Association of American Railroads

SAFETY AND OPERATIONS

MANUAL OF STANDARDS AND RECOMMENDED PRACTICES SECTION A, PART I

TABLES OF CONTENT

Compiled under the direction of the Committees responsible for the subjects shown herein.

Published by

The Association of American Railroads 425 Third Street, SW., Washington, D.C. 20024

© Copyright Association of American Railroads

Printed in U.S.A.

Copyright © 2016 by the Association of American Railroads (AAR) Safety and Operations 425 Third Street SW Suite 1000 Washington, DC 20024

All rights reserved, including the right to reproduce this book in any form. It is the AAR's intention that this publication be used to promote the objectives of the AAR and its members for the safe, efficient, and uniform interchange of rail equipment in North America. To this end, only excerpts of a rule or specification may be reproduced by the purchaser for their own use in promoting this objective. No portion of this publication may be displayed or otherwise made available to multiple users through any electronic distribution media including but not limited to a local area network or the Internet. No portion may be sold or used for advertisement or gain by any entity other than the AAR and its authorized distributor(s) without written permission from the AAR.

ORDERING INFORMATION

Copies of the various sections of this manual can be obtained as follows:

ORDERS FOR

Publications Department

PUBLICATIONS

Transportation Technology Center, Inc.

P.O. Box 11130 55500 DOT Road Pueblo, CO 81001 Email: pubs@aar.com

Phone: Toll-free 877-999-8824, Direct 719-584-0538

Fax: 719-584-7157

TTCI Web page: http://www.aar.com

Online ordering: http://www.aarpublications.com/

CIRCULAR LETTER SUBSCRIPTIONS

Subscriptions to Circular Letters of the AAR Safety and Operations' Technical Services are available in hardcopy or electronic format (online access via AAR's Web page at http://aarcirculars.aar.org. Circulars are issued at least monthly and include industry letter ballots and results, arbitration decisions, notification

of rules and standards revisions, industry early warning and maintenance advisories, and other information related to mechanical rules and standards. Subscriptions are valid for one year.

For ordering information, contact the following: Phone: Toll-free 877-999-8824, Direct 719-584-0538

Fax: 719-584-7157 Email: pubs@aar.com

AAR Web page: http://www.aar.org TTCI Web page: http://www.aar.com

MSRP-A1 **INDEX**

The MSRP-A1 Table of Contents is an inclusive index of all MSRP specifications, standards, and recommended practices. It is available online at http://www.aar.com/standards/publications.php. This easy-to-access document is a convenient way to quickly identify in which manual a specific document resides. The index is updated weekly, enabling the user to see in "real-time" which documents have been

updated via Circular Letter.

MSRP-AS STANDARDS SUPPLEMENT

MSRP-AS serves as a supplement to all MSRP sections and is available as a free download at ADMINISTRATIVE http://www.aar.com/standards/publications.php. All users are governed by the administrative standards in MSRP-AS in addition to the standards and specifications in each section of the Manual of Standards and

Recommended Practices.

TECHNICAL QUESTIONS For technical questions regarding this manual, contact the following:

Transportation Technology Center, Inc.

P.O. Box 11130 55500 DOT Road Pueblo, CO 81001

Email: techstds@ttci.aar.com Phone: 719-584-7159 Fax: 719-585-1895

THIS PAGE LEFT BLANK INTENTIONALLY

TO THE USER

Section A, Part I contains a comprehensive index of the entire AAR *Manual of Standards and Recommended Practices*, Sections A through S. This index is arranged in three sections:

- A numerical list of all "M" specifications, "RP" recommended practices, and "S" standards.
- An alphabetical list by subject.
- A list organized by the MSRP section.

Each list shows the standard, recommended practice, or specification number, the subject, and the section of the *Manual of Standards and Recommended Practices* in which that document is located. In addition, all Circular Letters that affect a document since its most recent publication are also identified.

In addition, this manual provides for historical reference a list of documents that have been archived or renumbered.

Note: Each individual section of the *Manual of Standards and Recommended Practices* also includes a table of contents for that particular section.

HOW TO USE THIS INDEX

This index of the *Manual of Standards and Recommended Practices* contains a list of every document contained in the individual sections (AS through S). You can search this index in one of three ways:

- 1. Locate a document by its number using the Numeric Index on page A-I-1.
- 2. Locate a document by its title using the Alphabetic Index on page A-I-27.
- 3. Locate a document by searching a particular section in the Section Index on page A-I-55.

The right-hand column of each index contains the words "Update Available" if a document is affected by a Circular Letter that was issued subsequent to the release of the manual containing the document. You may click the link (if viewing the PDF) or go to the section entitled "Current Circular Letters" to view a list of Circular Letters issued for each affected document.

DISCLAIMER

The "Current Circular Letters" section lists the Circular Letters that have been issued subsequent to the release of the MSRP specifications, standards, and recommended practices shown in MSRP-A1. This list is intended to improve accessability to the users. It is the responsibility of the user to ensure that individual MSRP sections reflect interim revisions implemented via Circular Letter. This list of Circular Letters is current as of the date printed in the margin. Any changes issued via AAR Circular Letter after that date will not be included.

PREFACE

The *Manual of Standards and Recommended Practices* of the Safety and Operations Department, Association of American Railroads, is issued by authority of the Management Committee of the Division and includes all regularly adopted specifications, standards, and recommended practices of the Association of American Railroads.

The manual is composed of the following sections:

- Section AS—Administrative Standards Supplement serves as a supplement to all *MSRP* sections (this is available as a free download at http://www.aar.com/standards/publications.php)
- Section A—Table of Contents, Alphabetical and Numerical Index of Sections B through S inclusive (this is available as a free download at http://www.aar.com/standards/publications.php)
- Section B—Freight Car Draft Components (100 Series)
- Section C—Car Construction—Fundamentals and Details (200 and 2000 Series)
- Section C, Part II—Design, Fabrication, and Construction of Freight Cars, M-1001
- Section C, Part III—Specifications for Tank Cars, M-1002
- Section D—Trucks and Truck Details (300 and 3000 Series)
- Section E—Brakes and Brake Equipment (300, 400, 3000, and 4000 Series)
- Section E, Part II—Electronically Controlled Brake Systems (4200 Series)
- Section F—Sensors
- Section G—Wheels and Axles (600 Series)
- Section G, Part II—Wheel and Axle [Shop] Manual (600 and 700 Series)
- Section H—Journal Bearings and Lubrication (700 Series)
- Section H, Part II—Roller Bearing [Shop] Manual (700 Series)
- Section H, Part III—Lubrication Manual (700 Series)
- Section I—Intermodal Equipment Manual
- Section J—Specification for Quality Assurance, M-1003
- Section K, Part I—Railway Electronics Systems Architecture and Concepts of Operation (9000 Series)
- Section K, Part II—Locomotive Electronics and Train Consist System Architecture (9100 Series)
- Section K, Part III—Wayside Electronics and Mobile Worker Communications Architecture (9200 Series)
- Section K, Part IV—Office Architecture and Railroad Electronics Messaging (9300 Series)
- Section K, Part V—Electronics Environmental Requirements and System Management (9400 Series)
- Section K, Part VI—Railway Data Management and Communications (9500 Series)
- Section L—Lettering and Marking of Cars (900 Series)
- Section M—Locomotives and Locomotive Interchange Equipment (500 and 5000 Series)
- Section N—Multi-Level Manual (800 Series)
- Section S—Casting Details
- Section S, Part II—Truck Details and Casting Codes (300 and 3000 Series)
- Section S, Part III—Coupler and Yoke Details (100 Series)
- Section T—Interoperable Fuel Tenders for Locomotives

Specifications are designated with an "M" prefix (e.g., M-900). Standards are prefixed "S" (e.g., S-900). Recommended Practices carry the prefix "RP" (e.g., RP-900).

TABLE OF CONTENTS

| <u>Description</u> | <u>Page</u> |
|-------------------------------|-------------|
| Numeric Index | A-I– |
| Alphabetic Index | |
| Section Index | A-I–5 |
| Archived/Renumbered Documents | A-I–8 |
| Current Circular Letters | A-I-8: |

THIS PAGE LEFT BLANK INTENTIONALLY

NUMERIC INDEX

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------------|---|------------------------|--------------|-------------------------|
| M-101 | Axles, Carbon Steel, Heat-Treated | 2016 | G | Oli Culai 3 : |
| M-101 M-105 | Forgings, Carbon Steel Blooms, Billets, and Slabs | 1964 | S | |
| M-107/ | Wheels, Carbon Steel | 2016 | G | |
| M-208 | Wheels, Carbon Steel | 2010 | ď | |
| M-114 | Helical Springs, Heat-Treated Steel | 2008 | D | |
| M-118 | Pin, Coupler Knuckle Pivot and Coupler Shank Connecting, Steel | 2003 | В | |
| M-119 | Retaining Pin and Keeper for F-Type Cushion Yoke | 2009 | В | |
| M-126 | Forgings, Carbon Steel | 1968 | \mathbf{S} | |
| M-127 | Forgings, Alloy Steel | 1964 | \mathbf{S} | |
| M-131 | Blooms, Billets, and Slabs—Alloy Steel | 1964 | \mathbf{S} | |
| M-201 | Castings, Steel | 2016 | \mathbf{S} | <u>Update Available</u> |
| M-202 | Truck Bolsters, Cast or Structural—Design and Testing | 2015 | S | <u>Update Available</u> |
| M-203 | Truck Side Frames, Cast Steel—Design and Testing | 2012 | \mathbf{S} | |
| M-203A | Bolster Design Loads | 1997 | \mathbf{S} | |
| M-204 | Truck, Freight Car, with Car Body/Side Frame Load Path—Design and Testing | 2011 | S | |
| M-205 | Yoke, Coupler—Test Requirements | 2003 | \mathbf{S} | |
| M-210 | Side Frame and Bolsters, AAR Approved—Purchase and Acceptance | 2013 | S | |
| M-211 | Couplers and Yokes, AAR Approved—Purchase and Acceptance | 2016 | S | Update Available |
| M-212 | Couplers and Yokes, Secondhand—Classification and Reconditioning Procedure | 2016 | S | <u>Update Available</u> |
| M-213 | Truck Frames, Fabricated Steel | 1981 | \mathbf{S} | |
| M-214 | Side Frames and Bolsters, Used and Reconditioned—Classification and Repair Procedure | 2013 | S | |
| M-215 | Coupling Systems | 2013 | \mathbf{S} | |
| M-216 | Knuckles, Types E and F—Fatigue Test | 2016 | \mathbf{S} | Update Available |
| M-220 | Casting Component NonDestructive Testing Requirements | 2012 | S | |
| M-269 | Wear Plate, Coupler Carrier, Performance Specification—Non Metallic | 2003 | В | |
| M-300 | Reconditioned Brake Beams | 2012 | ${f E}$ | |
| M-402 | Brake Shoe, Cast Iron, High-Phosphorus Type | 2002 | ${f E}$ | |
| M-601 | Hose, Wrapped, Air—Brake, "End Hose" | 2006 | \mathbf{E} | |
| M-602 | Gaskets, Air Hose | 2002 | E | |

| | | <u>Last</u> | | |
|-----------------|--|-------------|--------------|-------------------------|
| <u>Standard</u> | <u>Subject</u> | Revised | Section | Circulars? |
| M-618 | Hose, Air, Wire-Reinforced | 2011 | \mathbf{E} | |
| M-619 | Brake Cylinder Line Hose Assemblies—Performance Requirements | 2005 | E | |
| M-620 | Hose, Air, Fabric-Reinforced | 2011 | ${f E}$ | |
| M-800 | Hopper Car, Covered—For Transport of Oxidizing Commodities | 2012 | С | |
| M-801 | Hopper Car, Covered—Pressurized During Unloading and In-Transit | 2012 | С | |
| M-901B | Draft Gear, Secondhand and Reconditioned | 2015 | В | <u>Update Available</u> |
| M-901E | Draft Gears with a Minimum Capacity of 36,000 ft·lb at a Reaction of 500,000 lb | 2015 | В | <u>Update Available</u> |
| M-901F | Draft Gear Reaction Forces, Measuring and Recording, Instrumentation Requirements | 2003 | В | |
| M-901G | Draft Gear, Rated by Impact Testing | 2015 | В | <u>Update Available</u> |
| M-901K | Draft Gear, All-Hydraulic, Rated by Impact Testing | 2015 | В | <u>Update Available</u> |
| M-908 | Flat Steel Floor for Freight Cars 50,000, 60,000, 70,000 or 80,000 lb Capacities | 2006 | C | |
| M-912 | Oil, Control Valve | 2002 | ${f E}$ | |
| M-914 | Brake Cylinder Lubricant | 2003 | ${f E}$ | |
| M-916 | Sand for Traction | 2016 | \mathbf{M} | Update Available |
| M-921A | Cushioning Devices, Sliding Sill | 2003 | В | |
| M-921B | Cushioning Devices, End-of-Car | 2012 | В | |
| M-921C | Cushioning Devices, Reconditioned—Approved for Freight Service | 2013 | В | <u>Update Available</u> |
| M-921D | Cushioning Devices, End-of-Car—Motor-Vehicle-Carrying | 2012 | В | |
| M-921E | Cushioning Devices, Active Draft End | 2012 | В | |
| M-921F | Cushioning Devices, Active Draft End of Car | 2012 | В | |
| M-921G | Facility Inspection Requirements for Manufacturers of New and Reconditioned Cushioning Devices for Freight Service | 2003 | В | |
| M-921H | Cushioning Units, Standard Preload EOC Unit Condition Indicator | 2004 | В | |
| M-923 | Hose Cement | 1983 | ${f E}$ | |
| M-924 | Journal Roller Bearing Adapters for Freight Cars | 2015 | \mathbf{H} | |
| M-926 | Brake Shoe, High-Friction Composition or Metal Type | 2015 | E | <u>Update Available</u> |
| M-927 | Hose Fittings and Hose Assemblies, Air, Wire-Reinforced | 2007 | E | |

EFFECTIVE 10/21/2016

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | Cubiant | <u>Last</u> | Section | Circulare? |
|-------------------|--|--------------|--------------|-------------------------|
| Standard M-928 | <u>Subject</u> Highway Trailer Hitches for Freight Cars | Revised 2004 | Section I | <u>Circulars?</u> |
| M-928A | Highway Trailer Hitches for Freight Cars with 90,000-lb Maximum Gross vehicle Weight Capacity | 2003 | I | |
| M-929 | Grease for Lubrication of Trailer Hitches on Flatcars | 2004 | I | |
| M-930 | Containers for Domestic Intermodal Service | 2014 | I | Update Available |
| M-931 | Trailers for Intermodal Service | 2013 | I | |
| M-932 | Coupler Centering Device Specification | 2003 | S-III | |
| M-934 | Side Frame, Alternate Standard Pedestal-Type with Side Frame Key—Application of Roller Bearing Unit | 2015 | Н | |
| M-934A | Standard Interchangeable Spacers for Freight Car Tapered-Roller Journal Bearings | 2011 | Н | |
| M-934B | Standard Interchangeable Spacers for Freight Car Tapered-Roller Journal Bearings | 2011 | Η | |
| M-934C | Standard Interchangeable End Caps for Freight Car Tapered-Roller Journal Bearings | 2011 | Η | |
| M-934D | Standard Interchangeable Backing Rings for Freight Car Tapered-Roller Journal Bearings | 2007 | Н | |
| M-934E | Universal Fitted Backing Rings For Freight Car Tapered-roller Journal Bearings | 2011 | Н | |
| M-941 | End Enclosure for Fully Enclosed Multi-Level Auto Rack Cars | 1998 | N | |
| M-942 | Journal Roller Bearing Grease | 2016 | \mathbf{H} | |
| M-947 | Adhesive-Backed Films for Marking Cars— Performance-Based Requirements | 2015 | L | <u>Update Available</u> |
| M-948 | Truck Side Bearing | 2012 | D | <u>Update Available</u> |
| M-949 | Slack Adjuster Grease | 2002 | ${f E}$ | |
| M-950 | Universal Wide-Body Tri-Level Fully Enclosed Autorack Car (Low Deck) | 2016 | N | <u>Update Available</u> |
| M-950-A | Universal Wide-Body Bi-Level Fully Enclosed Autorack Car (Standard Deck) | 2016 | N | <u>Update Available</u> |
| M-951 | Portable Bridge Plates for Multi-Level Autorack Cars | 2011 | N | |
| M-952 | Intermodal Container Support and Securement System for Freight Cars | 2008 | Ι | |
| M-956 | Requirements Governing Superstructures to Cars Equipped With Sliding Sill or End-of-Car Cushioning Devices | 1994 | N | |
| M-957 | Tie-Down Tracks, Winches, and Chains | 1997 | N | |
| M-959 | Lubrication Seals for Freight Car Journal Roller Bearings | 2007 | Н | |

EFFECTIVE 10//21//201(

AAR Manual of Standards and Recommended Practices Tables of Content

| 0, 1, 1 | 0.11 | Last | 0 " | 0: 1 0 |
|-----------------|---|---------------------|--------------|-------------------------|
| Standard M. 061 | Subject Subject | Revised | Section | <u>Circulars?</u> |
| M-961 | Uncoupling Devices, Special Remanufacture of TOFC Trailers | 2003 | S-III | |
| M-962 | | 2004 | I C | |
| M-964 M-965 | Floor, Nailable Steel—Freight Cars | $2006 \\ 2002$ | D | |
| M-966 | Special Devices to Control Stability of Freight Cars TOFC Portable Bridge Plates | $\frac{2002}{2004}$ | Б I | |
| M-967 | Electrochemical Metal Deposition for Repairing | 2004 | G | |
| W1-907 | Roller Bearing Axle Journals | 2006 | G | |
| M-970 | Certification of Multi-Level Autorack Cars | 2016 | N | <u>Update Available</u> |
| M-971 | Non-Grease Lubricant for Autorack Equipment | 2002 | N | |
| M-975 | Span Bolsters | 2000 | \mathbf{S} | |
| M-976 | Truck Performance for Rail Cars | 2013 | D | <u>Update Available</u> |
| M-985 | Bad Order Device for Identification of Defective Hitches | 2004 | Ι | |
| M-990 | Tie-Down Tracks, Wheel Chocks, and Straps (Tri- Level Autoracks) | 2016 | N | <u>Update Available</u> |
| M-991 | Vehicle Door Edge Protection System for Multi-Level Autorack Cars | 2006 | N | |
| M-992 | Designated Satellite Shop Repair Specifications for Multi-Level Autorack Cars | 2015 | N | <u>Update Available</u> |
| M-993 | Mechanical Certification of Flatcars for Autorack Service | 1996 | N | |
| M-996 | Brake Shoe, Low-Friction Composition Type | 2015 | ${f E}$ | Update Available |
| M-997 | Brake Shoe—High-Friction Tread Conditioning, High Capacity | 2008 | E | |
| M-998 | Intermodal Container Support and Interbox Connector (IBC) Securement Systems for Freight Cars | 2014 | I | |
| M-1001 | Design, Fabrication, and Construction of Freight Cars | 2015 | C-II | |
| M-1002 | Specifications for Tank Cars | 2014 | C-III | |
| M-1003 | Specification for Quality Assurance | 2014 | J | |
| M-9154A | Intra-Consist Communications (ICC) Routing Functionality | 2013 | K-II | |
| M-9154B | Intra-Consist Communications (ICC) Layer 2 | 2015 | K-II | Update Available |
| M-9155 | Locomotive Command and Control Module (LCCM)—Functional Requirements | 2015 | K-II | <u>Update Available</u> |
| M-9453 | ITCSM Asset User Interface Requirements for Interoperable Train Control | 2014 | K-V | |
| RP-021 | Implementation of Equipment Identification and Warranty Administration | 2004 | L | Update Available |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|--------------------|
| RP-101 | Draft Gear Inspection | 2011 | В | <u>on odiaro i</u> |
| RP-110 | Cushioning Device Inspection | 2003 | В | |
| RP-200 | Hopper Car, Open Top, in Shaker Service—Design Features | 1976 | C | |
| RP-206 | Decking, Wood—for Open Top Cars | 1981 | \mathbf{C} | |
| RP-208 | Stake Pocket—Permanent | 1998 | \mathbf{C} | |
| RP-209 | Stake Pocket—for Flatcars | 1998 | \mathbf{C} | |
| RP-227 | Universal Pocket, 15-in. Cushion, E69 Coupler | 1975 | \mathbf{C} | |
| RP-228 | Universal Pocket, 10-in. Cushion, Low Deck—E69 Coupler | 1975 | C | |
| RP-231 | Universal Pocket—Typical Sections and Notes | 1975 | \mathbf{C} | |
| RP-232 | Ladder, End and Side—Configuration | 1981 | \mathbf{C} | |
| RP-233 | Hold-Down Clips—Gondolas, Side Sheet Mounted | 1948 | \mathbf{C} | |
| RP-234 | Hold-Down Clips—Gondolas, Top Cord Mounted | 1982 | \mathbf{C} | |
| RP-258 | Hopper Car—Grain Service | 1992 | \mathbf{C} | |
| RP-261 | Center Bowl Liner and Lubricant—Double-Stack Container Car | 2014 | C | |
| RP-306 | Spring Test Machine | 1961 | D | |
| RP-307 | Spring Test Machine | 1961 | D | |
| RP-308 | Design Dimensions for Brake Hanger Bracket | 1937 | ${f E}$ | |
| RP-322 | Brake Beam Strut Keyway Gauge | 1992 | ${f E}$ | |
| RP-323 | Application of Snap-On Pedestal Roof Liners for AAR Pedestal-Type Side Frames | 2012 | D | Update Available |
| RP-400 | Slack Adjuster—General Information | 2002 | ${f E}$ | |
| RP-401 | Brake Control Valves—Mount-Configuration Designs as Related to Field Vibration | 2014 | C | |
| RP-503 | Locomotive Diesel Fuel Additives and Fuel Savings Devices—Evaluation Procedure | 2016 | M | Update Available |
| RP-505 | Typical 26-L Type Brake Equipment Piping Diagrams for Locomotives | 2001 | M | |
| RP-508 | Air Brake Exhaust Piping | 2001 | \mathbf{M} | |
| RP-509 | Braking Ratios for Locomotives | 2001 | \mathbf{M} | |
| RP-512 | Color Code for Identifying Fluids on Locomotive | 2001 | \mathbf{M} | |
| RP-514 | Designation of Sides and Ends of Locomotives | 2001 | \mathbf{M} | |
| RP-518 | Brake Shoe Unflanged | 2001 | \mathbf{M} | |
| RP-545 | Testing Electrical Components | 2001 | M | |

| Standard | <u>Subject</u> | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|--------------|------------------|
| RP-546 | Minimum Requirements for Main Reservoir System on New and Rebuilt Diesel-Electric, Electric, and Gas Turbine Locomotives of 800-hp Capacity and Greater | 2001 | M | |
| RP-548 | Locomotive Rating Train/Track Resistance | 2001 | \mathbf{M} | |
| RP-557 | Spark Arrester | 2001 | \mathbf{M} | |
| RP-585 | Wiring and Cable Specification | 2001 | \mathbf{M} | |
| RP-586 | Wire and Cable Insulating Material—Moisture- Resisting Jacketed | 2005 | M | |
| RP-587 | Wire and Cable Insulating Material—Silicone Rubber Insulated | 2005 | M | |
| RP-588 | Wire and Cable Insulating Material | 2001 | ${f M}$ | |
| RP-589 | Rating for Specific Fuel Consumption of Diesel Electric Locomotives | 2001 | M | |
| RP-590 | Lead-Acid Batteries and Compartments | 2001 | ${f M}$ | |
| RP-599 | Brake Shoes—High-Friction Composition Type for Locomotives | 2001 | M | |
| RP-608 | Gauge, Wheel—Reference Master Disk for Verifying Wheel Circumference Gauges S-612 and S-613 | 2004 | G | |
| RP-609 | Inspection Stand for Use with Master Disks | 2004 | \mathbf{G} | |
| RP-612 | Mounting Pressures for Wrought and Cast Steel Wheels on Gear-Driven and Idler Axles of Locomotives Other than Steam | 2004 | G | |
| RP-613 | Gauge, Axle—Master Gauge for Verifying Axle Journal and Fillet Gauge S-614 | 2004 | G | |
| RP-614 | Gauge, Wheel—Master Gauge for Verifying Wheel Gauges S-617 and S-618 | 2004 | G | |
| RP-615 | Gauge, Wheel—Simplified | 2004 | \mathbf{G} | |
| RP-622 | Axle, Weight—Machined Finish, Raised Wheel Seat | 2007 | \mathbf{G} | |
| RP-629 | Gauge, Wheel—for Measuring Condemnable Overheated Wheels | 2004 | G | |
| RP-630 | Gauge, Wheel—Application for Measuring Condemnable Overheated Wheels | 2004 | G | |
| RP-631 | Recommended Wheel Shop Practices | 2016 | G-II | Update Available |
| RP-632 | General Requirements and Information | 2015 | G-II | |
| RP-633 | Figures | 2015 | G-II | Update Available |
| RP-634 | Gauges—Wheel and Axle Shop | 2016 | G-II | Update Available |
| RP-636 | Gauge, Wheel—Application Drawing for AAR 1B Wheel Gauges S-662 and S-667 | 1991 | G | |
| RP-637 | Gauge, Wheel—Application Drawing for AAR 1B Wheel Gauges S-661 and S-665 | 1991 | G | |

| Standard | <u>Subject</u> | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|--------------|---------------------------------|
| RP-638 | Gauge, Wheel—Application Drawing for Reference Gauge to Verify Wheel Gauges S-661, S-662, S-663, S-664, S-665, S-666, S-667, and S-668 | 1991 | G | |
| RP-750 | Wheel Mounting Compound Approval Test Procedure | 2015 | G-II | |
| RP-802 | Wheel Chock Strap Assembly Replacement | 1996 | N | |
| RP-803 | Ride Quality Performance Requirements for Motor Vehicle Shipments | 2014 | N | |
| RP-804 | Measurement Requirements for Remote Ride Quality Monitoring | 1996 | N | |
| RP-810 | Handling and Inspection of Vehicles Before Loading | 2013 | N | |
| RP-811 | Loading of Vehicles | 2015 | N | $\underline{Update\ Available}$ |
| RP-812 | Handling and Inspection of Multi-Level Cars and Equipment After Loading | 1994 | N | |
| RP-813 | Handling of Multi-Level Cars in Trains and Yards | 1994 | N | |
| RP-814 | Inspection of Multi-Levels and Vehicles En Route | 1994 | N | |
| RP-815 | Railroad Police Protection | 1994 | N | |
| RP-816 | Unloading of Vehicles | 2006 | N | |
| RP-817 | Destination Inspections | 1994 | N | |
| RP-818 | Handling of Multi-Level Cars and Equipment Afier Unloading | 1997 | N | |
| RP-830 | Form Preparation for Vehicle Inspection | 2014 | N | |
| RP-831 | Standard Vehicle Nomenclature | 2015 | N | <u>Update Available</u> |
| RP-851 | Double-Stack Container Cars | 2004 | I | |
| RP-852 | Intermodal Equipment Cars | 2003 | I | |
| RP-853 | Trailer Repair and Modification | 2016 | I | <u>Update Available</u> |
| RP-899 | Car Owner's Manual for the Inspection and Maintenance of Double-Stack Container Cars | 2014 | Ι | <u>Update Available</u> |
| RP-900 | Passenger Car | 2002 | \mathbf{L} | |
| RP-901 | Boxcars Equipped with Removable Crossbars | 2002 | \mathbf{L} | |
| RP-902 | Cars Equipped with Antipilferage Devices | 2002 | \mathbf{L} | |
| RP-903 | Lading Strap Anchors | 2002 | ${ m L}$ | |
| RP-904 | Gondola Cars with Wood Floors | 2002 | ${ m L}$ | |
| RP-905 | Performance Requirements for Refrigerated Boxcar Fuel Tanks | 2006 | C | |
| RP-940 | Electronic Distribution Format For Engineering Drawings | 2005 | C | |
| RP-2017 | Striker Casting, Cast Steel | 1991 | \mathbf{C} | |
| RP-5107 | Access Doors to Light Boxes for Road Number, Headlight, or Warning Lights—Outside Cab | 2001 | M | |

EFFECTIWE 10/21/201(

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|--------------|-------------------------|
| RP-5115 | Cushion Pad—Locomotive Cab Door Frame | 2001 | M | |
| RP-5117 | Door Closure Bar—Locomotive Cab | 2001 | ${f M}$ | |
| RP-5120 | Flexible Hinge Guard on Locomotive Cab Door | 2001 | ${f M}$ | |
| RP-5122 | Locomotive Horn Valve Handle with Soft, Resilient- Type Rubber Cover | 2001 | M | |
| RP-5124 | Padded Sun Visor in Locomotive Cab—Engineer's Side Only | 2001 | M | |
| RP-5126 | Recessed Windshield Wiper Valve, Train-Order Light Switch, and Flush-Mounted Train-Order Light | 2001 | M | |
| RP-5127 | Rounded Cab Window Latch in Locomotive Cabs | 2001 | \mathbf{M} | |
| RP-5128 | Rounding All Possible Exposed Convex Edges and Corners | 2001 | M | |
| RP-5132 | Diesel Locomotive Control Stand for New Locomotives | 2001 | M | |
| RP-5136 | Windshield Wiper Motor Handle with Soft-Rubber- Type Grip | 2001 | M | |
| RP-5137 | Windshield Wiper Motor Protective Cover | 2001 | \mathbf{M} | |
| RP-5209 | Basic Brake Design Data for Freight Locomotives | 1999 | \mathbf{M} | |
| RP-5503 | Locomotive Fueling Interface | 2001 | \mathbf{M} | |
| RP-5523 | Axle Nomenclature Arrangement—Locomotives | 2001 | \mathbf{M} | |
| RP-5595 | Main Reservoir Equalizing End Hose Coupling | 2001 | \mathbf{M} | |
| RP-5596 | Brake Shoes—Metal Type | 2001 | \mathbf{M} | |
| RP-5599 | Hook and Eye Brake Rigging—Lever Angularity Inspection | 2007 | E | |
| RP-9203 | AEI Reader Equipment Requirements | 2010 | K-III | |
| RP-9457 | Positive Train Control Interoperable Electronic Train Management System (I-ETMS) Master Test Strategy (MTS) | 2012 | K-V | |
| RP-9511 | Interoperable Train Control (ITC) Onboard Track Database Field Survey and Validation, Recommended Practice | 2014 | K-VI | |
| S-010 | Field Test Requirements for Materials, Devices, and Products Manufactured to AAR Specifications but Having No Previous Service Experience on AAR Member Roads | | AS | |
| S-046 | Definitions of Terms for the AAR Manual of Standards and Recommended Practices | 2015 | AS | <u>Update Available</u> |
| S-050 | Procedures for Considering Proposals Regarding Revisions to the Manual of Standards and Recommended Practices | 2014 | AS | |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|---------|-------------------------|
| S-051 | Conditions Governing Withdrawal of AAR Approval of Freight Car and Locomotive Components and Products | 2000 | AS | |
| S-060 | Application for Component Approval Procedure | 2015 | AS | <u>Update Available</u> |
| S-100 | Bushings, Seamless Steel Tube—Coupler Shanks and Yokes | 2010 | В | |
| S-101 | Field Service Experience—Reporting Requirements | 2003 | В | |
| S-102 | Coupler, E Type, Standard and Alternate Standard, E60DE and E60EE | 2003 | S-III | |
| S-103 | Coupler, E Type, Top and Bottom Shelf, Standard and Alternate Standard, SE60DE and SE60EE | 2003 | S-III | |
| S-105 | Coupler, E Type, Detail Parts | 2003 | S-III | |
| S-106 | Coupler, E Type, No. 10-A Contour and Detail of Pivot Pin Hole | 2003 | S-III | |
| S-107 | Coupler, E Type, Standard and Alternate Standard, E67CE and E67DE | 2003 | S-III | |
| S-108 | Coupler, E/F Type, Standard and Alternate Standard, E68CE and E68DE | 2003 | S-III | |
| S-109 | Coupler, E/F Type, Standard and Alternate Standard, E69BE and E69CE | 2003 | S-III | |
| S-110 | Coupler, F Type, Standard F Coupler, F70DE | 2009 | S-III | |
| S-111 | Coupler, F Type, with Top Shelf, Standard, SF70DE | 2003 | S-III | |
| S-112 | Coupler, F Type, Standard, F73BE | 2003 | S-III | |
| S-114 | Coupler, F Type, Standard, F79DE | 2003 | S-III | |
| S-115 | Coupler, F Type, with Top Shelf, Standard, SF79DE | 2003 | S-III | |
| S-116 | Coupler, F Type, Interlocking, Coupler and Yoke Parts | 2003 | S-III | |
| S-117 | Coupler Contour, F Type, Interlocking | 2003 | S-III | |
| S-119 | Draft Gear Follower, Y44A | 2012 | В | |
| S-120 | Draft Key Retainers, Locks, Keepers, and Washer | 2011 | В | |
| S-121 | Draft Key | 2015 | В | <u>Update Available</u> |
| S-125 | Immobilization of Sliding Sill on Cushion Underframe Cars Having Damaged or Defective ACF Freight Saver 20- or 30-in. Travel Units—Plate No. 526-1 | 2003 | В | |
| S-126 | Immobilization of Sliding Sill on Cushion Underframe Cars Having Damaged or Defective Keystone 20-in. Travel Unit, Santa Fe Shock Control, A.O. Smith Cushion Ride, and Rockwell Cargo Cushion—Plate No. 526-2 | 2003 | В | |

EFFECTIVE 10//21//201

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|---------|------------|
| S-127 | Immobilization of Sliding Sill on Cushion Underframe Cars Having Damaged or Defective Hydra Cushion 10-, 12-, or 20-in. Travel Units or Evans Cushion Pak Wide Tunnel Units—Plate No. 526-3 | 2003 | В | Officials: |
| S-128 | Immobilization of Sliding Sill on Cushion Underframe Cars Having Damaged or Defective Hydra Pullman Standard Hydroframe 40 and 60 Units or National 3C Wide Tunnel Units—Plate No. 526-4 | 2003 | В | |
| S-129 | Couplers—Arrangement of Operating Mechanisms | 2000 | S-III | |
| S-130 | Coupler, E Type, Articulated Rotor Lever Assembly | 2003 | S-III | |
| S-131 | Coupler (Rotary), Type E60, Operating Rod, use with up to 6 1/2-in. Total Draft Gear Travel | 2016 | S-III | |
| S-132 | Operating Mechanism, Type No. 6, Interlocking | 2003 | S-III | |
| S-133 | Coupler (Rotary), Type F70, Operating Rod, use with up to 6 1/2-in. Total Draft Gear Travel | 2016 | S-III | |
| S-134 | Coupler (Rotary), Types E60, E67, and F70, Operating Rod for Use with Standard Draft Gear or End-of-Car Cushioning up to 15-in. Total Travel | 2016 | S-III | |
| S-137 | Coupler Shank Wear Plates and Application | 2000 | S-III | |
| S-139 | Yokes, Relief Fillets | 2003 | S-III | |
| S-141 | Yoke, E Type, Y40AE, Standard, for 24 5/8-in. Draft Gear Pocket | 2009 | S-III | |
| S-142 | Yoke, E Type, Y41AE for 36-in. Draft Gear Pocket | 2009 | S-III | |
| S-143 | Yoke, E Type, SY40AE or YS93AE, Standard, for 24 5/8-in. Draft Gear Pocket | 2009 | S-III | |
| S-149 | Yoke, E/F and F Type, Y45AE, Standard, for 24 5/8-in. Draft Gear Pocket | 2003 | S-III | |
| S-151 | Yoke, E/F Type, Y49AE, Standard, for 36-in. Draft Gear Pocket | 2003 | S-III | |
| S-154 | Coupler, E Type, SE67CE and SE67DE, Top and Bottom Shelf | 2003 | S-III | |
| S-155 | Coupler, E/F Type, SE68CE and SE68DE, Top and Bottom Shelf | 2014 | S-III | |
| S-156 | Immobilization of Freightmaster Types SP-E and SP-C | 2003 | В | |
| S-157 | Immobilization of Freightmaster Types F, FS, and B | 2003 | В | |
| S-158 | Immobilization of Freightmaster | 2003 | В | |
| S-159 | Immobilization of Freightmaster Types HD and AR-F | 2003 | В | |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|------------|
| S-160 | Immobilization of Keystone Type E Miner SR-12 | 2003 | В | On odiaio. |
| S-161 | Immobilization of Freightmaster 10-in. Type E Miner M-12S | 2003 | В | |
| S-162 | Immobilization of Keystone F Shank | 2003 | В | |
| S-163 | Coupler, E Type, SBE60DE and SBE60EE, Bottom Shelf | 2008 | S-III | |
| S-164 | Coupler, E Type, SBE67CE and SBE67DE, Bottom Shelf | 2008 | S-III | |
| S-165 | Coupler, E/F Type, SBE68CE and SBE68DE, Bottom Shelf | 2008 | S-III | |
| S-170 | Coupler, E/F Type, SBE69BE and SBE69CE, Bottom Shelf | 2008 | S-III | |
| S-171 | Immobilization of Pullman Standard, ACF, or Keystone Center-of-Car Cushioning Devices ("Dummy Cylinder Method") | 2003 | В | |
| S-172 | Coupler, E/F Type, SE69BE and SE69CE, Top and Bottom Shelf | 2008 | S-III | |
| S-173 | Coupler, E Type, Guard Arm Lightener Hole Openings and Knuckle Flag Hole—Standard Dimensions | 2003 | S-III | |
| S-174 | Coupler, F Type, Guard Arm Lightener Hole Openings and Knuckle Flag Hole—Standard Dimensions | 2003 | S-III | |
| S-176 | Yoke, E Type, Cushioning, for Pocket EOC-7 | 2003 | S-III | |
| S-177 | Yoke, E Type, Cushioning, for Pocket EOC-8 | 2003 | S-III | |
| S-178 | Yoke, F Type, Cushioning, for Pocket EOC-9 | 2011 | S-III | |
| S-179 | Yoke, F Type, Cushioning, for Pocket EOC-10 and EOC 26 | 2011 | S-III | |
| S-180 | Yoke, F Type, Cushioning, for Pocket EOC-1, EOC-2, and EOC-16 | 2011 | S-III | |
| S-181 | Cushioning Pocket Identification Guide—AAR Rule 59 | 2003 | В | |
| S-182 | Pocket Tolerances—EOC-8 | 2011 | В | |
| S-183 | Pocket Tolerances—EOC-9 | 2011 | В | |
| S-184 | Pocket Tolerances—EOC-10 | 2011 | В | |
| S-203 | Coupler, Height Adjustment | 1962 | \mathbf{C} | |
| S-204 | Body Center Plate, Separable—Surface Finish | 2014 | \mathbf{C} | |
| S-206 | Body Center Plate, Cast Steel or Forged—for Freight Cars with 14-in. Center Plates | 1978 | \mathbf{C} | |
| S-207 | Body Center Plate, Cast Steel or Forged—for Freight Cars with 16-in. Center Plates | 2014 | С | |

| <u>Standard</u> | <u>Subject</u> | Revised | Section | Circulars? |
|-----------------|---|---------|--------------|------------------|
| S-211 | Body Center Plate Gauge—14-in. and 16-in. Diameter | 1976 | C | |
| S-212 | Side Door, Boxcar—Sliding Type | 2012 | \mathbf{C} | |
| S-213 | Side Door, Boxcar—Plug Type | 2009 | \mathbf{C} | |
| S-215 | Safety Hangers and Retainers—for Freight Car Doors | 1964 | С | |
| S-217 | Identification Plate—Boxcar Doors | 2009 | \mathbf{C} | |
| S-219 | Safety Appliances for Bulkhead Flatcars, Including Pulpwood Cars | 1991 | С | |
| S-220 | Safety Appliances for Special Service High-Side Gondolas with Fixed Ends | 1991 | С | |
| S-224 | Handholds, Safety Railings, and Ladder Treads | 2015 | \mathbf{C} | Update Available |
| S-225 | Spark Shield—Wooden Deck Cars with Cast Iron Brake Shoes | 1980 | C | |
| S-226 | Running Boards, Walkways, Brake Steps, and End Platforms | 2013 | C | |
| S-227 | Walkways, Alternate—at Sides of Double-Stack Car Wells | 2013 | C | |
| S-229 | DOT Placard Location | 2013 | \mathbf{C} | |
| S-230 | Lading Strap Anchor Arrangement and Use—for Flatcars | 1973 | C | |
| S-233 | Gravity Outlet Gates, New—for Covered Hopper Cars | 2014 | C | |
| S-234 | Lifting Freight Cars | 1982 | \mathbf{C} | |
| S-235 | Side Bearing Wear Plate—Car Body | 2012 | \mathbf{C} | |
| S-236 | Striker, Cast Steel, F70 Coupler Design, 24 5/8-in. Draft Gear Pocket—Welded Application | 1978 | C | |
| S-238 | Striker, Cast Steel, F70 Coupler Design, 24 5/8-in. Draft Gear Pocket—Parts and Assembly | 1978 | C | |
| S-239 | Arrangement E60 Coupler Design 24 5/8 in. Draft Gear Pocket Striker Applied by Welding | 2012 | C | |
| S-243 | Draft Arrangement, E68 Coupler, 24 5/8-in. Pocket | 1983 | \mathbf{C} | |
| S-244 | Draft Arrangement, E69 Coupler, 24 5/8-in. Pocket | 1983 | \mathbf{C} | |
| S-245 | Draft Arrangement, F70 Coupler, 24 5/8-in. Pocket—Striker Applied by Welding | 1978 | C | |
| S-247 | Draft Arrangement, F79 Coupler, 24 5/8-in. Pocket | 1978 | \mathbf{C} | |
| S-249 | Door Puller Bracket, Application to Intermediate Post | 1978 | C | |
| S-252 | Door Air Lines—Location of End Cocks | 1978 | C | |

