	Natural, white, 40 A hardness	8029
WQQ	Polycorp	Steam Cure	Polycorp 4631 - 3/16"	Blended Chlorobutyl, Black, 55 A hardness	8030
WRA	Polycorp	Steam Cure	Polycorp 1024 - 1/8"	Pure Chlorobutyl, Black, 50A hardness	8030
WRG	Polycorp	Steam Cure	Polycorp 1097 - 1/8"	Natural rubber, tan, 60 A hardness	8030
WRK	Polycorp	Steam Cure	Polycorp 2007 - 1/8"	Pure Chlorobutyl, black, 50 A hardness	8030
WRL	Polycorp	Chemical Cure	Polycorp 2019 - 1/8"	Natural, tan, 60 A hardness	8029
WRP	Polycorp	Chemical Cure	Polycorp 2098 - 1/8"	Natural, black, 60 A hardness	8029
WRR	Polycorp	Steam Cure	Polycorp 2006 - 1/8"	Pure Chlorobutyl, black, 50 A hardness	8030
WYB	Polycorp	Chemical Cure	Polycorp 2098 - 1/4"	Natural, black, 60 A hardness	8029
WYC	Polycorp	Steam Cure	Polycorp 4631 - 1/4"	Blended Chlorobutyl, Black, 55 A hardness	8030
WYD	Polycorp	Steam Cure	Polycorp 2006 - 3/16"	Pure Chlorobutyl, black, 50 A hardness	8030
WYD	Polycorp	Steam Cure	Polycorp 2006 - 1/4"	Pure Chlorobutyl, black, 50 A hardness	8030
WZG	Polycorp	Steam Cure	Polycorp 1024 - 3/16"	Pure Chlorobutyl, Black, 50A hardness	8030
WZH	Polycorp	Steam Cure	Polycorp 1024 - 1/4"	Pure Chlorobutyl, Black, 50A hardness	8030
WZI	Polycorp	Steam Cure	Polycorp 1051 - 1/4"	Pure Chlorobutyl, Black, 50A hardness	8030
WZJ	Polycorp	Steam Cure	Polycorp 1054 - 1/4"	Blended Chlorobutyl, White, 40A hardness	8030
WZL	Polycorp	Steam Cure	Polycorp 1055 - 1/4"	Blended Chlorobutyl, black, 50A hardness	8030
WZM	Polycorp	Chemical Cure	Polycorp 1058 - 1/4"	Blended Chlorobutyl , white, 40A hardness	8029
WZN	Polycorp	Steam Cure	Polycorp 1069 - 1/4"	Natural rubber, black, 60 A hardness	8030
WZO	Polycorp	Steam Cure	Polycorp 1097 - 3/16"	Natural rubber, tan, 60 A hardness	8030
WZP	Polycorp	Steam Cure	Polycorp 1097 - 1/4"	Natural rubber, tan, 60 A hardness	8030
WZQ	Polycorp	Steam Cure	Polycorp 1099 - 1/4"	Natural rubber, tan, 35 A hardness	8030
WZR	Polycorp	Steam Cure	Polycorp 2000 - 1/4"	Natural rubber, tan, 40 A hardness	8030
WZS	Polycorp	Steam Cure	Polycorp 2001 - 1/4"	Natural rubber, black, 40 A hardness	8030
WZS	Polycorp	Steam Cure	Polycorp 2007 - 3/16"	Pure Chlorobutyl, black, 50 A hardness	8030
WZT	Polycorp	Steam Cure	Polycorp 2007 - 1/4"	Pure Chlorobutyl, black, 50 A hardness	8030
WZU	Polycorp	Chemical Cure	Polycorp 2019 - 3/16"	Natural, tan, 60 A hardness	8029
WZV	Polycorp	Chemical Cure	Polycorp 2019 - 1/4"	Natural, tan, 60 A hardness	8029
WZW	Polycorp	Chemical Cure	Polycorp 2040 - 1/4"	Blended Chlorobutyl, black, 50 A hardness	8029

