AAR Interchange Rules Revisions Update For 2019
Presented to Chicago Railroad Mechanical Association by Nichole Fimple (AAR) on 1/14/19
Field Manual of the Interchange Rules

Note that July 2018 changes are not included in this presentation, nor are many changes that were strictly editorial in nature.
# Rule 3 Testing of Air Brakes

- **Editorially Revised Rule 3.B Chart A Title and item 3):**

## Chart A

<table>
<thead>
<tr>
<th>TESTS AND ATTENTION REQUIRED PER MSRP S-486, LATEST REVISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>All cars set out of trains requiring tests for items listed below in Chart A, must receive attention per Chart A while on the handling line railroad.</td>
</tr>
<tr>
<td>1) Car is past due for a single car air brake test per the ABT due date in Uniler when car is on shop or repair track. If BC tap is not installed, apply approved brake cylinder pressure tap.</td>
</tr>
<tr>
<td>2) Air brakes inoperative or cut out when car is set out or on shop or repair track.</td>
</tr>
<tr>
<td>4) Car with wheel thermal cracks or condemnable built up tread or slid flat.</td>
</tr>
</tbody>
</table>
Rule 3 Testing of Air Brakes

- **Removed Rule 3.E.5:**
  - 5. Additional stenciling (on reservoir) for ABDX and DB-60 valves must be removed when car is on a shop or repair track.
  - Renumber existing 3.E.6-19 to 3.E.5-18

- Reference C-13238, 11/14/18
Replaced Rule 4.E.12.c:

c. Testing or adjusting body mounted brakes or truck mounted brakes shown in Rule 3, Figure 10, with slack adjusters. **Adjusting body mounted brake cylinder travel.**

Reference: C-13239, 11/14/18
Rule 5 Air Brake Hoses, Hose Supports, and Trainlines

- Removed Rule 5 Job Code 1210:
  - Removed:
    1210 AIR HOSE EXTENSION COUPLING
    For end of car trainline air hose per AAR Standard S-4013.
    (Condition Codes 1, 2)
    (Why Made Codes 01, 02, 03, 15, 24, 25, 31, 45)

- Reference: C-13229, 11/12/18
Rule 6 End Hose Arrangement Performance and Angle Cock Placement

- **Rule 6 Figure 1:**

<table>
<thead>
<tr>
<th>Distance B (not applicable to cars equipped with spreader bar and welded stops)</th>
<th>Measurement of space between trolley loop to rear trolley stop</th>
<th>![Diagram of Distance B]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirement for Distance B</td>
<td>Distance B must be not less than Distance A minus 1.5 inches.</td>
<td><strong>Distance B must be at least 1½ inches longer than Distance A</strong></td>
</tr>
</tbody>
</table>
Rule 6 End Hose Arrangement Performance and Angle Cock Placement

- New Rule 6.A.2.f:
  - f. Air hose end extensions applied to cars other than those defined in Rule 6.B.1. Repair is permissible at locations other than shop or repair track.

- Rule 6.F.3
  - Added Condition Code 0
    - 0 = Labor attention

- Rule 6.F.6
  - Added Why Made Code 42
    - 42 = Improperly located or applied

- Rule 6.F Job Codes
  - Added Job Code 1210
    - 1210 AIR HOSE EXTENSION COUPLING
    - For end of car trainline air hose per AAR Standard S-4013.
      (Condition Codes 0, 1, 2)
      (Why Made Codes 01, 02, 03, 15, 24, 25, 31, 42, 45)

- Reference: C-13229, 11/12/18
Rule 7 Brake Beams, Hangers, Brackets, Wear Plates and Brake Connection Pins, Hanger Pins, or Bolts

- **Rule 7.A.1:**
  - **Updated 7.A.1.k:**
    - k. On cars stenciled for equipped with composition brake shoes, when brake head has been incorrectly modified or does not provide for acceptance of rejection lug on composition brake shoes.

- **Removed 7.A.1.l:**
  - l. On cars stenciled for composition brake shoes, when brake head does not provide for acceptance of rejection lugs on composition brake shoes, brake head should be modified as shown in MSRP Standard S-372.

- **Renumbered 7.A.1.m-q to 7.A.1.l-p:**

- **Reference:** C-13238 11/14/18
Rule 7 Brake Beams, Hangers, Brackets, Wear Plates and Brake Connection Pins, Hanger Pins, or Bolts

- Inserted New Rule 7.B.8:
  - 7.B.8 Brake heads that do not provide for acceptance of rejection lugs on composition high friction brakes shoes shall be modified as shown in MSRP S-372.

- Renumbered existing 7.B.8-11 to 7.B.9-12

- Removed Rule 7.E.4:
  - 4. If car is not stenciled, consider No. 18 Brake Beam as standard to car.

- Reference: C-13238 11/14/18
Rule 8 Automatic Slack Adjuster

- Replaced Rule 8.E.1(a):
  - (a). Testing or adjusting body mounted brakes or truck mounted brakes shown in Rule 3, Figure 10, with slack adjusters. Adjusting body mounted brake cylinder travel.

- Reference: C-13239, 11/14/18
Updated Rule 13.F Job Codes 1908, 1909, 1910:

**1908 HAND BRAKE HOUSING ASSEMBLY, GROUP T**
Geared vertical lever design, AAR approved thin type. Complete with lever handle. Includes upper chain.
(Condition Codes 1, 3)
(Why Made Codes 01, 02, 03, 05, 06, 08, 12, 25)

**1909 HAND BRAKE ASSEMBLY, GROUP U**
Geared vertical lever design, AAR approved thin type. Complete with handle.
Includes upper chain.
(Condition Codes 1, 3)
(Why Made Codes 01, 02, 03, 05, 06, 08, 09, 12, 25)

**1910 HAND BRAKE HOUSING ASSEMBLY, GROUP V**
Geared vertical lever design, AAR approved. Complete with lever handle.
Includes upper chain.
(Condition Codes 1, 3)
(Why Made Codes 01, 02, 03, 05, 06, 08, 12, 25)
Updated Rule 16.A.1.b(2):

RULE 16

(2) Any coupler found out of gage per Figure A must be renewed unless contour can be restored to the provisions of Figure B as measured with Gage No. 25623-1 with application of knuckle and/or knuckle lock.