AAR Manual of Standards and Recommended Practices

| Standard Subject Revised Section Circulars? S-254 Train Coal Car, 100-Ton Nominal Capacity, with Train Positioner—Clearance Diagram 1974 C S-254 Draft Pocket Tolerances 1974 C S-255 Combined Striker and Front Draft Lug Tolerances 1974 C S-258 Body Center Plate Relief 1980 C S-269 Rail Car, 286,000-lb Gross Weight 1989 C S-265 Center Pin—Freight Car 1989 C S-266 Center Sill Section, Rolled Steel 2012 C S-267 Center Sill Section-Welding Notes 2003 B S-268 Coupler Carrier Wear Plate 2003 B S-269 Coupler Carrier Wear Plate 2003 B S-270 Wear Plate, Used in Cushion Unit and Draft Systems that Employ the Y-47 Plin for an F Shank S-16 C Update Available S-288 Free/Unrestricted Interchange for 286,000 lb Gross 2016 S-II Update Available S-301 Truck, 33-in. Wheels—Design Dimensions 1986 S- | | | Last | | |
|--|----------|--|------|--------------|-------------------------|
| S-254 | Standard | <u>Subject</u> | | Section | Circulars? |
| S-255 Combined Striker and Front Draft Lug Tolerances 1974 C S-258 Body Center Plate Relief 1980 C S-259 Rail Car, 286,000-lb Gross Weight 1994 C S-265 Center Pin—Freight Car 1989 C S-266 Center Sill Section, Rolled Steel 2012 C S-267 Center Sill Section—Welding Notes 1979 C S-268 Coupler Carrier Wear Plate 2003 B S-270 Wear Plate, Used in Cushion Unit and Draft 2009 B Systems that Employ the Y-47 Pin for an F Shank S-270 View Plate, Used in Cushion Unit and Draft 2009 B S-286 Free/Unrestricted Interchange for 286,000 lb Gross 2016 C Update Available S-301 Truck, 73-in. Wheels—Design Dimensions 1986 S-II S-II S-302 Truck, 36-in. Wheels—Design Dimensions 1986 S-II S-303 Truck, 38-in. Wheels—Design Dimensions 1986 S-II S-304 Truck, 38-in. Wheels—Design Dimensions 1986 S-II | S-253 | , | 1982 | С | |
| S-258 Body Center Plate Relief 1980 C S-259 Rail Car, 286,000-lb Gross Weight 1994 C S-265 Center Pin—Freight Car 1989 C S-266 Center Sill Section, Rolled Steel 2012 C S-267 Center Sill Section—Welding Notes 1979 C S-269 Coupler Carrier Wear Plate 2003 B S-270 Wear Plate, Used in Cushion Unit and Draft Systems that Employ the Y-47 Pin for an F Shank 2009 B S-286 Free/Unrestricted Interchange for 286,000 lb Gross Rail Load Cars 2016 C Update Available S-300 Truck, Freight Car—Design Data 2016 S-II Update Available S-301 Truck, 33-in. Wheels—Design Dimensions 1986 S-II S-302 Truck, 36-in. Wheels—Design Dimensions 1986 S-II S-304 Truck, 38-in. Wheels—Design Dimensions 1986 S-II S-305 Center Plate Liner—Vertical, 6 1/2 in. × 12 in. 2012 D Update Available S-306 Center Plate Liner—Vertical, 6 1/2 in. × 12 in. 2012 D Update Available S-310 <td>S-254</td> <td>Draft Pocket Tolerances</td> <td>1974</td> <td>\mathbf{C}</td> <td></td> | S-254 | Draft Pocket Tolerances | 1974 | \mathbf{C} | |
| S-259 Rail Car, 286,000-lb Gross Weight 1994 C S-265 Center Pin—Freight Car 1989 C S-266 Center Sill Section, Rolled Steel 2012 C S-267 Center Sill Section—Welding Notes 1979 C S-269 Coupler Carrier Wear Plate 2003 B S-270 Wear Plate, Used in Cushion Unit and Draft Systems that Employ the Y-47 Pin for an F Shank 2009 B S-286 Free/Unrestricted Interchange for 286,000 lb Gross Rail Load Cars 2016 C Update Available Update Available Update Available Update Available Rail Load Cars S-300 Truck, 33-in. Wheels—Design Dimensions 1986 S-II S-II Update Available S-II S-301 Truck, 36-in. Wheels—Design Dimensions 1986 S-II | S-255 | Combined Striker and Front Draft Lug Tolerances | 1974 | \mathbf{C} | |
| S-265 Center Pin—Freight Car 1989 C S-266 Center Sill Section, Rolled Steel 2012 C S-267 Center Sill Section—Welding Notes 1979 C S-269 Coupler Carrier Wear Plate 2003 B S-270 Wear Plate, Used in Cushion Unit and Draft Systems that Employ the Y-47 Pin for an F Shank 2009 B S-286 Free/Unrestricted Interchange for 286,000 lb Gross Rail Load Cars 2016 C Update Available S-300 Truck, Freight Car—Design Data 2016 S-II Update Available S-301 Truck, 33-in. Wheels—Design Dimensions 1986 S-II Update Available S-302 Truck, 38-in. Wheels—Design Dimensions 1986 S-II S-II S-304 Truck, 38-in. Wheels—Design Dimensions 1986 S-II S-305 Center Plate Liner—Vertical, 6 1/2 in. × 12 in. 2012 D Update Available S-306 Center Plate Liner—Vertical, 6 1/2 in. × 12 in. 2012 D Update Available S-307 Center Plate Liner—Overtical, 6 1/2 in. × 12 in. 2012 | S-258 | Body Center Plate Relief | 1980 | \mathbf{C} | |
| S-266 Center Sill Section, Rolled Steel 2012 C S-267 Center Sill Section—Welding Notes 1979 C S-269 Coupler Carrier Wear Plate 2003 B S-270 Wear Plate, Used in Cushion Unit and Draft 2009 B Systems that Employ the Y-47 Pin for an F Shank Free/Unrestricted Interchange for 286,000 lb Gross 2016 C Update Available S-286 Free/Unrestricted Interchange for 286,000 lb Gross 2016 S-II Update Available S-300 Truck, Freight Car—Design Data 2016 S-II Update Available S-301 Truck, 33-in. Wheels—Design Dimensions 1986 S-II S-II S-301 Truck, 36-in. Wheels—Design Dimensions 1986 S-II S-II S-304 Truck, 38-in. Wheels—Design Dimensions 1986 S-II S-II S-305 Center Plate Liner—Vertical, 6 1/2 in. × 12 in. 2012 D Update Available S-307 Center Plate Liner—Vertical, 6 1/2 in. × 12 in. 2012 D Update Available S-308 Center Plate Liner—Uert | S-259 | Rail Car, 286,000-lb Gross Weight | 1994 | \mathbf{C} | |
| S-267 Center Sill Section—Welding Notes 1979 C S-269 Coupler Carrier Wear Plate 2003 B S-270 Wear Plate, Used in Cushion Unit and Draft Systems that Employ the Y-47 Pin for an F Shank 2009 B S-286 Free/Unrestricted Interchange for 286,000 lb Gross Rail Load Cars 2016 C Update Available S-300 Truck, Freight Car—Design Data 2016 S-II Update Available S-301 Truck, 33-in. Wheels—Design Dimensions 1986 S-II S-II S-302 Truck, 36-in. Wheels—Design Dimensions 1986 S-II S-II S-304 Truck, 38-in. Wheels—Design Dimensions 1986 S-II S-II S-304 Truck, 38-in. Wheels—Design Dimensions 1986 S-II S-305 Center Plate Liner—Vertical, 6 1/2 in. × 12 in. 2012 D Update Available S-307 Center Plate Liner—Vertical, 6 1/2 in. × 12 in. 2012 D Update Available S-310 Bolster, 14 in. Center Plate—Limiting Outline 1979 S-II S-311 Bolster, Truck—Marking Diagram <td>S-265</td> <td>Center Pin—Freight Car</td> <td>1989</td> <td>\mathbf{C}</td> <td></td> | S-265 | Center Pin—Freight Car | 1989 | \mathbf{C} | |
| S-269 Coupler Carrier Wear Plate 2003 B S-270 Wear Plate, Used in Cushion Unit and Draft Systems that Employ the Y-47 Pin for an F Shank 2009 B S-286 Free/Unrestricted Interchange for 286,000 lb Gross Rail Load Cars 2016 C Update Available Update Available S-300 S-300 Truck, Freight Car—Design Data 2016 S-II Update Available S-301 S-301 Truck, 36-in. Wheels—Design Dimensions 1986 S-II S-302 Truck, 36-in. Wheels—Design Dimensions 1986 S-II S-304 Truck, 38-in. Wheels—Design Dimensions 1986 S-II S-304 Truck, 38-in. Wheels—Design Dimensions 1986 S-II S-305 Center Plate Liner—Vertical, 6 1/2 in. x 12 in. 2012 D Update Available Update Available Update Available Update Available Update Available Update Available S-310 Bolster, 14 in. Center Plate—Limiting Outline 1979 S-II S-310 Bolster, 16 in. Center Plate—Limiting Outline 1979 S-II S-311 Bolster, Truck—Marking Diagram 2014 S-II S-312 Bolster—Tolerances 1981 | S-266 | Center Sill Section, Rolled Steel | 2012 | \mathbf{C} | |
| S-270 Wear Plate, Used in Cushion Unit and Draft Systems that Employ the Y-47 Pin for an F Shank 2009 B S-286 Free/Unrestricted Interchange for 286,000 lb Gross Rail Load Cars 2016 C Update Available Update Available Cars S-300 Truck, Freight Car—Design Data 2016 S-II Update Available S-II S-301 Truck, 33-in. Wheels—Design Dimensions 1986 S-II S-302 Truck, 38-in. Wheels—Design Dimensions 1986 S-II S-304 Truck, 38-in. Wheels—Design Dimensions 1986 S-II S-304 Truck, 38-in. Wheels—Design Dimensions 1986 S-II S-305 Center Plate Liner—Vertical, 6 1/2 in. × 12 in. 2012 D Update Available U | S-267 | Center Sill Section—Welding Notes | 1979 | \mathbf{C} | |
| Systems that Employ the Y-47 Pin for an F Shank | S-269 | Coupler Carrier Wear Plate | 2003 | В | |
| Rail Load Cars S-300 Truck, Freight Car—Design Data 2016 S-II Update Available S-301 Truck, 33-in. Wheels—Design Dimensions 1986 S-II S-302 Truck, 36-in. Wheels—Design Dimensions 1986 S-II S-304 Truck, 38-in. Wheels—Design Dimensions 1986 S-II S-304 Truck, 38-in. Wheels—Design Dimensions 1986 S-II S-306 Center Plate Liner—Vertical, 6 1/2 in. × 12 in. 2012 D Update Available S-307 Center Plate Liner—Horizontal, 6 1/2 in. × 12 in. 2012 D Update Available S-308 Center Plate Liner—Vertical, 6 1/2 in. × 12 in. 2012 D Update Available S-310 Bolster, 14 in. Center Plate—Limiting Outline 1979 S-II S-311 Bolster, 16 in. Center Plate—Limiting Outline 2009 S-II S-312 Bolster, Truck—Marking Diagram 2014 S-II S-314 Side Frame, Truck—Marking Diagram 2014 S-II S-316 Bolster—Tolerances 1981 S-II S-317 Side Frame—Tolerances 1981 S-II S-318 Side Frame—Bolster Rotation Stop Lug 1965 S-II S-319 Side Frame—Wide Land Rotation Stop Lug Column 1968 S-II S-320 Side Frame—Column Wear Plate, Application 1983 D S-325 Side Frame, Narrow Pedestal—Limiting 2009 S-II S-329 Side Frame, Narrow Pedestal—Roller Bearing 1997 S-II S-332 Spring—D2, 1 5/8-in. Travel 1964 D S-333 Spring—D3, 2 1/2-in. Travel 1977 D S-334 Spring—D4, 3 1/16-in. Travel 1977 D S-334 S-334 S-344 S-344 S-344 S-344 S-344 S-344 S-344 S | S-270 | · · · · · · · · · · · · · · · · · · · | 2009 | В | |
| S-301 Truck, 33-in. Wheels—Design Dimensions 1986 S-II S-302 Truck, 36-in. Wheels—Design Dimensions 1986 S-II S-304 Truck, 38-in. Wheels—Design Dimensions 1986 S-II S-306 Center Plate Liner—Vertical, 6 1/2 in. x 12 in. 2012 D Update Available S-307 Center Plate Liner—Horizontal, 6 1/2 in. x 12 in. 2012 D Update Available S-308 Center Plate Liner—Vertical, 6 1/2 in. x 12 in. 2012 D Update Available S-308 Center Plate Liner—Vertical, 6 1/2 in. x 12 in. 2012 D Update Available S-308 Center Plate Liner—Vertical, 6 1/2 in. x 12 in. 2012 D Update Available S-308 Center Plate Liner—Vertical, 6 1/2 in. x 12 in. 2012 D Update Available S-310 Bolster, 14 in. Center Plate—Limiting Outline 1979 S-II S-311 Bolster, 16 in. Center Plate—Limiting Outline 2009 S-II S-312 Bolster, Truck—Marking Diagram 2014 S-II S-313 Side Frame—Tolerances 1981 S-II S-314 Side Frame—Wide Land Rotation Sto | S-286 | <u> </u> | 2016 | C | Update Available |
| S-302 Truck, 36-in. Wheels—Design Dimensions 1986 S-II S-304 Truck, 38-in. Wheels—Design Dimensions 1986 S-II S-306 Center Plate Liner—Vertical, 6 1/2 in. × 12 in. 2012 D Update Available S-307 Center Plate Liner—Horizontal, 6 1/2 in. × 12 in. 2012 D Update Available S-308 Center Plate Liner—Vertical, 6 1/2 in. × 12 in. 2012 D Update Available S-308 Center Plate Liner—Vertical, 6 1/2 in. × 12 in. 2012 D Update Available S-308 Center Plate Liner—Vertical, 6 1/2 in. × 12 in. 2012 D Update Available S-310 Bolster, 14 in. Center Plate—Limiting Outline 1979 S-II S-311 Bolster, 16 in. Center Plate—Limiting Outline 2009 S-II S-312 Bolster, Truck—Marking Diagram 2014 S-II S-314 Side Frame, Truck—Marking Diagram 2014 S-II S-315 Side Frame—Tolerances 1981 S-II S-318 Side Frame—Bolster Rotation Stop Lug Column 1968 S-II S-320 Side Frame, Narrow Pedestal—Limiting 2009 <td< td=""><td>S-300</td><td>Truck, Freight Car—Design Data</td><td>2016</td><td>S-II</td><td><u>Update Available</u></td></td<> | S-300 | Truck, Freight Car—Design Data | 2016 | S-II | <u>Update Available</u> |
| S-304 Truck, 38-in. Wheels—Design Dimensions 1986 S-II S-306 Center Plate Liner—Vertical, 6 1/2 in. x 12 in. 2012 D Update Available S-307 Center Plate Liner—Horizontal, 6 1/2 in. x 12 in. 2012 D Update Available S-308 Center Plate Liner—Vertical, 6 1/2 in. x 12 in. 2012 D Update Available S-310 Bolster, 14 in. Center Plate—Limiting Outline 1979 S-II S-311 Bolster, 16 in. Center Plate—Limiting Outline 2009 S-II S-312 Bolster, Truck—Marking Diagram 2014 S-II S-314 Side Frame, Truck—Marking Diagram 2014 S-II S-316 Bolster—Tolerances 1981 S-II S-317 Side Frame—Tolerances 1981 S-II S-318 Side Frame—Bolster Rotation Stop Lug 1965 S-II S-319 Side Frame—Wide Land Rotation Stop Lug Column 1968 S-II S-320 Side Frame, Narrow Pedestal—Limiting 2009 S-II S-325 Side Frame—Roof Repair 2012 S-II S-329 Side Frame, Narrow Pedestal—Roller Bearing | S-301 | Truck, 33-in. Wheels—Design Dimensions | 1986 | S-II | |
| S-306 Center Plate Liner—Vertical, 6 1/2 in. × 12 in. 2012 D Update Available S-307 Center Plate Liner—Horizontal, 6 1/2 in. × 12 in. 2012 D Update Available S-308 Center Plate Liner—Vertical, 6 1/2 in. × 12 in. 2012 D Update Available S-310 Bolster, 14 in. Center Plate—Limiting Outline 1979 S-II S-311 Bolster, 16 in. Center Plate—Limiting Outline 2009 S-II S-312 Bolster, Truck—Marking Diagram 2014 S-II S-314 Side Frame, Truck—Marking Diagram 2014 S-II S-316 Bolster—Tolerances 1981 S-II S-317 Side Frame—Tolerances 1981 S-II S-318 Side Frame—Bolster Rotation Stop Lug 1965 S-II S-319 Side Frame—Wide Land Rotation Stop Lug Column 1968 S-II S-320 Side Frame—Column Wear Plate, Application 1983 D S-325 Side Frame—Roof Repair 2009 S-II Dimensions S-327 Side Frame—Roof Repair 2012 S-II S-329 Side Frame, Narrow Pedestal—Roller Bearing 1997 S-II S-332 Spring—D2, 1 5/8-in. Travel 1964 D S-333 Spring—D3, 2 1/2-in. Travel 1977 D S-334 Spring—D4, 3 1/16-in. Travel 1977 D | S-302 | Truck, 36-in. Wheels—Design Dimensions | 1986 | S-II | |
| S-307Center Plate Liner—Horizontal, 6 1/2 in. × 12 in.2012DUpdate AvailableS-308Center Plate Liner—Vertical, 6 1/2 in. × 12 in.2012DUpdate AvailableS-310Bolster, 14 in. Center Plate—Limiting Outline1979S-IIS-311Bolster, 16 in. Center Plate—Limiting Outline2009S-IIS-312Bolster, Truck—Marking Diagram2014S-IIS-314Side Frame, Truck—Marking Diagram2014S-IIS-316Bolster—Tolerances1981S-IIS-317Side Frame—Tolerances1981S-IIS-318Side Frame—Bolster Rotation Stop Lug1965S-IIS-319Side Frame—Wide Land Rotation Stop Lug Column1968S-IIS-320Side Frame—Column Wear Plate, Application1983DS-321Side Frame—Roof Repair2009S-IIS-322Side Frame—Roof Repair2012S-IIS-323Spring—D2, 1 5/8-in. Travel1964DS-333Spring—D3, 2 1/2-in. Travel1977DS-334Spring—D4, 3 1/16-in. Travel1977D | S-304 | Truck, 38-in. Wheels—Design Dimensions | 1986 | S-II | |
| S-308 Center Plate Liner—Vertical, 6 1/2 in. × 12 in. 2012 D Update Available S-310 Bolster, 14 in. Center Plate—Limiting Outline 1979 S-II S-311 Bolster, 16 in. Center Plate—Limiting Outline 2009 S-II S-312 Bolster, Truck—Marking Diagram 2014 S-II S-314 Side Frame, Truck—Marking Diagram 2014 S-II S-316 Bolster—Tolerances 1981 S-II S-317 Side Frame—Tolerances 1981 S-II S-318 Side Frame—Bolster Rotation Stop Lug 1965 S-II S-319 Side Frame—Wide Land Rotation Stop Lug Column 1968 S-II S-320 Side Frame—Column Wear Plate, Application 1983 D S-325 Side Frame, Narrow Pedestal—Limiting 2009 S-II S-327 Side Frame—Roof Repair 2012 S-II S-329 Side Frame, Narrow Pedestal—Roller Bearing 1997 S-II S-332 Spring—D2, 1 5/8-in. Travel 1964 D S-333 Spring—D4, 3 1/16-in. Travel 1977 D S-334 Spring—D4, 3 1/16-in. Travel 1977 D | S-306 | Center Plate Liner—Vertical, 6 $1/2$ in. \times 12 in. | 2012 | D | <u>Update Available</u> |
| S-310 Bolster, 14 in. Center Plate—Limiting Outline 1979 S-II S-311 Bolster, 16 in. Center Plate—Limiting Outline 2009 S-II S-312 Bolster, Truck—Marking Diagram 2014 S-II S-314 Side Frame, Truck—Marking Diagram 2014 S-II S-316 Bolster—Tolerances 1981 S-II S-317 Side Frame—Tolerances 1981 S-II S-318 Side Frame—Bolster Rotation Stop Lug 1965 S-II S-319 Side Frame—Wide Land Rotation Stop Lug Column 1968 S-II S-320 Side Frame—Column Wear Plate, Application 1983 D S-325 Side Frame, Narrow Pedestal—Limiting 2009 S-II Dimensions S-327 Side Frame—Roof Repair 2012 S-II S-332 Spring—D2, 1 5/8-in. Travel 1964 D S-333 Spring—D3, 2 1/2-in. Travel 1977 D S-334 Spring—D4, 3 1/16-in. Travel 1977 D | S-307 | Center Plate Liner—Horizontal, 6 $1/2$ in. \times 12 in. | 2012 | D | Update Available |
| S-311 Bolster, 16 in. Center Plate—Limiting Outline 2009 S-II S-312 Bolster, Truck—Marking Diagram 2014 S-II S-314 Side Frame, Truck—Marking Diagram 2014 S-II S-316 Bolster—Tolerances 1981 S-II S-317 Side Frame—Tolerances 1981 S-II S-318 Side Frame—Bolster Rotation Stop Lug 1965 S-II S-319 Side Frame—Wide Land Rotation Stop Lug Column 1968 S-II S-320 Side Frame—Column Wear Plate, Application 1983 D S-325 Side Frame, Narrow Pedestal—Limiting 2009 S-II Dimensions S-327 Side Frame—Roof Repair 2012 S-II S-332 Spring—D2, 1 5/8-in. Travel 1964 D S-333 Spring—D3, 2 1/2-in. Travel 1977 D S-334 Spring—D4, 3 1/16-in. Travel 1977 D | S-308 | Center Plate Liner—Vertical, 6 $1/2$ in. \times 12 in. | 2012 | D | <u>Update Available</u> |
| S-312 Bolster, Truck—Marking Diagram S-314 Side Frame, Truck—Marking Diagram S-316 Bolster—Tolerances 1981 S-II S-317 Side Frame—Tolerances 1981 S-II S-318 Side Frame—Bolster Rotation Stop Lug S-319 Side Frame—Wide Land Rotation Stop Lug Column S-320 Side Frame—Column Wear Plate, Application S-325 Side Frame, Narrow Pedestal—Limiting Dimensions S-327 Side Frame—Roof Repair S-329 Side Frame, Narrow Pedestal—Roller Bearing S-320 Spring—D2, 1 5/8-in. Travel S-331 Spring—D3, 2 1/2-in. Travel S-332 Spring—D4, 3 1/16-in. Travel S-333 Spring—D4, 3 1/16-in. Travel S-334 Spring—D4, 3 1/16-in. Travel | S-310 | Bolster, 14 in. Center Plate—Limiting Outline | 1979 | S-II | |
| S-314 Side Frame, Truck—Marking Diagram 2014 S-II S-316 Bolster—Tolerances 1981 S-II S-317 Side Frame—Tolerances 1981 S-II S-318 Side Frame—Bolster Rotation Stop Lug 1965 S-II S-319 Side Frame—Wide Land Rotation Stop Lug Column 1968 S-II S-320 Side Frame—Column Wear Plate, Application 1983 D S-325 Side Frame, Narrow Pedestal—Limiting 2009 S-II Dimensions S-327 Side Frame—Roof Repair S-329 Side Frame, Narrow Pedestal—Roller Bearing 1997 S-II S-332 Spring—D2, 1 5/8-in. Travel 1964 D S-333 Spring—D3, 2 1/2-in. Travel 1977 D S-334 Spring—D4, 3 1/16-in. Travel | S-311 | Bolster, 16 in. Center Plate—Limiting Outline | 2009 | S-II | |
| S-316 Bolster—Tolerances S-317 Side Frame—Tolerances 1981 S-II S-318 Side Frame—Bolster Rotation Stop Lug S-319 Side Frame—Wide Land Rotation Stop Lug Column S-320 Side Frame—Column Wear Plate, Application S-325 Side Frame, Narrow Pedestal—Limiting Dimensions S-327 Side Frame—Roof Repair S-329 Side Frame, Narrow Pedestal—Roller Bearing S-320 Side Frame, Narrow Pedestal—Roller Bearing S-321 Side Frame—Roof Repair S-322 Spring—D2, 1 5/8-in. Travel S-333 Spring—D3, 2 1/2-in. Travel S-334 Spring—D4, 3 1/16-in. Travel 1977 D | S-312 | Bolster, Truck—Marking Diagram | 2014 | S-II | |
| S-317 Side Frame—Tolerances S-318 Side Frame—Bolster Rotation Stop Lug S-319 Side Frame—Wide Land Rotation Stop Lug Column S-320 Side Frame—Column Wear Plate, Application S-320 Side Frame, Narrow Pedestal—Limiting Dimensions S-325 Side Frame—Roof Repair S-327 Side Frame—Roof Repair S-329 Side Frame, Narrow Pedestal—Roller Bearing S-332 Spring—D2, 1 5/8-in. Travel S-333 Spring—D3, 2 1/2-in. Travel S-334 Spring—D4, 3 1/16-in. Travel 1977 D 1977 D 1977 D | S-314 | Side Frame, Truck—Marking Diagram | 2014 | S-II | |
| S-318 Side Frame—Bolster Rotation Stop Lug S-319 Side Frame—Wide Land Rotation Stop Lug Column S-320 Side Frame—Column Wear Plate, Application S-320 Side Frame, Narrow Pedestal—Limiting Dimensions S-325 Side Frame—Roof Repair S-327 Side Frame—Roof Repair S-329 Side Frame, Narrow Pedestal—Roller Bearing S-329 Side Frame, Narrow Pedestal—Roller Bearing S-332 Spring—D2, 1 5/8-in. Travel S-333 Spring—D3, 2 1/2-in. Travel S-334 Spring—D4, 3 1/16-in. Travel 1977 D | S-316 | Bolster—Tolerances | 1981 | S-II | |
| S-319 Side Frame—Wide Land Rotation Stop Lug Column 1968 S-II S-320 Side Frame—Column Wear Plate, Application 1983 D S-325 Side Frame, Narrow Pedestal—Limiting 2009 S-II Dimensions S-327 Side Frame—Roof Repair 2012 S-II S-329 Side Frame, Narrow Pedestal—Roller Bearing 1997 S-II S-332 Spring—D2, 1 5/8-in. Travel 1964 D S-333 Spring—D3, 2 1/2-in. Travel 1977 D S-334 Spring—D4, 3 1/16-in. Travel 1977 D | S-317 | Side Frame—Tolerances | 1981 | S-II | |
| S-320 Side Frame—Column Wear Plate, Application 1983 D S-325 Side Frame, Narrow Pedestal—Limiting 2009 S-II Dimensions S-327 Side Frame—Roof Repair 2012 S-II S-329 Side Frame, Narrow Pedestal—Roller Bearing 1997 S-II S-332 Spring—D2, 1 5/8-in. Travel 1964 D S-333 Spring—D3, 2 1/2-in. Travel 1977 D S-334 Spring—D4, 3 1/16-in. Travel 1977 D | S-318 | Side Frame—Bolster Rotation Stop Lug | 1965 | S-II | |
| S-325 Side Frame, Narrow Pedestal—Limiting Dimensions 2009 S-II S-327 Side Frame—Roof Repair 2012 S-II S-329 Side Frame, Narrow Pedestal—Roller Bearing 1997 S-II S-332 Spring—D2, 1 5/8-in. Travel 1964 D S-333 Spring—D3, 2 1/2-in. Travel 1977 D S-334 Spring—D4, 3 1/16-in. Travel 1977 D | S-319 | Side Frame—Wide Land Rotation Stop Lug Column | 1968 | S-II | |
| Dimensions S-327 Side Frame—Roof Repair 2012 S-II S-329 Side Frame, Narrow Pedestal—Roller Bearing 1997 S-II S-332 Spring—D2, 1 5/8-in. Travel 1964 D S-333 Spring—D3, 2 1/2-in. Travel 1977 D S-334 Spring—D4, 3 1/16-in. Travel 1977 D | S-320 | Side Frame—Column Wear Plate, Application | 1983 | D | |
| S-329 Side Frame, Narrow Pedestal—Roller Bearing 1997 S-II S-332 Spring—D2, 1 5/8-in. Travel 1964 D S-333 Spring—D3, 2 1/2-in. Travel 1977 D S-334 Spring—D4, 3 1/16-in. Travel 1977 D | S-325 | · | 2009 | S-II | |
| S-332 Spring—D2, 1 5/8-in. Travel 1964 D S-333 Spring—D3, 2 1/2-in. Travel 1977 D S-334 Spring—D4, 3 1/16-in. Travel 1977 D | S-327 | Side Frame—Roof Repair | 2012 | S-II | |
| S-333 Spring—D3, 2 1/2-in. Travel 1977 D S-334 Spring—D4, 3 1/16-in. Travel 1977 D | S-329 | Side Frame, Narrow Pedestal—Roller Bearing | 1997 | S-II | |
| S-334 Spring—D4, 3 1/16-in. Travel 1977 D | S-332 | Spring—D2, 1 5/8-in. Travel | 1964 | D | |
| | S-333 | Spring—D3, 2 1/2-in. Travel | 1977 | D | |
| S-335 Spring—D5, 3 11/16-in. Travel 1977 D | S-334 | Spring—D4, 3 1/16-in. Travel | 1977 | \mathbf{D} | |
| | S-335 | Spring—D5, 3 11/16-in. Travel | 1977 | D | |

EFFECTIVE 10/21/201(

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|-------------------------|------------|
| S-336 | Spring—D6, 3 3/8-in. Travel | 1976 | $\overline{\mathrm{D}}$ | |
| S-337 | Spring—D6A, 3 15/16-in. Travel | 2010 | D | |
| S-338 | Spring—D7, 4 1/4-in. Travel | 1977 | D | |
| S-339 | Spring—Groups for D2 | 1981 | D | |
| S-340 | Spring—Groups D3, D4, D5, and D7 | 2010 | D | |
| S-341 | Spring—Groups D3, D4, D5, and Snubber | 2010 | D | |
| S-342 | Spring—Groups D3, D4, D5, D7, and Snubber | 2010 | D | |
| S-343 | Spring—Groups D5 and Hydraulic Snubber | 2010 | D | |
| S-344 | Brake Beam Specifications and Tests | 2007 | ${f E}$ | |
| S-345 | Brake Beam—Tolerance, Hangerless Type | 1979 | ${f E}$ | |
| S-346 | Brake Beam—Outline, Hanger Type | 1953 | ${f E}$ | |
| S-348 | Brake Beam Gauges for Standard Brake Beams | 1992 | ${f E}$ | |
| S-349 | Brake Beam—Outline, Hangerless Type | 1979 | ${f E}$ | |
| S-352 | Brake Beam Gauge Assembly—Hangerless Type | 1979 | ${f E}$ | |
| S-353 | Brake Beam Gauge Details—Hangerless Type | 1981 | ${f E}$ | |
| S-355 | Brake Beam Gauge Application—Hangerless Type | 1979 | ${f E}$ | |
| S-358 | Go Gauge for Brake Head, Metal or High-Friction Shoe | 2009 | E | |
| S-359 | Go and No-Go Gauge for Brake Head for Limiting Contour of Face, Metal or High-Friction Shoe | 1990 | E | |
| S-360 | Gauges for End of Hangerless-Type Brake Beam | 1979 | ${f E}$ | |
| S-361 | Go Gauges for Brake Shoe | 1944 | ${f E}$ | |
| S-362 | No-Go Gauge for Brake Shoe | 1944 | ${f E}$ | |
| S-365 | Standard Location of Brake Hanger Brackets and Unit Guide Brackets | 1979 | E | |
| S-366 | Unit Guide Bracket, EC-2055—Design Dimensions | 2009 | S-II | |
| S-367 | Wear Plate for Unit-Type Brake Beam Guide in Side Frame | 2003 | E | |
| S-368 | Brake Beam Hangers and Attachments | 1965 | \mathbf{E} | |
| S-369 | Brake Beam Hangers and Attachments | 1965 | ${f E}$ | |
| S-370 | Limiting Contour of Face of Brake Heads for Hanger-Type Brake Beams | 2009 | E | |
| S-371 | Limiting Contour of Face of Brake Heads for Hangerless-Type Brake Beams | 2009 | E | |
| S-372 | Brake Head Conversion—Metal Shoe-Type to High-Friction Composition | 1972 | E | |
| S-373 | Location of Peep Hole on Cars Having Deep Side Sills for Checking Brake Cylinder Piston Travel | 1967 | D | |

| <u>Standard</u> | <u>Subject</u> | <u>Last</u> <u>Revised</u> | Section | Circulars? |
|-----------------|---|-------------------------------|---------|-------------------------|
| S-374 | Badge Plate for Showing Proper Dimensions for Body and Truck Brake Levers | 1964 | E | |
| S-375 | Break Pin Tolerance | 1975 | ${f E}$ | |
| S-376 | Brake Shoe Keys | 2003 | ${f E}$ | |
| S-377 | Side Frame Keys for AAR Standard and Alternate Standard Pedestal-Type Side Frames | 1966 | D | |
| S-378 | Side Frame, Cast Steel—Marking and Mating | 2010 | S-II | |
| S-379 | Application Tolerances for Hanger-Type Brake Beams | unk | E | |
| S-380 | Hangerless Brake Beam Extension Functional Gauge (Parallelism) | 1979 | E | |
| S-392 | Truck—Design Drawings | 2014 | S-II | |
| S-393 | Side Frames and Bolsters—Produced Prior to 1978 | 2001 | S-II | |
| S-394 | Side Bearing Pad for Two-Hole Application | 1997 | D | |
| S-399 | Specification for Bottom Rod Safety Supports | 1992 | ${f E}$ | |
| S-400 | Brake Equipment—Installation Specifications | 2006 | ${f E}$ | |
| S-401 | Brake Design Requirements | 2011 | ${f E}$ | |
| S-402 | Air Brake Pipe and Fittings for Railroad Cars— Welding Procedure | 2016 | E | <u>Update Available</u> |
| S-419 | Slack Adjuster, Mechanical, Double-Acting, Automatic Tension | 2015 | E | <u>Update Available</u> |
| S-420 | Slack Adjuster—Limiting Design Dimensions (Group E) | 2002 | E | |
| S-420A | Slack Adjuster, Tension—Limiting Design Dimensions | 2002 | E | |
| S-421 | Slack Adjuster, Center Rod Application (Group E) | 2002 | ${f E}$ | |
| S-422 | Slack Adjuster, Top Rod Application (Group E) | 2002 | ${f E}$ | |
| S-423 | Slack Adjuster Reclamation—Automatic, Double- Acting, Mechanical Slack Adjusters | 2010 | E | |
| S-424 | Angle Cock Location | 2002 | ${f E}$ | |
| S-425 | Angle Cock Location on Cars Equipped with AAR Type F Coupler | 2002 | E | |
| S-426 | Angle Cock Location on Cars with Floating Sills | 2005 | ${f E}$ | |
| S-427 | Angle Cock and Air Brake Hose Location on Cars with Excessive Overhang Preventing Compliance with AAR Standards S-424, S-425, and S-426 | 2005 | E | |
| S-428 | Angle Cock Location on Cars Equipped with AAR Type F Coupler and Cushioned Underframe | 2005 | E | |
| S-429 | Angle Cock Locking Lugs—Minimum Permissible Engagement | 2002 | Е | |