Appendix D – American Rail Car Institute (ARCI) Codes

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Car Part Qualifier	Vendor	Interior Lining Cure Method	Specification / Formulation	Description	Job Code
WZX	Polycorp	Chemical Cure	Polycorp 2042 - 1/4"	Natural, tan, 40 A hardness	8029
WZY	Polycorp	Chemical Cure	Polycorp 2041 - 1/4"	Natural, white, 40 A hardness	8029
WVM	Polycorp	Steam Cure	Polycorp 1055 - 1/8"	Blended Chlorobutyl, Black, 50 A hardness	8030
WVN	Polycorp	Chemical Cure	Polycorp 1069 - 1/8"	Natural rubber, black, 60 A hardness	8029
WVO	Polycorp	Chemical Cure	Polycorp 4640 - 3/16"	Blended Chlorobutyl, Black, 55 A hardness	8029
WVP	Polycorp	Chemical Cure	Polycorp 4640 - 1/4"	Blended Chlorobutyl, Black, 55 A hardness	8029
WSC	PPG	Air Dry	Amercoat 253	Epoxy Novolac tank lining	8025
WSD	PPG	Air Dry	Amercoat 320HSA	High-solids epoxy	8025
WSG	PPG	Air Dry	Amercoat 428PCLO	Solvent free epoxy	8025
WSR	PPG	Low Bake	Champion 466 FDA	Epoxy lining	8027
WSU	PPG	Air Dry	Novaguard 840	Solvent free Epoxy Novolac tank lining	8025
WSV	PPG	Air Dry	Novaguard 890	Solvent free Epoxy Novolac tank lining	8025
WVQ	PPG	Air Dry	Amerlock 2	Fast Drying surface tolerant maintenance epoxy	8025
WVR	PPG	Air Dry	Phenguard 965	Epoxy phenolic tank lining	8025
WVS	PPG	Air Dry	SigmaShield 1200	Solvent -free abrasion resistant epoxy	8025
WTI	Sherwin-Williams	Air Cure	CarClad ER Epoxy	100% Solids Epoxy	8050
WTJ	Sherwin-Williams	Air Cure	CarClad Macropoxy HS	Fast-Drying Epoxy	8050
WTJ	Sherwin-Williams	Air Cure	Macropoxy 646	Fast Cure Epoxy	8050
WTK	Sherwin-Williams	Air Cure	Hi Solids, Catalyzed Epoxy	FDA Epoxy	8025
WTU	Sherwin-Williams	Air Cure or Force	Nova Plate UHS	High Gloss CR Finish	8025/8026
WTV	Sherwin-Williams	Air Cure or Force	Cor-Cote HT Epoxy	Semi-Gloss CR Finish	8025/8026
WTW	Sherwin-Williams	Air Cure or Force	Phenicon HS	Semi-Gloss CR Finish	8025/8026
WVT	Sherwin-Williams		Dura-Plate 7550	Non-BPA FDA Interior Lining	8025/8026
WVU	Sherwin-Williams		Dura-Plate UHS	Chemical and Heat Resistant Novolac Lining	8025/8026
WVV	Sherwin-Williams		Nova-Plate 360	PTFE Novolac Lining	8025/8026
WVW	Sherwin-Williams		Nova-Plate 325	Ceramic Reinforced Novolac Lining	8025/8026
WVX	Sherwin-Williams		Dura-Plate 8200	Ceramic High Temp Lining	8025/8026
WVY	Sherwin-Williams		Magnalux 2100FF	Vinyl Ester	8025/8026
WVZ	Sherwin-Williams		Heat-Flex ACE	Chemical and Heat Resistant	8025/8026
WWH	WHPC	AIR DRY	AQUAFLEX SERIES	ELASTOMERIC LINING	8025
WWI	WHPC	AIR DRY	AQUASLIP	ELASTOMERIC LINING	8025
WWJ	WHPC	AIR DRY	NOVOC	THERMALBOND SERIES " 0 VOC"	8033
WWL	WHPC	CHEMICAL REACTION	POWER GRIP SERIES	STANDARD HIGH SOLIDS 2K EPOXY	8025
WWM	WHPC	CHEMICAL REACTION	POWERFLEX SERIES	COPOLYMER HIGH SOLIDS 80% 2K EPOXY EXT. & INT.	8025
WWU	WHPC	AIR DRY	AQUASLIP PTFE NOVOC	Polytetrafluoroethylene FILLED LATEX	8025
WOI	WHPC	AIR DRY	THERMALBOND	ALL PURPOSE DURABLE LATEX	8025
WOJ	WHPC	AIR DRY	THERMALBOND HR SERIES	HIGH RUBBER CHEMICAL SERVICE LATEX	8025
WOK	WHPC	AIR DRY	NOVOC HR	THERMALBOND & THERMALBOND HR SERIES " 0 VOC"	8025
WZZ	Unspecified				