FIGURE B

THE CONTOUR IS ACCEPTABLE WHEN THE GAGE CANNOT BE PASSED VERTICALLY THROUGH THE CONTOUR IN THE POSITION SHOWN WITH POINTS B AND C CONTACTING GUARDARM WITH THE KNUCKLE IN FULL PULL POSITION.
Rule 16 Couplers, Type E and Parts

- Updated Rule 16 F Job Codes:
  - Removed Condition Code 1 from Job Codes:

- Reference: C-13245, 11/14/18
Rule 17 Couplers, Type E/F and Parts

- Removed Rule 17.A.1.b and Figure A and renumbered accordingly.

- Inserted New Rule 17.A.2.a and Figure B and renumbered accordingly.
  - a. When coupler is removed for any reason, measure coupler shank length, rear wall thickness, and butt thickness. Coupler must be replaced if any measurement is less than shown in table for Figure B.

- Reference: C-13240, 11/14/18
Rule 17 Couplers, Type E/F and Parts

- Inserted New Rule 17 Figure B:

![Figure B](image)

<table>
<thead>
<tr>
<th>Coupler Type</th>
<th>Min. Shank Length “A” (inches)</th>
<th>Min. Rear Wall Thickness “B” (inches)</th>
<th>Min. Butt Thickness “C” (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All E68, SE68, SBE68, EF511, EF512, and EF526 couplers</td>
<td>35 (1\frac{3}{16})</td>
<td>3</td>
<td>6 (\frac{3}{8})</td>
</tr>
<tr>
<td>All EF525 and EF528 couplers</td>
<td>37 (1\frac{3}{16})</td>
<td>3</td>
<td>6 (\frac{3}{8})</td>
</tr>
<tr>
<td>All EF601 couplers</td>
<td>45 (1\frac{3}{16})</td>
<td>3</td>
<td>6 (\frac{3}{8})</td>
</tr>
<tr>
<td>All E69, SE69, SBE69, EF811, and EF812 couplers</td>
<td>52 (1\frac{3}{16})</td>
<td>3</td>
<td>6 (\frac{3}{8})</td>
</tr>
</tbody>
</table>

- Reference: C-13240, 11/14/18
Rule 17 Couplers, Type E/F and Parts

- **Inserted New Rule 17.E.13:**
  - E.13. Required coupler height is same as for E Type.
  - Reference: C-13240, 11/14/18

- **Updated Rule 17 F Job Codes:**
  - Removed Condition Code 1 from Job Codes:
    - 2183, 2185, 2189, 2192, 2194
Updated Rule 22.A.2.a:

2. Condemnable When Car Is on Shop or Repair Track for Any Reason
   a. **Both nonmetallic inserts are missing on the hook end or both are missing on the handle end.** Replace telescoping uncoupling lever and report Why Made Code as 04—Defective if both non-metallic inserts are missing on the hook end or if both are missing on the handle end.

Reference: C-13261, 12/11/18
Rule 22 Uncoupling Levers and Support Brackets

- **Updated Rule 22.B Correct Repair Charts:**

  Group A — AAR Standard Uncoupling Levers or Adjustable Type Levers for Freight Cars With Standard Draft Gears with a Total Travel of 6½ inches

<table>
<thead>
<tr>
<th>Removed</th>
<th>What Can Be Applied</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A</td>
<td>Group A</td>
<td>Must be manufactured in accordance with AAR Standards <em>MSRP</em> S-131 (Figure 1) or S-133 (Figure 2)</td>
</tr>
<tr>
<td>Group B</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

  Group A Name And Type

  - AAR S-131 (Figure 1)
  - AAR S-133 (Figure 2)
  - *Garbe FL-4265
  - *Holland Unirol
  - Jaxon UE 2
  - Jaxon UE 3
  - **LeverX Model LX-1**
  - *Pick Ind. 851-82
  - Stanrail Style SA
  - Stanrail Style EZ-SA
  - *Stanray Style R-T
  - *Teams Inc. Model 7320
  - *Triax Style R-T
  - *Triax Style RT2
  - *No longer manufactured

- **Reference:** C-13261, 12/11/18
Rule 22 Uncoupling Levers and Support Brackets

- Updated Rule 22.B Correct Repair Charts:

Group B — AAR Standard Adjustable Type Levers for Freight Cars With Standard Draft Gears or End of Car Cushioning up to 15 inches Total Travel With E60, E67 or F70 Couplers

<table>
<thead>
<tr>
<th>Removed</th>
<th>What Can Be Applied</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group B</td>
<td>Group B</td>
<td>Must be applied in accordance with AAR Standard MSRP S-134. (Figure 3)</td>
</tr>
</tbody>
</table>

Group B Name And Type

- AAR S-134
- Jaxon UE 1
- Stanrail Style 1A
- *Triax Style 1T

*No longer manufactured

- Reference: C-13261, 12/11/18
Rule 22 Uncoupling Levers and Support Brackets

- Updated Rule 22.B Correct Repair Charts:

Group C-1 — Approved Uncoupling Levers for Cars Equipped With Wide Striker Opening, End of Car Cushioning or Center of Car Cushioning