EFFECTIVE 10//21//201(

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|--------------|------------|
| S-430 | Brake Shoe, Metal, Reinforced | 2002 | E | <u> </u> |
| S-431 | Brake Shoe, High-Friction Composition Type— Limiting Contour | 2005 | E | |
| S-432 | Hose Support, S Hook | 2002 | ${f E}$ | |
| S-436 | Hose Coupling, Dummy | 2002 | ${f E}$ | |
| S-437 | Hose, Other than Armored Type—Mounting Procedure | 2002 | E | |
| S-438 | Hose, Armored Type—Mounting Procedure | 1949 | ${f E}$ | |
| S-439 | Hose Clamps | 2002 | ${f E}$ | |
| S-440 | End Hose Gaskets, Couplings, and Nipples—Annual Test Requirements | 1999 | E | |
| S-441 | Air Brake and Signal Hose—Mounting of Coupling and Nipple | 2002 | E | |
| S-443 | Brake Cylinder Release Valve and Release Rod | 2002 | ${f E}$ | |
| S-444 | Brake Cylinder Release Valve Rod Handles— Location | 2002 | E | |
| S-445 | Retaining Valve—Location | 2002 | ${f E}$ | |
| S-446 | Retaining Valve, 1967-Type, Three-Position | 2002 | ${f E}$ | |
| S-447 | Hose Coupling Gasket Gauge | 2002 | ${f E}$ | |
| S-448 | Brake Shoe Go Gauge | 2002 | ${f E}$ | |
| S-449 | Brake Shoe No-Go Gauge | 2002 | ${f E}$ | |
| S-455 | Hose Coupling Condemning Gauges for Checking the Beads and Shanks on New and Used Hose Couplings and Nipples | 2002 | E | |
| S-456 | Hose Coupling Gauges for Gauging New and Used Couplings | 2002 | E | |
| S-457 | Hose Coupling Tester, Air Brake, Type A-1-B— Modification to Permit Testing of Pinless-Type Couplings | 2002 | E | |
| S-458 | Hose Assemblies—Reclamation Procedures | 2002 | \mathbf{E} | |
| S-461 | Single-Capacity Freight Brakes—Performance Specification | 2002 | E | |
| S-462 | Control Valve—Approval Procedure | 2002 | ${f E}$ | |
| S-463 | Test Rack, 150-Car, Freight Brake | 2002 | ${f E}$ | |
| S-464 | Test Rack, 150-Car—Performance Testing Procedure | 2005 | ${f E}$ | |
| S-465 | Test Rack, Single-Car | 2002 | ${f E}$ | |
| S-466 | Test Rack, Single-Car, for Individual Valve Portions—Performance Testing Procedure | 2005 | E | |
| S-467 | Control Valve, Freight Brake—Environmental Tests | 2002 | ${f E}$ | |
| S-468 | Control Valve Pipe Bracket | 2009 | E | |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------------|---|------------------------|--------------|---------------------------------|
| S-469 | Performance Specification for Freight Brakes | 2006 | E | Circulars: |
| S-400 S-470 | Angle Cock, Ball Type—Specification for Approval | 2002 | E | |
| S-471 | Brake Pipe Restriction Test | 2010 | E | |
| S-472 | End Cock Location on Cars Arranged for Rotary Dump Service | 2002 | E | |
| S-473 | Brake Equipment—Application Form for AAR Approval of New and Untried Freight Cars | 2003 | E | |
| S-475 | Hand Brakes | 2010 | ${f E}$ | |
| S-476 | Angle Cocks and Brake Pipe End Cocks—Repair Specification | 1981 | E | |
| S-477 | Control Valve—Shop Certification Requirements for Approved Valves | 2002 | E | |
| S-486 | Code of Air Brake System Tests for Freight Equipment—Single Car Test | 2013 | E | |
| S-488 | End Cock and Air Brake Hose Location on Long Cars | 2002 | ${f E}$ | |
| S-489 | Dirt Collector and Cutout Cock, Combined—Repair Specification | 1981 | E | |
| S-490 | Vent Protector Performance and Approval | 2002 | ${f E}$ | |
| S-491 | Hose Coupling | 2005 | ${f E}$ | |
| S-492 | Field Service Reports—Requirements | 2002 | ${f E}$ | |
| S-493 | Dirt Collector and Cutout Cock—Test Specification | 2002 | ${f E}$ | |
| S-494 | Reservoir, Steel Fabricated, Combined Auxiliary and Emergency | 2005 | E | |
| S-495 | Angle Cock Location on Cars Arranged for Rotary Dump Service | 2002 | E | |
| S-512 | 27-Point Control Plug and Receptacle | 2007 | \mathbf{M} | |
| S-580 | Locomotive Crashworthiness Requirements | 2015 | \mathbf{M} | <u>Update Available</u> |
| S-591 | Locomotive System Integration Operating Display | 2010 | \mathbf{M} | $\underline{Update\ Available}$ |
| S-601 | Wheels—Manufacturing Facility Inspection by Technical Services | 2004 | G | |
| S-611 | Wheels—Measuring Wheel Circumference (Tape) Using Wheel Gauges S-612 and S-613 | 2004 | G | |
| S-612 | Circumference Measure (Tape) for 27 in. to 38 in. Steel Wheels | 2004 | G | |
| S-613 | Circumference Measure (Tape) for 38 in. to 52 in. Steel Wheels | 2004 | G | |
| S-614 | Wheel Defect—Worn Journal Collar and Journal Fillet Gauge | 2004 | G | |
| S-615 | Wheel Defect—Worn Journal Collar and Journal Fillet Gauge | 2004 | G | |

EFFECTIVE 101/21/201(

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | <u>Subject</u> | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|--------------|-------------------------|
| S-616 | Limit Wear Gauge for Condemning Wheel Defect— Worn Journal Collar and Journal Fillet Gauge | 2004 | G | |
| S-617 | Gauge, Wheel—Former Standard 1980 | 1980 | \mathbf{G} | |
| S-618 | Gauge, Wheel—Former Standard 1976 | 1976 | \mathbf{G} | |
| S-619 | Reference Groove for Multiple-Wear Diesel Wheels | 2015 | \mathbf{G} | |
| S-627 | Combined Wheel Gauge | 1998 | \mathbf{G} | |
| S-628 | Combined Wheel Gauge | 1998 | \mathbf{G} | |
| S-629 | Limit Wear Gauge for Condemning Wheel Defect— Worn Journal Collar and Journal Fillet Gauge | 1998 | G | |
| S-630 | Steel Wheel Gauge | 2013 | \mathbf{G} | |
| S-649 | Axles—Manufacturing Facility Inspection by Technical Services | 2004 | G | |
| S-657 | Wheel, Passenger Car (Amfleet) | 1980 | \mathbf{G} | |
| S-658 | Axle for Passenger Cars (Amfleet) Inboard Roller Bearing—Raised Wheel Seat | 2004 | G | |
| S-659 | Mandatory Rules Governing Wheel Shop Practices as Required by Interchange Rules | 2015 | G-II | <u>Update Available</u> |
| S-660 | Wheel Designs, Locomotive and Freight Car— Analytic Evaluation | 2009 | G | |
| S-661 | Gauge, Wheel—Maximum Flange Thickness, Height, and Throat Radii Gauge for AAR-1B Narrow-Flange Steel Wheel | 1991 | G | |
| S-662 | Gauge, Wheel—Minimum Flange Thickness, Height, and Throat Radii Gauge for AAR-1B Narrow-Flange Steel Wheel | 1991 | G | |
| S-663 | Gauge, Wheel—Reference Limit Gauge for Verifying AAR 1B Narrow Flange Wheel Gauge S-661 | 1991 | G | |
| S-664 | Gauge, Wheel—Reference Limit Gauge for Verifying AAR 1B Narrow Flange Wheel Gauge S-662 | 1991 | G | |
| S-665 | Gauge, Wheel—Maximum Flange Thickness, Height, and Throat Radii Gauge for AAR-1B Wide- Flange Steel Wheels | 1991 | G | |
| S-666 | Gauge, Wheel—Reference Limit Gauge for Verifying AAR 1B Wide Flange Wheel Gauge S-665 | 1991 | G | |
| S-667 | Gauge, Wheel—Minimum Flange Thickness, Height, and Throat Radii Gauge for AAR-1B Wide- Flange Steel Wheels | 1991 | G | |
| S-668 | Gauge, Wheel—Reference Limit Gauge for Verifying AAR 1B Wide Flange Wheel Gauge S-667 | 1991 | G | |
| S-669 | Analytic Evaluation of Locomotive Wheel Designs | 2012 | G | |
| S-701 | Locking Plate for Journal Roller Bearing Assemblies | 1977 | Н | |

| | | <u>Last</u> | | |
|-----------------|---|-------------|--------------|-------------------------|
| <u>Standard</u> | <u>Subject</u> | Revised | Section | Circulars? |
| S-701A | Locking Plate for Journal Roller Bearing Assemblies | 2012 | H | |
| S-702 | Component Parts for Journal Roller Bearing Assemblies | 1998 | Η | |
| S-703 | Cap Screws for Journal Roller Bearing Assemblies | 1970 | H | |
| S-704 | Adapter for Use with AAR Standard Pedestal-Type Side Frame | 1968 | Η | |
| S-705 | Wear Gauge for Journal Roller Bearing Adapters | 1978 | H | |
| S-706 | Wear Gauge for Journal Roller Bearing Adapters | 1975 | \mathbf{H} | |
| S-720 | Tabulation of Adapters and Frame Keys for AAR- Approved Roller Bearings | 2008 | Η | |
| S-721 | Roller Bearing Manual—Mandatory Instructions and Practices | 2016 | H-II | <u>Update Available</u> |
| S-722 | Roller Bearing Manual—Rules Covering Requirements for Approval of Roller Bearing Shops to Recondition Roller Bearings for Interchange Service | 2012 | H-II | |
| S-723 | Roller Bearing Manual—Minimum Requirements for Roller Bearing Reconditioned Shops— Procedures—Tool Requirements Necessary to Make Roller Bearing Repairs for Interchange Use | 2016 | H-II | <u>Update Available</u> |
| S-724 | Roller Bearing Manual—Information on Amtrak Passenger Car Bearings | 2012 | H-II | <u>Update Available</u> |
| S-725 | Roller Bearing Manual—Manufacture of Interchangeable Roller Bearing Components | 2012 | H-II | <u>Update Available</u> |
| S-726 | Roller Bearing Manual—Remanufacture of Roller Bearing Components | 2016 | H-II | Update Available |
| S-727 | Roller Bearing Manual—Appendix A. Approved Materials | 2015 | G-II | |
| S-729 | Lubrication, Roller Bearing | 2011 | H-III | |
| S-730 | Lubrication, Center Plates | 2011 | H-III | <u>Update Available</u> |
| S-731 | Lubrication, Doors | 2011 | H-III | |
| S-732 | Inspection and Lubrication of Trailer Hitches on Flatcars | 2016 | Ι | <u>Update Available</u> |
| S-733 | Inspection and Lubricationof Bulkheads in Freight Cars | 2011 | H-III | |
| S-734 | Lubrication, Tie-Down Devices on Multi-Level Automobile rack and Flatcars | 2011 | H-III | |
| S-736 | Inspection and Lubrication, Hand Brakes | 2011 | H-III | |
| S-810 | Conducting Field Impact and Over-the-Road Tests of Multi-Level Tie-down Equipment and/or Methods | 2016 | N | Update Available |

EFFECTIVE 10/21/2010

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|-------------------------|
| S-815 | Tie-Down Chain Assemblies for Multi-Level and Other Flat Cars, Refurbished High Test Grade 43 or Alloy Grade 80 | 1994 | N | <u> </u> |
| S-900 | Flatcar—Class F | 2002 | ${f L}$ | |
| S-901 | Gondola Car—Class G | 2002 | ${f L}$ | |
| S-902 | Hopper Car—Class H | 2002 | \mathbf{L} | |
| S-903 | Special Car—Class L | 2002 | \mathbf{L} | |
| S-904 | Caboose—Class N | 2002 | ${f L}$ | |
| S-905 | Refrigerator Car—Class R | 2002 | ${f L}$ | |
| S-907 | Tank Car—Class T | 2002 | ${f L}$ | |
| S-908 | Boxcar—Class X | 2002 | ${f L}$ | |
| S-909 | Maintenance of Way Equipment—Class MW | 2002 | ${f L}$ | |
| S-910 | Lettering and Marking of Cars | 2009 | ${f L}$ | Update Available |
| S-911 | Cars Equipped with Loading Bars and Movable Bulkheads | 2002 | L | |
| S-912 | Clear Door Opening | 2002 | \mathbf{L} | |
| S-913 | Clearance Plates | 2002 | \mathbf{L} | |
| S-914 | Metrication Stenciling | 2002 | ${f L}$ | |
| S-915 | Loading Stencil—Refrigerator Car Floor | 2002 | ${f L}$ | |
| S-920 | AAR Component Identification (CID) Bar Code Standard | 2016 | F | <u>Update Available</u> |
| S-2008 | Card Holder—Bad Order | 2013 | \mathbf{C} | |
| S-2009 | Push Rod, Brake Cylinder | 1964 | ${f E}$ | |
| S-2025 | Hopper Car—End for Door Operating Shaft | 1914 | \mathbf{C} | |
| S-2026 | Plate B—Equipment Diagram for Unrestricted Interchange Service | 2007 | С | |
| S-2027 | Plate B-1—Maximum Width of Cars with Various Truck Centers | 2007 | С | |
| S-2028 | Plate C—Equipment Diagram for Limited Interchange Service | 2013 | C | |
| S-2029 | Plate C-1—Maximum Width of Cars with Various Truck Centers | 2007 | C | |
| S-2030 | Plate D—Obtaining Maximum Allowable Width of Car, Other Than at Centerline of Car, for Unrestricted (Plate B-1) and Limited (Plates C-1, H- 1, J-1, and K-1) Interchange Service | 2009 | С | |
| S-2031 | Plate E—Equipment Diagram for Limited Interchange Service | 2007 | C | |
| S-2032 | Plate F—Equipment Diagram for Limited Interchange Service | 2007 | C | |

EFFECTIVE 10/21/2016

AAR Manual of Standards and Recommended Practices Tables of Content

| | | <u>Last</u> | | |
|-----------------|--|-------------|--------------|-------------------------|
| <u>Standard</u> | Subject | Revised | Section | <u>Circulars?</u> |
| | Car Builder Certification | 2013 | C | |
| | Side Handhold, Additional—Hopper and High-Side Gondola Cars | 1982 | С | |
| S-2036 | Temperature—for Car Structures and Components | 1983 | \mathbf{C} | |
| S-2037 | Trough Hatch Cover | 2015 | \mathbf{C} | <u>Update Available</u> |
| | Rack Car, Multilevel, with or without Door or Roof, Enclosed—Safety Appliance Standards | 1985 | С | |
| S-2039 | Batten Bars | 2014 | \mathbf{C} | |
| | Plate H—Equipment Diagram for Limited Interchange Service | 2007 | С | |
| | Plate H-1—Maximum Width of Cars with Various Truck Centers | 2007 | С | |
| S-2042 | Performance Specification for Sill Steps | 2006 | \mathbf{C} | |
| | Performance Specification for Trains Used to Carry High-Level Radioactive Material | 2009 | C | |
| S-2044 | Safety Appliance Requirements for Freight Cars | 2016 | \mathbf{C} | <u>Update Available</u> |
| S-2045 | Remote Monitoring Equipment, Installation | 2012 | \mathbf{C} | |
| | Accelerated Fatigue Test Specification for Increased Life Status Applications | 2006 | C | |
| | Plate J—Equipment Diagram for Limited Interchange Service | 2007 | C | |
| | Plate K—Clearance Diagram for Limited Interchange Service | 2007 | C | |
| S-2049 | Anti-Pilferage Device—Boxcar Sliding Door | 2007 | \mathbf{C} | |
| S-2050 | Anti-Pilferage Device—Boxcar Plug Door | 2007 | \mathbf{C} | |
| S-2051 | Plate J1—Maximum Width of Cars with Various Truck Centers | 2009 | C | |
| S-2052 | Plate K1—Maximum Width of Cars with Various Truck Centers | 2009 | C | |
| S-2053 | Container Interface—Well Car, 53 ft | 2009 | \mathbf{C} | |
| | Clearance Diagram—Interface Between a Well Car and a Container Equipped with a Refrigerator/ Heater Unit | 2016 | С | <u>Update Available</u> |
| S-2055 | Body Center Plate, Low Profile | 2014 | \mathbf{C} | |
| | Approval of AAR-Approved Brake Beam Safety Supports | 1984 | E | |
| | Side Frame—Column Friction Wear Plate, Application | 1983 | D | |
| S-3004 | Truck Center Plate Liners or Wear Plates | 2005 | D | |
| S-3005 | Universal Brake Beam Gauge | 1985 | \mathbf{E} | |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|---------|------------|
| S-3006 | Specification for Recertified "D" Series Helical Truck | 1988 | D | <u></u> |
| S-3007 | Springs Specifications for the Certification of New Truck Designs for Compatibility with Hot Bearing Detection Systems | 1991 | D | |
| S-3008 | Performance of Devices or Designs to Control Yaw Dynamics in Freight Car Trucks | 1997 | D | |
| S-3009 | Specification for Self-Locking Cotter Keys | 1992 | ${f E}$ | |
| S-3010 | Side Frame, Standard Pedestal-Type with Side Frame Key—Limiting Dimensions | 1947 | S-II | |
| S-3011 | Side Frame, Standard Pedestal-Type Size 6 in. × 11 in. with Side Frame Key—Limiting Dimensions | 1997 | S-II | |
| S-3012 | Side Frame, Alternate Standard Pedestal-Type with Side Frame Key—Application of Roller Bearing Unit | 1994 | S-II | |
| S-3013 | Specifications Covering Surface of Truck Bolster Side Bearing Mounting Pad | 1997 | D | |
| S-3014 | Freight Car Truck Springs—with Snubber Spring | 2010 | D | |
| S-3015 | Freight Car Truck Springs—without Snubber Spring | 2010 | D | |
| S-3016 | Spring—Groups for Free, Unrestricted Interchange for 286,000 GRL Cars (M-976 and S-286 Approved Trucks) | 2010 | D | |
| S-4000 | Brake Pipe Reduction Devices, Freight Auxiliary— Environmental Tests | 1984 | E | |
| S-4001 | Rubber Products—Performance | 2007 | ${f E}$ | |
| S-4002 | Empty/Load Devices—Performance Testing | 2005 | ${f E}$ | |
| S-4003 | Train Line Arrangement for Cars with F-Shank Couplers | 2005 | E | |
| S-4004 | Brake Cylinder—Performance Testing | 2002 | ${f E}$ | |
| S-4005 | Brake Systems, Truck-Mounted—Performance Testing | 2002 | E | |
| S-4006 | Hose Supports—Performance Testing | 2008 | ${f E}$ | |
| S-4007 | Reservoir, Combined Auxiliary and Emergency— Reclamation Procedure | 2002 | E | |
| S-4008 | Slack Adjuster, Mechanical, Double-Acting, Automatic Compression | 1998 | E | |
| S-4009 | Compression Slack Adjusters and Piston Travel Adjustment—Inspection, Testing, Removal, and Application | 2009 | E | |

EFFECTIVE 10/21/2016

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|--------------|-------------------------|
| S-4010 | Slack Adjusters, Groups E, J, and K—Inspection and Testing On Coal Cars | 2009 | E | |
| S-4013 | Train Line Hoses—Coupling Extension Adapter | 2002 | \mathbf{E} | |
| S-4020 | Brake Cylinder Pressure Measurement Taps | 2005 | ${f E}$ | |
| S-4021 | Angle Cock and Brake Hose Location on Cars with EOCC | 2009 | E | |
| S-4022 | Pipe, Other than Schedule 80 Iron | 2006 | ${f E}$ | |
| S-4023 | Brake Shoe Limiting Contour, Low-Friction Composition Type | 2009 | E | |
| S-4024 | Brake Shoe Force Measurement Devices— Performance Specification | 2002 | E | |
| S-4025 | Brake Beam Wear Liners, Non-Metallic | 2004 | ${f E}$ | |
| S-4026 | Brake Rod Connector—Design Requirements | 2003 | ${f E}$ | |
| S-4027 | Automated Single-Car Test Equipment, Conventional Brake Equipment—Design and Performance Requirements | 2015 | E | <u>Update Available</u> |
| S-4028 | Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Not Exceeding 45 in. in Length | 2008 | E | |
| S-4029 | Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Exceeding 45 in. in Length | 2008 | E | |
| S-4030 | Trolley Arrangement on Cars with EOCC and E Shank Couplers | 2008 | E | |
| S-4045 | Passenger Equipment Maintenance Requirements (formerly S-045) | 2013 | E | |
| S-4046 | Date Markings for Rubberized Components | 2016 | ${f E}$ | <u>Update Available</u> |
| S-4200 | Electronically Controlled Pneumatic (ECP) Cable- Based Brake Systems—Performance Requirements | 2014 | E-II | |
| S-4210 | ECP Cable-Based Brake System Cable, Connectors, and Junction Boxes—Performance Specification | 2014 | E-II | |
| S-4220 | ECP Cable-Based Brake DC Power Supply— Performance Specification | 2002 | E-II | |
| S-4230 | Intratrain Communication Specification for Cable- Based Freight Train Control Systems | 2014 | E-II | |
| S-4240 | ECP Brake Equipment—Approval Procedure | 2007 | E-II | |
| S-4250 | Performance Requirements for ITC-Controlled Cable-Based Distributed Power Systems | 2014 | E-II | |
| S-4260 | ECP Brake and Wire Distributed Power Interoperability Test Procedures | 2008 | E-II | |
| S-4270 | ECP BRake System Configuration Management | 2008 | E-II | |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|-------------------------|
| S-4286 | Single-Car Test for Testing Electronically Controlled Pneumatic Braking Systems—Design and Performance Requirements | 2009 | E-II | <u> </u> |
| S-5018 | Dynamic Braking Control | 2002 | ${f M}$ | |
| S-5019 | Locomotive Definitions | 2013 | ${f M}$ | Update Available |
| S-5020 | Color Code for Identifying Fluids on Locomotive | 2015 | ${f M}$ | Update Available |
| S-5021 | Wheel Size and Speed Pickup Axle Identification | 2015 | ${f M}$ | Update Available |
| S-5022 | Ultra-Low Sulfur Diesel (ULSD) Identification Label/Decal | 2015 | M | <u>Update Available</u> |
| S-5101 | Locomotive Cab Window Glazing Material | 2002 | ${f M}$ | |
| S-5500 | Locomotive Interchange Agreement | 2007 | \mathbf{M} | |
| S-5502 | Automatic Engine Start/Stop System | 2011 | \mathbf{M} | Update Available |
| S-5506 | Performance Requirements for Diesel Electric Locomotive Fuel Tanks | 2001 | M | |
| S-5507 | Remote Control Locomotives | 2002 | ${f M}$ | |
| S-5509 | Locomotive Dynamic Brake Status Reporting | 2010 | ${f M}$ | Update Available |
| S-5510 | Plate L—Locomotive Diagram for Interchange Service | 2004 | M | |
| S-5512 | Locomotive Event Recorder Download Standard | 2010 | \mathbf{M} | <u>Update Available</u> |
| S-5513 | Locomotive Alerter Requirements | 2007 | ${f M}$ | |
| S-5514 | Locomotive Operator Control Symbols | 2011 | ${f M}$ | Update Available |
| S-5515 | LED Lighting for Locomotives | 2012 | ${f M}$ | Update Available |
| S-5520 | Locomotive Cab Securement | 2014 | ${f M}$ | <u>Update Available</u> |
| S-5529 | Multiple Unit Pneumatic Brake Equipment for Locomotives | 2008 | M | <u>Update Available</u> |
| S-5597 | Air Flow Indicators | 2007 | \mathbf{M} | |
| S-5598 | Calibration Procedure for AFM Type Air Flow Indicators | 2007 | M | |
| S-6000 | Acoustic Roller Bearing Detector Level-1 Indications | 2014 | \mathbf{F} | Update Available |
| S-6001 | Bearing Temperature Performance | 2014 | \mathbf{F} | Update Available |
| S-6002 | Data Summary Definitions | 2016 | \mathbf{F} | Update Available |
| S-6003 | Data Summary—Truck Hunting | 2014 | \mathbf{F} | Update Available |
| S-6004 | Data Summary—TADS® | 2014 | \mathbf{F} | Update Available |
| S-6005 | Data Summary—RailBAM® | 2014 | \mathbf{F} | Update Available |
| S-6006 | Data Summary—Brake Health Truck | 2015 | \mathbf{F} | Update Available |
| S-6007 | Data Summary—Brake Health Car | 2015 | \mathbf{F} | Update Available |
| S-6008 | Data Summary—Salient Wheel Impact | 2016 | \mathbf{F} | Update Available |
| S-6009 | Data Summary—Automatic Equipment Identification (AEI) | 2016 | F | Update Available |

EFFECTIVE 10/21/2016

AAR Manual of Standards and Recommended Practices Tables of Content

| | | Last | | |
|----------|---|---------|--------------|-------------------------|
| Standard | <u>Subject</u> | Revised | Section | |
| S-6020 | Data Summary Definition—Line-of-Road Failure | 2015 | \mathbf{F} | <u>Update Available</u> |
| S-6021 | Data Summary Definition—Line-of-Road Failure— Air Hose Separation | 2016 | F | Update Available |
| S-6022 | Data Summary Definition—Line-of-Road Failure— Train Separation | 2016 | F | <u>Update Available</u> |
| S-6023 | Data Summary Definition—Line-of-Road Failure— Brake System/Other | 2016 | F | <u>Update Available</u> |
| S-6030 | Wheel Performance—Dynamic Impact and Rim Thickness | 2016 | F | <u>Update Available</u> |
| S-6031 | Inoperative Brake Indications as Determined by Wayside Detector | 2016 | F | <u>Update Available</u> |
| S-6100 | Wayside Detector Data Processing | 2016 | ${f F}$ | <u>Update Available</u> |
| S-6101 | Detector Calibration and Validation Requirements | 2015 | \mathbf{F} | <u>Update Available</u> |
| S-6102 | Wayside Passing Data Format | 2016 | \mathbf{F} | <u>Update Available</u> |
| S-9001 | ITC System Reference Architecture | 2012 | K-I | |
| S-9002 | Railroad Electronics Standards Configuration Management | 2009 | K-I | |
| S-9053 | Positive Train Control ITC System Requirements— Level 0 | 2014 | K-I | <u>Update Available</u> |
| S-9054 | Positive Train Control ITC System Requirements— Level 1 | 2014 | K-I | <u>Update Available</u> |
| S-9055 | Positive Train Control ITC Communications Segment Requirements—Level 1 | 2013 | K-I | |
| S-9056 | Positive Train Control ITC Wayside System Requirements—Level 1 | 2012 | K-I | |
| S-9057 | Positive Train Control ITC Systems Management Requirements—Level 1 | 2012 | K-I | |
| S-9070 | I-ETMS Human Machine Interface Standard | 2012 | K-I | |
| S-9101 | Locomotive Electronics System Architecture | 2012 | K-II | |
| S-9101B | Locomotive Data Acquisition and Recording System Architecture | 2011 | K-II | |
| S-9101E | Locomotive System Integration Communications | 2016 | K-II | Update Available |
| S-9152 | End-of-Train Communications | 2016 | K-II | Update Available |
| S-9153 | Common Air Interface (CAI-12) Communications FOR Remote Control Locomotive Systems (RCL) Operating AT 220 Mhz | 2012 | K-II | |
| S-9202 | Interoperable Train Control Wayside Interface Unit Requirements | 2012 | K-III | |
| S-9202A | Integrated Wayside Messaging Server Hardware Requirements | 2011 | K-III | |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|---------|-------------------------|
| S-9202B | Stand-alone Wayside Messaging Server Hardware Requirements | 2012 | K-III | |
| S-9203 | Automatic Equipment Identification | 2010 | K-III | |
| S-9203A | AEI Site-to-Host Consist Report Format | 2009 | K-III | |
| S-9203B | AEI Site-to-Host Wayside Report Format | 2010 | K-III | |
| S-9354 | Edge Message Protocol | 2014 | K-IV | |
| S-9355 | Class C Messaging | 2010 | K-IV | |
| S-9356 | Class D Messaging | 2010 | K-IV | |
| S-9361 | Positive Train Control Office-Locomotive Segment— Interface Control Document (ICD) | 2016 | K-IV | <u>Update Available</u> |
| S-9362 | Interoperable Train Control (ITC) Wayside- Locomotive Interface Control Document (ICD) | 2014 | K-IV | |
| S-9363 | ITC Time and Location—Interface Control Document (ICD) | 2012 | K-IV | |
| S-9364 | I-ETMS® Onboard Segment Data Distribution Messages Interface Control Document (ICD) | 2015 | K-IV | <u>Update Available</u> |
| S-9365 | Locomotive Interface Gateway (LIG) to Positive Train Control (PTC) Interface Control Document (ICD) | 2014 | K-IV | |
| S-9371 | PTC Back Office Segment—Energy Management Interface Control Document (ICD) | 2014 | K-IV | <u>Update Available</u> |
| S-9372 | PTC Onboard Segment—Energy Management Interface Control Document (ICD) | 2016 | K-IV | <u>Update Available</u> |
| S-9376 | Edge Message Protocol (EMP) Subscribe Message Interface Control Document (ICD) | 2016 | K-IV | <u>Update Available</u> |
| S-9401 | Railroad Electronics Environmental Requirements | 2009 | K-V | |
| S-9451 | ITCSM Common Systems Management Requirements | 2014 | K-V | |
| S-9451A | ITCSM WIU Asset-Specific Requirements for Interoperable Train Control | 2012 | K-V | |
| S-9452 | ITCSM Common Data Dictionary for Interoperable Train Control | 2014 | K-V | |
| S-9452A | ITCSM WIU Asset-Specific Data Dictionary for Interoperable Train Control | 2012 | K-V | |
| S-9454 | ITC System Management (ITCSM) Back Office Requirements for Interoperable Train Control | 2014 | K-V | |
| S-9501 | PTC Data Model Definition | 2015 | K-VI | <u>Update Available</u> |
| S-9503 | Interoperable Electronic Train Management System® (I-ETMS) Subdivision File | 2015 | K-VI | <u>Update Available</u> |
| S-9552 | Railroad Communications Network | 2004 | K-VI | |

| Standard | <u>Subject</u> | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|---------|-------------------------|
| S-9553 | Communications System Architecture | 2002 | K-VI | |
| S-9553A | Mobile Communications Package | 2002 | K-VI | |
| S-9553B | Front End Processor | 2002 | K-VI | |
| S-9553C | Cluster Controller | 2002 | K-VI | |
| S-9553D | Base Communications Package | 2002 | K-VI | |
| S-9555 | Railroad Use of IEEE 802.11 | 2015 | K-VI | Update Available |
| S-9556 | AAR Channel Plan for VHF Frequencies from 160.215 MHz to 161.565 MHz | 2013 | K-VI | |
| S-9557 | Interoperable Train Control (ITC) Radio Identification Format | 2015 | K-VI | <u>Update Available</u> |
| SOP | Standard Operating Procedures for Intermodal Securement | 2004 | Ι | |

EFFECTIVE 10/21/2010

AAR Manual of Standards and Recommended Practices Tables of Content

THIS PAGE LEFT BLANK INTENTIONALLY

ALPHABETIC INDEX

| | | <u>Last</u> | | |
|-----------------|---|-------------|--------------|-------------------------|
| <u>Standard</u> | <u>Subject</u> | Revised | Section | Circulars? |
| S-512 | 27-Point Control Plug and Receptacle | 2007 | \mathbf{M} | |
| S-9556 | AAR Channel Plan for VHF Frequencies from 160.215 MHz to 161.565 MHz | 2013 | K-VI | |
| S-920 | AAR Component Identification (CID) Bar Code Standard | 2016 | F | <u>Update Available</u> |
| S-2046 | Accelerated Fatigue Test Specification for Increased Life Status Applications | 2006 | C | |
| RP-5107 | Access Doors to Light Boxes for Road Number, Headlight, or Warning Lights—Outside Cab | 2001 | M | |
| S-6000 | Acoustic Roller Bearing Detector Level-1 Indications | 2014 | \mathbf{F} | Update Available |
| S-704 | Adapter for Use with AAR Standard Pedestal-Type Side Frame | 1968 | Η | |
| M-947 | Adhesive-Backed Films for Marking Cars— Performance-Based Requirements | 2015 | L | <u>Update Available</u> |
| RP-9203 | AEI Reader Equipment Requirements | 2010 | K-III | |
| S-9203A | AEI Site-to-Host Consist Report Format | 2009 | K-III | |
| S-9203B | AEI Site-to-Host Wayside Report Format | 2010 | K-III | |
| S-441 | Air Brake and Signal Hose—Mounting of Coupling and Nipple | 2002 | E | |
| RP-508 | Air Brake Exhaust Piping | 2001 | ${f M}$ | |
| S-402 | Air Brake Pipe and Fittings for Railroad Cars— Welding Procedure | 2016 | \mathbf{E} | <u>Update Available</u> |
| S-5597 | Air Flow Indicators | 2007 | \mathbf{M} | |
| S-669 | Analytic Evaluation of Locomotive Wheel Designs | 2012 | \mathbf{G} | |
| S-427 | Angle Cock and Air Brake Hose Location on Cars with Excessive Overhang Preventing Compliance with AAR Standards S-424, S-425, and S-426 | 2005 | Е | |
| S-4021 | Angle Cock and Brake Hose Location on Cars with EOCC | 2009 | E | |
| S-424 | Angle Cock Location | 2002 | ${f E}$ | |
| S-495 | Angle Cock Location on Cars Arranged for Rotary Dump Service | 2002 | E | |
| S-425 | Angle Cock Location on Cars Equipped with AAR Type F Coupler | 2002 | E | |
| S-428 | Angle Cock Location on Cars Equipped with AAR Type F Coupler and Cushioned Underframe | 2005 | E | |
| S-426 | Angle Cock Location on Cars with Floating Sills | 2005 | \mathbf{E} | |
| S-429 | Angle Cock Locking Lugs—Minimum Permissible Engagement | 2002 | E | |

5FF5611W5 10//21//201

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|-------------------------|
| S-470 | Angle Cock, Ball Type—Specification for Approval | 2002 | E | |
| S-476 | Angle Cocks and Brake Pipe End Cocks—Repair Specification | 1981 | E | |
| S-2050 | Anti-Pilferage Device—Boxcar Plug Door | 2007 | \mathbf{C} | |
| S-2049 | Anti-Pilferage Device—Boxcar Sliding Door | 2007 | \mathbf{C} | |
| S-060 | Application for Component Approval Procedure | 2015 | AS | <u>Update Available</u> |
| RP-323 | Application of Snap-On Pedestal Roof Liners for AAR Pedestal-Type Side Frames | 2012 | D | <u>Update Available</u> |
| S-379 | Application Tolerances for Hanger-Type Brake Beams | unk | E | |
| S-3001 | Approval of AAR-Approved Brake Beam Safety Supports | 1984 | E | |
| S-239 | Arrangement E60 Coupler Design 24 5/8 in. Draft Gear Pocket Striker Applied by Welding | 2012 | C | |
| S-4027 | Automated Single-Car Test Equipment, Conventional Brake Equipment—Design and Performance Requirements | 2015 | E | <u>Update Available</u> |
| S-5502 | Automatic Engine Start/Stop System | 2011 | \mathbf{M} | <u>Update Available</u> |
| S-9203 | Automatic Equipment Identification | 2010 | K-III | |
| S-658 | Axle for Passenger Cars (Amfleet) Inboard Roller Bearing—Raised Wheel Seat | 2004 | G | |
| RP-5523 | Axle Nomenclature Arrangement—Locomotives | 2001 | \mathbf{M} | |
| RP-622 | Axle, Weight—Machined Finish, Raised Wheel Seat | 2007 | \mathbf{G} | |
| S-649 | Axles—Manufacturing Facility Inspection by Technical Services | 2004 | G | |
| M-101 | Axles, Carbon Steel, Heat-Treated | 2016 | \mathbf{G} | |
| M-985 | Bad Order Device for Identification of Defective Hitches | 2004 | Ι | |
| S-374 | Badge Plate for Showing Proper Dimensions for Body and Truck Brake Levers | 1964 | E | |
| S-9553D | Base Communications Package | 2002 | K-VI | |
| RP-5209 | Basic Brake Design Data for Freight Locomotives | 1999 | \mathbf{M} | |
| S-2039 | Batten Bars | 2014 | \mathbf{C} | |
| S-6001 | Bearing Temperature Performance | 2014 | ${f F}$ | Update Available |
| M-131 | Blooms, Billets, and Slabs—Alloy Steel | 1964 | \mathbf{S} | |
| S-211 | Body Center Plate Gauge—14-in. and 16-in. Diameter | 1976 | С | |
| S-258 | Body Center Plate Relief | 1980 | \mathbf{C} | |
| S-206 | Body Center Plate, Cast Steel or Forged—for Freight Cars with 14-in. Center Plates | 1978 | С | |

| | | Last | | |
|----------|---|---------|----------------|------------|
| Standard | <u>Subject</u> | Revised | <u>Section</u> | Circulars? |
| S-207 | Body Center Plate, Cast Steel or Forged—for Freight Cars with 16-in. Center Plates | 2014 | С | |
| S-2055 | Body Center Plate, Low Profile | 2014 | \mathbf{C} | |
| S-204 | Body Center Plate, Separable—Surface Finish | 2014 | \mathbf{C} | |
| M-203A | Bolster Design Loads | 1997 | \mathbf{S} | |
| S-316 | Bolster—Tolerances | 1981 | S-II | |
| S-310 | Bolster, 14 in. Center Plate—Limiting Outline | 1979 | S-II | |
| S-311 | Bolster, 16 in. Center Plate—Limiting Outline | 2009 | S-II | |
| S-312 | Bolster, Truck—Marking Diagram | 2014 | S-II | |
| S-908 | Boxcar—Class X | 2002 | ${ m L}$ | |
| RP-901 | Boxcars Equipped with Removable Crossbars | 2002 | ${ m L}$ | |
| S-355 | Brake Beam Gauge Application—Hangerless Type | 1979 | ${f E}$ | |
| S-352 | Brake Beam Gauge Assembly—Hangerless Type | 1979 | ${f E}$ | |
| S-353 | Brake Beam Gauge Details—Hangerless Type | 1981 | ${f E}$ | |
| S-348 | Brake Beam Gauges for Standard Brake Beams | 1992 | ${f E}$ | |
| S-368 | Brake Beam Hangers and Attachments | 1965 | ${f E}$ | |
| S-369 | Brake Beam Hangers and Attachments | 1965 | ${f E}$ | |
| S-344 | Brake Beam Specifications and Tests | 2007 | ${f E}$ | |
| RP-322 | Brake Beam Strut Keyway Gauge | 1992 | ${f E}$ | |
| S-4025 | Brake Beam Wear Liners, Non-Metallic | 2004 | ${f E}$ | |
| S-346 | Brake Beam—Outline, Hanger Type | 1953 | ${f E}$ | |
| S-349 | Brake Beam—Outline, Hangerless Type | 1979 | ${f E}$ | |
| S-345 | Brake Beam—Tolerance, Hangerless Type | 1979 | ${f E}$ | |
| RP-401 | Brake Control Valves—Mount-Configuration Designs as Related to Field Vibration | 2014 | C | |
| M-619 | Brake Cylinder Line Hose Assemblies—Performance Requirements | 2005 | E | |
| M-914 | Brake Cylinder Lubricant | 2003 | ${f E}$ | |
| S-4020 | Brake Cylinder Pressure Measurement Taps | 2005 | ${f E}$ | |
| S-443 | Brake Cylinder Release Valve and Release Rod | 2002 | ${f E}$ | |
| S-444 | Brake Cylinder Release Valve Rod Handles— Location | 2002 | E | |
| S-4004 | Brake Cylinder—Performance Testing | 2002 | ${f E}$ | |
| S-401 | Brake Design Requirements | 2011 | ${f E}$ | |
| S-473 | Brake Equipment—Application Form for AAR Approval of New and Untried Freight Cars | 2003 | E | |
| S-400 | Brake Equipment—Installation Specifications | 2006 | ${f E}$ | |
| S-372 | Brake Head Conversion—Metal Shoe-Type to High- Friction Composition | 1972 | E | |