e. CAR PART QUALIFIER Table No Longer in Production

Car Part Qualifier	Vendor	Interior Lining Cure Method	Specification / Formulation	Description	Job Code
WLA	Carboline	Low Bake	Phenoline 310	Epoxy	8027
WLB	Carboline	Low Bake	Phenoline 309	Polyamine Epoxy	8027
WLC	Carboline	Low Bake	Phenoline 187	Amine-cured, modified Epoxy Phenolic	8027
WLD	Carboline	Low Bake	Phenoline 353	Modified Novolac Epoxy	8027
WLE	Carboline	Low Bake	Phenoline 375T	Modified Epoxy	8027
WLJ	Carboline	Air Dry C	Z 11 VOC	Inorganic Zinc	8025
WLM	Carboline	Low Bake	375T System	Epoxy	8027
WLO	Carboline	Low Bake	891 R	Epoxy	8027
WLR	Carboline	High Bake	3066	Bake Phenolic	8028
WLS	Carboline	High Bake	3055	Bake Phenolic	8028
WLT	Carboline	Air Dry/Low Bake	Plasite 4004-5	Vinyl Ester	8025/8027
WLU	Carboline	Air Dry/Low Bake	Plasite 4005	Vinyl Ester	8025/8027
WMJ	Carboline	Air Dry/Low Bake	7157	Modified Epoxy	8025/8027
WMK	Carboline	Air Dry/Low Bake	7159	Modified Epoxy	8025/8027
WMN	Carboline	Air Dry/Low Bake	9081	Modified Epoxy	8025/8027
WMO	Carboline	Air Dry/Low Bake	9083	Epoxy Amine	8025/8027
WMT	Carboline	Air Dry/Low Bake	9146	Epoxy Amine	8025/8027

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Car Part Qualifier	Vendor	Interior Lining Cure Method	Specification / Formulation	Description	Job Code
WNU	Carboline	Air Dry/Low Bake	9146TFE	Epoxy Amine	8025/8027
WND	Carboline	Air Dry	Polyclad 708	Aromatic Hybrid Polyurethane	8025
WNE	Carboline	Air Dry	Polybrid 705	Aromatic Hybrid Polyurethane	8025
WQB	International	Low Bake	Devchem 253S	Epoxy Novolac	8027
WSA	PPG	Air Dry	Amercoat 242	High-build glass flake epoxy	8025
WSB	PPG	Air Dry	Amercoat 242 HB	Solvent Free Glass Flake Lining	8025
WSM	PPG	Air Dry	Amerlock 2 Glass Flake	High-build glass flake epoxy	8025
WSS	PPG	Air Dry	Champion 636	High-solids urethane	8025
WSW	PPG	Low Bake	Phenguard 930	Epoxy phenolic tank lining	8027
WSX	PPG	Low Bake	Phenguard 940	Epoxy phenolic tank lining	8027
WTL	Sherwin-Williams	Force Cure	CarFlex HS Epoxy	100% Solids BPA Free FDA Epoxy	8026