<table>
<thead>
<tr>
<th>Removed</th>
<th>What Can Be Applied</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group C-1</td>
<td>Group C-1</td>
<td>Manufacture conforms with AAR Specification MSRP M-961. Use Tables in Section E.6. as a guide for application.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group C-1 Names And Type</th>
<th>Table</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief B758</td>
<td>A-B</td>
<td>Blue</td>
</tr>
<tr>
<td>Jaxon CLB</td>
<td>A-B</td>
<td>Blue</td>
</tr>
<tr>
<td>Jaxon UTB</td>
<td>A-B</td>
<td>Blue</td>
</tr>
<tr>
<td>LeverX TLX-2</td>
<td>A-B</td>
<td>Blue</td>
</tr>
<tr>
<td>Stanrail 586</td>
<td>A-B</td>
<td>Blue</td>
</tr>
</tbody>
</table>

- Reference: C-13261, 12/11/18
Rule 22 Uncoupling Levers and Support Brackets

- Updated Rule 22.B Correct Repair Charts:

**Group C-2 — Approved Uncoupling Levers for Cars Equipped With Wide Striker Opening, End of Car Cushioning or Center of Car Cushioning**

<table>
<thead>
<tr>
<th>Removed</th>
<th>What Can Be Applied</th>
<th>Remarks</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Group C-2 Names And Type</th>
<th>Table</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Y745</td>
<td>C-D-E</td>
<td>Yellow</td>
</tr>
<tr>
<td>Jaxon CLY</td>
<td>C-D-E</td>
<td>Yellow</td>
</tr>
<tr>
<td>Jaxon UTY</td>
<td>C-D-E</td>
<td>Yellow</td>
</tr>
<tr>
<td>Stanrail TTEF-15W</td>
<td>C-D-E</td>
<td>Yellow</td>
</tr>
</tbody>
</table>

- Reference: C-13261, 12/11/18
Rule 22 Uncoupling Levers and Support Brackets

- Updated Rule 22.B Correct Repair Charts:

<p>| Group D — Telescoping Levers No Longer Manufactured |
|---------------------------------|------------------|</p>
<table>
<thead>
<tr>
<th>Removed</th>
<th>What Can Be Applied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group D</td>
<td>Group C-1 Group C-2 Group D</td>
</tr>
<tr>
<td>Product no longer manufactured or does not comply with AAR Specification MSRP M-961. Use Section E.6. as a guide for application.</td>
<td></td>
</tr>
</tbody>
</table>

- Group D Names And Type

<table>
<thead>
<tr>
<th>ACE 4-H-4776 (Cable Operated)</th>
<th>Nordek RH-3782</th>
<th>Stanray Style 1-TXE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garbe Iron Works TL-B3172</td>
<td>Pick 852-83K</td>
<td>Stanray Style 1-TXF</td>
</tr>
<tr>
<td>Garbe Iron Works TL-3272</td>
<td>Resco 6381</td>
<td>Stanray Style 4JB</td>
</tr>
<tr>
<td>Garbe Iron Works TL-B3285</td>
<td>Resco 8081</td>
<td>Stanray Style 5</td>
</tr>
<tr>
<td>Garbe Iron Works TL-3586</td>
<td>Resco 8081A</td>
<td>Triax TXE</td>
</tr>
<tr>
<td>Holland D-101</td>
<td>Stanray 1-TXE</td>
<td>Triax 4C</td>
</tr>
<tr>
<td>Holland 2-55</td>
<td>Stanray TTE-12</td>
<td>Triax 5</td>
</tr>
<tr>
<td>Holland 2D-117</td>
<td>Stanray TTE-12W</td>
<td>Triax Style 4-JB</td>
</tr>
<tr>
<td>Holland ECON-3</td>
<td>Triax Style 4-JB</td>
<td></td>
</tr>
<tr>
<td>Holland ECON 2-33</td>
<td>Triax Style 4-JB</td>
<td></td>
</tr>
<tr>
<td>Holland 2-44</td>
<td>Triax Style 4-JB</td>
<td></td>
</tr>
<tr>
<td>Nordek RH-3168</td>
<td>Triax Style 4-JB</td>
<td></td>
</tr>
</tbody>
</table>

- Reference: C-13261, 12/11/18
Rule 22 Uncoupling Levers and Support Brackets

- Updated Rule 22.E.6.a, b, c, d and e:
  - Updated MSRP References
  - Added asterisks to identify Uncoupling Levers no longer in production

- Reference: C-13261, 12/11/18
Rule 36 Roller Bearings

Rule 36.E.5

E.5. When a roller bearing axle is removed from the car due to a suspected/confirmed overheated roller bearing or Acoustic bearing alert (WM50, WM51, WM52, WM95, or WM91):

- an MD-11 report must be initiated at www.railinc.com/md11 or approved alternate method within 15 days of wheel set removal;
- the roller bearing cup must be marked along the circumference with a 2 inch wide white or yellow vinyl tape to identify the bearing for future teardown;
- do not cover the bearing cup serial number;
- the roller bearing cup must be marked with the car initial and number, bearing fail side, axle position, date of removal, Why Made Code and unique identifier (MDID) provided by MD-11 system. This should be completed using a paint pen or other suitable marking method on the tape.

Reference: C-13241, 11/14/18
Rule 37 Roller Bearing Adapters

- Updated Rule 37.A.6.c Figure 4:

```
FIGURE 4
ADAPTER SECTION

ACCEPTABLE

CONDEMNABLE

WORN ADAPTER SHOWING CONDEMNABLE THRUST SHOULDER WEAR AS GAGE TIP DOES NOT CONTACT SHOULDER INDICATING MORE THAN .025" ALLOWABLE WEAR (THIS WEAR CAUSED BY THRUST LOADING FROM END OF ROLLER BEARING CUP), CHECK BOTH SHOULDERS AT LOCATIONS WHERE WEAR IS MAXIMUM.
```

- Reference: C-13247, 11/19/18
Rule 37 Roller Bearing Adapters

- Updated Rule 37.A.6.d Figure 5:

  ![Diagram of Adapter Section with Acceptable and Condemnable Conditions]

- Reference: C-13247, 11/19/18
Rule 37 Roller Bearing Adapters

- Updated Rule 37.A.6.f Figure 6:

- Reference: C-13247, 11/19/18
Rule 41 Wheels

- Updated Rule 41.A.1.b:

  - A.1.b. Vertical flange Why Made Code 62: Flat vertical surface extending one 1 inch or more from tread. Apply gage as follows:
Rule 44 Wheel Sets

- **New Rule 44.E.16-18:**
  - 16. A Purchased Core Wheel Set is one that was obtained most recently from a retired car and meets the definition of a Turned Wheel Set, adding to the supply of wheel sets obtained through the conventional unit exchange process. Purchased Core Wheel Sets cannot be split into multiple AAR Component ID’s.