EFFECTIWE 10//21//201

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | <u>Subject</u> | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|-------------------------|
| S-4000 | Brake Pipe Reduction Devices, Freight Auxiliary— Environmental Tests | 1984 | E | |
| S-471 | Brake Pipe Restriction Test | 2010 | ${f E}$ | |
| S-4026 | Brake Rod Connector—Design Requirements | 2003 | ${f E}$ | |
| S-4024 | Brake Shoe Force Measurement Devices— Performance Specification | 2002 | E | |
| S-448 | Brake Shoe Go Gauge | 2002 | ${f E}$ | |
| S-376 | Brake Shoe Keys | 2003 | ${f E}$ | |
| S-4023 | Brake Shoe Limiting Contour, Low-Friction Composition Type | 2009 | E | |
| S-449 | Brake Shoe No-Go Gauge | 2002 | ${f E}$ | |
| RP-518 | Brake Shoe Unflanged | 2001 | \mathbf{M} | |
| M-997 | Brake Shoe—High-Friction Tread Conditioning, High Capacity | 2008 | E | |
| M-402 | Brake Shoe, Cast Iron, High-Phosphorus Type | 2002 | ${f E}$ | |
| M-926 | Brake Shoe, High-Friction Composition or Metal Type | 2015 | E | <u>Update Available</u> |
| S-431 | Brake Shoe, High-Friction Composition Type— Limiting Contour | 2005 | E | |
| M-996 | Brake Shoe, Low-Friction Composition Type | 2015 | ${f E}$ | Update Available |
| S-430 | Brake Shoe, Metal, Reinforced | 2002 | ${f E}$ | |
| RP-599 | Brake Shoes—High-Friction Composition Type for Locomotives | 2001 | M | |
| RP-5596 | Brake Shoes—Metal Type | 2001 | ${f M}$ | |
| S-4005 | Brake Systems, Truck-Mounted—Performance Testing | 2002 | E | |
| RP-509 | Braking Ratios for Locomotives | 2001 | \mathbf{M} | |
| S-375 | Break Pin Tolerance | 1975 | \mathbf{E} | |
| S-100 | Bushings, Seamless Steel Tube—Coupler Shanks and Yokes | 2010 | В | |
| S-904 | Caboose—Class N | 2002 | ${f L}$ | |
| S-5598 | Calibration Procedure for AFM Type Air Flow Indicators | 2007 | M | |
| S-703 | Cap Screws for Journal Roller Bearing Assemblies | 1970 | Н | |
| S-2034 | Car Builder Certification | 2013 | \mathbf{C} | |
| RP-899 | Car Owner's Manual for the Inspection and Maintenance of Double-Stack Container Cars | 2014 | Ι | <u>Update Available</u> |
| S-2008 | Card Holder—Bad Order | 2013 | \mathbf{C} | |
| RP-902 | Cars Equipped with Antipilferage Devices | 2002 | L | |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|-------------------------|
| S-911 | Cars Equipped with Loading Bars and Movable Bulkheads | 2002 | L | |
| M-220 | Casting Component NonDestructive Testing Requirements | 2012 | S | |
| M-201 | Castings, Steel | 2016 | \mathbf{S} | Update Available |
| RP-261 | Center Bowl Liner and Lubricant—Double-Stack Container Car | 2014 | C | |
| S-265 | Center Pin—Freight Car | 1989 | \mathbf{C} | |
| S-307 | Center Plate Liner—Horizontal, 6 1/2 in. \times 12 in. | 2012 | D | <u>Update Available</u> |
| S-306 | Center Plate Liner—Vertical, 6 $1/2$ in. \times 12 in. | 2012 | D | Update Available |
| S-308 | Center Plate Liner—Vertical, 6 $1/2$ in. \times 12 in. | 2012 | D | Update Available |
| S-267 | Center Sill Section—Welding Notes | 1979 | \mathbf{C} | |
| S-266 | Center Sill Section, Rolled Steel | 2012 | \mathbf{C} | |
| M-970 | Certification of Multi-Level Autorack Cars | 2016 | N | Update Available |
| S-612 | Circumference Measure (Tape) for 27 in. to 38 in. Steel Wheels | 2004 | G | |
| S-613 | Circumference Measure (Tape) for 38 in. to 52 in. Steel Wheels | 2004 | G | |
| S-9355 | Class C Messaging | 2010 | K-IV | |
| S-9356 | Class D Messaging | 2010 | K-IV | |
| S-912 | Clear Door Opening | 2002 | ${f L}$ | |
| S-2054 | Clearance Diagram—Interface Between a Well Car and a Container Equipped with a Refrigerator/ Heater Unit | 2016 | С | <u>Update Available</u> |
| S-913 | Clearance Plates | 2002 | ${f L}$ | |
| S-9553C | Cluster Controller | 2002 | K-VI | |
| S-486 | Code of Air Brake System Tests for Freight Equipment—Single Car Test | 2013 | E | |
| RP-512 | Color Code for Identifying Fluids on Locomotive | 2001 | \mathbf{M} | |
| S-5020 | Color Code for Identifying Fluids on Locomotive | 2015 | \mathbf{M} | Update Available |
| S-255 | Combined Striker and Front Draft Lug Tolerances | 1974 | \mathbf{C} | |
| S-627 | Combined Wheel Gauge | 1998 | \mathbf{G} | |
| S-628 | Combined Wheel Gauge | 1998 | \mathbf{G} | |
| S-9153 | Common Air Interface (CAI-12) Communications FOR Remote Control Locomotive Systems (RCL) Operating AT 220 Mhz | 2012 | K-II | |
| S-9553 | Communications System Architecture | 2002 | K-VI | |
| S-702 | Component Parts for Journal Roller Bearing Assemblies | 1998 | Н | |

EFFECTIVE 10/21/201(

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|------------------|
| S-4009 | Compression Slack Adjusters and Piston Travel Adjustment—Inspection, Testing, Removal, and Application | 2009 | E | <u></u> |
| S-051 | Conditions Governing Withdrawal of AAR Approval of Freight Car and Locomotive Components and Products | 2000 | AS | |
| S-810 | Conducting Field Impact and Over-the-Road Tests of Multi-Level Tie-down Equipment and/or Methods | 2016 | N | Update Available |
| S-2053 | Container Interface—Well Car, 53 ft | 2009 | \mathbf{C} | |
| M-930 | Containers for Domestic Intermodal Service | 2014 | I | Update Available |
| S-468 | Control Valve Pipe Bracket | 2009 | ${f E}$ | |
| S-462 | Control Valve—Approval Procedure | 2002 | ${f E}$ | |
| S-477 | Control Valve—Shop Certification Requirements for Approved Valves | 2002 | E | |
| S-467 | Control Valve, Freight Brake—Environmental Tests | 2002 | ${f E}$ | |
| S-131 | Coupler (Rotary), Type E60, Operating Rod, use with up to 6 1/2-in. Total Draft Gear Travel | 2016 | S-III | |
| S-133 | Coupler (Rotary), Type F70, Operating Rod, use with up to 6 1/2-in. Total Draft Gear Travel | 2016 | S-III | |
| S-134 | Coupler (Rotary), Types E60, E67, and F70, Operating Rod for Use with Standard Draft Gear or End-of-Car Cushioning up to 15-in. Total Travel | 2016 | S-III | |
| S-269 | Coupler Carrier Wear Plate | 2003 | В | |
| M-932 | Coupler Centering Device Specification | 2003 | S-III | |
| S-117 | Coupler Contour, F Type, Interlocking | 2003 | S-III | |
| S-137 | Coupler Shank Wear Plates and Application | 2000 | S-III | |
| S-130 | Coupler, E Type, Articulated Rotor Lever Assembly | 2003 | S-III | |
| S-105 | Coupler, E Type, Detail Parts | 2003 | S-III | |
| S-173 | Coupler, E Type, Guard Arm Lightener Hole Openings and Knuckle Flag Hole—Standard Dimensions | 2003 | S-III | |
| S-106 | Coupler, E Type, No. 10-A Contour and Detail of Pivot Pin Hole | 2003 | S-III | |
| S-163 | Coupler, E Type, SBE60DE and SBE60EE, Bottom Shelf | 2008 | S-III | |
| S-164 | Coupler, E Type, SBE67CE and SBE67DE, Bottom Shelf | 2008 | S-III | |
| S-154 | Coupler, E Type, SE67CE and SE67DE, Top and Bottom Shelf | 2003 | S-III | |

| | | Last | | |
|-----------------|--|---------|--------------|-------------------------|
| <u>Standard</u> | <u>Subject</u> | Revised | Section | Circulars? |
| S-102 | Coupler, E Type, Standard and Alternate Standard, E60DE and E60EE | 2003 | S-III | |
| S-107 | Coupler, E Type, Standard and Alternate Standard, E67CE and E67DE | 2003 | S-III | |
| S-103 | Coupler, E Type, Top and Bottom Shelf, Standard and Alternate Standard, SE60DE and SE60EE | 2003 | S-III | |
| S-165 | Coupler, E/F Type, SBE68CE and SBE68DE, Bottom Shelf | 2008 | S-III | |
| S-170 | Coupler, E/F Type, SBE69BE and SBE69CE, Bottom Shelf | 2008 | S-III | |
| S-155 | Coupler, E/F Type, SE68CE and SE68DE, Top and Bottom Shelf | 2014 | S-III | |
| S-172 | Coupler, E/F Type, SE69BE and SE69CE, Top and Bottom Shelf | 2008 | S-III | |
| S-108 | Coupler, E/F Type, Standard and Alternate Standard, E68CE and E68DE | 2003 | S-III | |
| S-109 | Coupler, E/F Type, Standard and Alternate Standard, E69BE and E69CE | 2003 | S-III | |
| S-174 | Coupler, F Type, Guard Arm Lightener Hole Openings and Knuckle Flag Hole—Standard Dimensions | 2003 | S-III | |
| S-116 | Coupler, F Type, Interlocking, Coupler and Yoke Parts | 2003 | S-III | |
| S-110 | Coupler, F Type, Standard F Coupler, F70DE | 2009 | S-III | |
| S-112 | Coupler, F Type, Standard, F73BE | 2003 | S-III | |
| S-114 | Coupler, F Type, Standard, F79DE | 2003 | S-III | |
| S-111 | Coupler, F Type, with Top Shelf, Standard, SF70DE | 2003 | S-III | |
| S-115 | Coupler, F Type, with Top Shelf, Standard, SF79DE | 2003 | S-III | |
| S-203 | Coupler, Height Adjustment | 1962 | \mathbf{C} | |
| M-211 | Couplers and Yokes, AAR Approved—Purchase and Acceptance | 2016 | S | <u>Update Available</u> |
| M-212 | Couplers and Yokes, Secondhand—Classification and Reconditioning Procedure | 2016 | S | <u>Update Available</u> |
| S-129 | Couplers—Arrangement of Operating Mechanisms | 2000 | S-III | |
| M-215 | Coupling Systems | 2013 | \mathbf{S} | |
| RP-5115 | Cushion Pad—Locomotive Cab Door Frame | 2001 | \mathbf{M} | |
| RP-110 | Cushioning Device Inspection | 2003 | В | |
| M-921E | Cushioning Devices, Active Draft End | 2012 | В | |
| M-921F | Cushioning Devices, Active Draft End of Car | 2012 | В | |
| M-921B | Cushioning Devices, End-of-Car | 2012 | В | |

EFFECTIWE 10//21//201

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | Cubiant | <u>Last</u> | Section | Circulare? |
|------------------|---|-------------|--------------|-------------------------|
| Standard M. 001D | Subject Cooking Decision Field of Cook Mater Webiele | Revised | Section | Circulars? |
| M-921D | Cushioning Devices, End-of-Car—Motor-Vehicle- Carrying | 2012 | В | |
| M-921C | Cushioning Devices, Reconditioned—Approved for Freight Service | 2013 | В | <u>Update Available</u> |
| M-921A | Cushioning Devices, Sliding Sill | 2003 | В | |
| S-181 | Cushioning Pocket Identification Guide—AAR Rule 59 | 2003 | В | |
| M-921H | Cushioning Units, Standard Preload EOC Unit Condition Indicator | 2004 | В | |
| S-6020 | Data Summary Definition—Line-of-Road Failure | 2015 | ${f F}$ | Update Available |
| S-6021 | Data Summary Definition—Line-of-Road Failure— Air Hose Separation | 2016 | F | Update Available |
| S-6023 | Data Summary Definition—Line-of-Road Failure— Brake System/Other | 2016 | F | <u>Update Available</u> |
| S-6022 | Data Summary Definition—Line-of-Road Failure— Train Separation | 2016 | F | <u>Update Available</u> |
| S-6002 | Data Summary Definitions | 2016 | \mathbf{F} | Update Available |
| S-6009 | Data Summary—Automatic Equipment Identification (AEI) | 2016 | F | Update Available |
| S-6007 | Data Summary—Brake Health Car | 2015 | \mathbf{F} | Update Available |
| S-6006 | Data Summary—Brake Health Truck | 2015 | \mathbf{F} | Update Available |
| S-6005 | Data Summary—RailBAM® | 2014 | \mathbf{F} | Update Available |
| S-6008 | Data Summary—Salient Wheel Impact | 2016 | \mathbf{F} | Update Available |
| S-6004 | Data Summary—TADS® | 2014 | \mathbf{F} | Update Available |
| S-6003 | Data Summary—Truck Hunting | 2014 | ${f F}$ | Update Available |
| S-4046 | Date Markings for Rubberized Components | 2016 | ${f E}$ | Update Available |
| RP-206 | Decking, Wood—for Open Top Cars | 1981 | \mathbf{C} | |
| S-046 | Definitions of Terms for the AAR Manual of Standards and Recommended Practices | 2015 | AS | <u>Update Available</u> |
| RP-308 | Design Dimensions for Brake Hanger Bracket | 1937 | ${f E}$ | |
| M-1001 | Design, Fabrication, and Construction of Freight Cars | 2015 | C-II | |
| M-992 | Designated Satellite Shop Repair Specifications for Multi-Level Autorack Cars | 2015 | N | <u>Update Available</u> |
| RP-514 | Designation of Sides and Ends of Locomotives | 2001 | \mathbf{M} | |
| RP-817 | Destination Inspections | 1994 | N | |
| S-6101 | Detector Calibration and Validation Requirements | 2015 | \mathbf{F} | Update Available |
| RP-5132 | Diesel Locomotive Control Stand for New Locomotives | 2001 | M | |
| S-493 | Dirt Collector and Cutout Cock—Test Specification | 2002 | E | |

| <u>Standard</u> | <u>Subject</u> | <u>Last</u> Revised | Section | Circulars? |
|-----------------|--|------------------------|--------------|-------------------------|
| S-489 | Dirt Collector and Cutout Cock, Combined—Repair Specification | 1981 | E | |
| S-252 | Door Air Lines—Location of End Cocks | 1978 | \mathbf{C} | |
| RP-5117 | Door Closure Bar—Locomotive Cab | 2001 | \mathbf{M} | |
| S-249 | Door Puller Bracket, Application to Intermediate Post | 1978 | C | |
| S-229 | DOT Placard Location | 2013 | \mathbf{C} | |
| RP-851 | Double-Stack Container Cars | 2004 | I | |
| S-243 | Draft Arrangement, E68 Coupler, 24 5/8-in. Pocket | 1983 | \mathbf{C} | |
| S-244 | Draft Arrangement, E69 Coupler, 24 5/8-in. Pocket | 1983 | \mathbf{C} | |
| S-245 | Draft Arrangement, F70 Coupler, 24 5/8-in. Pocket—Striker Applied by Welding | 1978 | C | |
| S-247 | Draft Arrangement, F79 Coupler, 24 5/8-in. Pocket | 1978 | \mathbf{C} | |
| S-119 | Draft Gear Follower, Y44A | 2012 | В | |
| RP-101 | Draft Gear Inspection | 2011 | В | |
| M-901F | Draft Gear Reaction Forces, Measuring and Recording, Instrumentation Requirements | 2003 | В | |
| M-901K | Draft Gear, All-Hydraulic, Rated by Impact Testing | 2015 | В | <u>Update Available</u> |
| M-901G | Draft Gear, Rated by Impact Testing | 2015 | В | <u>Update Available</u> |
| M-901B | Draft Gear, Secondhand and Reconditioned | 2015 | В | <u>Update Available</u> |
| M-901E | Draft Gears with a Minimum Capacity of 36,000 ft·lb at a Reaction of 500,000 lb | 2015 | В | <u>Update Available</u> |
| S-121 | Draft Key | 2015 | В | <u>Update Available</u> |
| S-120 | Draft Key Retainers, Locks, Keepers, and Washer | 2011 | В | |
| S-254 | Draft Pocket Tolerances | 1974 | \mathbf{C} | |
| S-5018 | Dynamic Braking Control | 2002 | \mathbf{M} | |
| S-4260 | ECP Brake and Wire Distributed Power Interoperability Test Procedures | 2008 | E-II | |
| S-4240 | ECP Brake Equipment—Approval Procedure | 2007 | E-II | |
| S-4270 | ECP BRake System Configuration Management | 2008 | E-II | |
| S-4220 | ECP Cable-Based Brake DC Power Supply— Performance Specification | 2002 | E-II | |
| S-4210 | ECP Cable-Based Brake System Cable, Connectors, and Junction Boxes—Performance Specification | 2014 | E-II | |
| S-9354 | Edge Message Protocol | 2014 | K-IV | |
| S-9376 | Edge Message Protocol (EMP) Subscribe Message Interface Control Document (ICD) | 2016 | K-IV | <u>Update Available</u> |
| M-967 | Electrochemical Metal Deposition for Repairing Roller Bearing Axle Journals | 2008 | G | |

5FFECTIVE 10//21//201

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|--------------|-------------------------|
| RP-940 | Electronic Distribution Format For Engineering | 2005 | С | |
| S-4200 | Drawings Electronically Controlled Pneumatic (ECP) Cable- Based Brake Systems—Performance Requirements | 2014 | E-II | |
| S-4002 | Empty/Load Devices—Performance Testing | 2005 | ${f E}$ | |
| S-488 | End Cock and Air Brake Hose Location on Long Cars | 2002 | ${f E}$ | |
| S-472 | End Cock Location on Cars Arranged for Rotary Dump Service | 2002 | E | |
| M-941 | End Enclosure for Fully Enclosed Multi-Level Auto Rack Cars | 1998 | N | |
| S-440 | End Hose Gaskets, Couplings, and Nipples—Annual Test Requirements | 1999 | E | |
| S-9152 | End-of-Train Communications | 2016 | K-II | <u>Update Available</u> |
| M-921G | Facility Inspection Requirements for Manufacturers of New and Reconditioned Cushioning Devices for Freight Service | 2003 | В | |
| S-101 | Field Service Experience—Reporting Requirements | 2003 | В | |
| S-492 | Field Service Reports—Requirements | 2002 | ${f E}$ | |
| S-010 | Field Test Requirements for Materials, Devices, and Products Manufactured to AAR Specifications but Having No Previous Service Experience on AAR Member Roads | | AS | |
| RP-633 | Figures | 2015 | G-II | Update Available |
| M-908 | Flat Steel Floor for Freight Cars 50,000, 60,000, 70,000 or 80,000 lb Capacities | 2006 | C | |
| S-900 | Flatcar—Class F | 2002 | ${f L}$ | |
| RP-5120 | Flexible Hinge Guard on Locomotive Cab Door | 2001 | \mathbf{M} | |
| M-964 | Floor, Nailable Steel—Freight Cars | 2006 | \mathbf{C} | |
| M-127 | Forgings, Alloy Steel | 1964 | \mathbf{S} | |
| M-126 | Forgings, Carbon Steel | 1968 | \mathbf{S} | |
| M-105 | Forgings, Carbon Steel Blooms, Billets, and Slabs | 1964 | \mathbf{S} | |
| RP-830 | Form Preparation for Vehicle Inspection | 2014 | N | |
| S-286 | Free/Unrestricted Interchange for 286,000 lb Gross Rail Load Cars | 2016 | C | <u>Update Available</u> |
| S-3014 | Freight Car Truck Springs—with Snubber Spring | 2010 | D | |
| S-3015 | Freight Car Truck Springs—without Snubber Spring | 2010 | D | |
| S-9553B | Front End Processor | 2002 | K-VI | |
| M-602 | Gaskets, Air Hose | 2002 | E | |

| | | Last | | |
|-----------------|--|---------|--------------|------------------|
| <u>Standard</u> | <u>Subject</u> | Revised | Section | Circulars? |
| RP-613 | Gauge, Axle—Master Gauge for Verifying Axle Journal and Fillet Gauge S-614 | 2004 | G | |
| RP-637 | Gauge, Wheel—Application Drawing for AAR 1B Wheel Gauges S-661 and S-665 | 1991 | G | |
| RP-636 | Gauge, Wheel—Application Drawing for AAR 1B Wheel Gauges S-662 and S-667 | 1991 | G | |
| RP-638 | Gauge, Wheel—Application Drawing for Reference Gauge to Verify Wheel Gauges S-661, S-662, S-663, S-664, S-665, S-666, S-667, and S-668 | 1991 | G | |
| RP-630 | Gauge, Wheel—Application for Measuring Condemnable Overheated Wheels | 2004 | G | |
| RP-629 | Gauge, Wheel—for Measuring Condemnable Overheated Wheels | 2004 | G | |
| S-618 | Gauge, Wheel—Former Standard 1976 | 1976 | \mathbf{G} | |
| S-617 | Gauge, Wheel—Former Standard 1980 | 1980 | \mathbf{G} | |
| RP-614 | Gauge, Wheel—Master Gauge for Verifying Wheel Gauges S-617 and S-618 | 2004 | G | |
| S-661 | Gauge, Wheel—Maximum Flange Thickness, Height, and Throat Radii Gauge for AAR-1B Narrow-Flange Steel Wheel | 1991 | G | |
| S-665 | Gauge, Wheel—Maximum Flange Thickness, Height, and Throat Radii Gauge for AAR-1B Wide- Flange Steel Wheels | 1991 | G | |
| S-662 | Gauge, Wheel—Minimum Flange Thickness, Height, and Throat Radii Gauge for AAR-1B Narrow-Flange Steel Wheel | 1991 | G | |
| S-667 | Gauge, Wheel—Minimum Flange Thickness, Height, and Throat Radii Gauge for AAR-1B Wide- Flange Steel Wheels | 1991 | G | |
| S-663 | Gauge, Wheel—Reference Limit Gauge for Verifying AAR 1B Narrow Flange Wheel Gauge S-661 | 1991 | G | |
| S-664 | Gauge, Wheel—Reference Limit Gauge for Verifying AAR 1B Narrow Flange Wheel Gauge S-662 | 1991 | G | |
| S-666 | Gauge, Wheel—Reference Limit Gauge for Verifying AAR 1B Wide Flange Wheel Gauge S-665 | 1991 | G | |
| S-668 | Gauge, Wheel—Reference Limit Gauge for Verifying AAR 1B Wide Flange Wheel Gauge S-667 | 1991 | G | |
| RP-608 | Gauge, Wheel—Reference Master Disk for Verifying Wheel Circumference Gauges S-612 and S-613 | 2004 | G | |
| RP-615 | Gauge, Wheel—Simplified | 2004 | G | |
| S-360 | Gauges for End of Hangerless-Type Brake Beam | 1979 | \mathbf{E} | |
| RP-634 | Gauges—Wheel and Axle Shop | 2016 | G-II | Update Available |

EFFECTIVE 10//21//201

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|--------------|-------------------------|
| RP-632 | General Requirements and Information | 2015 | G-II | <u>Oli Calars :</u> |
| S-359 | Go and No-Go Gauge for Brake Head for Limiting Contour of Face, Metal or High-Friction Shoe | 1990 | E | |
| S-358 | Go Gauge for Brake Head, Metal or High-Friction Shoe | 2009 | E | |
| S-361 | Go Gauges for Brake Shoe | 1944 | ${f E}$ | |
| S-901 | Gondola Car—Class G | 2002 | ${f L}$ | |
| RP-904 | Gondola Cars with Wood Floors | 2002 | \mathbf{L} | |
| S-233 | Gravity Outlet Gates, New—for Covered Hopper Cars | 2014 | C | |
| M-929 | Grease for Lubrication of Trailer Hitches on Flatcars | 2004 | I | |
| S-475 | Hand Brakes | 2010 | ${f E}$ | |
| S-224 | Handholds, Safety Railings, and Ladder Treads | 2015 | \mathbf{C} | <u>Update Available</u> |
| RP-812 | Handling and Inspection of Multi-Level Cars and Equipment After Loading | 1994 | N | |
| RP-810 | Handling and Inspection of Vehicles Before Loading | 2013 | N | |
| RP-818 | Handling of Multi-Level Cars and Equipment Afier Unloading | 1997 | N | |
| RP-813 | Handling of Multi-Level Cars in Trains and Yards | 1994 | N | |
| S-380 | Hangerless Brake Beam Extension Functional Gauge (Parallelism) | 1979 | E | |
| M-114 | Helical Springs, Heat-Treated Steel | 2008 | D | |
| M-928 | Highway Trailer Hitches for Freight Cars | 2004 | Ι | |
| M-928A | Highway Trailer Hitches for Freight Cars with 90,000-lb Maximum Gross vehicle Weight Capacity | 2003 | I | |
| RP-233 | Hold-Down Clips—Gondolas, Side Sheet Mounted | 1948 | \mathbf{C} | |
| RP-234 | Hold-Down Clips—Gondolas, Top Cord Mounted | 1982 | \mathbf{C} | |
| RP-5599 | Hook and Eye Brake Rigging—Lever Angularity Inspection | 2007 | E | |
| S-902 | Hopper Car—Class H | 2002 | ${f L}$ | |
| S-2025 | Hopper Car—End for Door Operating Shaft | 1914 | \mathbf{C} | |
| RP-258 | Hopper Car—Grain Service | 1992 | \mathbf{C} | |
| M-800 | Hopper Car, Covered—For Transport of Oxidizing Commodities | 2012 | C | |
| M-801 | Hopper Car, Covered—Pressurized During Unloading and In-Transit | 2012 | C | |
| RP-200 | Hopper Car, Open Top, in Shaker Service—Design Features | 1976 | C | |
| S-458 | Hose Assemblies—Reclamation Procedures | 2002 | ${f E}$ | |
| M-923 | Hose Cement | 1983 | E | |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|-------------------------|
| S-439 | Hose Clamps | 2002 | E | Onoului o : |
| S-491 | Hose Coupling | 2005 | E | |
| S-455 | Hose Coupling Condemning Gauges for Checking the Beads and Shanks on New and Used Hose Couplings and Nipples | 2002 | E | |
| S-447 | Hose Coupling Gasket Gauge | 2002 | ${f E}$ | |
| S-456 | Hose Coupling Gauges for Gauging New and Used Couplings | 2002 | E | |
| S-457 | Hose Coupling Tester, Air Brake, Type A-1-B— Modification to Permit Testing of Pinless-Type Couplings | 2002 | E | |
| S-436 | Hose Coupling, Dummy | 2002 | ${f E}$ | |
| M-927 | Hose Fittings and Hose Assemblies, Air, Wire- Reinforced | 2007 | E | |
| S-432 | Hose Support, S Hook | 2002 | ${f E}$ | |
| S-4006 | Hose Supports—Performance Testing | 2008 | ${f E}$ | |
| M-620 | Hose, Air, Fabric-Reinforced | 2011 | ${f E}$ | |
| M-618 | Hose, Air, Wire-Reinforced | 2011 | ${f E}$ | |
| S-438 | Hose, Armored Type—Mounting Procedure | 1949 | ${f E}$ | |
| S-437 | Hose, Other than Armored Type—Mounting Procedure | 2002 | E | |
| M-601 | Hose, Wrapped, Air—Brake, "End Hose" | 2006 | ${f E}$ | |
| S-9070 | I-ETMS Human Machine Interface Standard | 2012 | K-I | |
| S-9364 | I-ETMS® Onboard Segment Data Distribution Messages Interface Control Document (ICD) | 2015 | K-IV | <u>Update Available</u> |
| S-217 | Identification Plate—Boxcar Doors | 2009 | \mathbf{C} | |
| S-158 | Immobilization of Freightmaster | 2003 | В | |
| S-161 | Immobilization of Freightmaster 10-in. Type E Miner M-12S | 2003 | В | |
| S-157 | Immobilization of Freightmaster Types F, FS, and B | 2003 | В | |
| S-159 | Immobilization of Freightmaster Types HD and ARF | 2003 | В | |
| S-156 | Immobilization of Freightmaster Types SP-E and SP-C | 2003 | В | |
| S-162 | Immobilization of Keystone F Shank | 2003 | В | |
| S-160 | Immobilization of Keystone Type E Miner SR-12 | 2003 | В | |
| S-171 | Immobilization of Pullman Standard, ACF, or Keystone Center-of-Car Cushioning Devices ("Dummy Cylinder Method") | 2003 | В | |

| Standard | <u>Subject</u> | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|--------------|-------------------------|
| S-125 | Immobilization of Sliding Sill on Cushion Underframe Cars Having Damaged or Defective ACF Freight Saver 20- or 30-in. Travel Units—Plate No. 526-1 | 2003 | В | |
| S-127 | Immobilization of Sliding Sill on Cushion Underframe Cars Having Damaged or Defective Hydra Cushion 10-, 12-, or 20-in. Travel Units or Evans Cushion Pak Wide Tunnel Units—Plate No. 526-3 | 2003 | В | |
| S-128 | Immobilization of Sliding Sill on Cushion Underframe Cars Having Damaged or Defective Hydra Pullman Standard Hydroframe 40 and 60 Units or National 3C Wide Tunnel Units—Plate No. 526-4 | 2003 | В | |
| S-126 | Immobilization of Sliding Sill on Cushion Underframe Cars Having Damaged or Defective Keystone 20-in. Travel Unit, Santa Fe Shock Control, A.O. Smith Cushion Ride, and Rockwell Cargo Cushion—Plate No. 526-2 | 2003 | В | |
| RP-021 | Implementation of Equipment Identification and Warranty Administration | 2004 | L | <u>Update Available</u> |
| S-6031 | Inoperative Brake Indications as Determined by Wayside Detector | 2016 | F | <u>Update Available</u> |
| S-732 | Inspection and Lubrication of Trailer Hitches on Flatcars | 2016 | Ι | <u>Update Available</u> |
| S-736 | Inspection and Lubrication, Hand Brakes | 2011 | H-III | |
| S-733 | Inspection and Lubricationof Bulkheads in Freight Cars | 2011 | H-III | |
| RP-814 | Inspection of Multi-Levels and Vehicles En Route | 1994 | N | |
| RP-609 | Inspection Stand for Use with Master Disks | 2004 | \mathbf{G} | |
| S-9202A | Integrated Wayside Messaging Server Hardware Requirements | 2011 | K-III | |
| M-998 | Intermodal Container Support and Interbox Connector (IBC) Securement Systems for Freight Cars | 2014 | I | |
| M-952 | Intermodal Container Support and Securement System for Freight Cars | 2008 | Ι | |
| RP-852 | Intermodal Equipment Cars | 2003 | I | |
| S-9503 | Interoperable Electronic Train Management System® (I-ETMS) Subdivision File | 2015 | K-VI | Update Available |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|--------------|-------------------------|
| RP-9511 | Interoperable Train Control (ITC) Onboard Track Database Field Survey and Validation, Recommended Practice | 2014 | K-VI | <u> </u> |
| S-9557 | Interoperable Train Control (ITC) Radio Identification Format | 2015 | K-VI | <u>Update Available</u> |
| S-9362 | Interoperable Train Control (ITC) Wayside- Locomotive Interface Control Document (ICD) | 2014 | K-IV | |
| S-9202 | Interoperable Train Control Wayside Interface Unit Requirements | 2012 | K-III | |
| M-9154B | Intra-Consist Communications (ICC) Layer 2 | 2015 | K-II | Update Available |
| M-9154A | Intra-Consist Communications (ICC) Routing Functionality | 2013 | K-II | |
| S-4230 | Intratrain Communication Specification for Cable- Based Freight Train Control Systems | 2014 | E-II | |
| S-9454 | ITC System Management (ITCSM) Back Office Requirements for Interoperable Train Control | 2014 | K-V | |
| S-9001 | ITC System Reference Architecture | 2012 | K-I | |
| S-9363 | ITC Time and Location—Interface Control Document (ICD) | 2012 | K-IV | |
| M-9453 | ITCSM Asset User Interface Requirements for Interoperable Train Control | 2014 | K-V | |
| S-9452 | ITCSM Common Data Dictionary for Interoperable Train Control | 2014 | K-V | |
| S-9451 | ITCSM Common Systems Management Requirements | 2014 | K-V | |
| S-9452A | ITCSM WIU Asset-Specific Data Dictionary for Interoperable Train Control | 2012 | K-V | |
| S-9451A | ITCSM WIU Asset-Specific Requirements for Interoperable Train Control | 2012 | K-V | |
| M-924 | Journal Roller Bearing Adapters for Freight Cars | 2015 | \mathbf{H} | |
| M-942 | Journal Roller Bearing Grease | 2016 | \mathbf{H} | |
| M-216 | Knuckles, Types E and F—Fatigue Test | 2016 | \mathbf{S} | Update Available |
| RP-232 | Ladder, End and Side—Configuration | 1981 | \mathbf{C} | |
| S-230 | Lading Strap Anchor Arrangement and Use—for Flatcars | 1973 | С | |
| RP-903 | Lading Strap Anchors | 2002 | ${f L}$ | |
| RP-590 | Lead-Acid Batteries and Compartments | 2001 | M | |
| S-5515 | LED Lighting for Locomotives | 2012 | \mathbf{M} | Update Available |
| S-910 | Lettering and Marking of Cars | 2009 | L | <u>Update Available</u> |
| S-234 | Lifting Freight Cars | 1982 | \mathbf{C} | |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|-------------------------|
| S-616 | Limit Wear Gauge for Condemning Wheel Defect— Worn Journal Collar and Journal Fillet Gauge | 2004 | G | |
| S-629 | Limit Wear Gauge for Condemning Wheel Defect— Worn Journal Collar and Journal Fillet Gauge | 1998 | G | |
| S-370 | Limiting Contour of Face of Brake Heads for Hanger-Type Brake Beams | 2009 | E | |
| S-371 | Limiting Contour of Face of Brake Heads for Hangerless-Type Brake Beams | 2009 | E | |
| RP-811 | Loading of Vehicles | 2015 | N | Update Available |
| S-915 | Loading Stencil—Refrigerator Car Floor | 2002 | ${f L}$ | |
| S-373 | Location of Peep Hole on Cars Having Deep Side Sills for Checking Brake Cylinder Piston Travel | 1967 | D | |
| S-701 | Locking Plate for Journal Roller Bearing Assemblies | 1977 | H | |
| S-701A | Locking Plate for Journal Roller Bearing Assemblies | 2012 | \mathbf{H} | |
| S-5513 | Locomotive Alerter Requirements | 2007 | \mathbf{M} | |
| S-5520 | Locomotive Cab Securement | 2014 | \mathbf{M} | <u>Update Available</u> |
| S-5101 | Locomotive Cab Window Glazing Material | 2002 | \mathbf{M} | |
| M-9155 | Locomotive Command and Control Module (LCCM)—Functional Requirements | 2015 | K-II | <u>Update Available</u> |
| S-580 | Locomotive Crashworthiness Requirements | 2015 | \mathbf{M} | Update Available |
| S-9101B | Locomotive Data Acquisition and Recording System Architecture | 2011 | K-II | |
| S-5019 | Locomotive Definitions | 2013 | \mathbf{M} | Update Available |
| RP-503 | Locomotive Diesel Fuel Additives and Fuel Savings Devices—Evaluation Procedure | 2016 | M | <u>Update Available</u> |
| S-5509 | Locomotive Dynamic Brake Status Reporting | 2010 | \mathbf{M} | Update Available |
| S-9101 | Locomotive Electronics System Architecture | 2012 | K-II | |
| S-5512 | Locomotive Event Recorder Download Standard | 2010 | ${f M}$ | Update Available |
| RP-5503 | Locomotive Fueling Interface | 2001 | \mathbf{M} | |
| RP-5122 | Locomotive Horn Valve Handle with Soft, Resilient- Type Rubber Cover | 2001 | M | |
| S-5500 | Locomotive Interchange Agreement | 2007 | \mathbf{M} | |
| S-9365 | Locomotive Interface Gateway (LIG) to Positive Train Control (PTC) Interface Control Document (ICD) | 2014 | K-IV | |
| S-5514 | Locomotive Operator Control Symbols | 2011 | M | Update Available |
| RP-548 | Locomotive Rating Train/Track Resistance | 2001 | ${f M}$ | |
| S-9101E | Locomotive System Integration Communications | 2016 | K-II | Update Available |
| S-591 | Locomotive System Integration Operating Display | 2010 | M | <u>Update Available</u> |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|---------|-------------------------|
| M-959 | Lubrication Seals for Freight Car Journal Roller | 2007 | H | <u>onculars :</u> |
| S-730 | Bearings Lubrication, Center Plates | 2011 | H-III | Update Available |
| S-731 | Lubrication, Doors | 2011 | H-III | e paate 11 anabie |
| S-729 | Lubrication, Roller Bearing | 2011 | H-III | |
| S-734 | Lubrication, Tie-Down Devices on Multi-Level Automobile rack and Flatcars | 2011 | H-III | |
| RP-5595 | Main Reservoir Equalizing End Hose Coupling | 2001 | ${f M}$ | |
| S-909 | Maintenance of Way Equipment—Class MW | 2002 | ${f L}$ | |
| S-659 | Mandatory Rules Governing Wheel Shop Practices as Required by Interchange Rules | 2015 | G-II | <u>Update Available</u> |
| RP-804 | Measurement Requirements for Remote Ride Quality Monitoring | 1996 | N | |
| M-993 | Mechanical Certification of Flatcars for Autorack Service | 1996 | N | |
| S-914 | Metrication Stenciling | 2002 | ${f L}$ | |
| RP-546 | Minimum Requirements for Main Reservoir System on New and Rebuilt Diesel-Electric, Electric, and Gas Turbine Locomotives of 800-hp Capacity and Greater | 2001 | M | |
| S-9553A | Mobile Communications Package | 2002 | K-VI | |
| RP-612 | Mounting Pressures for Wrought and Cast Steel Wheels on Gear-Driven and Idler Axles of Locomotives Other than Steam | 2004 | G | |
| S-5529 | Multiple Unit Pneumatic Brake Equipment for Locomotives | 2008 | M | <u>Update Available</u> |
| S-362 | No-Go Gauge for Brake Shoe | 1944 | ${f E}$ | |
| M-971 | Non-Grease Lubricant for Autorack Equipment | 2002 | N | |
| M-912 | Oil, Control Valve | 2002 | ${f E}$ | |
| S-132 | Operating Mechanism, Type No. 6, Interlocking | 2003 | S-III | |
| RP-5124 | Padded Sun Visor in Locomotive Cab—Engineer's Side Only | 2001 | M | |
| RP-900 | Passenger Car | 2002 | ${f L}$ | |
| S-4045 | Passenger Equipment Maintenance Requirements (formerly S-045) | 2013 | E | |
| S-3008 | Performance of Devices or Designs to Control Yaw Dynamics in Freight Car Trucks | 1997 | D | |
| S-5506 | Performance Requirements for Diesel Electric Locomotive Fuel Tanks | 2001 | M | |
| S-4250 | Performance Requirements for ITC-Controlled Cable-Based Distributed Power Systems | 2014 | E-II | |

