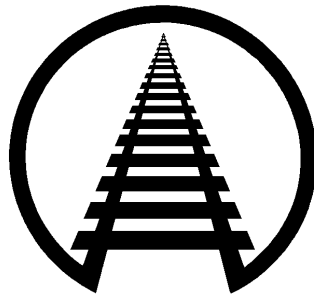


# **General Information Series No. 847**

## **50 in. Diameter Roll Paper Loaded in 50 ft. Boxcars – 21 & 22 Floor Spot Patterns**

**(CCLG Part 2 (12/19); Section 6.5.2 (Revised);  
Pattern 8-50-50-21-1 (Revised); Pattern 8-50-50-22-1 (New))**

**Approved by**  
**DAMAGE PREVENTION & FREIGHT CLAIM COMMITTEE**  
*Association of American Railroads*



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### 50 in. Diameter Roll Paper in 50 ft. Boxcars - 21 & 22 Floor Spots

The General Rules relating to personal safety and the safe operation of trains, contained in AAR Circular Nos. 42-N and 43-G or supplements thereto, issued by the Association of American Railroads, **must be observed**.

These loading rules and/or practices apply to shipments transported in the USA, Canada and Mexico.

The loading methods in individual closed car loading publications issued by the Damage Prevention and Loading Services Section of the Association of American Railroads are minimum standards that have been evaluated and approved. These minimum standards offer practical guidelines on the subjects covered. Since these are minimum standards, it may be necessary to supplement these methods in some instances.

Securement standards in AAR closed car loading publications are intended for safe transit of the rail car from origin to destination and prevention of lading and equipment damage. These standards do not address unloading practices.

This approval may be withdrawn if the loads using these methods exhibit consistent load failure during actual shipments.

*Loading and bracing methods not presently approved may receive consideration for approval and publication under Section II - Evaluation of New Loading and Bracing Methods and Materials for Closed Cars, Trailers or Containers of **General Information Bulletin No. 2, "Rules and Procedures for Testing of New Loading and Bracing Methods or Materials"**. Submit requests to Closed Car Loading Rules Manager, [dpls@aar.com](mailto:dpls@aar.com).*

**CAUTION:** Car rocking motion caused by the lift equipment entering and/or exiting the rail car may cause unsupported packages or articles with a higher center of gravity to fall to the floor. Minimize access to the car. Exercise caution when inside a partially loaded car. Lift operators should stay on lift equipment, whenever possible, while inside a partially loaded car.

#### General

Cars must be inspected by shipper at loading point to verify that cars are in suitable condition. Car interiors must have, but are not limited to, sound roofs, sides, floors, and endwalls; and operable, snug-fitting doors. Any exception is cause for the car to be rejected.

It is important that boxcars are clean and free from protruding nails, brads, staples, temporary anchor plates, fragments of steel strap, old blocking etc. Some projections of lining or anchor devices may require covering with sheets of corrugated fiberboard taped in place.

Referenced paragraphs may be found in the Closed Car Loading Guide (CCLG) Part 2, *Best Practices for Loading Roll Paper in Railcars*, December 2019.

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### 50 in. Diameter Roll Paper in 50 ft. Boxcars - 21 & 22 Floor Spots

This method is only applicable to paper rolls 50 in. diameter loaded in 50 ft. long cushioned boxcars with a maximum 12 ft. doorways and may not be suitable for other paper grades or diameters. The approved patterns are for 21 and 22 floor spots loaded in a single layer throughout the boxcar.

6.5.2 50 in. roll paper in 50 ft. cushion underframe, single plug door boxcars are approved for consecutive centered in-line rolls. See loading patterns 8-50-50-21-1 and 8-50-50-22-1.

6.5.2.1 Rolls must be loaded only in a single layer throughout the railcar.

6.5.2.2 Wall liner is used at every contact point between the rolls and the side walls. Wall liners have a crush strength of 2,250 lbs. psf and are secured in position and centered on the roll. See section 5.6.4 – Wall Lining.

6.5.2.3. Lengthwise void fillers used between the rolls and the endwalls and throughout the loading pattern are 2 ½ inches in thickness and have a crush strength of 4,752 lbs. psf. Lengthwise void fillers are secured in position and centered on the rolls. Apply three lengthwise void fillers in every location as outlined on the load patterns. See Figures 1 and 2 and load patterns 8-50-50-21-1 and 8-50-50-22-1.