  - 17. For Purchased Core Wheel Sets, Condition Code G may not be billed unless side readings of both wheel plates are 20/16 inches or greater. All Purchased Core Wheel Sets with a side reading(s) less than 20/16 inches will be billed with Condition Code F.

  - 18. For purchased core wheel sets, wheel shops will apply a laminated bright yellow hanging tag on the axle body that is approximately 4” x 6” and labelled “Purchased Core”. This tag will remain on the axle body until wheel set is applied to and associated with a railcar, at which time it must be removed.

- **Reference:** C-13234, 11/13/18
Rule 44 Wheel Sets

Rule 44.F.3:
- Updated Rule 44.F Condition Codes to Add:
  - F = Purchased core wheel set with reconditioned roller bearings and reconditioned/secondhand axle
  - G = Purchased core wheel set with new roller bearings and reconditioned/secondhand axle

Rule 44.F Job Codes:
- Updated Rule 44.F Job Codes to Add Condition Codes F and G to the following Job Codes:
  - 3329, 3334, 3337, 3339, 3342, 3345, 3348, 3350, and 3353

Reference: C-13234, 11/13/18
Rule 48 Truck Side Frames, Transoms and Spring Planks

- Updated Rule 48.A.3.c Table 1:

<table>
<thead>
<tr>
<th>Side Frame Description</th>
<th>Journal Size</th>
<th>Nominal</th>
<th>Remove If Over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most side frames</td>
<td>6 x 11 or 6 x 8</td>
<td>7 1/4</td>
<td>7 7/16</td>
</tr>
<tr>
<td></td>
<td>6 1/2 x 12 or 6 1/2 x 9</td>
<td>7 3/4</td>
<td>7 15/16</td>
</tr>
<tr>
<td></td>
<td>7 x 12 or 7 x 9</td>
<td>8 3/4</td>
<td>8 15/16</td>
</tr>
<tr>
<td>Shear pad design with letter “B” in the 7th position of side frame 9-digit code</td>
<td>6 x 11 or 6 x 8</td>
<td>7 7/16</td>
<td>7 5/8</td>
</tr>
<tr>
<td></td>
<td>6 1/2 x 12 or 6 1/2 x 9</td>
<td>7 15/16</td>
<td>8 1/8</td>
</tr>
<tr>
<td></td>
<td>7 x 12 or 7 x 9</td>
<td>8 15/16</td>
<td>9 1/8</td>
</tr>
</tbody>
</table>
Rule 53 Running Boards—Dome Platforms—Brake Steps—Cross Platforms

- Updated Rule 53.B.1.d Group No. 2 – Steel – unsupported span not to exceed 7 feet:
  - Added:
    Eaton B-Line Round Hole Perfo-Grip Plate Running Board

- Reference: C-13242, 11/14/18
Rule 57 Center Sills

- Updated Rule 57 – Sills must be spliced in accordance with the following specifications, Item 4:
  - Removed:
    4. Replacement of bellmouth striker assembly on High Cube 86 foot boxcars to be as shown in MSRP Section C, Standard S-251.

- Updated Rule 57 – General Information, Item 4:

4. For rolled center sills the repair material shall have minimum yield strength of 50 ksi and charpy requirements meeting MSRP-C-II, Specification M-1001, Chapter 3, Paragraph 3.1.9.

5. For cars equipped with fabricated center sills please contact the car owner for material requirements.
Rule 59 Cushioned Underframe Devices

- Updated Rule 59:
  - Correct Repairs – Figure B
  - Revised EOC Tables
  - New EOC-27 Tables

- Revised COC Tables
- New Figure in Section E
- Revised Job Codes
- New Job Code 5850

Reference: C-13235, 11/13/18 and C-13266, 12/31/18
Rule 62 Truck Side Bearings

- **Revised Rule 62:**
  - Removed Rule 62.A.1.c and f, renumbered accordingly.
  - Inserted New Rule 62.A.2.c and d, renumbered accordingly:
    - A.2.c Housing or metal top cap cracked (any combination of cracks totaling more than 1 inch in length).
    - A.2.d Metal caps worn through wear limit indicators, where such indicators exist, when the car is jacked at that truck location for some other reason.

- **Reference:** C-13243, 11/14/18
Revised Rule 62.E.4:

4. Where side bearing clearance cannot be adjusted otherwise, the use of a one-piece horizontal steel center plate shim liners per Rule 47.E is permissible accordingly.
Rule 63 Automatic Equipment Identification (AEI)

- Updated Rule 63:

- Updated Rule 63.A.3.f:

  f. Length (a 1 ft variation is allowed from Umler-specified length) as measured from end sill to end sill over pulling faces of couplers in normal position.
Rule 66 Reflective Sheeting

- Updated Rule 66.A:
  - A. Wear Limits, Gaging, Cause For Renewal, Cause for Attention
    1. At any time
      a. Cars without any **FRA 224 stamped** reflective sheeting.
      b. Cars with sheeting lacking the FRA-224 stamp (grandfathered cars) and with 20% or more of the minimum required reflective sheeting on a single side damaged, obscured, missing, or fire or heat damaged.
    2. Condemnable when car is on shop or repair track for any reason
      a. A single side has all (100%) required single yellow **FRA-224 stamped sheets completely obscured or missing**.