5FF5611V5 10/21/201

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|------------|
| RP-905 | Performance Requirements for Refrigerated Boxcar Fuel Tanks | 2006 | C | |
| S-469 | Performance Specification for Freight Brakes | 2006 | ${f E}$ | |
| S-2042 | Performance Specification for Sill Steps | 2006 | \mathbf{C} | |
| S-2043 | Performance Specification for Trains Used to Carry High-Level Radioactive Material | 2009 | С | |
| M-118 | Pin, Coupler Knuckle Pivot and Coupler Shank Connecting, Steel | 2003 | В | |
| S-4022 | Pipe, Other than Schedule 80 Iron | 2006 | \mathbf{E} | |
| S-2027 | Plate B-1—Maximum Width of Cars with Various Truck Centers | 2007 | С | |
| S-2026 | Plate B—Equipment Diagram for Unrestricted Interchange Service | 2007 | С | |
| S-2029 | Plate C-1—Maximum Width of Cars with Various Truck Centers | 2007 | С | |
| S-2028 | Plate C—Equipment Diagram for Limited Interchange Service | 2013 | С | |
| S-2030 | Plate D—Obtaining Maximum Allowable Width of Car, Other Than at Centerline of Car, for Unrestricted (Plate B-1) and Limited (Plates C-1, H- 1, J-1, and K-1) Interchange Service | 2009 | С | |
| S-2031 | Plate E—Equipment Diagram for Limited Interchange Service | 2007 | С | |
| S-2032 | Plate F—Equipment Diagram for Limited Interchange Service | 2007 | С | |
| S-2041 | Plate H-1—Maximum Width of Cars with Various Truck Centers | 2007 | С | |
| S-2040 | Plate H—Equipment Diagram for Limited Interchange Service | 2007 | С | |
| S-2047 | Plate J—Equipment Diagram for Limited Interchange Service | 2007 | С | |
| S-2051 | Plate J1—Maximum Width of Cars with Various Truck Centers | 2009 | С | |
| S-2048 | Plate K—Clearance Diagram for Limited Interchange Service | 2007 | С | |
| S-2052 | Plate K1—Maximum Width of Cars with Various Truck Centers | 2009 | С | |
| S-5510 | Plate L—Locomotive Diagram for Interchange Service | 2004 | M | |
| S-184 | Pocket Tolerances—EOC-10 | 2011 | В | |
| S-182 | Pocket Tolerances—EOC-8 | 2011 | В | |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|-------------------------|
| S-183 | Pocket Tolerances—EOC-9 | 2011 | B | Circulars: |
| M-951 | Portable Bridge Plates for Multi-Level Autorack Cars | 2011 | N | |
| RP-9457 | Positive Train Control Interoperable Electronic Train Management System (I-ETMS) Master Test Strategy (MTS) | 2012 | K-V | |
| S-9055 | Positive Train Control ITC Communications Segment Requirements—Level 1 | 2013 | K-I | |
| S-9053 | Positive Train Control ITC System Requirements— Level 0 | 2014 | K-I | <u>Update Available</u> |
| S-9054 | Positive Train Control ITC System Requirements— Level 1 | 2014 | K-I | <u>Update Available</u> |
| S-9057 | Positive Train Control ITC Systems Management Requirements—Level 1 | 2012 | K-I | |
| S-9056 | Positive Train Control ITC Wayside System Requirements—Level 1 | 2012 | K-I | |
| S-9361 | Positive Train Control Office-Locomotive Segment— Interface Control Document (ICD) | 2016 | K-IV | <u>Update Available</u> |
| S-050 | Procedures for Considering Proposals Regarding Revisions to the Manual of Standards and Recommended Practices | 2014 | AS | |
| S-9371 | PTC Back Office Segment—Energy Management Interface Control Document (ICD) | 2014 | K-IV | <u>Update Available</u> |
| S-9501 | PTC Data Model Definition | 2015 | K-VI | Update Available |
| S-9372 | PTC Onboard Segment—Energy Management Interface Control Document (ICD) | 2016 | K-IV | <u>Update Available</u> |
| S-2009 | Push Rod, Brake Cylinder | 1964 | ${f E}$ | |
| S-2038 | Rack Car, Multilevel, with or without Door or Roof, Enclosed—Safety Appliance Standards | 1985 | C | |
| S-259 | Rail Car, 286,000-lb Gross Weight | 1994 | \mathbf{C} | |
| S-9552 | Railroad Communications Network | 2004 | K-VI | |
| S-9401 | Railroad Electronics Environmental Requirements | 2009 | K-V | |
| S-9002 | Railroad Electronics Standards Configuration Management | 2009 | K-I | |
| RP-815 | Railroad Police Protection | 1994 | N | |
| S-9555 | Railroad Use of IEEE 802.11 | 2015 | K-VI | <u>Update Available</u> |
| RP-589 | Rating for Specific Fuel Consumption of Diesel Electric Locomotives | 2001 | M | |
| RP-5126 | Recessed Windshield Wiper Valve, Train-Order Light Switch, and Flush-Mounted Train-Order Light | 2001 | M | |

EFFECTIVE 10/21/201(

AAR Manual of Standards and Recommended Practices Tables of Content

| | | Last | | |
|-----------------|---|---------|---------|-------------------------|
| <u>Standard</u> | Subject Subject | Revised | Section | · ——— |
| RP-631 | Recommended Wheel Shop Practices | 2016 | G-II | Update Available |
| M-300 | Reconditioned Brake Beams | 2012 | E | |
| S-619 | Reference Groove for Multiple-Wear Diesel Wheels | 2015 | G | |
| S-905 | Refrigerator Car—Class R | 2002 | L | |
| M-962 | Remanufacture of TOFC Trailers | 2004 | I | |
| S-5507 | Remote Control Locomotives | 2002 | M | |
| S-2045 | Remote Monitoring Equipment, Installation | 2012 | С | |
| M-956 | Requirements Governing Superstructures to Cars Equipped With Sliding Sill or End-of-Car Cushioning Devices | 1994 | N | |
| S-4007 | Reservoir, Combined Auxiliary and Emergency— Reclamation Procedure | 2002 | E | |
| S-494 | Reservoir, Steel Fabricated, Combined Auxiliary and Emergency | 2005 | E | |
| M-119 | Retaining Pin and Keeper for F-Type Cushion Yoke | 2009 | В | |
| S-445 | Retaining Valve—Location | 2002 | ${f E}$ | |
| S-446 | Retaining Valve, 1967-Type, Three-Position | 2002 | ${f E}$ | |
| RP-803 | Ride Quality Performance Requirements for Motor Vehicle Shipments | 2014 | N | |
| S-727 | Roller Bearing Manual—Appendix A. Approved Materials | 2015 | G-II | |
| S-724 | Roller Bearing Manual—Information on Amtrak Passenger Car Bearings | 2012 | H-II | <u>Update Available</u> |
| S-721 | Roller Bearing Manual—Mandatory Instructions and Practices | 2016 | H-II | <u>Update Available</u> |
| S-725 | Roller Bearing Manual—Manufacture of Interchangeable Roller Bearing Components | 2012 | H-II | <u>Update Available</u> |
| S-723 | Roller Bearing Manual—Minimum Requirements for Roller Bearing Reconditioned Shops— Procedures—Tool Requirements Necessary to Make Roller Bearing Repairs for Interchange Use | 2016 | H-II | Update Available |
| S-726 | Roller Bearing Manual—Remanufacture of Roller Bearing Components | 2016 | H-II | <u>Update Available</u> |
| S-722 | Roller Bearing Manual—Rules Covering Requirements for Approval of Roller Bearing Shops to Recondition Roller Bearings for Interchange Service | 2012 | H-II | |
| RP-5127 | Rounded Cab Window Latch in Locomotive Cabs | 2001 | M | |
| RP-5128 | Rounding All Possible Exposed Convex Edges and Corners | 2001 | M | |
| S-4001 | Rubber Products—Performance | 2007 | E | |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|------------------|
| S-226 | Running Boards, Walkways, Brake Steps, and End Platforms | 2013 | C | Onoului o . |
| S-2044 | Safety Appliance Requirements for Freight Cars | 2016 | \mathbf{C} | Update Available |
| S-219 | Safety Appliances for Bulkhead Flatcars, Including Pulpwood Cars | 1991 | C | |
| S-220 | Safety Appliances for Special Service High-Side Gondolas with Fixed Ends | 1991 | C | |
| S-215 | Safety Hangers and Retainers—for Freight Car Doors | 1964 | C | |
| M-916 | Sand for Traction | 2016 | \mathbf{M} | Update Available |
| S-394 | Side Bearing Pad for Two-Hole Application | 1997 | D | |
| S-235 | Side Bearing Wear Plate—Car Body | 2012 | \mathbf{C} | |
| S-213 | Side Door, Boxcar—Plug Type | 2009 | \mathbf{C} | |
| S-212 | Side Door, Boxcar—Sliding Type | 2012 | \mathbf{C} | |
| M-210 | Side Frame and Bolsters, AAR Approved—Purchase and Acceptance | 2013 | S | |
| S-377 | Side Frame Keys for AAR Standard and Alternate Standard Pedestal-Type Side Frames | 1966 | D | |
| S-318 | Side Frame—Bolster Rotation Stop Lug | 1965 | S-II | |
| S-3003 | Side Frame—Column Friction Wear Plate, Application | 1983 | D | |
| S-320 | Side Frame—Column Wear Plate, Application | 1983 | D | |
| S-327 | Side Frame—Roof Repair | 2012 | S-II | |
| S-317 | Side Frame—Tolerances | 1981 | S-II | |
| S-319 | Side Frame—Wide Land Rotation Stop Lug Column | 1968 | S-II | |
| M-934 | Side Frame, Alternate Standard Pedestal-Type with Side Frame Key—Application of Roller Bearing Unit | 2015 | Н | |
| S-3012 | Side Frame, Alternate Standard Pedestal-Type with Side Frame Key—Application of Roller Bearing Unit | 1994 | S-II | |
| S-325 | Side Frame, Narrow Pedestal—Limiting Dimensions | 2009 | S-II | |
| S-329 | Side Frame, Narrow Pedestal—Roller Bearing | 1997 | S-II | |
| S-3010 | Side Frame, Standard Pedestal-Type with Side Frame Key—Limiting Dimensions | 1947 | S-II | |
| S-314 | Side Frame, Truck—Marking Diagram | 2014 | S-II | |
| S-393 | Side Frames and Bolsters—Produced Prior to 1978 | 2001 | S-II | |
| M-214 | Side Frames and Bolsters, Used and Reconditioned—Classification and Repair Procedure | 2013 | S | |

IFFECIIWE 10//21//20°

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|-------------------------|
| S-2035 | Side Handhold, Additional—Hopper and High-Side Gondola Cars | 1982 | С | <u> </u> |
| S-378 | Side Frame, Cast Steel—Marking and Mating | 2010 | S-II | |
| S-3011 | Side Frame, Standard Pedestal-Type Size 6 in. × 11 in. with Side Frame Key—Limiting Dimensions | 1997 | S-II | |
| S-461 | Single-Capacity Freight Brakes—Performance Specification | 2002 | E | |
| S-4286 | Single-Car Test for Testing Electronically Controlled Pneumatic Braking Systems—Design and Performance Requirements | 2009 | E-II | |
| M-949 | Slack Adjuster Grease | 2002 | ${f E}$ | |
| S-423 | Slack Adjuster Reclamation—Automatic, Double- Acting, Mechanical Slack Adjusters | 2010 | E | |
| RP-400 | Slack Adjuster—General Information | 2002 | ${f E}$ | |
| S-420 | Slack Adjuster—Limiting Design Dimensions (Group E) | 2002 | E | |
| S-421 | Slack Adjuster, Center Rod Application (Group E) | 2002 | ${f E}$ | |
| S-4008 | Slack Adjuster, Mechanical, Double-Acting, Automatic Compression | 1998 | E | |
| S-419 | Slack Adjuster, Mechanical, Double-Acting, Automatic Tension | 2015 | E | <u>Update Available</u> |
| S-420A | Slack Adjuster, Tension—Limiting Design Dimensions | 2002 | E | |
| S-422 | Slack Adjuster, Top Rod Application (Group E) | 2002 | ${f E}$ | |
| S-4010 | Slack Adjusters, Groups E, J, and K—Inspection and Testing On Coal Cars | 2009 | E | |
| M-975 | Span Bolsters | 2000 | \mathbf{S} | |
| RP-557 | Spark Arrester | 2001 | \mathbf{M} | |
| S-225 | Spark Shield—Wooden Deck Cars with Cast Iron Brake Shoes | 1980 | С | |
| S-903 | Special Car—Class L | 2002 | ${f L}$ | |
| M-965 | Special Devices to Control Stability of Freight Cars | 2002 | D | |
| S-399 | Specification for Bottom Rod Safety Supports | 1992 | ${f E}$ | |
| M-1003 | Specification for Quality Assurance | 2014 | J | |
| S-3006 | Specification for Recertified "D" Series Helical Truck Springs | 1988 | D | |
| S-3009 | Specification for Self-Locking Cotter Keys | 1992 | \mathbf{E} | |
| S-3013 | Specifications Covering Surface of Truck Bolster Side Bearing Mounting Pad | 1997 | D | |

| | | <u>Last</u> | | |
|-----------------|--|-------------|--------------|-------------------------|
| <u>Standard</u> | <u>Subject</u> | Revised | Section | Circulars? |
| M-1002 | Specifications for Tank Cars | 2014 | C-III | |
| S-3007 | Specifications for the Certification of New Truck Designs for Compatibility with Hot Bearing Detection Systems | 1991 | D | |
| RP-306 | Spring Test Machine | 1961 | D | |
| RP-307 | Spring Test Machine | 1961 | D | |
| S-332 | Spring—D2, 1 5/8-in. Travel | 1964 | D | |
| S-333 | Spring—D3, 2 1/2-in. Travel | 1977 | D | |
| S-334 | Spring—D4, 3 1/16-in. Travel | 1977 | D | |
| S-335 | Spring—D5, 3 11/16-in. Travel | 1977 | D | |
| S-336 | Spring—D6, 3 3/8-in. Travel | 1976 | D | |
| S-337 | Spring—D6A, 3 15/16-in. Travel | 2010 | D | |
| S-338 | Spring—D7, 4 1/4-in. Travel | 1977 | D | |
| S-340 | Spring—Groups D3, D4, D5, and D7 | 2010 | D | |
| S-341 | Spring—Groups D3, D4, D5, and Snubber | 2010 | D | |
| S-342 | Spring—Groups D3, D4, D5, D7, and Snubber | 2010 | D | |
| S-343 | Spring—Groups D5 and Hydraulic Snubber | 2010 | D | |
| S-339 | Spring—Groups for D2 | 1981 | D | |
| S-3016 | Spring—Groups for Free, Unrestricted Interchange for 286,000 GRL Cars (M-976 and S-286 Approved Trucks) | 2010 | D | |
| RP-209 | Stake Pocket—for Flatcars | 1998 | \mathbf{C} | |
| RP-208 | Stake Pocket—Permanent | 1998 | \mathbf{C} | |
| S-9202B | Stand-alone Wayside Messaging Server Hardware Requirements | 2012 | K-III | |
| M-934D | Standard Interchangeable Backing Rings for Freight Car Tapered-Roller Journal Bearings | 2007 | Н | |
| M-934C | Standard Interchangeable End Caps for Freight Car Tapered-Roller Journal Bearings | 2011 | Η | |
| M-934A | Standard Interchangeable Spacers for Freight Car Tapered-Roller Journal Bearings | 2011 | Н | |
| M-934B | Standard Interchangeable Spacers for Freight Car Tapered-Roller Journal Bearings | 2011 | Н | |
| S-365 | Standard Location of Brake Hanger Brackets and Unit Guide Brackets | 1979 | E | |
| SOP | Standard Operating Procedures for Intermodal Securement | 2004 | Ι | |
| RP-831 | Standard Vehicle Nomenclature | 2015 | N | <u>Update Available</u> |
| S-630 | Steel Wheel Gauge | 2013 | \mathbf{G} | |
| RP-2017 | Striker Casting, Cast Steel | 1991 | C | |

5FFECTIWE 10//21//201

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|-------------------------|
| S-238 | Striker, Cast Steel, F70 Coupler Design, 24 5/8-in. Draft Gear Pocket—Parts and Assembly | 1978 | С | |
| S-236 | Striker, Cast Steel, F70 Coupler Design, 24 5/8-in. Draft Gear Pocket—Welded Application | 1978 | С | |
| S-720 | Tabulation of Adapters and Frame Keys for AAR- Approved Roller Bearings | 2008 | Н | |
| S-907 | Tank Car—Class T | 2002 | ${f L}$ | |
| S-2036 | Temperature—for Car Structures and Components | 1983 | \mathbf{C} | |
| S-464 | Test Rack, 150-Car—Performance Testing Procedure | 2005 | ${f E}$ | |
| S-463 | Test Rack, 150-Car, Freight Brake | 2002 | ${f E}$ | |
| S-465 | Test Rack, Single-Car | 2002 | ${f E}$ | |
| S-466 | Test Rack, Single-Car, for Individual Valve Portions—Performance Testing Procedure | 2005 | E | |
| RP-545 | Testing Electrical Components | 2001 | ${f M}$ | |
| S-815 | Tie-Down Chain Assemblies for Multi-Level and Other Flat Cars, Refurbished High Test Grade 43 or Alloy Grade 80 | 1994 | N | |
| M-990 | Tie-Down Tracks, Wheel Chocks, and Straps (Tri- Level Autoracks) | 2016 | N | <u>Update Available</u> |
| M-957 | Tie-Down Tracks, Winches, and Chains | 1997 | N | |
| M-966 | TOFC Portable Bridge Plates | 2004 | I | |
| RP-853 | Trailer Repair and Modification | 2016 | I | Update Available |
| M-931 | Trailers for Intermodal Service | 2013 | I | |
| S-253 | Train Coal Car, 100-Ton Nominal Capacity, with Train Positioner—Clearance Diagram | 1982 | C | |
| S-4003 | Train Line Arrangement for Cars with F-Shank Couplers | 2005 | E | |
| S-4029 | Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Exceeding 45 in. in Length | 2008 | E | |
| S-4028 | Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Not Exceeding 45 in. in Length | 2008 | E | |
| S-4013 | Train Line Hoses—Coupling Extension Adapter | 2002 | ${f E}$ | |
| S-4030 | Trolley Arrangement on Cars with EOCC and E Shank Couplers | 2008 | E | |
| S-2037 | Trough Hatch Cover | 2015 | \mathbf{C} | Update Available |
| M-202 | Truck Bolsters, Cast or Structural—Design and Testing | 2015 | S | <u>Update Available</u> |
| S-3004 | Truck Center Plate Liners or Wear Plates | 2005 | D | |

| | | Last | | |
|-----------------|---|---------|--------------|-------------------------|
| Standard | <u>Subject</u> | Revised | Section | Circulars? |
| M-213 | Truck Frames, Fabricated Steel | 1981 | \mathbf{S} | |
| M-976 | Truck Performance for Rail Cars | 2013 | D | <u>Update Available</u> |
| M-948 | Truck Side Bearing | 2012 | D | <u>Update Available</u> |
| M-203 | Truck Side Frames, Cast Steel—Design and Testing | 2012 | \mathbf{S} | |
| S-392 | Truck—Design Drawings | 2014 | S-II | |
| S-301 | Truck, 33-in. Wheels—Design Dimensions | 1986 | S-II | |
| S-302 | Truck, 36-in. Wheels—Design Dimensions | 1986 | S-II | |
| S-304 | Truck, 38-in. Wheels—Design Dimensions | 1986 | S-II | |
| S-300 | Truck, Freight Car—Design Data | 2016 | S-II | <u>Update Available</u> |
| M-204 | Truck, Freight Car, with Car Body/Side Frame Load Path—Design and Testing | 2011 | S | |
| RP-505 | Typical 26-L Type Brake Equipment Piping Diagrams for Locomotives | 2001 | M | |
| S-5022 | Ultra-Low Sulfur Diesel (ULSD) Identification Label/Decal | 2015 | M | <u>Update Available</u> |
| M-961 | Uncoupling Devices, Special | 2003 | S-III | |
| S-366 | Unit Guide Bracket, EC-2055—Design Dimensions | 2009 | S-II | |
| S-3005 | Universal Brake Beam Gauge | 1985 | ${f E}$ | |
| M-934E | Universal Fitted Backing Rings For Freight Car Tapered-roller Journal Bearings | 2011 | Н | |
| RP-231 | Universal Pocket—Typical Sections and Notes | 1975 | \mathbf{C} | |
| RP-228 | Universal Pocket, 10-in. Cushion, Low Deck—E69 Coupler | 1975 | C | |
| RP-227 | Universal Pocket, 15-in. Cushion, E69 Coupler | 1975 | \mathbf{C} | |
| M-950-A | Universal Wide-Body Bi-Level Fully Enclosed Autorack Car (Standard Deck) | 2016 | N | Update Available |
| M-950 | Universal Wide-Body Tri-Level Fully Enclosed Autorack Car (Low Deck) | 2016 | N | <u>Update Available</u> |
| RP-816 | Unloading of Vehicles | 2006 | N | |
| M-991 | Vehicle Door Edge Protection System for Multi-Level Autorack Cars | 2006 | N | |
| S-490 | Vent Protector Performance and Approval | 2002 | ${f E}$ | |
| S-227 | Walkways, Alternate—at Sides of Double-Stack Car Wells | 2013 | C | |
| S-6100 | Wayside Detector Data Processing | 2016 | \mathbf{F} | Update Available |
| S-6102 | Wayside Passing Data Format | 2016 | \mathbf{F} | Update Available |
| S-705 | Wear Gauge for Journal Roller Bearing Adapters | 1978 | \mathbf{H} | |
| S-706 | Wear Gauge for Journal Roller Bearing Adapters | 1975 | Н | |

EFFECTIVE 10//21//201

AAR Manual of Standards and Recommended Practices Tables of Content

| Ctou doud | Cubicat | <u>Last</u> | Caatian | Oimavilana 2 |
|-----------------|---|-------------|--------------|-------------------------|
| Standard S 207 | Subject Wasse Plate for Unit Tors Proba Passe Code in Side | Revised | Section E | <u>Circulars?</u> |
| S-367 | Wear Plate for Unit-Type Brake Beam Guide in Side Frame | 2003 | Ŀ | |
| M-269 | Wear Plate, Coupler Carrier, Performance Specification—Non Metallic | 2003 | В | |
| S-270 | Wear Plate, Used in Cushion Unit and Draft Systems that Employ the Y-47 Pin for an F Shank | 2009 | В | |
| RP-802 | Wheel Chock Strap Assembly Replacement | 1996 | N | |
| S-614 | Wheel Defect—Worn Journal Collar and Journal Fillet Gauge | 2004 | G | |
| S-615 | Wheel Defect—Worn Journal Collar and Journal Fillet Gauge | 2004 | G | |
| S-660 | Wheel Designs, Locomotive and Freight Car—Analytic Evaluation | 2009 | G | |
| RP-750 | Wheel Mounting Compound Approval Test Procedure | 2015 | G-II | |
| S-6030 | Wheel Performance—Dynamic Impact and Rim Thickness | 2016 | F | <u>Update Available</u> |
| S-5021 | Wheel Size and Speed Pickup Axle Identification | 2015 | ${f M}$ | Update Available |
| S-657 | Wheel, Passenger Car (Amfleet) | 1980 | \mathbf{G} | |
| S-601 | Wheels—Manufacturing Facility Inspection by Technical Services | 2004 | G | |
| S-611 | Wheels—Measuring Wheel Circumference (Tape) Using Wheel Gauges S-612 and S-613 | 2004 | G | |
| M-107/ M-208 | Wheels, Carbon Steel | 2016 | G | |
| RP-5136 | Windshield Wiper Motor Handle with Soft-Rubber- Type Grip | 2001 | M | |
| RP-5137 | Windshield Wiper Motor Protective Cover | 2001 | ${f M}$ | |
| RP-588 | Wire and Cable Insulating Material | 2001 | \mathbf{M} | |
| RP-586 | Wire and Cable Insulating Material—Moisture- Resisting Jacketed | 2005 | M | |
| RP-587 | Wire and Cable Insulating Material—Silicone Rubber Insulated | 2005 | M | |
| RP-585 | Wiring and Cable Specification | 2001 | \mathbf{M} | |
| M-205 | Yoke, Coupler—Test Requirements | 2003 | \mathbf{S} | |
| S-176 | Yoke, E Type, Cushioning, for Pocket EOC-7 | 2003 | S-III | |
| S-177 | Yoke, E Type, Cushioning, for Pocket EOC-8 | 2003 | S-III | |
| S-143 | Yoke, E Type, SY40AE or YS93AE, Standard, for 24 5/8-in. Draft Gear Pocket | 2009 | S-III | |
| S-141 | Yoke, E Type, Y40AE, Standard, for 24 5/8-in. Draft Gear Pocket | 2009 | S-III | |

ALPHABETIC INDEX

| Standard | <u>Subject</u> | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|---------|------------|
| S-142 | Yoke, E Type, Y41AE for 36-in. Draft Gear Pocket | 2009 | S-III | |
| S-149 | Yoke, E/F and F Type, Y45AE, Standard, for 24 5/8-in. Draft Gear Pocket | 2003 | S-III | |
| S-151 | Yoke, E/F Type, Y49AE, Standard, for 36-in. Draft Gear Pocket | 2003 | S-III | |
| S-180 | Yoke, F Type, Cushioning, for Pocket EOC-1, EOC-2, and EOC-16 | 2011 | S-III | |
| S-179 | Yoke, F Type, Cushioning, for Pocket EOC-10 and EOC 26 | 2011 | S-III | |
| S-178 | Yoke, F Type, Cushioning, for Pocket EOC-9 | 2011 | S-III | |
| S-139 | Yokes, Relief Fillets | 2003 | S-III | |

EFFECTIVE 10/21/2016

AAR Manual of Standards and Recommended Practices Tables of Content

THIS PAGE LEFT BLANK INTENTIONALLY

SECTION INDEX

| Standard | Cubicat | <u>Last</u> | Continu | Circulare? |
|-------------------|---|-------------|---------------|-------------------------|
| Standard S-010 | <u>Subject</u> Field Test Requirements for Materials, Devices, and | Revised | Section AS | <u>Circulars?</u> |
| 5-010 | Products Manufactured to AAR Specifications but Having No Previous Service Experience on AAR Member Roads | | Ab | |
| S-046 | Definitions of Terms for the AAR Manual of Standards and Recommended Practices | 2015 | AS | <u>Update Available</u> |
| S-050 | Procedures for Considering Proposals Regarding Revisions to the Manual of Standards and Recommended Practices | 2014 | AS | |
| S-051 | Conditions Governing Withdrawal of AAR Approval of Freight Car and Locomotive Components and Products | 2000 | AS | |
| S-060 | Application for Component Approval Procedure | 2015 | AS | <u>Update Available</u> |
| M-118 | Pin, Coupler Knuckle Pivot and Coupler Shank Connecting, Steel | 2003 | В | |
| M-119 | Retaining Pin and Keeper for F-Type Cushion Yoke | 2009 | В | |
| M-269 | Wear Plate, Coupler Carrier, Performance Specification—Non Metallic | 2003 | В | |
| M-901B | Draft Gear, Secondhand and Reconditioned | 2015 | В | Update Available |
| M-901E | Draft Gears with a Minimum Capacity of 36,000 ft·lb at a Reaction of 500,000 lb | 2015 | В | <u>Update Available</u> |
| M-901F | Draft Gear Reaction Forces, Measuring and Recording, Instrumentation Requirements | 2003 | В | |
| M-901G | Draft Gear, Rated by Impact Testing | 2015 | В | Update Available |
| M-901K | Draft Gear, All-Hydraulic, Rated by Impact Testing | 2015 | В | Update Available |
| M-921A | Cushioning Devices, Sliding Sill | 2003 | В | |
| M-921B | Cushioning Devices, End-of-Car | 2012 | В | |
| M-921C | Cushioning Devices, Reconditioned—Approved for Freight Service | 2013 | В | <u>Update Available</u> |
| M-921D | Cushioning Devices, End-of-Car—Motor-Vehicle-Carrying | 2012 | В | |
| M-921E | Cushioning Devices, Active Draft End | 2012 | В | |
| M-921F | Cushioning Devices, Active Draft End of Car | 2012 | В | |
| M-921G | Facility Inspection Requirements for Manufacturers of New and Reconditioned Cushioning Devices for Freight Service | 2003 | В | |
| M-921H | Cushioning Units, Standard Preload EOC Unit Condition Indicator | 2004 | В | |
| RP-101 | Draft Gear Inspection | 2011 | В | |

EFFECTIVE 10/21/201(

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|---------|-------------------------|
| RP-110 | Cushioning Device Inspection | 2003 | В | |
| S-100 | Bushings, Seamless Steel Tube—Coupler Shanks and Yokes | 2010 | В | |
| S-101 | Field Service Experience—Reporting Requirements | 2003 | В | |
| S-119 | Draft Gear Follower, Y44A | 2012 | В | |
| S-120 | Draft Key Retainers, Locks, Keepers, and Washer | 2011 | В | |
| S-121 | Draft Key | 2015 | В | <u>Update Available</u> |
| S-125 | Immobilization of Sliding Sill on Cushion Underframe Cars Having Damaged or Defective ACF Freight Saver 20- or 30-in. Travel Units—Plate No. 526-1 | 2003 | В | |
| S-126 | Immobilization of Sliding Sill on Cushion Underframe Cars Having Damaged or Defective Keystone 20-in. Travel Unit, Santa Fe Shock Control, A.O. Smith Cushion Ride, and Rockwell Cargo Cushion—Plate No. 526-2 | 2003 | В | |
| S-127 | Immobilization of Sliding Sill on Cushion Underframe Cars Having Damaged or Defective Hydra Cushion 10-, 12-, or 20-in. Travel Units or Evans Cushion Pak Wide Tunnel Units—Plate No. 526-3 | 2003 | В | |
| S-128 | Immobilization of Sliding Sill on Cushion Underframe Cars Having Damaged or Defective Hydra Pullman Standard Hydroframe 40 and 60 Units or National 3C Wide Tunnel Units—Plate No. 526-4 | 2003 | В | |
| S-156 | Immobilization of Freightmaster Types SP-E and SP-C | 2003 | В | |
| S-157 | Immobilization of Freightmaster Types F, FS, and B | 2003 | В | |
| S-158 | Immobilization of Freightmaster | 2003 | В | |
| S-159 | Immobilization of Freightmaster Types HD and ARF | 2003 | В | |
| S-160 | Immobilization of Keystone Type E Miner SR-12 | 2003 | В | |
| S-161 | Immobilization of Freightmaster 10-in. Type E Miner M-12S | 2003 | В | |
| S-162 | Immobilization of Keystone F Shank | 2003 | В | |
| S-171 | Immobilization of Pullman Standard, ACF, or Keystone Center-of-Car Cushioning Devices ("Dummy Cylinder Method") | 2003 | В | |
| S-181 | Cushioning Pocket Identification Guide—AAR Rule 59 | 2003 | В | |
| S-182 | Pocket Tolerances—EOC-8 | 2011 | В | |

| | | Last | | |
|----------|---|---------|--------------|------------|
| Standard | Subject | Revised | Section _ | Circulars? |
| S-183 | Pocket Tolerances—EOC-9 | 2011 | В | |
| S-184 | Pocket Tolerances—EOC-10 | 2011 | В | |
| S-269 | Coupler Carrier Wear Plate | 2003 | В | |
| S-270 | Wear Plate, Used in Cushion Unit and Draft Systems that Employ the Y-47 Pin for an F Shank | 2009 | В | |
| M-800 | Hopper Car, Covered—For Transport of Oxidizing Commodities | 2012 | С | |
| M-801 | Hopper Car, Covered—Pressurized During Unloading and In-Transit | 2012 | C | |
| M-908 | Flat Steel Floor for Freight Cars 50,000, 60,000, 70,000 or 80,000 lb Capacities | 2006 | C | |
| M-964 | Floor, Nailable Steel—Freight Cars | 2006 | \mathbf{C} | |
| RP-200 | Hopper Car, Open Top, in Shaker Service—Design Features | 1976 | \mathbf{C} | |
| RP-206 | Decking, Wood—for Open Top Cars | 1981 | \mathbf{C} | |
| RP-208 | Stake Pocket—Permanent | 1998 | \mathbf{C} | |
| RP-209 | Stake Pocket—for Flatcars | 1998 | \mathbf{C} | |
| RP-227 | Universal Pocket, 15-in. Cushion, E69 Coupler | 1975 | \mathbf{C} | |
| RP-228 | Universal Pocket, 10-in. Cushion, Low Deck—E69 Coupler | 1975 | C | |
| RP-231 | Universal Pocket—Typical Sections and Notes | 1975 | \mathbf{C} | |
| RP-232 | Ladder, End and Side—Configuration | 1981 | \mathbf{C} | |
| RP-233 | Hold-Down Clips—Gondolas, Side Sheet Mounted | 1948 | \mathbf{C} | |
| RP-234 | Hold-Down Clips—Gondolas, Top Cord Mounted | 1982 | \mathbf{C} | |
| RP-258 | Hopper Car—Grain Service | 1992 | \mathbf{C} | |
| RP-261 | Center Bowl Liner and Lubricant—Double-Stack Container Car | 2014 | C | |
| RP-401 | Brake Control Valves—Mount-Configuration Designs as Related to Field Vibration | 2014 | C | |
| RP-905 | Performance Requirements for Refrigerated Boxcar Fuel Tanks | 2006 | C | |
| RP-940 | Electronic Distribution Format For Engineering Drawings | 2005 | C | |
| RP-2017 | Striker Casting, Cast Steel | 1991 | \mathbf{C} | |
| S-203 | Coupler, Height Adjustment | 1962 | \mathbf{C} | |
| S-204 | Body Center Plate, Separable—Surface Finish | 2014 | \mathbf{C} | |
| S-206 | Body Center Plate, Cast Steel or Forged—for Freight Cars with 14-in. Center Plates | 1978 | \mathbf{C} | |
| S-207 | Body Center Plate, Cast Steel or Forged—for Freight Cars with 16-in. Center Plates | 2014 | С | |

SECTION INDEX

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|------------------|
| S-211 I | Body Center Plate Gauge—14-in. and 16-in. Diameter | 1976 | C | On Culdis: |
| | Side Door, Boxcar—Sliding Type | 2012 | C | |
| | Side Door, Boxcar—Plug Type | 2009 | \mathbf{C} | |
| S-215 | Safety Hangers and Retainers—for Freight Car Doors | 1964 | C | |
| S-217 | Identification Plate—Boxcar Doors | 2009 | \mathbf{C} | |
| | Safety Appliances for Bulkhead Flatcars, Including Pulpwood Cars | 1991 | С | |
| | Safety Appliances for Special Service High-Side Gondolas with Fixed Ends | 1991 | С | |
| S-224 | Handholds, Safety Railings, and Ladder Treads | 2015 | \mathbf{C} | Update Available |
| | Spark Shield—Wooden Deck Cars with Cast Iron Brake Shoes | 1980 | C | |
| | Running Boards, Walkways, Brake Steps, and End Platforms | 2013 | C | |
| | Walkways, Alternate—at Sides of Double-Stack Car Wells | 2013 | C | |
| S-229 1 | DOT Placard Location | 2013 | \mathbf{C} | |
| | Lading Strap Anchor Arrangement and Use—for Flatcars | 1973 | C | |
| | Gravity Outlet Gates, New—for Covered Hopper Cars | 2014 | C | |
| S-234 1 | Lifting Freight Cars | 1982 | \mathbf{C} | |
| S-235 | Side Bearing Wear Plate—Car Body | 2012 | \mathbf{C} | |
| | Striker, Cast Steel, F70 Coupler Design, 24 5/8-in. Draft Gear Pocket—Welded Application | 1978 | C | |
| | Striker, Cast Steel, F70 Coupler Design, 24 5/8-in. Draft Gear Pocket—Parts and Assembly | 1978 | C | |
| | Arrangement E60 Coupler Design 24 5/8 in. Draft Gear Pocket Striker Applied by Welding | 2012 | C | |
| | Draft Arrangement, E68 Coupler, 24 5/8-in. Pocket | 1983 | \mathbf{C} | |
| S-244] | Draft Arrangement, E69 Coupler, 24 5/8-in. Pocket | 1983 | \mathbf{C} | |
| | Draft Arrangement, F70 Coupler, 24 5/8-in. Pocket— Striker Applied by Welding | 1978 | С | |
| S-247 | Draft Arrangement, F79 Coupler, 24 5/8-in. Pocket | 1978 | \mathbf{C} | |
| | Door Puller Bracket, Application to Intermediate Post | 1978 | C | |
| S-252 | Door Air Lines—Location of End Cocks | 1978 | C | |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|-------------------------|
| S-253 | Train Coal Car, 100-Ton Nominal Capacity, with Train Positioner—Clearance Diagram | 1982 | С | <u> </u> |
| S-254 | Draft Pocket Tolerances | 1974 | \mathbf{C} | |
| S-255 | Combined Striker and Front Draft Lug Tolerances | 1974 | \mathbf{C} | |
| S-258 | Body Center Plate Relief | 1980 | \mathbf{C} | |
| S-259 | Rail Car, 286,000-lb Gross Weight | 1994 | \mathbf{C} | |
| S-265 | Center Pin—Freight Car | 1989 | \mathbf{C} | |
| S-266 | Center Sill Section, Rolled Steel | 2012 | \mathbf{C} | |
| S-267 | Center Sill Section—Welding Notes | 1979 | \mathbf{C} | |
| S-286 | Free/Unrestricted Interchange for 286,000 lb Gross Rail Load Cars | 2016 | C | <u>Update Available</u> |
| S-2008 | Card Holder—Bad Order | 2013 | \mathbf{C} | |
| S-2025 | Hopper Car—End for Door Operating Shaft | 1914 | \mathbf{C} | |
| S-2026 | Plate B—Equipment Diagram for Unrestricted Interchange Service | 2007 | C | |
| S-2027 | Plate B-1—Maximum Width of Cars with Various Truck Centers | 2007 | C | |
| S-2028 | Plate C—Equipment Diagram for Limited Interchange Service | 2013 | C | |
| S-2029 | Plate C-1—Maximum Width of Cars with Various Truck Centers | 2007 | C | |
| S-2030 | Plate D—Obtaining Maximum Allowable Width of Car, Other Than at Centerline of Car, for Unrestricted (Plate B-1) and Limited (Plates C-1, H- 1, J-1, and K-1) Interchange Service | 2009 | C | |
| S-2031 | Plate E—Equipment Diagram for Limited Interchange Service | 2007 | C | |
| S-2032 | Plate F—Equipment Diagram for Limited Interchange Service | 2007 | C | |
| S-2034 | Car Builder Certification | 2013 | \mathbf{C} | |
| S-2035 | Side Handhold, Additional—Hopper and High-Side Gondola Cars | 1982 | C | |
| S-2036 | Temperature—for Car Structures and Components | 1983 | \mathbf{C} | |
| S-2037 | Trough Hatch Cover | 2015 | \mathbf{C} | Update Available |
| S-2038 | Rack Car, Multilevel, with or without Door or Roof, Enclosed—Safety Appliance Standards | 1985 | C | |
| S-2039 | Batten Bars | 2014 | \mathbf{C} | |
| S-2040 | Plate H—Equipment Diagram for Limited Interchange Service | 2007 | С | |