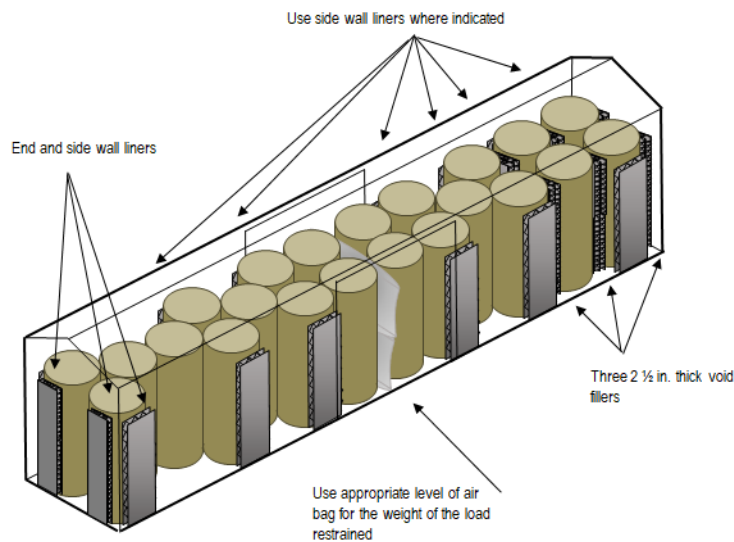
6.5.2.4 Load rolls as outlined in the loading pattern – in a 2-1-1-2 pattern or a 2-2 offset/2-1-2 pattern

6.5.2.5 In the 21-floor spot pattern, contour buffer pads can be placed between the rolls and the endwalls and sidewalls (optional). See Figure 1 and load pattern 8-50-50-21-1.

6.5.2.6 Maintain good lengthwise row alignment throughout the load and particularly in the doorway area and the centered in-line rolls.

6.5.2.7 The rolls in the doorway area must be loaded centered in the railcar with no roll-to-door contact. Rolls at the doorpost must be loaded 50% behind the doorpost. Extreme care should be taken in boxcars with 12 ft. doorway to ensure the doorpost rolls are at least 50% behind the doorpost.

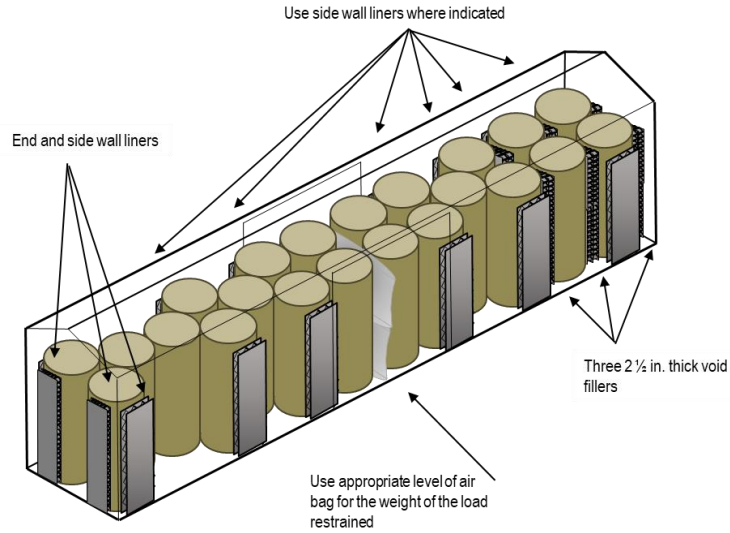
6.5.2.8 Use a minimum of two 36 in. x 108 in. airbags of the appropriate level for the load weight. Inflate to 8.0 psi or per manufacturer's recommendation. Check each air bag 30 minutes after inflating and re-inflate as necessary to proper inflation pressure. See section 6.2 – for information on horizontal airbag application.



**Figure 1**  
50 in. Roll paper – 21 floor spots (50 ft. Boxcar)

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**50 in. Diameter Roll Paper in 50 ft. Boxcars - 21 & 22 Floor Spots**