- Reference: C-13236, 11/13/18 and C-13266, 12/31/18
Rule 66 Reflective Sheeting

Updated Rule 66.A continued:

- At time of Single Car Air Brake Test (SCABT)
  a. Cars with yellow FRA-224 stamped sheeting with 20% (per Chart 1) or more of the minimum required reflective sheeting on a single side damaged, obscured, missing, or fire or heat damaged.
  b. Cars with yellow sheeting lacking the FRA-224 stamp (grandfathered cars).

  a. Any required single yellow FRA-224 stamped sheet that does not meet the minimum retroreflectivity value per Rule 66 paragraph E.10. This rule is effective upon issue. Compliance is required by July 1, 2019.
  b. Any required single yellow FRA-224 stamped sheet with 20% (approximately the size of a 4 inch by 4 inch comparator panel) or more of the sheet obscured, missing, or damaged such that the retroreflective properties are nonexistent. Note: A comparator panel represents approximately 20% of a 4 inch by 18 inch sheet.

  c. Improperly located or oriented yellow FRA-224 stamped sheeting.
  d. Cars with white reflective sheeting. See E.1

Reference: C-13236, 11/13/18 and C-13266, 12/31/18
Rule 66 Reflective Sheeting

- **Updated Rule 66.B:**
  - **B. Correct Repairs**
    1. All required reflective sheeting, as defined in column C of Chart 1, must be cleaned at time of Single Car Air Brake Test and evaluated for retroreflective performance.

<table>
<thead>
<tr>
<th>Car Length (feet)</th>
<th>Required Number of Yellow Strips 4&quot; × 18&quot; per side</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 50</td>
<td>7</td>
</tr>
<tr>
<td>50 to 60</td>
<td>8</td>
</tr>
<tr>
<td>Over 60 to 70</td>
<td>9</td>
</tr>
<tr>
<td>Over 70 to 80</td>
<td>10</td>
</tr>
<tr>
<td>Over 80 to 90</td>
<td>11</td>
</tr>
<tr>
<td>Over 90 to 100**</td>
<td>12</td>
</tr>
</tbody>
</table>

* Car length measured from end sill to end sill. See Figure 1.
** Freight cars over 100 feet in length must be equipped with an additional 1/2 square feet (1 ea. 4” × 18” strip) strip of sheeting on each side for every additional 10 feet of length. [4” × 18” = 1/2 feet square (ft²)]

- Reference: C-13236, 11/13/18 and C-13266, 12/31/18
Rule 66 Reflective Sheeting

- Updated Rule 66.B continued:

- 4. Sheeting not stamped with FRA-224 need not be covered, painted over, maintained, cleaned, or removed, with the exception of A.1.b. or A.2.b. defects. **Defective sheeting must be removed, covered, or otherwise painted over.**

- 5. Cars found with cause for attention per Rule 66.A.1.a., A.1.b., or A.2.b. A.3.d. require a complete application of FRA-224 stamped **yellow** sheeting.

- Reference: C-13236, 11/13/18 and C-13266, 12/31/18
Rule 66 Reflective Sheeting

- Updated Rule 66.E:
  - Revised E.1, removed E.2 and E.3, renumbered accordingly:

  E. General Information
  1. FRA-224 Compliant sheeting may be identified by the “FRA-224” stamp. Existing white sheeting on a car is compliant if marked with “FRA-224” except at until time of next single car air brake test.  
  2. Grandfathered car: has only sheeting that lacks the FRA-224 stamp.  
  3. Damaged means scratched, broken, chipped, peeled, or delaminated.

- Reference: C-13236, 11/13/18 and C-13266, 12/31/18
Updated Rule 66.E continued:

Added New E.10:
10. This section describes the process for conducting a performance evaluation of retroreflective sheeting ("sheeting") on railroad freight cars and locomotives using a comparator panel ("panel") or electronic handheld retroreflectometer. Note that yellow sheeting is allowed for locomotives and freight cars, and that white sheeting is allowed for locomotives only.

a. Sheeting must be visually evaluated with use of a light source. The light source must be of sufficient intensity to illuminate sheeting and overcome the ambient lighting conditions. A brighter light is recommended in daylight conditions.

b. Panels must conform to the requirements in MSRP S-916 with a retroreflective range of 150–170 cd/lx/m² for yellow sheeting and 250–285 cd/lx/m² for white. Because this inspection is a comparison, slight variances between flashlights, inspector vision, inspector height, ambient light, distance, etc., are overcome.

Reference: C-13236, 11/13/18 and C-13266, 12/31/18
Rule 66 Reflective Sheeting

- Updated Rule 66.E continued:
  - New E.10 continued:
    c. Handheld annular retroreflectometers may be used to evaluate for a minimum retroreflective value of 150 cd/lx/m² for yellow sheeting and 250 cd/lx/m² for white, when measured at −4° entrance angle and 0.2° observation angles. Measurements at 30° entrance and 0.5° observation angles are not required.
    d. Other direct measurement technologies may be used if authorized by the AAR.
    e. Retroreflective sheeting performance inspection procedures:

<table>
<thead>
<tr>
<th>Initial Inspection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Clean all sheeting on the car/locomotive being inspected.</td>
</tr>
<tr>
<td>2. While maintaining a uniform distance from the car/locomotive as you move down the side (15 ft is preferred but not required), examine each individual sheet with a light source and determine if comparison is needed. Use of a light source will allow the inspector to verify if the cleaning was sufficient and to identify the following:</td>
</tr>
<tr>
<td>- Sheetings with condemnable degradation that need not be further evaluated with a panel; or</td>
</tr>
<tr>
<td>- Sheetings that is obviously good that needs not be further evaluated, or</td>
</tr>
<tr>
<td>- Sheetings that is suspect</td>
</tr>
</tbody>
</table>