AAR Manual of Standards and Recommended Practices

| | | Last | | |
|-----------------|--|---------|--------------|-------------------------|
| <u>Standard</u> | <u>Subject</u> | Revised | Section | Circulars? |
| S-2041 | Plate H-1—Maximum Width of Cars with Various Truck Centers | 2007 | С | |
| S-2042 | Performance Specification for Sill Steps | 2006 | \mathbf{C} | |
| S-2043 | Performance Specification for Trains Used to Carry High-Level Radioactive Material | 2009 | C | |
| S-2044 | Safety Appliance Requirements for Freight Cars | 2016 | \mathbf{C} | <u>Update Available</u> |
| S-2045 | Remote Monitoring Equipment, Installation | 2012 | \mathbf{C} | |
| S-2046 | Accelerated Fatigue Test Specification for Increased Life Status Applications | 2006 | C | |
| S-2047 | Plate J—Equipment Diagram for Limited Interchange Service | 2007 | C | |
| S-2048 | Plate K—Clearance Diagram for Limited Interchange Service | 2007 | C | |
| S-2049 | Anti-Pilferage Device—Boxcar Sliding Door | 2007 | \mathbf{C} | |
| S-2050 | Anti-Pilferage Device—Boxcar Plug Door | 2007 | \mathbf{C} | |
| S-2051 | Plate J1—Maximum Width of Cars with Various Truck Centers | 2009 | C | |
| S-2052 | Plate K1—Maximum Width of Cars with Various Truck Centers | 2009 | C | |
| S-2053 | Container Interface—Well Car, 53 ft | 2009 | \mathbf{C} | |
| S-2054 | Clearance Diagram—Interface Between a Well Car and a Container Equipped with a Refrigerator/ Heater Unit | 2016 | С | <u>Update Available</u> |
| S-2055 | Body Center Plate, Low Profile | 2014 | \mathbf{C} | |
| M-1001 | Design, Fabrication, and Construction of Freight Cars | 2015 | C-II | |
| M-1002 | Specifications for Tank Cars | 2014 | C-III | |
| M-114 | Helical Springs, Heat-Treated Steel | 2008 | D | |
| M-948 | Truck Side Bearing | 2012 | D | <u>Update Available</u> |
| M-965 | Special Devices to Control Stability of Freight Cars | 2002 | D | |
| M-976 | Truck Performance for Rail Cars | 2013 | D | <u>Update Available</u> |
| RP-306 | Spring Test Machine | 1961 | D | |
| RP-307 | Spring Test Machine | 1961 | D | |
| RP-323 | Application of Snap-On Pedestal Roof Liners for AAR Pedestal-Type Side Frames | 2012 | D | <u>Update Available</u> |
| S-306 | Center Plate Liner—Vertical, 6 $1/2$ in. \times 12 in. | 2012 | D | <u>Update Available</u> |
| S-307 | Center Plate Liner—Horizontal, 6 $1/2$ in. \times 12 in. | 2012 | D | <u>Update Available</u> |
| S-308 | Center Plate Liner—Vertical, 6 1/2 in. \times 12 in. | 2012 | D | <u>Update Available</u> |
| S-320 | Side Frame—Column Wear Plate, Application | 1983 | D | |
| S-332 | Spring—D2, 1 5/8-in. Travel | 1964 | D | |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|-------------------------|------------|
| S-333 | Spring—D3, 2 1/2-in. Travel | 1977 | $\overline{\mathrm{D}}$ | |
| S-334 | Spring—D4, 3 1/16-in. Travel | 1977 | D | |
| S-335 | Spring—D5, 3 11/16-in. Travel | 1977 | D | |
| S-336 | Spring—D6, 3 3/8-in. Travel | 1976 | D | |
| S-337 | Spring—D6A, 3 15/16-in. Travel | 2010 | D | |
| S-338 | Spring—D7, 4 1/4-in. Travel | 1977 | D | |
| S-339 | Spring—Groups for D2 | 1981 | D | |
| S-340 | Spring—Groups D3, D4, D5, and D7 | 2010 | D | |
| S-341 | Spring—Groups D3, D4, D5, and Snubber | 2010 | D | |
| S-342 | Spring—Groups D3, D4, D5, D7, and Snubber | 2010 | D | |
| S-343 | Spring—Groups D5 and Hydraulic Snubber | 2010 | D | |
| S-373 | Location of Peep Hole on Cars Having Deep Side Sills for Checking Brake Cylinder Piston Travel | 1967 | D | |
| S-377 | Side Frame Keys for AAR Standard and Alternate Standard Pedestal-Type Side Frames | 1966 | D | |
| S-394 | Side Bearing Pad for Two-Hole Application | 1997 | D | |
| S-3003 | Side Frame—Column Friction Wear Plate, Application | 1983 | D | |
| S-3004 | Truck Center Plate Liners or Wear Plates | 2005 | D | |
| S-3006 | Specification for Recertified "D" Series Helical Truck Springs | 1988 | D | |
| S-3007 | Specifications for the Certification of New Truck Designs for Compatibility with Hot Bearing Detection Systems | 1991 | D | |
| S-3008 | Performance of Devices or Designs to Control Yaw Dynamics in Freight Car Trucks | 1997 | D | |
| S-3013 | Specifications Covering Surface of Truck Bolster Side Bearing Mounting Pad | 1997 | D | |
| S-3014 | Freight Car Truck Springs—with Snubber Spring | 2010 | D | |
| S-3015 | Freight Car Truck Springs—without Snubber Spring | 2010 | D | |
| S-3016 | Spring—Groups for Free, Unrestricted Interchange for 286,000 GRL Cars (M-976 and S-286 Approved Trucks) | 2010 | D | |
| M-300 | Reconditioned Brake Beams | 2012 | ${f E}$ | |
| M-402 | Brake Shoe, Cast Iron, High-Phosphorus Type | 2002 | ${f E}$ | |
| M-601 | Hose, Wrapped, Air—Brake, "End Hose" | 2006 | ${f E}$ | |
| M-602 | Gaskets, Air Hose | 2002 | ${f E}$ | |
| M-618 | Hose, Air, Wire-Reinforced | 2011 | E | |

EFFECTIVE 10/21/2016

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|---------|-------------------------|
| M-619 | Brake Cylinder Line Hose Assemblies—Performance | 2005 | E | <u>on odiaro i</u> |
| 111 010 | Requirements | 2000 | L | |
| M-620 | Hose, Air, Fabric-Reinforced | 2011 | ${f E}$ | |
| M-912 | Oil, Control Valve | 2002 | ${f E}$ | |
| M-914 | Brake Cylinder Lubricant | 2003 | ${f E}$ | |
| M-923 | Hose Cement | 1983 | ${f E}$ | |
| M-926 | Brake Shoe, High-Friction Composition or Metal Type | 2015 | E | <u>Update Available</u> |
| M-927 | Hose Fittings and Hose Assemblies, Air, Wire- Reinforced | 2007 | E | |
| M-949 | Slack Adjuster Grease | 2002 | ${f E}$ | |
| M-996 | Brake Shoe, Low-Friction Composition Type | 2015 | ${f E}$ | <u>Update Available</u> |
| M-997 | Brake Shoe—High-Friction Tread Conditioning, High Capacity | 2008 | E | |
| RP-308 | Design Dimensions for Brake Hanger Bracket | 1937 | ${f E}$ | |
| RP-322 | Brake Beam Strut Keyway Gauge | 1992 | ${f E}$ | |
| RP-400 | Slack Adjuster—General Information | 2002 | ${f E}$ | |
| RP-5599 | Hook and Eye Brake Rigging—Lever Angularity Inspection | 2007 | E | |
| S-344 | Brake Beam Specifications and Tests | 2007 | ${f E}$ | |
| S-345 | Brake Beam—Tolerance, Hangerless Type | 1979 | ${f E}$ | |
| S-346 | Brake Beam—Outline, Hanger Type | 1953 | ${f E}$ | |
| S-348 | Brake Beam Gauges for Standard Brake Beams | 1992 | ${f E}$ | |
| S-349 | Brake Beam—Outline, Hangerless Type | 1979 | ${f E}$ | |
| S-352 | Brake Beam Gauge Assembly—Hangerless Type | 1979 | ${f E}$ | |
| S-353 | Brake Beam Gauge Details—Hangerless Type | 1981 | ${f E}$ | |
| S-355 | Brake Beam Gauge Application—Hangerless Type | 1979 | ${f E}$ | |
| S-358 | Go Gauge for Brake Head, Metal or High-Friction Shoe | 2009 | E | |
| S-359 | Go and No-Go Gauge for Brake Head for Limiting Contour of Face, Metal or High-Friction Shoe | 1990 | E | |
| S-360 | Gauges for End of Hangerless-Type Brake Beam | 1979 | ${f E}$ | |
| S-361 | Go Gauges for Brake Shoe | 1944 | ${f E}$ | |
| S-362 | No-Go Gauge for Brake Shoe | 1944 | ${f E}$ | |
| S-365 | Standard Location of Brake Hanger Brackets and Unit Guide Brackets | 1979 | E | |
| S-367 | Wear Plate for Unit-Type Brake Beam Guide in Side Frame | 2003 | E | |
| S-368 | Brake Beam Hangers and Attachments | 1965 | E | |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|-------------------------|
| S-369 | Brake Beam Hangers and Attachments | 1965 | E | On Calars : |
| S-370 | Limiting Contour of Face of Brake Heads for Hanger-Type Brake Beams | 2009 | E | |
| S-371 | Limiting Contour of Face of Brake Heads for Hangerless-Type Brake Beams | 2009 | E | |
| S-372 | Brake Head Conversion—Metal Shoe-Type to High-Friction Composition | 1972 | E | |
| S-374 | Badge Plate for Showing Proper Dimensions for Body and Truck Brake Levers | 1964 | E | |
| S-375 | Break Pin Tolerance | 1975 | \mathbf{E} | |
| S-376 | Brake Shoe Keys | 2003 | \mathbf{E} | |
| S-379 | Application Tolerances for Hanger-Type Brake Beams | unk | E | |
| S-380 | Hangerless Brake Beam Extension Functional Gauge (Parallelism) | 1979 | E | |
| S-399 | Specification for Bottom Rod Safety Supports | 1992 | ${f E}$ | |
| S-400 | Brake Equipment—Installation Specifications | 2006 | ${f E}$ | |
| S-401 | Brake Design Requirements | 2011 | ${f E}$ | |
| S-402 | Air Brake Pipe and Fittings for Railroad Cars— Welding Procedure | 2016 | E | <u>Update Available</u> |
| S-419 | Slack Adjuster, Mechanical, Double-Acting, Automatic Tension | 2015 | E | <u>Update Available</u> |
| S-420 | Slack Adjuster—Limiting Design Dimensions (Group E) | 2002 | E | |
| S-420A | Slack Adjuster, Tension—Limiting Design Dimensions | 2002 | E | |
| S-421 | Slack Adjuster, Center Rod Application (Group E) | 2002 | \mathbf{E} | |
| S-422 | Slack Adjuster, Top Rod Application (Group E) | 2002 | ${f E}$ | |
| S-423 | Slack Adjuster Reclamation—Automatic, Double- Acting, Mechanical Slack Adjusters | 2010 | E | |
| S-424 | Angle Cock Location | 2002 | ${f E}$ | |
| S-425 | Angle Cock Location on Cars Equipped with AAR Type F Coupler | 2002 | E | |
| S-426 | Angle Cock Location on Cars with Floating Sills | 2005 | ${f E}$ | |
| S-427 | Angle Cock and Air Brake Hose Location on Cars with Excessive Overhang Preventing Compliance with AAR Standards S-424, S-425, and S-426 | 2005 | E | |
| S-428 | Angle Cock Location on Cars Equipped with AAR Type F Coupler and Cushioned Underframe | 2005 | E | |
| S-429 | Angle Cock Locking Lugs—Minimum Permissible Engagement | 2002 | E | |

SECTION INDEX

| 0 4 | Out in a | Last | 04' | 0: |
|----------------|--|---------|----------------|------------|
| Standard C 490 | Subject D. J. Cl., M. J. D. C. J. | Revised | <u>Section</u> | Circulars? |
| S-430 | Brake Shoe, Metal, Reinforced | 2002 | E | |
| S-431 | Brake Shoe, High-Friction Composition Type— Limiting Contour | 2005 | E | |
| S-432 | Hose Support, S Hook | 2002 | ${f E}$ | |
| S-436 | Hose Coupling, Dummy | 2002 | ${f E}$ | |
| S-437 | Hose, Other than Armored Type—Mounting Procedure | 2002 | E | |
| S-438 | Hose, Armored Type—Mounting Procedure | 1949 | ${f E}$ | |
| S-439 | Hose Clamps | 2002 | ${f E}$ | |
| S-440 | End Hose Gaskets, Couplings, and Nipples—Annual Test Requirements | 1999 | E | |
| S-441 | Air Brake and Signal Hose—Mounting of Coupling and Nipple | 2002 | E | |
| S-443 | Brake Cylinder Release Valve and Release Rod | 2002 | ${f E}$ | |
| S-444 | Brake Cylinder Release Valve Rod Handles— Location | 2002 | E | |
| S-445 | Retaining Valve—Location | 2002 | ${f E}$ | |
| S-446 | Retaining Valve, 1967-Type, Three-Position | 2002 | ${f E}$ | |
| S-447 | Hose Coupling Gasket Gauge | 2002 | ${f E}$ | |
| S-448 | Brake Shoe Go Gauge | 2002 | ${f E}$ | |
| S-449 | Brake Shoe No-Go Gauge | 2002 | ${f E}$ | |
| S-455 | Hose Coupling Condemning Gauges for Checking the Beads and Shanks on New and Used Hose Couplings and Nipples | 2002 | E | |
| S-456 | Hose Coupling Gauges for Gauging New and Used Couplings | 2002 | E | |
| S-457 | Hose Coupling Tester, Air Brake, Type A-1-B— Modification to Permit Testing of Pinless-Type Couplings | 2002 | E | |
| S-458 | Hose Assemblies—Reclamation Procedures | 2002 | ${f E}$ | |
| S-461 | Single-Capacity Freight Brakes—Performance Specification | 2002 | E | |
| S-462 | Control Valve—Approval Procedure | 2002 | ${f E}$ | |
| S-463 | Test Rack, 150-Car, Freight Brake | 2002 | ${f E}$ | |
| S-464 | Test Rack, 150-Car—Performance Testing Procedure | 2005 | ${f E}$ | |
| S-465 | Test Rack, Single-Car | 2002 | ${f E}$ | |
| S-466 | Test Rack, Single-Car, for Individual Valve Portions—Performance Testing Procedure | 2005 | E | |
| S-467 | Control Valve, Freight Brake—Environmental Tests | 2002 | E | |
| S-468 | Control Valve Pipe Bracket | 2009 | E | |

| Standard | Cubiost | <u>Last</u> Revised | Section | Circulare? |
|----------------|--|------------------------|--------------|------------|
| S-469 | <u>Subject</u> Performance Specification for Freight Brakes | 2006 | Section E | Circulars? |
| S-409 S-470 | Angle Cock, Ball Type—Specification for Approval | 2000 2002 | E | |
| S-470 S-471 | Brake Pipe Restriction Test | 2010 | E | |
| S-471 S-472 | End Cock Location on Cars Arranged for Rotary | 2002 | E | |
| S-473 | Dump Service Brake Equipment—Application Form for AAR Approval of New and Untried Freight Cars | 2003 | E | |
| S-475 | Hand Brakes | 2010 | ${f E}$ | |
| S-476 | Angle Cocks and Brake Pipe End Cocks—Repair Specification | 1981 | E | |
| S-477 | Control Valve—Shop Certification Requirements for Approved Valves | 2002 | E | |
| S-486 | Code of Air Brake System Tests for Freight Equipment—Single Car Test | 2013 | E | |
| S-488 | End Cock and Air Brake Hose Location on Long Cars | 2002 | ${f E}$ | |
| S-489 | Dirt Collector and Cutout Cock, Combined—Repair Specification | 1981 | E | |
| S-490 | Vent Protector Performance and Approval | 2002 | \mathbf{E} | |
| S-491 | Hose Coupling | 2005 | ${f E}$ | |
| S-492 | Field Service Reports—Requirements | 2002 | ${f E}$ | |
| S-493 | Dirt Collector and Cutout Cock—Test Specification | 2002 | ${f E}$ | |
| S-494 | Reservoir, Steel Fabricated, Combined Auxiliary and Emergency | 2005 | E | |
| S-495 | Angle Cock Location on Cars Arranged for Rotary Dump Service | 2002 | E | |
| S-2009 | Push Rod, Brake Cylinder | 1964 | \mathbf{E} | |
| S-3001 | Approval of AAR-Approved Brake Beam Safety Supports | 1984 | E | |
| S-3005 | Universal Brake Beam Gauge | 1985 | \mathbf{E} | |
| S-3009 | Specification for Self-Locking Cotter Keys | 1992 | ${f E}$ | |
| S-4000 | Brake Pipe Reduction Devices, Freight Auxiliary— Environmental Tests | 1984 | E | |
| S-4001 | Rubber Products—Performance | 2007 | ${f E}$ | |
| S-4002 | Empty/Load Devices—Performance Testing | 2005 | ${f E}$ | |
| S-4003 | Train Line Arrangement for Cars with F-Shank Couplers | 2005 | E | |
| S-4004 | Brake Cylinder—Performance Testing | 2002 | \mathbf{E} | |
| S-4005 | Brake Systems, Truck-Mounted—Performance Testing | 2002 | E | |
| S-4006 | Hose Supports—Performance Testing | 2008 | E | |

SECTION INDEX

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|---------|------------------|
| S-4007 | Reservoir, Combined Auxiliary and Emergency— Reclamation Procedure | 2002 | E | <u> </u> |
| S-4008 | Slack Adjuster, Mechanical, Double-Acting, Automatic Compression | 1998 | E | |
| S-4009 | Compression Slack Adjusters and Piston Travel Adjustment—Inspection, Testing, Removal, and Application | 2009 | E | |
| S-4010 | Slack Adjusters, Groups E, J, and K—Inspection and Testing On Coal Cars | 2009 | E | |
| S-4013 | Train Line Hoses—Coupling Extension Adapter | 2002 | ${f E}$ | |
| S-4020 | Brake Cylinder Pressure Measurement Taps | 2005 | ${f E}$ | |
| S-4021 | Angle Cock and Brake Hose Location on Cars with EOCC | 2009 | E | |
| S-4022 | Pipe, Other than Schedule 80 Iron | 2006 | ${f E}$ | |
| S-4023 | Brake Shoe Limiting Contour, Low-Friction Composition Type | 2009 | E | |
| S-4024 | Brake Shoe Force Measurement Devices— Performance Specification | 2002 | E | |
| S-4025 | Brake Beam Wear Liners, Non-Metallic | 2004 | ${f E}$ | |
| S-4026 | Brake Rod Connector—Design Requirements | 2003 | ${f E}$ | |
| S-4027 | Automated Single-Car Test Equipment, Conventional Brake Equipment—Design and Performance Requirements | 2015 | E | Update Available |
| S-4028 | Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Not Exceeding 45 in. in Length | 2008 | E | |
| S-4029 | Train Line Arrangement with Displaceable Union on Cars with EOCC and Couplers Exceeding 45 in. in Length | 2008 | E | |
| S-4030 | Trolley Arrangement on Cars with EOCC and E Shank Couplers | 2008 | E | |
| S-4045 | Passenger Equipment Maintenance Requirements (formerly S-045) | 2013 | E | |
| S-4046 | Date Markings for Rubberized Components | 2016 | ${f E}$ | Update Available |
| S-4200 | Electronically Controlled Pneumatic (ECP) Cable- Based Brake Systems—Performance Requirements | 2014 | E-II | |
| S-4210 | ECP Cable-Based Brake System Cable, Connectors, and Junction Boxes—Performance Specification | 2014 | E-II | |
| S-4220 | ECP Cable-Based Brake DC Power Supply— Performance Specification | 2002 | E-II | |

| | | Last | | |
|-----------------|---|---------|--------------|-------------------------|
| Standard | <u>Subject</u> | Revised | Section | Circulars? |
| S-4230 | Intratrain Communication Specification for Cable- Based Freight Train Control Systems | 2014 | E-II | |
| S-4240 | ECP Brake Equipment—Approval Procedure | 2007 | E-II | |
| S-4250 | Performance Requirements for ITC-Controlled Cable-Based Distributed Power Systems | 2014 | E-II | |
| S-4260 | ECP Brake and Wire Distributed Power Interoperability Test Procedures | 2008 | E-II | |
| S-4270 | ECP BRake System Configuration Management | 2008 | E-II | |
| S-4286 | Single-Car Test for Testing Electronically Controlled Pneumatic Braking Systems—Design and Performance Requirements | 2009 | E-II | |
| S-920 | AAR Component Identification (CID) Bar Code Standard | 2016 | F | <u>Update Available</u> |
| S-6000 | Acoustic Roller Bearing Detector Level-1 Indications | 2014 | \mathbf{F} | <u>Update Available</u> |
| S-6001 | Bearing Temperature Performance | 2014 | \mathbf{F} | <u>Update Available</u> |
| S-6002 | Data Summary Definitions | 2016 | \mathbf{F} | <u>Update Available</u> |
| S-6003 | Data Summary—Truck Hunting | 2014 | \mathbf{F} | <u>Update Available</u> |
| S-6004 | Data Summary—TADS® | 2014 | \mathbf{F} | <u>Update Available</u> |
| S-6005 | Data Summary—RailBAM® | 2014 | \mathbf{F} | <u>Update Available</u> |
| S-6006 | Data Summary—Brake Health Truck | 2015 | \mathbf{F} | <u>Update Available</u> |
| S-6007 | Data Summary—Brake Health Car | 2015 | \mathbf{F} | <u>Update Available</u> |
| S-6008 | Data Summary—Salient Wheel Impact | 2016 | \mathbf{F} | <u>Update Available</u> |
| S-6009 | Data Summary—Automatic Equipment Identification (AEI) | 2016 | F | <u>Update Available</u> |
| S-6020 | Data Summary Definition—Line-of-Road Failure | 2015 | \mathbf{F} | <u>Update Available</u> |
| S-6021 | Data Summary Definition—Line-of-Road Failure— Air Hose Separation | 2016 | F | <u>Update Available</u> |
| S-6022 | Data Summary Definition—Line-of-Road Failure— Train Separation | 2016 | F | <u>Update Available</u> |
| S-6023 | Data Summary Definition—Line-of-Road Failure— Brake System/Other | 2016 | F | <u>Update Available</u> |
| S-6030 | Wheel Performance—Dynamic Impact and Rim Thickness | 2016 | F | Update Available |
| S-6031 | Inoperative Brake Indications as Determined by Wayside Detector | 2016 | F | Update Available |
| S-6100 | Wayside Detector Data Processing | 2016 | \mathbf{F} | Update Available |
| S-6101 | Detector Calibration and Validation Requirements | 2015 | \mathbf{F} | Update Available |
| S-6102 | Wayside Passing Data Format | 2016 | F | <u>Update Available</u> |

SECTION INDEX

| 0, 1, 1 | 0.11 | Last | 0 (| 0: 1 0 |
|------------------|--|---------|----------------|------------|
| Standard No. 101 | Subject Subject | Revised | <u>Section</u> | Circulars? |
| M-101 | Axles, Carbon Steel, Heat-Treated | 2016 | G | |
| M-107/ M-208 | Wheels, Carbon Steel | 2016 | G | |
| M-967 | Electrochemical Metal Deposition for Repairing Roller Bearing Axle Journals | 2008 | G | |
| RP-608 | Gauge, Wheel—Reference Master Disk for Verifying Wheel Circumference Gauges S-612 and S-613 | 2004 | G | |
| RP-609 | Inspection Stand for Use with Master Disks | 2004 | \mathbf{G} | |
| RP-612 | Mounting Pressures for Wrought and Cast Steel Wheels on Gear-Driven and Idler Axles of Locomotives Other than Steam | 2004 | G | |
| RP-613 | Gauge, Axle—Master Gauge for Verifying Axle Journal and Fillet Gauge S-614 | 2004 | G | |
| RP-614 | Gauge, Wheel—Master Gauge for Verifying Wheel Gauges S-617 and S-618 | 2004 | G | |
| RP-615 | Gauge, Wheel—Simplified | 2004 | \mathbf{G} | |
| RP-622 | Axle, Weight—Machined Finish, Raised Wheel Seat | 2007 | \mathbf{G} | |
| RP-629 | Gauge, Wheel—for Measuring Condemnable Overheated Wheels | 2004 | G | |
| RP-630 | Gauge, Wheel—Application for Measuring Condemnable Overheated Wheels | 2004 | G | |
| RP-636 | Gauge, Wheel—Application Drawing for AAR 1B Wheel Gauges S-662 and S-667 | 1991 | G | |
| RP-637 | Gauge, Wheel—Application Drawing for AAR 1B Wheel Gauges S-661 and S-665 | 1991 | G | |
| RP-638 | Gauge, Wheel—Application Drawing for Reference Gauge to Verify Wheel Gauges S-661, S-662, S-663, S-664, S-665, S-666, S-667, and S-668 | 1991 | G | |
| S-601 | Wheels—Manufacturing Facility Inspection by Technical Services | 2004 | G | |
| S-611 | Wheels—Measuring Wheel Circumference (Tape) Using Wheel Gauges S-612 and S-613 | 2004 | G | |
| S-612 | Circumference Measure (Tape) for 27 in. to 38 in. Steel Wheels | 2004 | G | |
| S-613 | Circumference Measure (Tape) for 38 in. to 52 in. Steel Wheels | 2004 | G | |
| S-614 | Wheel Defect—Worn Journal Collar and Journal Fillet Gauge | 2004 | G | |
| S-615 | Wheel Defect—Worn Journal Collar and Journal Fillet Gauge | 2004 | G | |

| | | Last | | |
|-----------------|--|---------|--------------|-------------------|
| <u>Standard</u> | <u>Subject</u> | Revised | Section | <u>Circulars?</u> |
| S-616 | Limit Wear Gauge for Condemning Wheel Defect— Worn Journal Collar and Journal Fillet Gauge | 2004 | G | |
| S-617 | Gauge, Wheel—Former Standard 1980 | 1980 | \mathbf{G} | |
| S-618 | Gauge, Wheel—Former Standard 1976 | 1976 | \mathbf{G} | |
| S-619 | Reference Groove for Multiple-Wear Diesel Wheels | 2015 | \mathbf{G} | |
| S-627 | Combined Wheel Gauge | 1998 | \mathbf{G} | |
| S-628 | Combined Wheel Gauge | 1998 | \mathbf{G} | |
| S-629 | Limit Wear Gauge for Condemning Wheel Defect— Worn Journal Collar and Journal Fillet Gauge | 1998 | G | |
| S-630 | Steel Wheel Gauge | 2013 | \mathbf{G} | |
| S-649 | Axles—Manufacturing Facility Inspection by Technical Services | 2004 | G | |
| S-657 | Wheel, Passenger Car (Amfleet) | 1980 | \mathbf{G} | |
| S-658 | Axle for Passenger Cars (Amfleet) Inboard Roller Bearing—Raised Wheel Seat | 2004 | G | |
| S-660 | Wheel Designs, Locomotive and Freight Car—Analytic Evaluation | 2009 | G | |
| S-661 | Gauge, Wheel—Maximum Flange Thickness, Height, and Throat Radii Gauge for AAR-1B Narrow-Flange Steel Wheel | 1991 | G | |
| S-662 | Gauge, Wheel—Minimum Flange Thickness, Height, and Throat Radii Gauge for AAR-1B Narrow-Flange Steel Wheel | 1991 | G | |
| S-663 | Gauge, Wheel—Reference Limit Gauge for Verifying AAR 1B Narrow Flange Wheel Gauge S-661 | 1991 | G | |
| S-664 | Gauge, Wheel—Reference Limit Gauge for Verifying AAR 1B Narrow Flange Wheel Gauge S-662 | 1991 | G | |
| S-665 | Gauge, Wheel—Maximum Flange Thickness, Height, and Throat Radii Gauge for AAR-1B Wide- Flange Steel Wheels | 1991 | G | |
| S-666 | Gauge, Wheel—Reference Limit Gauge for Verifying AAR 1B Wide Flange Wheel Gauge S-665 | 1991 | G | |
| S-667 | Gauge, Wheel—Minimum Flange Thickness, Height, and Throat Radii Gauge for AAR-1B Wide- Flange Steel Wheels | 1991 | G | |
| S-668 | Gauge, Wheel—Reference Limit Gauge for Verifying AAR 1B Wide Flange Wheel Gauge S-667 | 1991 | G | |
| S-669 | Analytic Evaluation of Locomotive Wheel Designs | 2012 | G | |
| RP-631 | Recommended Wheel Shop Practices | 2016 | G-II | Update Available |
| RP-632 | General Requirements and Information | 2015 | G-II | |
| RP-633 | Figures | 2015 | G-II | Update Available |

| | | Last | | |
|----------|--|---------|--------------|-------------------------|
| Standard | Subject Subject | Revised | Section | · |
| RP-634 | Gauges—Wheel and Axle Shop | 2016 | G-II | <u>Update Available</u> |
| RP-750 | Wheel Mounting Compound Approval Test Procedure | 2015 | G-II | |
| S-659 | Mandatory Rules Governing Wheel Shop Practices as Required by Interchange Rules | 2015 | G-II | <u>Update Available</u> |
| S-727 | Roller Bearing Manual—Appendix A. Approved Materials | 2015 | G-II | |
| M-924 | Journal Roller Bearing Adapters for Freight Cars | 2015 | \mathbf{H} | |
| M-934 | Side Frame, Alternate Standard Pedestal-Type with Side Frame Key—Application of Roller Bearing Unit | 2015 | Н | |
| M-934A | Standard Interchangeable Spacers for Freight Car Tapered-Roller Journal Bearings | 2011 | Н | |
| M-934B | Standard Interchangeable Spacers for Freight Car Tapered-Roller Journal Bearings | 2011 | Н | |
| M-934C | Standard Interchangeable End Caps for Freight Car Tapered-Roller Journal Bearings | 2011 | Н | |
| M-934D | Standard Interchangeable Backing Rings for Freight Car Tapered-Roller Journal Bearings | 2007 | Н | |
| M-934E | Universal Fitted Backing Rings For Freight Car Tapered-roller Journal Bearings | 2011 | Н | |
| M-942 | Journal Roller Bearing Grease | 2016 | \mathbf{H} | |
| M-959 | Lubrication Seals for Freight Car Journal Roller Bearings | 2007 | Н | |
| S-701 | Locking Plate for Journal Roller Bearing Assemblies | 1977 | Н | |
| S-701A | Locking Plate for Journal Roller Bearing Assemblies | 2012 | \mathbf{H} | |
| S-702 | Component Parts for Journal Roller Bearing Assemblies | 1998 | Н | |
| S-703 | Cap Screws for Journal Roller Bearing Assemblies | 1970 | \mathbf{H} | |
| S-704 | Adapter for Use with AAR Standard Pedestal-Type Side Frame | 1968 | Н | |
| S-705 | Wear Gauge for Journal Roller Bearing Adapters | 1978 | \mathbf{H} | |
| S-706 | Wear Gauge for Journal Roller Bearing Adapters | 1975 | \mathbf{H} | |
| S-720 | Tabulation of Adapters and Frame Keys for AAR- Approved Roller Bearings | 2008 | Н | |
| S-721 | Roller Bearing Manual—Mandatory Instructions and Practices | 2016 | H-II | <u>Update Available</u> |
| S-722 | Roller Bearing Manual—Rules Covering Requirements for Approval of Roller Bearing Shops to Recondition Roller Bearings for Interchange Service | 2012 | H-II | |

| 2 / 1 1 | | <u>Last</u> | • " | 0 : 1 0 |
|-----------------|---|-------------|---------|-------------------------|
| <u>Standard</u> | <u>Subject</u> | Revised | Section | |
| S-723 | Roller Bearing Manual—Minimum Requirements for Roller Bearing Reconditioned Shops— Procedures—Tool Requirements Necessary to Make Roller Bearing Repairs for Interchange Use | 2016 | H-II | Update Available |
| S-724 | Roller Bearing Manual—Information on Amtrak Passenger Car Bearings | 2012 | H-II | <u>Update Available</u> |
| S-725 | Roller Bearing Manual—Manufacture of Interchangeable Roller Bearing Components | 2012 | H-II | <u>Update Available</u> |
| S-726 | Roller Bearing Manual—Remanufacture of Roller Bearing Components | 2016 | H-II | <u>Update Available</u> |
| S-729 | Lubrication, Roller Bearing | 2011 | H-III | |
| S-730 | Lubrication, Center Plates | 2011 | H-III | Update Available |
| S-731 | Lubrication, Doors | 2011 | H-III | |
| S-733 | Inspection and Lubricationof Bulkheads in Freight Cars | 2011 | H-III | |
| S-734 | Lubrication, Tie-Down Devices on Multi-Level Automobile rack and Flatcars | 2011 | H-III | |
| S-736 | Inspection and Lubrication, Hand Brakes | 2011 | H-III | |
| M-928 | Highway Trailer Hitches for Freight Cars | 2004 | I | |
| M-928A | Highway Trailer Hitches for Freight Cars with 90,000-lb Maximum Gross vehicle Weight Capacity | 2003 | I | |
| M-929 | Grease for Lubrication of Trailer Hitches on Flatcars | 2004 | I | |
| M-930 | Containers for Domestic Intermodal Service | 2014 | I | Update Available |
| M-931 | Trailers for Intermodal Service | 2013 | I | |
| M-952 | Intermodal Container Support and Securement System for Freight Cars | 2008 | I | |
| M-962 | Remanufacture of TOFC Trailers | 2004 | I | |
| M-966 | TOFC Portable Bridge Plates | 2004 | I | |
| M-985 | Bad Order Device for Identification of Defective Hitches | 2004 | Ι | |
| M-998 | Intermodal Container Support and Interbox Connector (IBC) Securement Systems for Freight Cars | 2014 | I | |
| RP-851 | Double-Stack Container Cars | 2004 | I | |
| RP-852 | Intermodal Equipment Cars | 2003 | I | |
| RP-853 | Trailer Repair and Modification | 2016 | I | <u>Update Available</u> |
| RP-899 | Car Owner's Manual for the Inspection and Maintenance of Double-Stack Container Cars | 2014 | Ι | <u>Update Available</u> |
| S-732 | Inspection and Lubrication of Trailer Hitches on Flatcars | 2016 | Ι | <u>Update Available</u> |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|---------|-------------------------|
| SOP | Standard Operating Procedures for Intermodal Securement | 2004 | I | |
| M-1003 | Specification for Quality Assurance | 2014 | J | |
| S-9001 | ITC System Reference Architecture | 2012 | K-I | |
| S-9002 | Railroad Electronics Standards Configuration Management | 2009 | K-I | |
| S-9053 | Positive Train Control ITC System Requirements— Level 0 | 2014 | K-I | <u>Update Available</u> |
| S-9054 | Positive Train Control ITC System Requirements— Level 1 | 2014 | K-I | <u>Update Available</u> |
| S-9055 | Positive Train Control ITC Communications Segment Requirements—Level 1 | 2013 | K-I | |
| S-9056 | Positive Train Control ITC Wayside System Requirements—Level 1 | 2012 | K-I | |
| S-9057 | Positive Train Control ITC Systems Management Requirements—Level 1 | 2012 | K-I | |
| S-9070 | I-ETMS Human Machine Interface Standard | 2012 | K-I | |
| M-9154A | Intra-Consist Communications (ICC) Routing Functionality | 2013 | K-II | |
| M-9154B | Intra-Consist Communications (ICC) Layer 2 | 2015 | K-II | <u>Update Available</u> |
| M-9155 | Locomotive Command and Control Module (LCCM)—Functional Requirements | 2015 | K-II | <u>Update Available</u> |
| S-9101 | Locomotive Electronics System Architecture | 2012 | K-II | |
| S-9101B | Locomotive Data Acquisition and Recording System Architecture | 2011 | K-II | |
| S-9101E | Locomotive System Integration Communications | 2016 | K-II | <u>Update Available</u> |
| S-9152 | End-of-Train Communications | 2016 | K-II | <u>Update Available</u> |
| S-9153 | Common Air Interface (CAI-12) Communications FOR Remote Control Locomotive Systems (RCL) Operating AT 220 Mhz | 2012 | K-II | |
| RP-9203 | AEI Reader Equipment Requirements | 2010 | K-III | |
| S-9202 | Interoperable Train Control Wayside Interface Unit Requirements | 2012 | K-III | |
| S-9202A | Integrated Wayside Messaging Server Hardware Requirements | 2011 | K-III | |
| S-9202B | Stand-alone Wayside Messaging Server Hardware Requirements | 2012 | K-III | |
| S-9203 | Automatic Equipment Identification | 2010 | K-III | |
| S-9203A | AEI Site-to-Host Consist Report Format | 2009 | K-III | |
| S-9203B | AEI Site-to-Host Wayside Report Format | 2010 | K-III | |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|---------|-------------------------|
| S-9354 | Edge Message Protocol | 2014 | K-IV | <u>•••••••</u> |
| S-9355 | Class C Messaging | 2010 | K-IV | |
| S-9356 | Class D Messaging | 2010 | K-IV | |
| S-9361 | Positive Train Control Office-Locomotive Segment— Interface Control Document (ICD) | 2016 | K-IV | <u>Update Available</u> |
| S-9362 | Interoperable Train Control (ITC) Wayside- Locomotive Interface Control Document (ICD) | 2014 | K-IV | |
| S-9363 | ITC Time and Location—Interface Control Document (ICD) | 2012 | K-IV | |
| S-9364 | I-ETMS® Onboard Segment Data Distribution Messages Interface Control Document (ICD) | 2015 | K-IV | <u>Update Available</u> |
| S-9365 | Locomotive Interface Gateway (LIG) to Positive Train Control (PTC) Interface Control Document (ICD) | 2014 | K-IV | |
| S-9371 | PTC Back Office Segment—Energy Management Interface Control Document (ICD) | 2014 | K-IV | <u>Update Available</u> |
| S-9372 | PTC Onboard Segment—Energy Management Interface Control Document (ICD) | 2016 | K-IV | <u>Update Available</u> |
| S-9376 | Edge Message Protocol (EMP) Subscribe Message Interface Control Document (ICD) | 2016 | K-IV | <u>Update Available</u> |
| M-9453 | ITCSM Asset User Interface Requirements for Interoperable Train Control | 2014 | K-V | |
| RP-9457 | Positive Train Control Interoperable Electronic Train Management System (I-ETMS) Master Test Strategy (MTS) | 2012 | K-V | |
| S-9401 | Railroad Electronics Environmental Requirements | 2009 | K-V | |
| S-9451 | ITCSM Common Systems Management Requirements | 2014 | K-V | |
| S-9451A | ITCSM WIU Asset-Specific Requirements for Interoperable Train Control | 2012 | K-V | |
| S-9452 | ITCSM Common Data Dictionary for Interoperable Train Control | 2014 | K-V | |
| S-9452A | ITCSM WIU Asset-Specific Data Dictionary for Interoperable Train Control | 2012 | K-V | |
| S-9454 | ITC System Management (ITCSM) Back Office Requirements for Interoperable Train Control | 2014 | K-V | |
| RP-9511 | Interoperable Train Control (ITC) Onboard Track Database Field Survey and Validation, Recommended Practice | 2014 | K-VI | |
| S-9501 | PTC Data Model Definition | 2015 | K-VI | <u>Update Available</u> |