**Figure 2**  
50 in. Roll paper – 22 floor spots (50 ft. Boxcar)

**8-50-50**

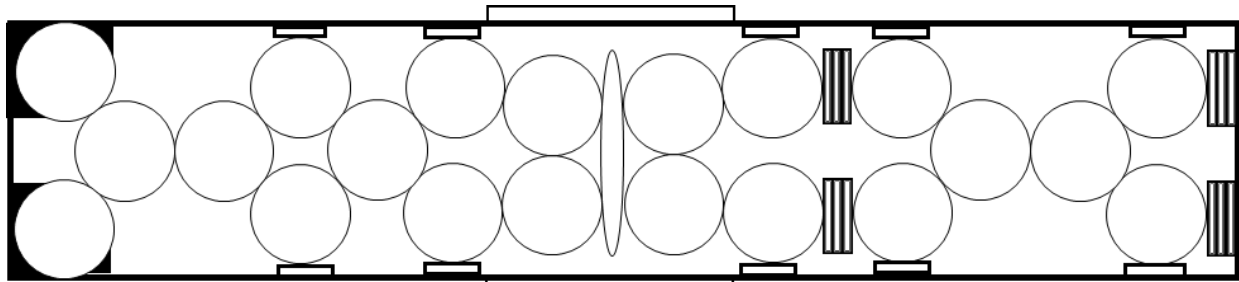
**50 ft Car—50 in. Diameter Rolls**

Load Plan Number	Car Size	Floor Spots	Securement	Paragraph Reference Number
8-50-50-21-1	50'6" x 9'6"	21	Horizontal Dunnage Bags	5.6 Void Fillers 6.2 - Horizontal Airbags 6.5.2 – Centered In-Line Rolls
8-50-50-22-1	50'6" x 9'6"	22	Horizontal Dunnage Bags	5.6 Void Fillers 6.2 - Horizontal Airbags 6.5.2 – Centered In-Line Rolls

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**50 in. Diameter Roll Paper in 50 ft. Boxcars - 21 & 22 Floor Spots**

**8-50-50-21-1      50 in. Diameter    50-6 x 9-6 Railcar    Horizontal Dunnage Bags      21 Floor Spots**

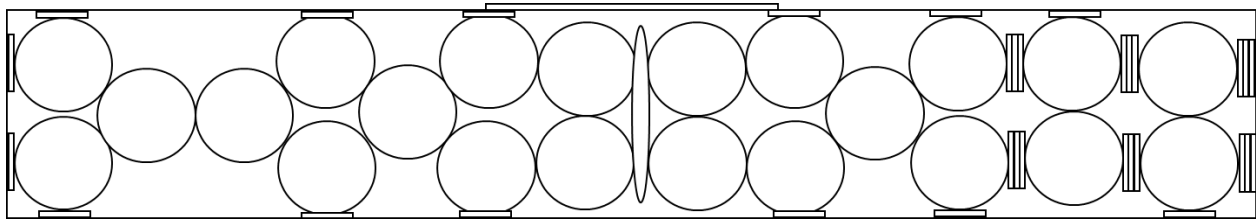


Single-layer high load pattern

Suitable Door Types	Doorway Protection	Maximum Door Width (ft)	Suitable Draft Gear Type
Single plug	7.6 – Inset Doorway Loading	12	Cushion Underframe

Reference paragraph 5.6 – Void Fillers, 6.2 - Horizontal Airbags, 6.5.2 Centered In-Line Rolls

**8-50-50-22-1      50 in. Diameter    50-6 x 9-6 Railcar    Horizontal Dunnage Bags      22 Floor Spots**



Single-layer high load pattern

Suitable Door Types	Doorway Protection	Maximum Door Width (ft)	Suitable Draft Gear Type
Single plug	7.6 – Inset Doorway Loading	12	Cushion Underframe

Reference paragraph 5.6 – Void Fillers, 6.2 - Horizontal Airbags, 6.5.2 Centered In-Line Rolls

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### 50 in. Diameter Roll Paper in 50 ft. Boxcars - 21 & 22 Floor Spots