- Reference: C-13236, 11/13/18 and C-13266, 12/31/18
Rule 66 Reflective Sheeting

- Updated Rule 66.E continued:
  - New E.10 continued:

```
Performance Inspection (required for suspect material)
1. Ensure that the panel is within the calibration date.
2. Place the panel over the sheeting to be evaluated.
3. Select a distance from the side of the car/locomotive that can be held for all reflective sheeting inspections (15 ft is preferred but not required).
4. Evaluate individual reflective sheets at a position straight out from the side of the car/locomotive.
5. Hold the light source adjacent to the eye to take full advantage of the reflective sheeting’s property that reflects light back to the source.
6. Compare the reflected light intensity of the reflector to that of the comparator panel.
   - If the reflective sheeting’s reflected light intensity appears brighter than the panel, the sheeting passes the inspection.
   - If the reflected light intensity difference between the panel and the reflective sheeting cannot be discerned or if the panel appears brighter than the sheeting, the sheeting must be replaced.
```

- Reference: C-13236, 11/13/18 and C-13266, 12/31/18
Rule 66 Reflective Sheeting

- **Updated Rule 66.F:**
  - **Updated F.6 Why Made Codes:**
    - Added:
      - 1F = Reflective sheeting does not meet the minimum reflectivity levels per Rule 66

- **Updated F Job Codes:**
  - 5500 REFLECTIVE SHEETING, INITIAL APPLICATION OR COMPLETE RENEWAL ONLY
    - Any AAR-approved type, 4 × 18 inch
    - (Condition Code 1)
    - (Why Made Codes 1F, 27, 44, 45, 49)
  - 5502 REFLECTIVE SHEETING
    - Any AAR-approved type, 4 × 18 inch
    - (Condition Code 1)
    - (Why Made Codes 1F, 03, 09, 25, 31, 42, 43, 45, 49)

- **Reference:** C-13236, 11/13/18 and C-13266, 12/31/18
Rule 70 Lightweights, Weight Limits And Overloading

- Removed Rule 70.F:
  - F. Billing Repair Data Requirements
    1. Bill per Section B.5.
Rule 72 Manufactured Material

- **Updated Rule 72 Job Code 5799:**

  5799 TRANSFER OF LADING PER Rule 108
  Where transfer of lading is required, the actual cost will be at the car mark owner expense. Handling line to bill the car mark owner directly. Billing must be reported by the handling line using Job Code 5799, and the detail record (Detail Source BR) must be reported via the AAR Car Repair Billing Data Exchange System per Office Manual Rule 112.
  (Condition Code 0)
  (Why Made Code 09)
Rule 75 Miscellaneous Labor

- **Updated Rule 75.F.4 Job Code Applied:**
  - 4. Job Code Applied
    - a. Show applicable code.
    - b. Show applicable car part identification code per Rule 83 in qualifier column for job codes preceded by **
      - c. **Show qualifier per Section E for job codes preceded by ***

- **Updated Rule 75.F.7 Job Code Removed:**
  - 7. Job Code Removed
    - a. Show applicable code (Use same as job code applied)
    - b. For job codes preceded by ** use same **car part code** qualifier as for job code applied
      - c. **For job codes preceded by *** use same qualifier as for job code applied**
Updated Rule 75.F Job Code 4453:

***4453 MAINTENANCE ADVISORY INSPECTION—(ACF CENTERFLOW COVERED HOPPER CARS)
NOTIFICATION USED FOR REPORTING OF DEFINED INSPECTIONS AS REQUIRED BY A MAINTENANCE ADVISORY-102 (MA-102)
Use qualifiers found in Rule 75.E.9 for reporting inspection results.
Report Job Code 4454 to obtain labor charge for inspection. (Condition Code 0)
(Why Made Code 13)
Updated Rule 80.B.1:

B.1. Reporting marks, car initial and number, in no less than 9 inch characters on sides of car (7 inch characters are allowed on flat cars) and in 4 inch characters on ends of car. End of car marks are not required on flat cars.

Removed B.2-5

Added new B.2-4:
2. Apply built mark (BLT MO-YR) at BL and AR corners of car.
3. On cars with 75 feet or greater brake pipe length and when length is not included on badge plate, apply length mark (BLP XXX) at BL and AR corners on sides of car above built mark.
4. Apply markings on clean, dry surface. Either decals or stencils can be used for repair.

Reference: C-13232, 11/12/18 and C-13266, 12/31/18
Rule 80 Markings

- Updated Rule 80.B.6:

  6. **5. Home Shop Marking**
  a. When applied, Home Shop Markings shall be at least 2 inch letters reading “HOME SHOP FOR REPAIRS DO NOT LOAD” and shall contrast with the car body.
  b. When applied Home Shop Decal shall be as shown in Figure A below and shall utilize black letters and black border on green-yellow background.
  c. When a car is sent to home shop, Home Shop Marking or Decal shall be applied to each side of car adjacent to car number.

- Reference: C-13232, 11/12/18 and C-13266, 12/31/18
Rule 80 Markings

- Removed Rule 80.B.7, Renumbered B.8 to B.6, with revisions:

  8. **6.** Piston Travel Range Markings
     a. Truck mounted brakes—The markings shall be located on both sides of the car **body as near as practical to a bolster and oriented** so that it may be read by a person positioned adjacent to the car.
     b. Single body mounted brake cylinders—The markings shall be located on both sides of the car **body as** near as practical to the brake cylinder so that it may be read by a person positioned adjacent to the car.
     c. Articulated Cars—The markings shall be **located on both sides of the car body as near as practical to the brake cylinder on each truck and oriented so that it may be read by a person positioned adjacent to the car.**
     d. Decals shall be in accordance with MSRP M-947, shall be a minimum 7" × 8", and shall contain all of the information for the brake type in accordance with the applicable figures in Rule 3 (Figures 1 through 12).

- Reference: C-13232, 11/12/18 and C-13266, 12/31/18
Rule 80 Markings

- **Added New Rule B.7:**

  7. Excess Height Markings for cars with structure at a height of 16 feet 10 inches or more above top of rail
  a. Four excess height decals in accordance with MSRP S-910; each shall be located as near as practical to the bottom corners of the sides.
  b. “EXCESS HEIGHT CAR” markings, one on each end of car, in 3 inch black characters; each shall be located 15 feet or more above top of rail, or as high as practical.