EFFECTIVE 10/21/201(

AAR Manual of Standards and Recommended Practices Tables of Content

| 04 1 1 | 0.11.7 | <u>Last</u> | 0 " | 0: 1 0 |
|----------|---|-------------|--------------|-------------------------|
| Standard | Subject | Revised | Section | · |
| S-9503 | Interoperable Electronic Train Management System® | 2015 | K-VI | <u>Update Available</u> |
| | (I-ETMS) Subdivision File | | | |
| S-9552 | Railroad Communications Network | 2004 | K-VI | |
| S-9553 | Communications System Architecture | 2002 | K-VI | |
| S-9553A | Mobile Communications Package | 2002 | K-VI | |
| S-9553B | Front End Processor | 2002 | K-VI | |
| S-9553C | Cluster Controller | 2002 | K-VI | |
| S-9553D | Base Communications Package | 2002 | K-VI | |
| S-9555 | Railroad Use of IEEE 802.11 | 2015 | K-VI | Update Available |
| S-9556 | AAR Channel Plan for VHF Frequencies from 160.215 MHz to 161.565 MHz | 2013 | K-VI | |
| S-9557 | Interoperable Train Control (ITC) Radio Identification Format | 2015 | K-VI | <u>Update Available</u> |
| M-947 | Adhesive-Backed Films for Marking Cars— Performance-Based Requirements | 2015 | L | <u>Update Available</u> |
| RP-021 | Implementation of Equipment Identification and Warranty Administration | 2004 | L | <u>Update Available</u> |
| RP-900 | Passenger Car | 2002 | $\mathbf L$ | |
| RP-901 | Boxcars Equipped with Removable Crossbars | 2002 | $\mathbf L$ | |
| RP-902 | Cars Equipped with Antipilferage Devices | 2002 | $\mathbf L$ | |
| RP-903 | Lading Strap Anchors | 2002 | $\mathbf L$ | |
| RP-904 | Gondola Cars with Wood Floors | 2002 | ${f L}$ | |
| S-900 | Flatcar—Class F | 2002 | ${f L}$ | |
| S-901 | Gondola Car—Class G | 2002 | ${f L}$ | |
| S-902 | Hopper Car—Class H | 2002 | ${f L}$ | |
| S-903 | Special Car—Class L | 2002 | \mathbf{L} | |
| S-904 | Caboose—Class N | 2002 | ${f L}$ | |
| S-905 | Refrigerator Car—Class R | 2002 | ${f L}$ | |
| S-907 | Tank Car—Class T | 2002 | \mathbf{L} | |
| S-908 | Boxcar—Class X | 2002 | \mathbf{L} | |
| S-909 | Maintenance of Way Equipment—Class MW | 2002 | \mathbf{L} | |
| S-910 | Lettering and Marking of Cars | 2009 | \mathbf{L} | Update Available |
| S-911 | Cars Equipped with Loading Bars and Movable Bulkheads | 2002 | L | |
| S-912 | Clear Door Opening | 2002 | ${f L}$ | |
| S-913 | Clearance Plates | 2002 | L | |
| S-914 | Metrication Stenciling | 2002 | L | |
| S-915 | Loading Stencil—Refrigerator Car Floor | 2002 | L | |

| | | Last | • 41 | |
|----------------------|--|---------|--------------|------------------|
| Standard Mr. 01.0 | <u>Subject</u> | Revised | Section | |
| M-916 | Sand for Traction | 2016 | M | Update Available |
| RP-503 | Locomotive Diesel Fuel Additives and Fuel Savings Devices—Evaluation Procedure | 2016 | M | Update Available |
| RP-505 | Typical 26-L Type Brake Equipment Piping Diagrams for Locomotives | 2001 | M | |
| RP-508 | Air Brake Exhaust Piping | 2001 | ${f M}$ | |
| RP-509 | Braking Ratios for Locomotives | 2001 | ${f M}$ | |
| RP-512 | Color Code for Identifying Fluids on Locomotive | 2001 | \mathbf{M} | |
| RP-514 | Designation of Sides and Ends of Locomotives | 2001 | \mathbf{M} | |
| RP-518 | Brake Shoe Unflanged | 2001 | \mathbf{M} | |
| RP-545 | Testing Electrical Components | 2001 | \mathbf{M} | |
| RP-546 | Minimum Requirements for Main Reservoir System on New and Rebuilt Diesel-Electric, Electric, and Gas Turbine Locomotives of 800-hp Capacity and Greater | 2001 | M | |
| RP-548 | Locomotive Rating Train/Track Resistance | 2001 | \mathbf{M} | |
| RP-557 | Spark Arrester | 2001 | ${f M}$ | |
| RP-585 | Wiring and Cable Specification | 2001 | \mathbf{M} | |
| RP-586 | Wire and Cable Insulating Material—Moisture- Resisting Jacketed | 2005 | M | |
| RP-587 | Wire and Cable Insulating Material—Silicone Rubber Insulated | 2005 | M | |
| RP-588 | Wire and Cable Insulating Material | 2001 | ${f M}$ | |
| RP-589 | Rating for Specific Fuel Consumption of Diesel Electric Locomotives | 2001 | M | |
| RP-590 | Lead-Acid Batteries and Compartments | 2001 | ${f M}$ | |
| RP-599 | Brake Shoes—High-Friction Composition Type for Locomotives | 2001 | M | |
| RP-5107 | Access Doors to Light Boxes for Road Number, Headlight, or Warning Lights—Outside Cab | 2001 | M | |
| RP-5115 | Cushion Pad—Locomotive Cab Door Frame | 2001 | \mathbf{M} | |
| RP-5117 | Door Closure Bar—Locomotive Cab | 2001 | \mathbf{M} | |
| RP-5120 | Flexible Hinge Guard on Locomotive Cab Door | 2001 | \mathbf{M} | |
| RP-5122 | Locomotive Horn Valve Handle with Soft, Resilient- Type Rubber Cover | 2001 | M | |
| RP-5124 | Padded Sun Visor in Locomotive Cab—Engineer's Side Only | 2001 | M | |
| RP-5126 | Recessed Windshield Wiper Valve, Train-Order Light Switch, and Flush-Mounted Train-Order Light | 2001 | M | |
| RP-5127 | Rounded Cab Window Latch in Locomotive Cabs | 2001 | M | |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|------------------|
| RP-5128 | Rounding All Possible Exposed Convex Edges and Corners | 2001 | M | |
| RP-5132 | Diesel Locomotive Control Stand for New Locomotives | 2001 | M | |
| RP-5136 | Windshield Wiper Motor Handle with Soft-Rubber- Type Grip | 2001 | M | |
| RP-5137 | Windshield Wiper Motor Protective Cover | 2001 | \mathbf{M} | |
| RP-5209 | Basic Brake Design Data for Freight Locomotives | 1999 | ${f M}$ | |
| RP-5503 | Locomotive Fueling Interface | 2001 | \mathbf{M} | |
| RP-5523 | Axle Nomenclature Arrangement—Locomotives | 2001 | ${f M}$ | |
| RP-5595 | Main Reservoir Equalizing End Hose Coupling | 2001 | \mathbf{M} | |
| RP-5596 | Brake Shoes—Metal Type | 2001 | ${f M}$ | |
| S-512 | 27-Point Control Plug and Receptacle | 2007 | ${f M}$ | |
| S-580 | Locomotive Crashworthiness Requirements | 2015 | \mathbf{M} | Update Available |
| S-591 | Locomotive System Integration Operating Display | 2010 | \mathbf{M} | Update Available |
| S-5018 | Dynamic Braking Control | 2002 | \mathbf{M} | |
| S-5019 | Locomotive Definitions | 2013 | \mathbf{M} | Update Available |
| S-5020 | Color Code for Identifying Fluids on Locomotive | 2015 | \mathbf{M} | Update Available |
| S-5021 | Wheel Size and Speed Pickup Axle Identification | 2015 | \mathbf{M} | Update Available |
| S-5022 | Ultra-Low Sulfur Diesel (ULSD) Identification Label/Decal | 2015 | M | Update Available |
| S-5101 | Locomotive Cab Window Glazing Material | 2002 | ${f M}$ | |
| S-5500 | Locomotive Interchange Agreement | 2007 | ${f M}$ | |
| S-5502 | Automatic Engine Start/Stop System | 2011 | \mathbf{M} | Update Available |
| S-5506 | Performance Requirements for Diesel Electric Locomotive Fuel Tanks | 2001 | M | |
| S-5507 | Remote Control Locomotives | 2002 | \mathbf{M} | |
| S-5509 | Locomotive Dynamic Brake Status Reporting | 2010 | ${f M}$ | Update Available |
| S-5510 | Plate L—Locomotive Diagram for Interchange Service | 2004 | M | |
| S-5512 | Locomotive Event Recorder Download Standard | 2010 | \mathbf{M} | Update Available |
| S-5513 | Locomotive Alerter Requirements | 2007 | \mathbf{M} | |
| S-5514 | Locomotive Operator Control Symbols | 2011 | \mathbf{M} | Update Available |
| S-5515 | LED Lighting for Locomotives | 2012 | \mathbf{M} | Update Available |
| S-5520 | Locomotive Cab Securement | 2014 | \mathbf{M} | Update Available |
| S-5529 | Multiple Unit Pneumatic Brake Equipment for Locomotives | 2008 | M | Update Available |
| S-5597 | Air Flow Indicators | 2007 | M | |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|---------|-------------------------|
| S-5598 | Calibration Procedure for AFM Type Air Flow Indicators | 2007 | M | <u>Onculars:</u> |
| M-941 | End Enclosure for Fully Enclosed Multi-Level Auto Rack Cars | 1998 | N | |
| M-950 | Universal Wide-Body Tri-Level Fully Enclosed Autorack Car (Low Deck) | 2016 | N | <u>Update Available</u> |
| M-950-A | Universal Wide-Body Bi-Level Fully Enclosed Autorack Car (Standard Deck) | 2016 | N | <u>Update Available</u> |
| M-951 | Portable Bridge Plates for Multi-Level Autorack Cars | 2011 | N | |
| M-956 | Requirements Governing Superstructures to Cars Equipped With Sliding Sill or End-of-Car Cushioning Devices | 1994 | N | |
| M-957 | Tie-Down Tracks, Winches, and Chains | 1997 | N | |
| M-970 | Certification of Multi-Level Autorack Cars | 2016 | N | Update Available |
| M-971 | Non-Grease Lubricant for Autorack Equipment | 2002 | N | |
| M-990 | Tie-Down Tracks, Wheel Chocks, and Straps (Tri- Level Autoracks) | 2016 | N | <u>Update Available</u> |
| M-991 | Vehicle Door Edge Protection System for Multi-Level Autorack Cars | 2006 | N | |
| M-992 | Designated Satellite Shop Repair Specifications for Multi-Level Autorack Cars | 2015 | N | <u>Update Available</u> |
| M-993 | Mechanical Certification of Flatcars for Autorack Service | 1996 | N | |
| RP-802 | Wheel Chock Strap Assembly Replacement | 1996 | N | |
| RP-803 | Ride Quality Performance Requirements for Motor Vehicle Shipments | 2014 | N | |
| RP-804 | Measurement Requirements for Remote Ride Quality Monitoring | 1996 | N | |
| RP-810 | Handling and Inspection of Vehicles Before Loading | 2013 | N | |
| RP-811 | Loading of Vehicles | 2015 | N | <u>Update Available</u> |
| RP-812 | Handling and Inspection of Multi-Level Cars and Equipment After Loading | 1994 | N | |
| RP-813 | Handling of Multi-Level Cars in Trains and Yards | 1994 | N | |
| RP-814 | Inspection of Multi-Levels and Vehicles En Route | 1994 | N | |
| RP-815 | Railroad Police Protection | 1994 | N | |
| RP-816 | Unloading of Vehicles | 2006 | N | |
| RP-817 | Destination Inspections | 1994 | N | |
| RP-818 | Handling of Multi-Level Cars and Equipment Afier Unloading | 1997 | N | |

EFFECTIVE 10/21/2010

AAR Manual of Standards and Recommended Practices Tables of Content

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|--------------|-------------------------|
| RP-830 | Form Preparation for Vehicle Inspection | 2014 | N | <u> </u> |
| RP-831 | Standard Vehicle Nomenclature | 2015 | N | Update Available |
| S-810 | Conducting Field Impact and Over-the-Road Tests of Multi-Level Tie-down Equipment and/or Methods | 2016 | N | Update Available |
| S-815 | Tie-Down Chain Assemblies for Multi-Level and Other Flat Cars, Refurbished High Test Grade 43 or Alloy Grade 80 | 1994 | N | |
| M-105 | Forgings, Carbon Steel Blooms, Billets, and Slabs | 1964 | \mathbf{S} | |
| M-126 | Forgings, Carbon Steel | 1968 | \mathbf{S} | |
| M-127 | Forgings, Alloy Steel | 1964 | \mathbf{S} | |
| M-131 | Blooms, Billets, and Slabs—Alloy Steel | 1964 | \mathbf{S} | |
| M-201 | Castings, Steel | 2016 | \mathbf{S} | Update Available |
| M-202 | Truck Bolsters, Cast or Structural—Design and Testing | 2015 | S | <u>Update Available</u> |
| M-203 | Truck Side Frames, Cast Steel—Design and Testing | 2012 | \mathbf{S} | |
| M-203A | Bolster Design Loads | 1997 | \mathbf{S} | |
| M-204 | Truck, Freight Car, with Car Body/Side Frame Load Path—Design and Testing | 2011 | S | |
| M-205 | Yoke, Coupler—Test Requirements | 2003 | \mathbf{S} | |
| M-210 | Side Frame and Bolsters, AAR Approved—Purchase and Acceptance | 2013 | S | |
| M-211 | Couplers and Yokes, AAR Approved—Purchase and Acceptance | 2016 | S | <u>Update Available</u> |
| M-212 | Couplers and Yokes, Secondhand—Classification and Reconditioning Procedure | 2016 | S | <u>Update Available</u> |
| M-213 | Truck Frames, Fabricated Steel | 1981 | \mathbf{S} | |
| M-214 | Side Frames and Bolsters, Used and Reconditioned—Classification and Repair Procedure | 2013 | S | |
| M-215 | Coupling Systems | 2013 | \mathbf{S} | |
| M-216 | Knuckles, Types E and F—Fatigue Test | 2016 | \mathbf{S} | Update Available |
| M-220 | Casting Component NonDestructive Testing Requirements | 2012 | S | |
| M-975 | Span Bolsters | 2000 | \mathbf{S} | |
| S-300 | Truck, Freight Car—Design Data | 2016 | S-II | Update Available |
| S-301 | Truck, 33-in. Wheels—Design Dimensions | 1986 | S-II | |
| S-302 | Truck, 36-in. Wheels—Design Dimensions | 1986 | S-II | |
| S-304 | Truck, 38-in. Wheels—Design Dimensions | 1986 | S-II | |
| S-310 | Bolster, 14 in. Center Plate—Limiting Outline | 1979 | S-II | |
| S-311 | Bolster, 16 in. Center Plate—Limiting Outline | 2009 | S-II | |

| Standard | Subject | <u>Last</u> Revised | Section | Circulars? |
|----------|---|------------------------|---------|--------------------|
| | Bolster, Truck—Marking Diagram | 2014 | S-II | <u>On Culars :</u> |
| | Side Frame, Truck—Marking Diagram | 2014 | S-II | |
| | Bolster—Tolerances | 1981 | S-II | |
| | Side Frame—Tolerances | 1981 | S-II | |
| | Side Frame—Bolster Rotation Stop Lug | 1965 | S-II | |
| | Side Frame—Wide Land Rotation Stop Lug Column | 1968 | S-II | |
| | Side Frame, Narrow Pedestal—Limiting Dimensions | 2009 | S-II | |
| S-327 | Side Frame—Roof Repair | 2012 | S-II | |
| S-329 | Side Frame, Narrow Pedestal—Roller Bearing | 1997 | S-II | |
| S-366 | Unit Guide Bracket, EC-2055—Design Dimensions | 2009 | S-II | |
| S-378 | Side Frame, Cast Steel—Marking and Mating | 2010 | S-II | |
| S-392 | Truck—Design Drawings | 2014 | S-II | |
| S-393 | Side Frames and Bolsters—Produced Prior to 1978 | 2001 | S-II | |
| | Side Frame, Standard Pedestal-Type with Side Frame Key—Limiting Dimensions | 1947 | S-II | |
| S-3011 | Side Frame, Standard Pedestal-Type Size 6 in. × 11 in. with Side Frame Key—Limiting Dimensions | 1997 | S-II | |
| S-3012 | Side Frame, Alternate Standard Pedestal-Type with Side Frame Key—Application of Roller Bearing Unit | 1994 | S-II | |
| M-932 | Coupler Centering Device Specification | 2003 | S-III | |
| M-961 | Uncoupling Devices, Special | 2003 | S-III | |
| | Coupler, E Type, Standard and Alternate Standard, E60DE and E60EE | 2003 | S-III | |
| | Coupler, E Type, Top and Bottom Shelf, Standard and Alternate Standard, SE60DE and SE60EE | 2003 | S-III | |
| S-105 | Coupler, E Type, Detail Parts | 2003 | S-III | |
| S-106 | Coupler, E Type, No. 10-A Contour and Detail of Pivot Pin Hole | 2003 | S-III | |
| S-107 | Coupler, E Type, Standard and Alternate Standard, E67CE and E67DE | 2003 | S-III | |
| S-108 | Coupler, E/F Type, Standard and Alternate Standard, E68CE and E68DE | 2003 | S-III | |
| S-109 | Coupler, E/F Type, Standard and Alternate Standard, E69BE and E69CE | 2003 | S-III | |
| S-110 | Coupler, F Type, Standard F Coupler, F70DE | 2009 | S-III | |
| S-111 | Coupler, F Type, with Top Shelf, Standard, SF70DE | 2003 | S-III | |
| S-112 | Coupler, F Type, Standard, F73BE | 2003 | S-III | |

SECTION INDEX

| | | Last | | |
|-----------------|---|---------|----------------|------------|
| <u>Standard</u> | <u>Subject</u> | Revised | <u>Section</u> | Circulars? |
| S-114 | Coupler, F Type, Standard, F79DE | 2003 | S-III | |
| S-115 | Coupler, F Type, with Top Shelf, Standard, SF79DE | 2003 | S-III | |
| S-116 | Coupler, F Type, Interlocking, Coupler and Yoke Parts | 2003 | S-III | |
| S-117 | Coupler Contour, F Type, Interlocking | 2003 | S-III | |
| S-129 | Couplers—Arrangement of Operating Mechanisms | 2000 | S-III | |
| S-130 | Coupler, E Type, Articulated Rotor Lever Assembly | 2003 | S-III | |
| S-131 | Coupler (Rotary), Type E60, Operating Rod, use with up to 6 1/2-in. Total Draft Gear Travel | 2016 | S-III | |
| S-132 | Operating Mechanism, Type No. 6, Interlocking | 2003 | S-III | |
| S-133 | Coupler (Rotary), Type F70, Operating Rod, use with up to 6 1/2-in. Total Draft Gear Travel | 2016 | S-III | |
| S-134 | Coupler (Rotary), Types E60, E67, and F70, Operating Rod for Use with Standard Draft Gear or End-of-Car Cushioning up to 15-in. Total Travel | 2016 | S-III | |
| S-137 | Coupler Shank Wear Plates and Application | 2000 | S-III | |
| S-139 | Yokes, Relief Fillets | 2003 | S-III | |
| S-141 | Yoke, E Type, Y40AE, Standard, for 24 5/8-in. Draft Gear Pocket | 2009 | S-III | |
| S-142 | Yoke, E Type, Y41AE for 36-in. Draft Gear Pocket | 2009 | S-III | |
| S-143 | Yoke, E Type, SY40AE or YS93AE, Standard, for 24 5/8-in. Draft Gear Pocket | 2009 | S-III | |
| S-149 | Yoke, E/F and F Type, Y45AE, Standard, for 24 5/8-in. Draft Gear Pocket | 2003 | S-III | |
| S-151 | Yoke, E/F Type, Y49AE, Standard, for 36-in. Draft Gear Pocket | 2003 | S-III | |
| S-154 | Coupler, E Type, SE67CE and SE67DE, Top and Bottom Shelf | 2003 | S-III | |
| S-155 | Coupler, E/F Type, SE68CE and SE68DE, Top and Bottom Shelf | 2014 | S-III | |
| S-163 | Coupler, E Type, SBE60DE and SBE60EE, Bottom Shelf | 2008 | S-III | |
| S-164 | Coupler, E Type, SBE67CE and SBE67DE, Bottom Shelf | 2008 | S-III | |
| S-165 | Coupler, E/F Type, SBE68CE and SBE68DE, Bottom Shelf | 2008 | S-III | |
| S-170 | Coupler, E/F Type, SBE69BE and SBE69CE, Bottom Shelf | 2008 | S-III | |
| S-172 | Coupler, E/F Type, SE69BE and SE69CE, Top and Bottom Shelf | 2008 | S-III | |

SECTION INDEX

| Standard | <u>Subject</u> | <u>Last</u> Revised | Section | Circulars? |
|----------|--|------------------------|---------|------------|
| S-173 | Coupler, E Type, Guard Arm Lightener Hole Openings and Knuckle Flag Hole—Standard Dimensions | 2003 | S-III | |
| S-174 | Coupler, F Type, Guard Arm Lightener Hole Openings and Knuckle Flag Hole—Standard Dimensions | 2003 | S-III | |
| S-176 | Yoke, E Type, Cushioning, for Pocket EOC-7 | 2003 | S-III | |
| S-177 | Yoke, E Type, Cushioning, for Pocket EOC-8 | 2003 | S-III | |
| S-178 | Yoke, F Type, Cushioning, for Pocket EOC-9 | 2011 | S-III | |
| S-179 | Yoke, F Type, Cushioning, for Pocket EOC-10 and EOC 26 | 2011 | S-III | |
| S-180 | Yoke, F Type, Cushioning, for Pocket EOC-1, EOC-2, and EOC-16 | 2011 | S-III | |

EFFECTIVE 10/21/2016

THIS PAGE LEFT BLANK INTENTIONALLY

AAR Manual of Standards and Recommended Practices Tables of Content

ARCHIVED/RENUMBERED DOCUMENTS

This table provides historical reference information for documents that have been archived or renumbered.

| DocNo. | <u>Title</u> | <u>Change</u> |
|--------|--|---------------------------------|
| M-112 | Springs-Carbon Steel Bars, plate Steel-Bars, Truck Springs | Archived 02/23,2007 via C-10469 |
| M-113 | Springs-Elliptical, Leaf style Steel-Bars and Bands for Elliptical Springs | Archived 02/23,2007 via C-10469 |
| M-504 | Copper-Tubes, Types A and B Tubes-Copper, Seamless | Archived 02/23,2007 via C-10469 |
| M-604 | Hose-Cold Water, Wrapped, Braided | Archived 02/23,2007 via C-10469 |
| M-605 | Hose-Steam and Hot Water | Archived 02/23,2007 via C-10469 |
| M-608 | Hose-Air, Pneumatic Tools | Archived 02/23,2007 via C-10469 |
| M-617 | Hose-Fuel Oil Dispensing | Archived 02/23,2007 via C-10469 |
| M-901C | Draft Gear—36 in. Pocket | Archived 10/23/2006 via C-10375 |
| M-901H | Draft Gear—Impact Testing, Alternate Standard | Archived 10/23/2006 via C-10375 |
| M-907 | Lumber-Classification Lumber-Nomenclature, Schedule, Grading Wood-Lumber Nomenclature, Grading, Sizes | Archived 08/10/2007 via C-10569 |
| M-907A | Flooring—Laminated Wood | Archived 08/10/2007 via C-10569 |
| M-922 | Cap Screws-Self Locking Nuts-Self Locking | Archived 02/23,2007 via C-10469 |
| M-945 | Adjustable Bulkheads Pneumatic Type for Box Cars | Archived 02/23/2007 via C-10467 |
| M-946 | For Adjustable Bulkheads Non-Pneumatic Type for Box Cars | Archived 02/23/2007 via C-10467 |
| M-953 | Minimum Requirement Standard for Railroad Flatcars for Handling farm and Industrial Equipment | Archived 04/30/2008 via C-10721 |
| M-960 | Adjustable Column Type Bulkheads for Box Cars | Archived 02/23/2007 via C-10467 |
| RP-011 | Car Rack for Mounted Wheel Sets Flat Car Rack for Mounted Wheels Mounted Wheels-Rack for Shipment Rack-Wheel Sets, Shipments | Archived 02/23,2007 via C-10469 |
| RP-012 | Rivet-Two Piece, Safety Appliance Safety Appliance-Two Piece Rivet Two Piece Rivet- Safety Appliances | Archived 02/23,2007 via C-10469 |
| RP-202 | Center Plate-Unit Pressures | Archived 02/23/2007 via C-10467 |
| RP-203 | Door-Stock Car | Archived 02/23/2007 via C-10467 |
| RP-204 | Lumber-Moisture Content | Archived 08/10/2007 via C-10569 |
| RP-205 | Car-Lumber Lining Boards | Archived 02/23/2007 via C-10467 |
| RP-207 | Defect Card Receptacle | Archived 03/23/2011 via C-11409 |
| RP-210 | Alcohol Burning Heater | Archived 02/23/2007 via C-10467 |
| RP-211 | Refrigerator Car Drain Extension | Archived 02/23/2007 via C-10467 |
| RP-212 | Boxcar, Insulated—Heat Transmission Rate | Archived 04/16/2007 via C-10486 |
| RP-220 | Stringer-Arrangement, Box Car | Archived 02/23/2007 via C-10467 |
| RP-222 | Univ. Pocket-Cushion 15", E6OCHT Coupler | Archived 02/23/2007 via C-10467 |

| DocNo. | <u>Title</u> | <u>Change</u> |
|--------|---|---|
| RP-223 | Univ. Pocket-Cushion 10, EGOCHT, E67AH'T | Archived 02/23/2007 via C-10467 |
| RP-224 | Univ. Pocket-Cushion 15", E67AHT Coupler | Archived 02/23/2007 via C-10467 |
| RP-225 | Univ. Pocket-Cushion 1 0 , E68AHT, F79AHT | Archived 02/23/2007 via C-10467 |
| RP-226 | Univ. Pocket-Cushion 10" E69HTE Coupler | Archived 02/23/2007 via C-10467 |
| RP-229 | Liquefied Petroleum Cylinder | Archived 02/23/2007 via C-10467 |
| RP-230 | Cradle Blocking, Cax Dumping Machine | Archived 02/23/2007 via C-10467 |
| RP-235 | Bolster-Body, Box Car | Archived 02/23/2007 via -10467 |
| RP-236 | Bolster-Body, Diagonal Brace, Hopper Car | Archived 02/23/2007 via C-10467 |
| RP-237 | Crossbearer-Box Car | Archived 02/23/2007 via C-10467 |
| RP-238 | Hopper Car-Crossbearer | Archived 02/23/2007 via C-10467 |
| RP-239 | Box Car-Crosstie | Archived 02/23/2007 via C-10467 but reinstated as S-239, its former number, 02/04/2012 via C-11615 |
| RP-240 | Door-Single, Sliding, Panel Type | Archived 02/23/2007 via C-10467 |
| RP-241 | Door-Double, Sliding, Panel Type | Archived 02/23/2007 via C-10467 |
| RP-242 | Door-Single, Plug, No. 3 Type | Archived 02/23/2007 via C-10467 |
| RP-243 | Door-Plug and Sliding No.3 Type | Archived 02/23/2007 via C-10467 |
| RP-244 | Door Arrangement Double Plug Type No. 3 | Archived 02/23/2007 via C-10467 |
| RP-245 | Gondola Car-End Arrangement | Archived 02/23/2007 via C-10467 |
| RP-246 | Gondola Car-Drop End Arrangement | Archived 02/23/2007 via C-10467 |
| RP-247 | Box Car-End Arrangement | Archived 02/23/2007 via C-10467 |
| RP-248 | Hopper Car-End Arrangement | Archived 02/23/2007 via C-10467 |
| RP-249 | Box Car-Grain Door Nailers | Archived 02/23/2007 via C-10467 |
| RP-250 | Hopper Arrangement-Cast Steel Frame | Archived 02/23/2007 via C-10467 (formerly S-250) |
| RP-251 | Hopper Arrangement-Two Piece Hopper | Archived 02/23/2007 via C-10467 (formerly S-251) |
| RP-252 | Roof Arrangement-Diagonal Panel, Box Car | Archived 02/23/2007 via C-10467 |
| RP-253 | Refrigerator Car Specifications | Archived 02/23/2007 via C-10467 |
| RP-254 | Anti-Pilferage Device—Boxcar Sliding Door | Renumbered S-2049 4/25/2007 |
| RP-255 | Anti-Pilferage Device—Boxcar Plug Door | Renumbered S-2050 4/25/2007 |
| RP-256 | Floor Restraint, Intermodal Container Cars | Archived 02/23/2007 via C-10467 |
| RP-257 | Rail Compatible Vehicles | Archived 02/23/2007 via C-10467 |
| RP-260 | Double-Stack Container Cars | Archived 02/23/2007 via C-10467 |
| RP-300 | Center Plate—Liner, Vertical 6 in. \times 11 in. | Archived 07/14/2011 via C-11472 |
| RP-301 | Center Plate—Liner, Vertical 6 in. \times 11 in. | Archived 07/14/2011 via C-11472 |
| RP-305 | | Archived 07/14/2011 via C-11472 |
| RP-512 | Color Code for Identifying Fluids on Locomotive | Renumbered S-5020 |
| RP-619 | Reference Groove for Multiple-Wear Diesel Wheels | Renumbered S-619 |
| RP-800 | Standards for Reconditioned Cross members and Doorway Members | Archived 02/23/2007 via C-10467 |

| DocNo. | Title | Change |
|---------|---|---|
| RP-5104 | Locomotive Cab Seats | Archived 1/27/2016 via C-12559 |
| S-045 | Passenger Equipment Car Maintenance Requirements | Renumbered S-4045 |
| S-118 | Periodic Inspection of Manufacturers' Facilities | Archived 06/20/2007 via C-10541 |
| S-122 | Draft Key Retainer | Archived 02/16/2011 via C-11381 |
| S-202 | Coupler Height | Archived 02/23/2007 via C-10467 |
| S-205 | Center Plate—Body Cast Integral | Archived 02/23/2007 via C-10467 |
| S-209 | Center Plate—Cast Steel or Forged | Archived 02/23/2007 via C-10467 |
| S-210 | Center Plate—Gage, 12 in. Diameter | Archived 02/23/2007 via C-10467 |
| S-216 | Door Posts and Reinforcements | Archived 02/23/2007 via C-10467 |
| S-218 | Door—Box Car End | Archived 02/23/2007 via C-10467 |
| S-221 | Safety Appliance—Multi-Level Open or Screened Rack Car | Archived 02/23/2007 via C-10467 |
| S-227 | Car—Lumber Sections | Archived 04/16/2007 via C-10467 |
| S-228 | Flat Car—Platform Width | Archived 02/23/2007 via C-10467 |
| S-231 | Meat Hook—Refrigerator Car | Archived 02/23/2007 via C-10467 |
| S-237 | Striker—F Coupler, 24 in. Riveted | Archived 02/23/2007 via C-10467 |
| S-239 | Draft Arrangement—E60 Coupler 24 in. Pocket | Renumbered RP-239 |
| S-240 | Draft Arrangement—E60 Coupler 24 in. Pocket, Former Standard | Archived 02/23/2007 via C-10467 |
| S-241 | Draft Arrangement—E67 Coupler 36 in. Pocket | Archived 02/23/2007 via C-10467 |
| S-242 | Draft Arrangement—E67 Coupler 36 in. Pocket, Former Standard | Archived 02/23/2007 via C-10467 |
| S-246 | Draft Arrangement—F70 Coupler, 24 in. Pocket (Riveting) | Archived 02/23/2007 via C-10467 |
| S-248 | Draft Arrangement—F79 Coupler 36 in. Pocket | Archived 02/23/2007 via C-10467 |
| S-250 | Center Filler—Rear Draft Lugs | Renumbered RP-250 02/23/2007 via C-10467 |
| S-251 | Bellmouth Striker—FC&F, P/S Thrall | Renumbered RP-251 02/23/2007 via C-10467 |
| S-256 | Body Bolster—Center Filler, Tolerances Integral Center Plate | Archived 02/23/2007 via C-10467 |
| S-257 | Body Bolster—Center Filler, Tolerances Die Pressed | Archived 02/23/2007 via C-10467 |
| S-260 | Bolster—Body, Center Filler 4 ft 11 in. OH | Archived 02/23/2007 via C-10467 |
| S-261 | Bolster—Body, Center Filler 5 ft 5 5/8 in. OH | Archived 02/23/2007 via C-10467 |
| S-262 | Bolster—Body, Center Filler 4 ft 11 in. OH | Archived 02/23/2007 via C-10467 |
| S-263 | Bolster—Body, Center Filler 5 ft 5 5/8 in. OH | Archived 02/23/2007 via C-10467 |
| S-268 | Corner Push Pad and Roping Staple—Hopper | Archived 02/23/2007 via C-10467 |
| S-275 | Door—End Door, Auto Box Car | Archived 02/23/2007 via C-10467 |
| S-305 | Center Plate Liner, Horizontal and Vertical | Archived 07/14/2011 via C-11472 |
| S-590 | Locomotive Electronics System Architecture | Archived 08/05/2015 via C-12430 |
| S-808 | Interior Dunnage Equipment—Deck Boards | Archived 02/23/2007 via C-10467 |

ARCHIVED/RENUMBERED DOCUMENTS

| $\Box\Box$ |
|------------|
| |
| 55 |
| |
| |
| |
| |
| |
| |
| \ll |
| |
| Іппі |
| |
| 000 |
| 7 |
| |
| |
| |
| |
| |
| 10/21/ |
| |
| 10/21/ |
| 10/21/ |
| 10/21/ |
| 10/21/ |

| DocNo. | <u>Title</u> | <u>Change</u> |
|--------|--|--|
| S-809 | Standardization of Saddleback Cars | Archived 02/23/2007 via C-10467 |
| S-813 | Device for Opening and Closing Side Doors on Boxcars | Archived 02/23/2007 via C-10467 |
| S-814 | Portable Bridge Plate for Saddleback Flatcars | Archived 02/23/2007 via C-10467 |
| S-2017 | Striker—Casting | Renumbered RP-2017 02/23/2007 via C-10467 |
| S-2018 | Striker—E Coupler, 24 5/8 in. Riveted | Archived 02/23/2007 via C-10467 |
| S-2019 | Striker—E Coupler, 36 in. Riveted | Archived 02/23/2007 via C-10467 |
| S-2021 | Striker—E67 Coupler, 36 in. Welded | Archived 02/23/2007 via C-10467 |
| S-2022 | Refrigerator Car—Brine Valve Operation | Archived 02/23/2007 via C-10467 |
| S-2024 | Refrigerator and Power Unit Data | Archived 02/23/2007 via C-10467 |
| S-5511 | Locomotive-Based Top-of-Rail Friction Control Application | Archived 11/26/13 and again 8/5/15 via C-12429 |

CURRENT CIRCULAR LETTERS

DISCLAIMER

This table lists the Circular Letters that have been issued subsequent to the release of the MSRP specifications, standards, and recommended practices shown in MSRP-A1. This Index Tool is intended to improve accessability to the users. It is the responsibility of the user to ensure that individual MSRP sections reflect interim revisions inplemented via Circular Letter.