POST REPAIR INTERIOR TREATMENT

A. Wear Limits, Gaging, Cause for Renewal or Attention

1. Contact car owner for criteria

B. Correct Repairs

1. Contact car owner for criteria

C. Reconditioning Requirements

1. Not applicable

D. Welding Requirements

1. Not applicable

E. General Information

F. Billing Repair Requirements

1. Location
 - a. Use Standard AAR location codes
2. Quantity
 - a. For labor, show hours
3. Condition Code
 - 0 = Labor
 - 1 = Material
4. Job Code Applied
 - a. Show applicable code
5. Qualifier
 - 05 = Change of service
 - 06 = Release from service
 - 07 = Account other repairs or lining
 - 08 = Lining inspection
 - 09 = Rejected at loading rack
6. Description
 - a. Show applicable description
7. Why Made Code
 - 09 = Account repairs
 - 25 = Owner's request
8. Job Code Removed
 - a. Show applicable code, if required
9. Responsibility Code
 - a. Use standard AAR responsibility codes
10. Job Code and Standard AAR Descriptions

<u>Job Code</u>	<u>Description (not for BRC)</u>
8013	Nitrogen Blanket
	<u>Qualifiers to use with 8013</u>
	01 0.2% oxygen or less
	02 0.5% oxygen or less
	03 2.0% oxygen or less
	04 5.0% oxygen or less
	05 9.0% oxygen or less
8014	Dry Air Blanket
8015	Internal Wipe Down (with neutral oil of product of to remove moisture)
8024	Propane Blanket

MISCELLANEOUS JOB CODES**A. Wear Limits, Gaging, Cause for Renewal or Attention****B. Correct Repairs**

1. Contact car owner for criteria

C. Reconditioning Requirements

1. Not applicable

D. Welding Requirements

1. Not applicable

E. General Information**F. Billing Repair Requirements**

1. Location
 - a. Use Standard AAR location codes
2. Quantity
 - a. For labor, show hours
3. Condition Code
 - 0 = Labor
 - 1 = Material
4. Job Code Applied
 - a. Show applicable code
5. Qualifier
6. Description
 - a. Show applicable description
7. Why Made Code
 - 01 = Worn Out
 - 04 = Defective
 - 09 = Account repairs
 - 25 = Owner's request
 - 26 = Decayed or metal deterioration
8. Job Code Removed
 - a. Show applicable code, if required
9. Responsibility Code
 - a. Use standard AAR responsibility codes
10. Job Code and Standard Descriptions

<u>Job Code</u>	<u>Description</u>
8500	Programmed Maintenance
	<u>Qualifiers to use with 8500</u>
	01 ACF side sill modification
	02 Head Brace modification
	03 North American modification (covers Rumanian kit hoppers)
	04 Hopper outlet modification (stiffening bars)
	05 Pressure tank car modification (105A to 112J)
	06 Diagonal end stiffeners on hopper cars
	07 Handhold clearance modification to end sill
	08 Changeout of friction bearings to roller bearings
	09 Elongated inboard stub sill pod
	10 End sill modification (hopper car)
	88 Rule 88 conversion
	89 Rule 88 inspection
	90 OM 1 inspection
8510	Tare Weight Change (reweigh and stencil)
8512	Switching charges
8516	Lube center plate
8518	Inbound inspection (also outbound; intended for use as a general inspection of walk around inspection)
8520	Periodic inspection (preventative maintenance)
8523	Loading or unloading damaged car
8524	Corrosion damage repair
8525	Constant Contact Side Bearings repair
8526	Time and Travel (associated with mobile repairs)
8528	Center Plate Vertical Wear Liner (covers welding or R&R)
8530	State Tax or Duty
8532	Freight
8534	Credits – Wrecks
8536	Credits – Counter billing
8540	Remote monitoring system installation
8541	Remote monitoring system maintenance
8542	Remote monitoring system condition monitoring
8543	Remote monitoring system removal