- Reference: C-13232, 11/12/18 and C-13266, 12/31/18
Rule 80 Markings

- Removed Rule 80.E.1-11:

- Renumber E.12-13 to E.1-2, with revisions:

  E. General Information
  1. Additional charge per Rule 75 may be made when fall protection equipment is used to accomplish repairs.
  2. Other markings shall be applied only when authorized by the car owner or the car owner’s designee.

- Reference: C-13232, 11/12/18 and C-13266, 12/31/18
Rule 83 Preparation of Original Record of Repair and Billing Repair Data

- **Rule 83.15 Condition Codes:**
  - Added New Condition Codes F and G
    - F = Purchased core wheel set with reconditioned roller bearings and reconditioned/secondhand axle
    - G = Purchased core wheel set with new roller bearings and reconditioned/secondhand axle
  - Reference: C-13234, 11/13/18 and C-13266, 12/31/18

- **Rule 83.17 Why Made Codes:**
  - Added New Why Made Code 1F
    - 1F = Reflective sheeting does not meet the minimum reflectivity levels per Rule 66
  - Reference: C-13236, 11/13/18 and C-13266, 12/31/18
Rule 88 Mechanical Requirements for Acceptance

- **Removed Rule 88.A.7.g:**
  - g. Cars equipped with “approved for test” draft gears must be stenciled as required by the AAR Equipment Engineering Committee.

- **Updated Rule 88.A.10:**
  - 10. Reflective sheeting, effective November 28, 2015, must be in compliance with AAR MSRP S-910 [Rule 66](#).

- Reference: C-13232, 11/12/18 and C-13266, 12/31/18
Rule 88 Mechanical Requirements for Acceptance

- Removed Rule 88.A.14 and renumbered A.15-17 to A.14-16

- Updated newly renumbered A.15.f (5), (8) and (9):
  - (5) Cars equipped with outside heaters having no internal connections and not equipped with caps must be marked “EXTERIOR HEATER PIPES—NO INLET OR OUTLET PIPE CAPS REQUIRED.”
  - (8) Tanks, pressure relief valves and other components of tank cars shall be qualified/retested and marked at the intervals specified in the AAR M-1002 Specifications for Tank Cars and applicable DOT Regulations.
  - (9) Must be equipped with AAR Specification M-948 approved long travel constant contact side bearings. Note: All tank cars must be equipped by June 1, 2018.

- Reference: C-13232, 11/12/18 and C-13266, 12/31/18
Rule 88 Mechanical Requirements for Acceptance

- Updated Rule 88.B.1.a, d and added new e:
  - B. From Owner
    This section specifies the minimum mechanical requirements for all cars released into interchange service or offered at interchange from owner, unless otherwise noted:
  1. At Any Time
     a. Badge Plate
        (1) Cars must have a badge plate in accordance with MSRP S-374. Cars equipped with S-4022 piping shall be marked "CAR EQUIPPED WITH S-4022 PIPING" in 1 inch characters as near as practicable to the badge plate unless indicated on badge plate.

- Reference: C-13232, 11/12/18 and C-13266, 12/31/18
Updated Rule 88.B.1.d:

- d. Stencilling **Marking – When car sides are repainted, markings must be applied in accordance with MSRP S-910.**
  
  1. Reporting marks and car numbers on one side of each truck bolster.
  2. Cars that exceed the dimensions of Plate B must be **marked** per MSRP S-913.
  3. Reporting marks and car number must be **marked** on inside of plug type side door.
  4. When air brake test date in Umler is overdue at the time stenciled reporting marks are changed, a single car air brake test must be performed and the air brake test date updated in Umler.

**Reference:** C-13232, 11/12/18 and C-13266, 12/31/18
Added New Rule 88.B.1.e and renumbered accordingly:

e. Marking—Other than when car sides are repainted

1. Cars equipped with exterior thermal coatings or interior protective coatings must be marked in accordance with MSRP S-910, Appendix B.

2. Tanks equipped with exterior heater coils must be marked “EXTERIOR HEATER COIL EQUIPPED” in 1 inch characters per MSRP M-1002.

3. Cars equipped with chain tie-downs must be marked in accordance with MSRP S-910, Appendix B.

Reference: C-13232, 11/12/18 and C-13266, 12/31/18
Revised Rule 88.B.5:

5. Any freight car requiring permanent general repairs in excess of the hour limitations of Rule 108 must have all truck mounted brake cylinders on the car cleaned and lubricated, unless the cylinders were cleaned and lubricated within the last 5 years as indicated by stenciling on the side frame, or by proof or verification from the owner that the truck mounted brake cylinders have had such work accomplished within the past 5 years.

Reference: C-13232, 11/12/18 and C-13266, 12/31/18
Rule 88 Mechanical Requirements for Acceptance

- Added New Rule 88.B.9.c and d:
  - c. Multi-level racks receiving a certification inspection under the provisions of Rule 88 must be marked as shown below:
    “Rack Certified” Month/Year
    Company or Railroad—Location
    Mark to be applied in 1 inch letters and located on the inside of the rack at the BL and AR corners, above lub stencil.
  - d. Cars receiving a certification inspection under the provisions of Rule 88 must be marked as shown below:
    “Car Certified” Month/Year
    Company or Railroad—Location
    Mark to be applied in 1 inch letters to the left of the car initial and number on both sides of the car.

- Reference: C-13232, 11/12/18 and C-13266, 12/31/18
Added New Rule 88.B.10.e:

- e. When tanks have been inspected in accordance with Rule 88.B.2, they must be marked in the qualification stencil per MSRP Section C-III, “Specifications for Tank Cars,” Appendix C.