Click one of the links below to see the Circular Letters affecting that particular MSRP section.

| MSRP-AS | MSRP-E2 | MSRP-I | MSRP-K6 |
|---------|---------|---------|---------|
| MSRP-B | MSRP-F | MSRP-J | MSRP-L |
| MSRP-C | MSRP-G | MSRP-K1 | MSRP-M |
| MSRP-C2 | MSRP-G2 | MSRP-K2 | MSRP-N |
| MSRP-C3 | MSRP-H | MSRP-K3 | MSRP-S |
| MSRP-D | MSRP-H2 | MSRP-K4 | MSRP-S2 |
| MSRP-E | MSRP-H3 | MSRP-K5 | MSRP-S3 |

Section AS Administrative Supplement (2015)

| Doc Affected | Date | CL No. | Title |
|-----------------|-----------|---------|---|
| Book | 6/17/2014 | C-12193 | Implementation of Revised AAR Manual of Standards and Recommended Practices Section AS, Administrative Standards Supplement |
| S-046 S-060 | 9/30/2015 | C-12448 | Implementation of Revisions to MSRP Section AS Administrative Standards, Standards S-060 Application for Component Approval Procedure; and S-046 Definitions of Terms for the AAR MSRP. |

Section B—Couplers and Freight Car Draft Components (2012)

| Doc Affected | Date | CL No. | Title |
|--------------------------------------|------------|---------|---|
| Book | 11/01/2012 | C-11797 | Implementation of Revised AAR Manual of Standards and Recommended Practices Section B, Freight Car Draft Components |
| M-921C | 1/16/2013 | C-11875 | Implementation of Revised AAR MSRP Section B,Freight Car Draft Components, Specification M-921C "Cushioning Devices, Reconditioned, Approved for Freight Service" |
| M-901B | 2/21/2013 | C-11898 | Implementation of Editorial Revisions to MSRP Section B, Couplers and Freight Car Draft Components, Specification M-901B, Draft Gear, Secondhand and Reconditioned |
| M-901B M-901E M-901G M-901K | 3/13/2015 | C-12339 | Implementation of Editorial Revisions to MSRP Section B, Freight Car Draft Components, Specifications M-901B, M-901E, M-901G, and M-901K (Specifications for Draft Gears, marking sections) |
| S-121 | 6/22/2015 | C-12404 | Implementation of editorial changes to AAR MSRP Section B, Freight Car Draft Components, Standard S-121, Draft Key |

CIRCULAR LETTERS

Section C—Car Construction—Fundamentals and Details (2014)

| Doc Affected | Date | CL No. | Title |
|-----------------|-----------|---------|---|
| Book | 8/12/2014 | C-12233 | Implementation of Revised MSRP Section C; Car Construction Fundamentals and Details, 2014 |
| S-2037 | 6/24/2015 | C-12406 | Implementation of Revision to MSRP Section C Car Construction Fundamentals and Details, Standard S-2037 Trough Hatch Cover, Appendix B Weathering Test |
| S-224 | 6/24/2015 | C-12407 | Implementation of Revisions to MSRP Section C, Car Construction Fundamentals and Details, Standard S-224 Handholds, Safety Railings, and Ladder Treads |
| S-286 | 1/28/2016 | C-12566 | Implementation of Revisions to MSRP Section C, Car Construction Fundamentals and Details, Standard S-286—Free/Unrestricted Interchange for 286,000 lb Gross Rail Load Cars |
| S-2044 | 4/20/2016 | C-12611 | Implementation of Revisions to MSRP Section C, Standard S-2044, Safety Appliance Requirements for Freight Cars |
| S-2054 | 8/30/2016 | C-12705 | Implementation of MSRP Section C, Car Construction Fundamentals and Details, Standard S-2054, Clearance Diagram—Interface Between a Well Car and a Container Equipped with a Refrigerator/Heater Unit |

Section C, Part II—Specifications for Design, Fabrication, and Construction of Freight Cars, M-1001 (2015)

| Doc Affected | Date | CL No. | Title |
|-----------------|------------|---------|--|
| Book | 11/30/2015 | C-12506 | Implementation of Revised AAR Manual of Standards and Recommended Practices Section C Part II, Specification M-1001, Design, Fabrication, and Construction of Freight Cars |

Section C, Part III—Specifications for Tank Cars, M-1002 (2014)

| Doc Affected | Date | CL No. | Title |
|--------------|------------|----------|---|
| Book | 10/31/2014 | CPC-1310 | Availability of November 2014 version of the AAR Manual of Standards and Recommended Practices (MSRP), Section C Part III, Specifications for Tank Cars, M-1002 |

Section D—Trucks and Truck Details (2016)

| Doc Affected | Date | CL No. | Title |
|-----------------|-----------|---------|---|
| Book | 6/22/2016 | C-12668 | Implementation of Revised AAR Manual of Standards and Recommended Practices Section D, Trucks and Truck Details |

Section E—Brakes and Brake Equipment (2014)

| Doc Affected | Date | CL No. | Title |
|-----------------|-----------|---------|--|
| Book | 2/24/2014 | C-12103 | Implementation of Revised AAR Manual of Standards and Recommended Practices Section E, Brakes and Brake Equipment |
| M-996 | 5/7/2015 | C-12373 | Implementation: Revisions to test requirements in AAR MSRP Section E Brakes and Brake Equipment, M-996—Brake Shoe, Low-Friction Composition Type |
| S-4027 | 9/17/2015 | C-12443 | Implementation of revisions to AAR MSRP Section E, Brakes and Brake Equipment, S-4027 Automated Single-Car Test Procedure, Conventional |
| S-419 | 9/17/2015 | C-12444 | Implementation of revisions to AAR MSRP Section E Brakes and Brake Equipment, S-419—Slack Adjuster, Mechanical, Double-Acting, Automatic Tension |
| M-926 | 11/2/2015 | C-12467 | Implementation of AAR MSRP Section E, Brakes and Brake Equipment, M-926 Brake Shoe, High-Friction Composition or Metal Type |
| S-402 | 2/22/2016 | C-12570 | Implementation of revisions to AAR MSRP Section E, Brakes and Brake Equipment, S-402 Air Brake Pipe and Fittings for Railroad Cars-Welding Procedure |
| S-4046 | 8/30/2016 | C-12709 | Implementation of New Standard in MSRP Section E, Brakes and Brake Equipment, S-4046 Date Markings for Rubberized Components |

Section E, Part II—Electronically Controlled Brake Systems (2014)

| Doc Affected | Date | CL No. | Title |
|-----------------|----------|---------|--|
| Book | 8/7/2014 | C-12225 | Implementation of Revised AAR MSRP Section E-II, Electronically Controlled Brake Systems |

Section F—Sensors (2012) (page 1 of 3)

| Doc Affected | Date | CL No. | Title |
|-----------------|------------|---------|---|
| Book | 10/26/2012 | C-11795 | 2012 Edition of MSRP, Section F—Sensors Manual Now Available |
| S-920 | 11/30/2012 | C-11848 | Implement Revisions to MSRP Section F, Sensors, S-920: AAR Component Identification (CID) Bar Code Standard—New Field-Bearing Locking Plate Type |
| S-920 | 4/2/2013 | C-11911 | Implementation of Revisions and Additions to MSRP Section F, SENSORS Specification S-920; AAR Component Identification (CID) Bar Code Standard—Bolsters, Side Frames and Couplers |
| S-920 | 7/30/2013 | C-11995 | Implementation of Proposed Changes to MSRP Section F, Sensors Specification S-920; AAR Component Identification (CID) Bar Code Standard—Bolsters, Side Frames and Couplers |
| S-920 | 01/10/2014 | C-12086 | Editorial Revisions to MSRP Section F, Sensors, S-920, AAR Component Identification (CID) Bar Code Standard |

IFFECTIVE 10//21//20:

AAR Manual of Standards and Recommended Practices Tables of Content

Section F—Sensors (2012) (page 2 of 3)

| Doc Affected | Date | CL No. | Title |
|----------------------------|------------|---------|---|
| S-6003 S-6004 S-6005 | 2/12/2014 | C-12101 | Implementation of Three (3) Data Summary Standards for THD, TADS® and RailBAM® into MSRP Section F—Sensors, Specifications S-6003, S-6004 and S-6005, respectively |
| S-920 | 5/23/2014 | C-12179 | Implementation of Proposed Changes to MSRP Section F, SENSORS Specification S-920; AAR Component Identification (CID) Bar Code Standard—Emergency and Service Portion of Brake Valves |
| S-6100 | 6/2/2014 | C-12184 | Implementation of New Standard for the AAR Manual of Standards and Recommended Practices, Section F, Sensors: S-6100, AAR Wayside Detector Data Processing Standard |
| S-6001 | 10/27/2014 | C-12246 | Implementation of Editorial Revisions to AAR Manual of Standards and Recommended Practices Section F, SENSORS, S-6001 Bearing Temperature Performance: Section 4.0-Qualifying Indications; Rule 4.2 WM52 Section 4.2.3 |
| S-6000 | 12/5/2014 | C-12305 | Implementation of Revisions to MSRP Section F, Sensors, S-6000: Acoustic Roller Bearing Detector Level 1 Indications—New Condition Definition |
| S-6006 S-6007 | 1/12/2015 | C-12317 | Implementation of Two Wheel Temperature Detector (WTD) Based Data Summary Standards for Truck and Car Level Brake Health Indicators (BHIs) into MSRP Section F – Sensors, New Standards S-6006 and S-6007, respectively |
| S-6020 | 3/26/2015 | C-12353 | Informational, Deployment of One (1) New Line-of-Road Failure No Cause Found Based Data Summary for Brake Health (Car Level) to be appended to MSRP Section F—Sensors, Standard S-6020 |
| S-6101 | 7/1/2015 | C-12414 | Implementation of New Standard for the AAR Manual of Standards and Recommended Practices, Section F, Sensors: S-6101, Detector Calibration and Validation Requirements |
| S-920 | 7/1/2015 | C-12413 | Implementation of Proposed Changes to MSRP Section F, Sensors Specification S-920; AAR Component Identification (CID) Bar Code Standard – Emergency and Service Portion of Brake Valves |
| S-6020 | 7/9/2015 | C-12415 | Implementation of Revisions to MSRP Section F, Sensors Specification S-6020; Data Summary Definition—Line-of-Road Failure No Cause Found (LORF-NCF) |
| S-920 | 8/7/2015 | C-12433 | Implementation of Editorial Revision to AAR MSRP, Section F, Sensors, Standard S-920: AAR Component Identification (CID) Bar Code Standard; Revision to Section 5.0 Equipment, Paragraph 5.1- printer dpi requirements |
| S-6021 | 9/28/2015 | C-12447 | Informational, Deployment of One (1) New Line-of-Road Failure Air Hose Separation Based Data Summary (LORF-AHS) for Brake Health (Car Level) to be added to MSRP Section F – Sensors, New Standard S-6021 |
| S-6006 S-6007 | 11/3/2015 | C-12475 | Implementation of Revisions to MSRP Section F, Sensors Standards S-6006 and S-6007, for (2) Wheel Temperature Detector (WTD) Based Data Summary Standards for Truck and Car Level Brake Health Indicators (BHIs) |
| S-920 | 4/12/2016 | C-12605 | Implementation of Proposed Changes to MSRP Section F, Sensors Specification S-920; AAR Component Identification (CID) Bar Code Standard—Slack Adjusters |

Section F—Sensors (2012) (page 3 of 3)

| Doc Affected | Date | CL No. | Title |
|------------------|------------|---------|--|
| S-6002 | 4/14/2016 | C-12606 | Implementation of Revisions to MSRP Section F, Sensors; Standard S-6002—Data Summary Definitions |
| S-6008 | 4/14/2016 | C-12607 | Implementation of New MSRP Section F, Sensors; Standard S-6008—Data Summary—Salient Wheel Impact |
| S-6102 | 4/14/2016 | C-12608 | Implementation of New MSRP Section F, Sensors; Standard S-6102 Wayside Passing Data Format |
| S-6100 | 4/14/2016 | C-12609 | Implementation of Revisions to MSRP Section F, Sensors; Standard S-6100—Wayside Detector Data Processing |
| S-6009 | 4/18/2016 | C-12610 | Informational, Deployment of One (1) New Automatic Equipment Identification (AEI) Data Summary Definition to be added to MSRP Section F—Sensors, New Standard S-6009 |
| S-6030 | 5/17/2016 | C-12616 | Implementation of New MSRP Section F, Sensors: Standard S-6030, Wheel Performance—Dynamic Impact and Rim Thickness |
| S-6031 | 7/28/2016 | C-12696 | Implementation of New Standard for the AAR Manual of Standards and Recommended Practices (MSRP), Section F, Sensors: S-6031—Inoperative Brake Indications as Determined by Wayside Detector |
| S-6021 | 10/19/2016 | C-12726 | Information—Implementation of Revision to MSRP SECTION F— Sensors, Standard S-6021—Line-of-Road Failure—Air Hose Separation (LORF-AHS) |
| S-6022 S-6023 | 10/19/2016 | C-12724 | Information—Implementation of Line-of-Road Failure Air Hose Separation Based Data Summaries for Brake Health (Car Level) to MSRP SECTION F—Sensors; S-6022—Line-of-Road Failure—Train Separation and S-6023-Line-of-Road Failure-Brake System/Other. |

Section G—Wheels and Axles (2016)

| Doc Affected | Date | CL No. | Title |
|--------------|-----------|---------|--|
| Book | 9/14/2016 | C-12714 | Implementation of Revised MSRP Section G, Wheels and Axles, 2016 |

Section G, Part II—Wheel and Axle (Shop) Manual (2015) (page 1 of 2)

| Doc Affected | Date | CL No. | Title |
|-----------------|-----------|---------|---|
| Book | 4/27/2015 | C-12365 | Implementation of Revised MSRP Section G, Part II, Wheel and Axle Shop Manual, 2015 |
| RP-633 | 1/28/2016 | C-12563 | Implementation of Revisions to MSRP Section G, Wheels and Axles, Specification M-101, Ultrasonic Testing—Radial and Axial and Appendix C, Axle Marking and MSRP Section G, Part II, Wheel and Axle Manual, RP-633, Axle Marking |
| RP-634 | 1/27/2016 | C-12562 | Implementation of Revisions to MSRP Section G, Part II, Wheel and Axle Manual, RP-634, Alternate Journal Length Gauges |
| RP-631 | 6/16/2016 | C-12655 | Implementation—Revision to MSRP Section G-II, Wheel and Axle Manual, RP-631, Bearing Defect Definitions |

EFFECTIVE 10//21//20

AAR Manual of Standards and Recommended Practices Tables of Content

Section G, Part II—Wheel and Axle (Shop) Manual (2015) (page 2 of 2)

| Doc Affected | Date | CL No. | Title |
|-----------------|-----------|---------|---|
| RP-634 | 6/16/2016 | C-12656 | Implementation—Revision to MSRP Section G-II, Wheel and Axle Manual, RP-634, Alternate Journal Length Gauges |
| S-659 RP-633 | 9/8/2016 | C-12713 | Implementation—Revision to MSRP Section G-II, Wheel and Axle Manual, S-659 and RP-633, Alternate Wheel Profile AAR-2A |

Section H—Journal Bearings and Lubrication (2016)

| _ | oc ected | Date | CL No. | Title |
|-----|-------------|-----------|---------|--|
| Boo | k | 7/20/2016 | C-12695 | Implementation of Revised MSRP Section H, Journal Bearings and Lubrication, 2016 |

Section H, Part II—Roller Bearing (Shop) Manual (2012) (page 1 of 2)

| Doc Affected | Date | CL No. | Title |
|-----------------|------------|---------|---|
| Book | 11/30/2012 | C-11845 | Implementation of AAR Manual of Standards and Recommended Practices Section H, Part II, Roller Bearing Manual |
| S-723 | 6/7/2013 | C-11960 | Implementation of Editorial Revisions to AAR Manual of Standards and Recommended Practices Section H, Part II, Roller Bearing Manual, S-723, Maintenance Sheets |
| S-723 | 7/16/2013 | C-11987 | Implementation of Editorial Revisions to AAR Manual of Standards and Recommended Practices Section H, Part II, Roller Bearing Manual, S-723, Maintenance Sheets |
| S-721 | 8/29/2013 | C-12007 | Implementation of Revisions to AAR Manual of Standards and Recommended Practices Section H, Part II, Roller Bearing Manual, S-721 Spall Repairs |
| S-723 | 8/29/2013 | C-12008 | Implementation of Editorial Revisions to AAR Manual of Standards and Recommended Practices Section H, Journal Bearings And Lubrication and Section H, Part II, Roller Bearing Manual, S-723, Maintenance Sheets |
| S-725 | 11/19/2013 | C-12052 | Implementation of Editorial Revisions to AAR Manual of Standards and Recommended Practices Section H, Journal Bearings and Lubrication and Section H, Part II, Roller Bearing Manual, S-725, Brenco Seals |
| S-725 | 11/21/2013 | C-12054 | Implementation of Editorial Revisions to AAR Manual of Standards and Recommended Practices Section H, Part II, Roller Bearing Manual, S-725, Brenco Seals |
| S-723 | 1/20/2015 | C-12324 | Implementation—Revision to MSRP Section G, Part II, Wheel and Axle Manual, S-659, and MSRP Section H, Part II, Roller Bearing Manual, S-723, Class K Universal Fitted Backing Ring |
| S-723 S-724 | 4/27/2015 | C-12366 | Implementation of Editorial Revision to MSRP Section H, Part II, Roller Bearing Manual, S-723 and S-724, Service Limit Charts |
| S-723 | 10/6/2015 | C-12452 | Implementation of Editorial Revision to MSRP Section H, Part II, Roller Bearing Manual, S-723, Maintenance Sheet |

Section H, Part II—Roller Bearing (Shop) Manual (2012) (page 2 of 2)

| Doc Affected | Date | CL No. | Title |
|-----------------|------------|---------|--|
| S-723 | 12/17/2015 | C-12539 | Implementation of Editorial Revision to MSRP Section H, Part II, Roller Bearing Manual, S-723, Service Limit Chart |
| S-723 | 1/27/2016 | C-12561 | Implementation of Editorial Revisions to MSRP Section H, Part II, Roller Bearing Manual, S-723, Maintenance Sheet |
| S-721 | 6/16/2016 | C-12658 | Implementation—Revision to MSRP Section H-II, Roller Bearing Manual, S-721, Stain Discoloration |
| S-723 | 6/16/2016 | C-12659 | Implementation – Revision to MSRP Section H-II, Roller Bearing Manual, S-723, S-726, Center Punching Practices |
| S-726 | 6/16/2016 | C-12659 | Implementation – Revision to MSRP Section H-II, Roller Bearing Manual, S-723, S-726, Center Punching Practices |

Section H, Part III—Lubrication (Shop) Manual (2011)

| Doc Affected | Date | CL No. | Title |
|-----------------|------------|---------|--|
| Book | 11/07/2011 | C-11552 | Implementation of Revised AAR Manual of Standards and Recommended Practices Section H-III, Lubrication Manual |
| S-730 S-732 | 2/21/2013 | C-11896 | Implementation of Editorial Revisions to MSRP Section H-III, Lubrication Manual, Rule 5, Trailer Hitch Figures 5.4, 5.7, 5.8 and 5. |
| RP-750 | 1/20/2015 | C-12323 | Implementation of Editorial Revision to MSRP Section G, Part II, Wheel and Axle Shop Manual, RP-750 and MSRP Section H, Part III, Lubrication Manual, RP-750 |
| S-732 | 10/20/2016 | C-12723 | Implementation of Editorial Revision to MSRP Section I, Intermodal Equipment Manual, S-732 and MSRP Section H, Part III, Lubrication Manual, S-732 |

Section I—Intermodal Equipment Manual (2013) (page 1 of 2)

| Doc Affected | Date | CL No. | Title |
|-----------------|------------|---------|---|
| Book | 12/12/2013 | C-12065 | Implementation of Revised AAR Manual of Standards and Recommended Practices Section I, Intermodal Equipment Manual |
| M-998 | 4/17/2014 | C-12144 | Implementation of Revision to Specification M-998, Intermodal Container Support and Interbox Connector (IBC) Securement Systems for Freight Cars. |
| M-930 | 6/18/2014 | C-12194 | Implementation of MSRP Section I, Intermodal Equipment Manual, Specification M-930, Containers For Domestic Intermodal Service, with New Appendix D for Flat Rack and Platform Flat Racks |
| RP-899 | 8/7/2014 | C-12224 | Implementation: Revisions to AAR Manual of Standards and Recommended Practices Section I, Intermodal Equipment Manual, RP-899, Car Owner's Manual for the Inspection and Maintenance of Double-Stack Container Cars |
| M-930 | 11/13/2014 | C-12265 | Correction: Specification M-930 "Containers for Domestic Intermodal Service"—Appendix D, Section 5.4.3. |

EFFECTIVE 10//21//201

AAR Manual of Standards and Recommended Practices Tables of Content

Section I—Intermodal Equipment Manual (2013) (page 2 of 2)

| Doc Affected | Date | CL No. | Title |
|-----------------|------------|---------|--|
| RP-853 | 6/7/2016 | C-12642 | Announcement of publication of RP-853, "Trailer Repair and Modification" |
| S-732 | 10/20/2016 | C-12723 | Implementation of Editorial Revision to MSRP Section I, Intermodal Equipment Manual, S-732 and MSRP Section H, Part III, Lubrication Manual, S-732 |

Section J—Specification for Quality Assurance, M-1003 (2014)

| Doc Affected | Date | CL No. | Title |
|-----------------|----------|---------|--|
| Book | 8/7/2014 | C-12223 | Implementation of Revised AAR Manual of Standards and Recommended Practices Section J, Specification M-1003. |

Section K, Part I—Railway Electronics Systems Architecture and Concepts of Operation (2014)

| Doc Affected | Date | CL No. | Title |
|-----------------|----------|---------|--|
| Book | 8/1/2014 | C-12211 | New Release of Railway Electronics Standards Sections K-I through K-VI |
| S-9053 | 8/8/2014 | C-12229 | Implementation of New AAR Manual of Standards and Recommended Practices (MSRP), Section K-I Railway Electronics Systems Architecture and Concepts of Operations, S-9053 Positive Train Control ITC System Requirements–Level 0 |
| S-9054 | 8/8/2014 | C-12230 | Implementation of New AAR Manual of Standards and Recommended Practices (MSRP), Section K-I Railway Electronics Systems Architecture and Concepts of Operations, S-9054 Positive Train Control ITC System Requirements–Level 1 |

Section K, Part II—Locomotive Electronics and Train Consist System Architecture (2014) (page 1 of 2)

| Doc Affected | Date | CL No. | Title |
|--------------|-----------|---------|--|
| Book | 8/1/2014 | C-12211 | New Release of Railway Electronics Standards Sections K-I through K-VI |
| M-9154B.V1.0 | 1/23/2015 | C-12326 | Implementation of New AAR Manual of Standards and Recommended Practices (MSRP), Section K-II, Locomotive Electronics and Train Consist Architecture, Intra-Consist Communications (ICC) Layer 2, M-9154B.V1.0. |
| M-9155.V2.0 | 5/19/2015 | C-12384 | Railway Electronics Standards Committee, Specification M-9155.V2.0—Locomotive Command and Control Module (LCCM)—Functional Requirements |
| M-9155.V.2.1 | 11/2/2015 | C-12465 | New Circular Letter Release: Implementation of Revision to MSRP, Section K-II, Specification M-9155.V.2.1 - Locomotive Command and Control Module (LCCM) Functional Requirements |

Section K, Part II—Locomotive Electronics and Train Consist System Architecture (2014) (page 2 of 2)

| Doc Affected | Date | CL No. | Title |
|--------------|-----------|---------|---|
| M-9155.V2.2 | 8/23/2016 | C-12704 | New Circular Release: Implementation of Changes to MSRP, Section K-II, Specification M-9155.V2.2, Locomotive Command and Control Module (LCCM) – Functional Requirements. |
| S-9101E.V1.1 | 9/30/2016 | C-12716 | New Circular Letter Release: Implementation of Changes to MSRP, Section K-II, Specification S-9101E.V1.1—Locomotive System Integration Communications |
| S-9152.V2.2 | 9/30/2016 | C-12717 | New Circular Letter Release: Implementation of Changes to MSRP, Section K-II, Standard S-9152.V2.2—End-of-Train Communications |

Section K, Part III—Wayside Electronics and Mobile Worker Communications Architecture (2014)

| Doc Affected | Date | CL No. | Title |
|-----------------|----------|---------|--|
| Book | 8/1/2014 | C-12211 | New Release of Railway Electronics Standards Sections K-I through K-VI |

Section K, Part IV—Office Architecture and Railroad Electronics Messaging (2014)

| Doc Affected | Date | CL No. | Title |
|--------------|------------|---------|--|
| Book | 8/1/2014 | C-12211 | New Release of Railway Electronics Standards Sections K-I through K-VI |
| S-9371.V1.0 | 11/25/2014 | C-12299 | Implementation of New AAR Manual of Standards and Recommended Practices (MSRP), Section K-IV Office Architecture and Railroad Electronics Messaging, PTC Onboard Segment—Energy Management Interface Control Document (ICD), S-9371.V1.0 |
| S-9372.V1.0 | 11/25/2014 | C-12300 | Implementation of New AAR Manual of Standards and Recommended Practices (MSRP), Section K-IV Office Architecture and Railroad Electronics Messaging, PTC Back Office Segment—Energy Management Interface Control Document (ICD), S-9372.V1.0 |
| S-9364.V1.1 | 6/5/2015 | C-12399 | Railway Electronics Standards Committee, Standard S- 9364.V1.1—I-ETMS Onboard Segment Data Distribution Messages Interface Control Document (ICD) |
| S-9372.V1.1 | 6/6/2016 | C-12652 | New Circular Release: Implementation of Changes to MSRP, Section K-IV, Standard S-9372.V1.1—PTC Back Office Segment— Energy Management Interface Control Document (ICD) |
| S-9361.V1.2 | 7/5/2016 | C-12681 | New Circular Release: Implementation of Changes to MSRP, Section K-IV, Standard S-9361.V1.2, Positive Train Control Office— Locomotive Segment—Interface Control Document (ICD) |
| S-9376.V1.0 | 10/19/2016 | C-12725 | New Circular Release: Implementation of New Standard in MSRP, Section K-IV, Standard S-9376.V1.0—Edge Message Protocol (EMP) Subscribe Message Interface Control Document (ICD) |

Section K, Part V—Electronics Environmental Requirements and System Management (2014)

| Doc Affected | Date | CL No. | Title |
|--------------|----------|---------|--|
| Book | 8/1/2014 | C-12211 | New Release of Railway Electronics Standards Sections K-I through K-VI |

Section K, Part VI—Railway Electronics Data Management and Communications (2014)

| Doc Affected | Date | CL No. | Title |
|--------------|------------|---------|---|
| Book | 8/1/2014 | C-12211 | New Release of Railway Electronics Standards Sections K-I through K-VI |
| S-9555.V1.1 | 6/10/2015 | C-12401 | New Circular Release: Implementation of Changes to MSRP, Section K-VI, Standard S-9555.V1.1, Railroad Use of IEEE 802.1X and DHCP Services in Support of 802.11 Interoperability. |
| S-9501.V2.0 | 7/24/2015 | C-12426 | New Circular Release: Implementation of Changes to MSRP, Section K-VI, Standard S-9501.V2.0—Positive Train Control Data Model Definition |
| S-9503.V2.0 | 8/13/2015 | C-12427 | New Circular Release: Implementation of Changes to MSRP, Section K-VI, Standard S-9503.V2.0 - Interoperable Electronic Train Management System (I-ETMS) Subdivision File |
| S-9557.V1.0 | 12/15/2015 | C-12537 | New Circular Letter Release: Implementation of New Standard within MSRP, Section K-VI, Standard S-9557.V1.0—Interoperable Train Control (ITC) Radio Identification Format. |

Section L—Lettering and Marking of Cars (2003) (page 1 of 2)

| Doc Affected | Date | CL No. | Title |
|-----------------|------------|---------|--|
| Book | 12/19/2003 | C-9774 | Availability of 2003 Edition of Section L of the AAR Manual of Standards and Recommended Practices to Members and Private Car Owners |
| RP-021 | 10/29/2004 | C-9935 | Implementation of Equipment Identification and Warranty Administration (document moved from Section A-II) |
| S-910 | 8/12/2005 | C-10148 | Empty Car Center of Gravity Requirements for Center Beam Cars |
| S-910 | 11/15/2005 | C-10211 | Implementation of Revisions to AAR Standard S-910: Retroreflective Sheeting |
| M-947 | 2/13/2009 | C-10940 | Implementation of Editorial Revision to AAR Manual of Standards and Recommended Practices Section L, Specification M-947 "Adhesive-Backed Films" |
| S-910 | 2/13/2009 | C-10941 | Implementation of Modifications to AAR Manual of Standards and Recommended Practices Section L, "Lettering and Marking of Cars," Appendix B |
| S-920 | 12/13/2011 | C-11579 | Implementation—Revision to MSRP Section L, Lettering and Marking of Cars, S-920, AAR Component Identification (CID) Bar Code Standard |

Section L—Lettering and Marking of Cars (2003) (page 2 of 2)

| Doc Affected | Date | CL No. | Title |
|-----------------|------------|---------|--|
| S-920 | 1/20/2012 | C-11596 | Editorial Revision to MSRP Section L, Lettering and Marking of Cars, S-920, AAR Component Identification (CID) Bar Code Standard |
| S-920 | 3/26/2012 | C-11643 | Editorial Revision to MSRP Section L, Lettering and Marking of Cars, S-920, AAR Component Identification (CID) Bar Code Standard |
| S-920 | 4/20/2012 | C-11654 | Editorial Revision to MSRP Section L, Lettering and Marking of Cars, S-920, AAR Component Identification (CID) Bar Code Standard |
| S-920 | 7/2/2012 | C-11727 | Relocation of AAR Standard S-920 from MSRP Section L to MSRP Section F, Sensors, and Realignment of Responsibility for AAR MSRP Section F to the Equipment Health Monitoring Committee |
| M-947 | 11/11/2015 | C-12497 | Implementation of Revisions to MSRP Section L, Lettering and Marking of Cars, Specification M-947, Adhesive-Backed Films for Marking Cars—Performance-Based Requirements |

Section M—Locomotives and Locomotive Interchange Equipment (2008) (page 1 of 2)

| Doc Affected | Date | CL No. | Title |
|-----------------|------------|---------|--|
| Book | 03/29/2008 | C-10713 | New Release of Manual of Standards and Recommended Practices, Section M: Locomotives & Locomotive Interchange Equipment |
| S-5529 | 11/14/2008 | C-10870 | Editorial Changes to Standard S-5529 Multiple Unit Pneumatic Brake Equipment for Locomotives |
| S-5512 | 2/25/2010 | C-11178 | Implementation of Revised AAR Manual of Standards and Recommended Practices (MSRP), Section M, Locomotives and Locomotive Interchange Equipment, S-5512 Locomotive Event Recorder Download Standard |
| S-591 | 2/25/2010 | C-11177 | Implementation of Revised AAR Manual of Standards and Recommended Practices (MSRP), Section M, Locomotives and Locomotive Interchange Equipment, S-591 Locomotive System Integration Operating Display |
| S-5509 | 04/14/2010 | C-11206 | Subject: Revisions to AAR Standard S-5509: Locomotive Dynamic Brake Status Reporting |
| S-5502 | 3/23/2011 | C-11404 | Implementation of Revisions to MSRP, Section M, Automatic Engine Start/Stop System, Standard S-5502 |
| S-5514 | 10/25/2011 | C-11536 | Implementation—New Standard for the AAR Manual of Standards and Recommended Practices, Section M Locomotives and Locomotive Interchange Equipment, S-5514 Locomotive Operator Control Symbols |
| S-5515 | 2/29/2012 | C-11628 | Implementation of New Standard for the AAR Manual of Standards and Recommended Practices, Section M, Locomotives and Locomotive Interchange Equipment: S-5515 LED Lighting Standard for Locomotives |

CIRCULAR LETTERS

Section M—Locomotives and Locomotive Interchange Equipment (2008) (page 2 of 2)

| Doc Affected | Date | CL No. | Title |
|-----------------|------------|---------|--|
| S-5520 | 8/23/2012 | C-11773 | Implementation of New Standard for the AAR Manual of Standards and Recommended Practices, Section M, Locomotives and Locomotive Interchange Equipment: S-5520 Locomotive Cab Securement |
| S-5019 | 8/28/2013 | C-12006 | Implementation of New Standard for the AAR Manual of Standards and Recommended Practices, Section M, Locomotives and Locomotive Interchange Equipment: S-5019, Locomotive Definitions |
| S-5511 | 11/26/2013 | C-12061 | Retirement of MSRP Section M, Standard S-5511- Locomotive- Based Top-of-Rail Friction Control Application Systems |
| S-5520 | 6/3/2014 | C-12186 | Implementation of Revisions to MSRP SECTION M, Locomotives and Locomotive Interchange Equipment: Standard S-5520 "Locomotive Cab Securement" |
| S-5020 | 5/6/2015 | C-12370 | Implementation of Revisions to MSRP, Section M, Locomotives and Locomotive Interchange Equipment: Standard S-5020—Color Code for Identifying Fluids on Locomotive |
| S-5021 | 5/6/2015 | C-12371 | Implementation of New Standard for MSRP, Section M, Locomotives and Locomotive Interchange Equipment: Standard S-5021—Wheel Size and Speed Pickup Axle Identification |
| S-5022 | 5/6/2015 | C-12372 | Implementation of New Standard for MSRP, Section M, Locomotives and Locomotive Interchange Equipment: Standard S-5022—Ultra-Low Sulfur Diesel (ULSD) Identification Label/Decal |
| S-5511 | 8/5/2015 | C-12429 | Archival of AAR Manual of Standards and Recommended Practices (MSRP), Section M; Standard S-5511—Locomotive-Based Top-of-Rail Friction Control Application Systems |
| S-590 | 8/5/2015 | C-12430 | Archival of AAR Manual of Standards and Recommended Practices (MSRP), Section M; Standard S-590—Locomotive Electronics System Architecture |
| S-580 | 8/5/2015 | C-12431 | Implementation of revisions to AAR Manual of Standards and Recommended Practices (MSRP), Section M; Standard S-580—Locomotive Crashworthiness Requirements |
| M-916 | 1/22/2016 | C-12558 | Implementation of Revisions to Reactivated Specification for MSRP, Section M, Locomotives and Locomotive Interchange Equipment: Specification M-916—Sand for Traction |
| RP-5104 | 1/27/2016 | C-12559 | Implementation of Retirement and Archival of AAR Manual of Standards and Recommended Practices (MSRP), Section M; Recommended Practice RP-5104—Locomotive Cab Seats |
| RP-503 | 4/7/2016 | C-12595 | Implementation of Revisions to AAR Manual of Standards and Recommended Practices (MSRP), Section M; Recommended Practice, RP-503, Locomotive Diesel Fuel Additives and Fuel Savings Devices—Evaluation Procedure |

Section N—Multi-Level Manual (2014)

AAR Manual of Standards and Recommended Practices Tables of Content

| Doc Affected | Date | CL No. | Title |
|------------------|------------|---------|---|
| | | | |
| Book | 11/3/2014 | C-12259 | Section N—Multi-Level Manual is now available. |
| RP-811 RP-831 | 3/20/2015 | C-12347 | Implementation of additions to RP-811- Loading of Vehicles and RP831- Jump Chock Series Codes |
| RP-831 | 4/16/2015 | C-12361 | Implementation: Editorial Clarification AAR MSRP Section N Multilevel Manual, RP831—Jump Chock Series Codes |
| RP-811 RP-831 | 9/30/2015 | C-12449 | Implementation of additions to RP-811- Loading of Vehicles and RP831- Jump Chock Series Codes |
| M-990 | 10/22/2015 | C-12458 | Implementation of Revision to MSRP Section N, Specification M-990, Tie-Down Tracks, Wheel Chocks, and Straps—Tri-Level Auto Racks |
| M-950 | 12/2/2015 | C-12527 | Implementation of Revisions to MSRP Section N, Specification M-950, Universal Wide-Body Tri-Level Fully-Enclosed Auto Rack Car (Low Deck) |
| M-950A | 12/2/2015 | C-12528 | Implementation of Revisions to MSRP Section N, Specification M-950A, Universal Wide-Body Bi-Level Fully-Enclosed Auto Rack Car |
| M-992 | 12/2/2015 | C-12529 | Implementation of Revision to MSRP Section N, Specification M-992, Designated Satellite Shop Repair for Multi-Level Auto Rack Cars |
| M-970 | 12/2/2015 | C-12530 | Implementation of Revisions to MSRP Section N, Specification M-970, Condition-Based Certification of Multi-Level Auto Rack Cars |
| M-990 | 6/22/2016 | C-12669 | Implementation of Revision to MSRP Section N, Specification M-990, Tie-Down Tracks, Wheel Chocks, and Straps—Tri-Level Auto Racks |
| S-810 | 7/27/2016 | C-12697 | Implementation of Revisions to MSRP Section N, Standard S-810, Field Impact and Over-the-Road Tests of Multi-Level Tie-Down Equipment and Methods |
| M-950 | 7/27/2016 | C-12698 | Implementation of Revisions to MSRP Section N, Specification M-950, Universal Wide-Body Tri-Level Fully-Enclosed Auto Rack Car (Low Deck) |
| M-950A | 7/27/2016 | C-12699 | Implementation of Revisions to MSRP Section N, Specification M-950A, Universal Wide-Body Bi-Level Fully-Enclosed Auto Rack Car |
| M-970 | 7/27/2016 | C-12700 | Implementation of Revisions to MSRP Section N, Specification M-970, Condition-Based Certification of Multi-Level Auto Rack Cars |

Section S, Part I—Castings (2014)

| Doc Affected | Date | CL No. | Title |
|-----------------|------------|---------|---|
| Book | 12/08/2014 | C-12306 | Implementation of Revised AAR Manual of Standards and Recommended Practices Section S, Casting Details |
| M-202 | 8/17/2015 | C-12436 | Implementation of revisions to AAR MSRP Section S, Casting Details, Specification M-202, Truck Bolsters, Cast or Structural—Design and Testing. |
| M-211 | 11/2/2015 | C-12468 | Implementation of Revisions to AAR MSRP Section S, Casting Details, Specification M-211, Foundry and Product Approval Requirements for the Manufacture of Couplers, Coupler Yokes, Knuckles, Follower Blocks, and Coupler Parts |
| M-201 | 1/21/2016 | C-12553 | Implementation of Editorial Changes to MSRP Section S, Casting Details, M-201, Castings, Steel |
| M-211 M-216 | 3/29/2016 | C-12593 | Implementation of Revisions to MSRP Section S, Casting Details, Specifications M-211 and M-216 |
| M-212 | 7/28/2016 | C-12701 | Implementation of Revisions to MSRP Section S, Casting Details, M-212, Couplers and Yokes, Secondhand—Classification and Reconditioning Procedure |

Section S, Part II—Truck Dimensions (2015)

| Doc Affected | Date | CL No. | Title |
|-----------------|------------|---------|--|
| Book | 11/23/2015 | C-12501 | Implementation of Revised AAR Manual of Standards and Recommended Practices Section S Part II, Truck Details and Casting Codes |
| S-300 | 3/29/2016 | C-12592 | Implementation of Updates to MSRP Section S – Part II, Truck Details and Casting Codes, S-300, Truck, Freight Car—Design Data |

Section S, Part III—Coupler and Yoke Dimensions (2016)

| Doc Affected | Date | CL No. | Title |
|-----------------|-----------|---------|--|
| Book | 8/30/2016 | C-12708 | Implementation of Revised AAR Manual of Standards and Recommended Practices Section S Part III, Coupler and Yoke Details |