Appendix D Update Summary

1/1/2025 Updates

- Added a cover and introductory page with a table of contents
- Changed page numbering throughout entire document. Previously it started at pg 767 since it was in the field manual. Page numbering now starts from 1 since its separated
- Added Why Made's 01=Worn Out, 04=Defective, 07=Obsolete and 26=Decayed or metal deterioration to Covered Hopper section
- Added new parts and job codes to PD Hopper Car section
 - JC 7709 Gauge Box, Glass
 - JC 7715 Aluminum Pipe, 5 inch
 - JC 7719 Steel Pipe, 5 inch
 - JC 7745 Air Inlet Ball Valve, 2 inch
- Added "for Supply or Product Line" to JC's 7724 & 7726 Castings
- Removed JC's 7876 & 7878 for Outlet Gate Capstan Extension & Slide. These items are already covered with JC's 7202 & 7203
- Added Why Made 26=Decayed or metal deterioration to Tank Cars section
- Changed Job Code 9006 from Stainless Steel to "Rod, Any Material"
- Removed "Cover" from Job Code 9055
- Added NDT qualifiers to JC 9815. Qualifiers include all non destructive testing types listed in MSRP C-III. Excludes UT & UTT covered with JC's 9817 & 9818
- Added UT to JC 9817 & UTT to 9818 in Miscellaneous Testing section and Qualification and Job Code chart
- Removed JC 9840 as this was reserved for future use but is not needed at this time
- Added Why Made 26=Decayed or metal deterioration to Exterior Coatings section
- Edited placement of Job Codes 8050, 8051 and 8052 in Exterior Coatings section
- Added "Active" to the Exterior Coatings Car Part Qualifier Table
- Added 12 new coatings to the table with new qualifiers and assigned JC's based on cure type to match others
- Updated JC for Coal Tar
- Updated narrative and specs for two WHPC exterior coatings
- Added a "No Longer In Production" table to the Exterior Coatings section for historical records purposes. This details coatings no longer produced
- Added Why Made 26=Decayed or metal deterioration to Interior Coatings and Linings section
- Added "Active" to the Interior Coatings and Linings Car Part Qualifier Table
- Added 17 new coatings to the table with new qualifiers and assigned JC's based on cure type to match others
- Updated narrative and cure method for two WHPC interior coatings
- Added a "No Longer In Production" table to the Interior Coatings and Linings section for historical records purposes. This details coatings no longer produced
- Updated JC 8013 Qualifiers in Post Repair Interior Treatment section
- Added Why Made's 01=Worn Out, 04=Defective and 26=Decayed or metal deterioration to Miscellaneous Job Codes section
- Updated JC 8500 Qualifiers in Miscellaneous Job Codes section
- Corrected various grammar, spacing and indentation errors

4/1/2025 Updates

- Table of Contents – pg.2 Covered Hoppers General Hopper Car Parts JOB CODE RANGE. Change ending range from '7878' to '7874' since we removed job codes 7876-7878 in 1/1/25 update
- Add update summary to the end of Appendix D to provide users information on what updates contained in newest version (similar to last chapter of AAR Office and Field Manual summary)

10/1/2025 Updates

- Table of Contents – pg.2 Covered Hoppers General Hopper Car Parts JOB CODE RANGE updated to end at 7874
- Added 2 new qualifiers to Bottom Outlet Valves:
 - 07 – Interior, carbon steel, 6 inch
 - 08 – Exterior, stainless steel, 4 inch
- Add Triflex Polyurethane, Polyaspartic, Polymer Resin Blend by Advanced Polymer Coatings to the Exterior Coatings section Car Part Qualifier WUR and Job Code 8051
- Updates added to summary at the end of Appendix D

4/1/2026 Updates

- Update qualifier for JC 9818 in table on pg.14 from ZYF to ZYT