Reference: C-13232, 11/12/18 and C-13266, 12/31/18
Rule 90 Cars and/or Car Parts Prohibited in Interchange

- **Updated Rule 90.A.3:**
  - 3. Special Equipment
    - a. Tank Cars
      - (1) Having wood shims between the longitudinal anchorage and underframe.
      - (2) Tank cars equipped with D-3 single coil side springs or 609-C friction castings.
      - (3) Effective June 1, 2018, all tank cars not equipped with long travel constant contact side bearings.

- **Updated Rule 90.B.5:**
  - i. All flat cars designated FB, FBC, and FBS that are not equipped with constant contact roller or block type side bearings.
Rule 95 Handling and/or Delivering Line Responsibility

- **Updated Rule 95.B.5.g:**
  - (g) Two or more screen side panels missing.
  - (h) Screen Side panel cut through thickness of metal 3 inches or more in length or bent inward 3 inches or more.

- **Updated Rule 95 Illustrations A, B and C captions:**
  - Illustration A – TANK SHEET ABRUPTLY BENT
  - Illustration B – TANK SHEET CUT
  - Illustration C – TANK SHEET GOUGED

- Reference: C-13244, 11/14/18
Updated: **Betterments**

Improvements to a freight car of existing parts through the substitution of superior for inferior component(s) parts or modification(s) to a freight car that extend its life or increase its utility, that and are capitalized in accordance with GAAP (Generally Accepted Accounting Principles (GAAP). These betterments are recorded in the equipment owner’s investment account on their balance sheet.

- Reference: C-13230 11/12/18

Updated: **Car Repair Billing Data Exchange System**

The AAR's system of collecting, sorting, analyzing and distributing freight car repair information to participating railroads and car owners.
NEW: Wheel Set, Purchased Core:
One that was obtained most recently from a retired car and meets the definition of a Turned Wheel Set, adding to the supply of wheel sets obtained through the conventional unit exchange process. Must be identified with a laminated bright yellow hanging tag on the axle body that is approximately 4” x 6” and labelled “Purchased Core”. Purchased Core Wheel Sets cannot be split into multiple AAR Component ID’s.

Reference: C-13234, 11/13/18 and C-13266, 12/31/18
Appendix I (Field and Office Manuals)

- Appendix I (ECP Brakes) content removed.

- Show as vacant:

  Appendix I
  VACANT
Office Manual of the Interchange Rules

Note that most editorial changes are not included in this presentation.
Rule 80 Markings

- Updated Rule 80:
  - Revised title:
    - Rule 80 Painting and Stenciling - **Markings**
Rule 107 Handling of Damaged or Destroyed Equipment

- Added the following to the end of Rule 107.E.2.d:
  The damaging carrier may request a breakdown from car owner verifying calculation, including any values for labor and materials for components removed. Refer to Umler Data Specification Manual (https://www.railinc.com/rportal/documents/18/260655/UmlerDataSpecs.pdf) Appendix O, “Reporting Rail Car and Superstructure Cost.”

- Reference: C-13230, 11/12/2018
Rule 112 Car Repair Billing

- Removed Rule 112.E.1.a:
  
a. The initial invoicing of car repairs must be billed within 12 months from date of repair. Example: For repairs made in July, the bill must be received by the billed party, as defined in Rule 112.H.2, no later than the August Data Exchange (the date in August that the detail source data supporting the invoice is available) of the following year.
Rule 112 Car Repair Billing

- Updated Rule 112.E.1.b:

b. Effective January 1, 2019, the initial invoicing of car repairs for Detail Sources BR and GB must be billed within 6 months from the date of repair. Example: For repairs made in January, the bill must be received by the billed party, as defined in Rule 112.H.2, no later than the August Data Exchange (the date in August that the detail source data supporting the invoice is available). For detail sources other than BR and GB, the invoicing of car repairs must be billed within 12 months from the date of repair. Example: For repairs made in January, the bill must be received by the billed party, as defined in Rule 112.H.2, no later than the February Data Exchange (the date in February that the detail source data supporting the invoice is available) of the following year.
Updated Rule 112.G.7:

7. Presentation of the invoice will be either paper mailed to the responsible party; or emailed as a PDF attachment or mutually agreed upon suitable alternative to an email presented to the Billed Party. The presentation method will be at the discretion of the Billing Party. The invoice must be sent to the email or mail address as shown in FindUs.Rail (Rule 114).

Reference C-13233, 11/12/2018 and C-13266, 12/31/18
Appendix H Running Repair Agents

- Updated Associations in Appendix H

- Please Note:

  The April 1, 2019 release of the Office Manual will be the last printed version of Running Repair Agents. Effective July 1, 2019, the list of Running Repair Agents will be removed and replaced with a statement indicating that the list of Running Repair Agents may be found at https://www.railinc.com/findusrail.

- Reference C-13249, 11/26/18
Appendix H Running Repair Agents

Welcome

FindUs.Rail is a web-based centralized database that allows users to review and manage their company’s contact information. It has contacts organized under various categories, each managed by Company Administrators. Administrators can add, update, and remove contacts from the database.

Signatories to the AAR Interchange Rules

To search and verify a MARK/Company is a signatory to the AAR Interchange Rules, please click here.

Running Repair Agent

- Running Repair Agents - Active (Office Manual Appendix H)
- Running Repair Agents - Active and Historical (Office Manual Appendix H)
Labor Rates/Cost Factors/Service Fees

The following rates/fees became effective on January 1, 2019:

- Hourly Labor Rate: $140.83
- Cost Factor (Rule 107): 201
- EHMC/EHMS Fees:
  - Railroads $2,146.13 per billion revenue ton miles
  - Private Car Owners $0.05 per car (static)
- Technical Services User Fee: $2.20 per car
- DDCT Car Owner Fee: $0.92 per car (static)
- Car Repair Billing Fee: $0.60 per car (static)
- Intermodal User Fee: $0.50 per intermodal equipment semiannually (static)
Field and Office Manuals

Questions/Comments