



# **XVIII Congreso EXPORAIL 2019**

**CIUDAD DE MÉXICO**

*26 y 27 de Marzo de 2019*

# AAR Interchange Rules Revisions Update For 2019

# 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](http://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.

# 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 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:

- ~~32.~~ 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 **B** of Chart 1, must be cleaned at time of Single Car Air Brake Test and evaluated for retroreflective performance.

CHART 1

A	B
Car Length (feet)*	Required Number of Yellow Strips 4" x 18" per side
Less than 50	7
50 to 60	8
Over 60 to 70	9
Over 70 to 80	10
Over 80 to 90	11
Over 90 to 100**	12

\* 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 foot (1 ea. 4" x 18" strip) of sheeting on each side for every additional 10 feet of length. [4" x 18" = 1/2 foot square (ft<sup>2</sup>)]

- 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

# Rule 66 Reflective Sheeting

- 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/m<sup>2</sup> for yellow sheeting and 250– 285 cd/lx/m<sup>2</sup> 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/m<sup>2</sup> for yellow sheeting and 250 cd/lx/m<sup>2</sup> 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:

**Initial Inspection**

1. Clean all sheeting on the car/locomotive being inspected.
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:
  - Sheeting with condemnable degradation that need not be further evaluated with a panel; or
  - Sheeting that is obviously good that needs not be further evaluated, or
  - Sheeting that is suspect

- 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



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EXPORAIL  
2019**

# Rule 80 ~~Painting and Stenciling~~ Markings

- 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



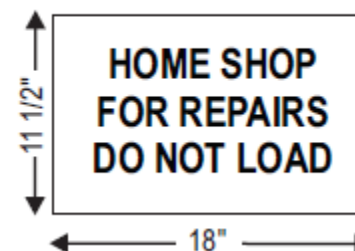
# Rule 80 Markings

- 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.

FIGURE A



- 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

# Appendix A (Field and Office Manuals)



- **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