#### General Information Series Publications

- 754** Wood Bins Braced by Disposable Inflatable Dunnage Bags and Lengthwise Fillers (CCLG Part 7) (10/16)
- 755** 55-Gallon Steel Drums on Pallets Secured with Cordstrap® Barriers in 40-ft ISO Containers (Nonhazardous Materials only) (ILG Method I-6) (11/16)
- 759** Revision to Paragraph 2.5, Distribution of Weight Crosswise in Cars (CCLG Part 10) (2/17)
- 760** Incomplete Layers of Plywood Secured in Boxcars with Nonmetallic Straps (CCLG Part 3) (2/17)
- 765** Wood Bins Braced by Disposable Inflatable Dunnage Bags and Shock-Gard® Lengthwise Void Fillers (CCLG Part 7) (7/17)
- 768** Gearboxes Mounted on Sleds in 20 ft. Long ISO Containers (ILG Method E-23) (9/17)
- 778** Split Loads of 58 in. Diameter Roll Pulpboard on End Using Rubber Mats when Stowed in Trailers Having Large Metal Plates Approximately 9 ft. in Length at the Nose (ILG Method E-23) (3/18)
- 781** Wood Bins Braced by Disposable Inflatable Dunnage Bags and BIN-PAK or M-PAK Lengthwise Void Fillers (CCLG Part 7) (4/18)
- 782** Plastic Intermediate Bulk Containers with Disposable Inflatable Dunnage Bags and Lengthwise Void Fillers – Schoeller Allibert (CCLG Part 7) (4/18)
- 783** Cased Goods Secured by Tuff Wrap™ D.I.D. Bags (ILG Method F-4) (4/18)
- 784** Cased Goods Secured by S.A.M. D.I.D. Bags (ILG Method F-4) (5/18)
- 786** Aluminum Coils on Platforms/Skids Loaded on Rubber Mats & Secured by Two Floor Anchored Web Straps & Supplemental Securement Straps (CCLG Part 9) (6/18)
- 787** Universal Storage Containers Loaded in 53 ft. Intermodal Containers (ILG Method H-15) (6/18)
- 791** DRUM-PAK® Dunnage for Open Head Drums in Cushioned Boxcars (CCLG Part 7) (6/18)
- 794** Peat Moss, Bagged or Baled, in Cushioned Boxcars (CCLG Part 8) (8/18)
- 795** Coiled Metal on Platforms/Skids in Boxcars (CCLG Part 9) (8/18)
- 797** Split Loads of 58 in. Diameter Roll Pulpboard on End Using Rubber Mats when Stowed in Trailers Having Large Metal Plates Approximately 9 ft in Length at the Nose (ILG Method E-19) (11/18)
- 798** Intermodal Loads Secured with TyGard DS™ (ILG Method B-9) (11/18)
- 799** 46 in. to 57 in. Diameter Roll Paper on End Using Rubber Mats (ILG Method E-21) (12/18)
- 800** 54 in. Diameter Paperboard on End Using Rubber Mats (ILG Method E-22) (12/18)
- 803** Stretch Film Roping of Steel Coils and Coil Loading Methods for Railroad Shipments (CCLG Part 9) (12/18)
- 810** Reinforced Longitudinal Void Fillers for Plastic, Metal or Wood Intermediate Bulk Containers with Tomato Products (CCLG Part 7) (4/19)
- 811** Plastic Intermediate Bulk Containers with Disposable Inflatable Dunnage Bags - Horen (CCLG Part 7) (6/19)
- 814** Bales of Wood Pulp in Boxcars (CCLG Part 8) (6/19)
- 817** Case Goods Secured by Stopack Max Blocker D.I.D Bags (ILG Method F-5) (9/19)
- 822** Palletized or Crated Auto Parts Secured by Web Strap Assemblies in 53 ft. Containers (ILG Method H-16) (9/19)
- 823** Plywood and Similar Panels Products – Loading Doorway Areas (CCLG Part 3) (10/19)
- 824** Case Goods Secured by Stopack Blocker D.I.D Bags (ILG Method F-6) (10/19)
- 825** Loading Bundled Ingots with Open Doorways (CCLG Part 10) (10/19)
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- 828** 44 in. Diameter Paper Roll in 50 ft. Cushioned Boxcars Using Horizontal Airbags (CCLG Part 2) (12/19)
- 829** 39 in. Diameter Paper Rolls in 50 ft. Cushioned Boxcars Using Vertical Airbags (CCLG Part 2) (12/19)
- 830** 72 in. Diameter Paper Rolls Loaded in 60 ft. Cushioned Boxcars with 16 ft. Double Plug Doors Secured with Double-S Straps (CCLG Part 2) (2/20)
- 831** Metal Intermediate Bulk Containers with Disposable Inflatable Dunnage Bags and Lengthwise Void Fillers – Goodpack USA (CCLG Part 7) (3/20)
- 832** 47 in. Diameter Roll Paper Loaded in 60 ft. Cushioned Boxcar with Plug Doors. (CCLG Part 2) (4/20)
- 833** Double Layer Loads of Hazardous or Nonhazardous Materials Secured with Cordstrap® Barriers in a 20-ft Container (ILG Method I-4) (4/20)
- 834** Hazardous or Nonhazardous Loads Secured with Cordstrap® Barriers in 40-ft Containers (ILG Method I-5) (4/20)
- 835** Double Layer Loads of Nonhazardous Materials Secured with HLASH RHS Securement System in a 20-ft Container (ILG Method I-7) (4/20)
- 836** Wood Bin Containers for Shipping Liquid or Paste Products in Boxcars (CCLG Part 7) (5/20)
- 837** 54 in. Diameter Roll Paper Loaded in 50 ft. Boxcars (CCLG Part 2) (5/20)
- 838** Unitizing with Stretch Wrap or Film, Stretch Wrap Roping, Shrink Netting or Shrink Film (CCLG Part 1; CCLG Part 6) (6/20)
- 839** Contour Pad Application with Roll Paper (CCLG Part 2) (6/20)
- 840** 79 in. Diameter Paper Rolls Loaded in 60 ft. Cushioned Boxcars with 16 ft. Double Plug Doors Secured with Double-S Straps (CCLG Part 2) (6/20)
- 841** 60 in. Diameter Roll Paper Loaded in 60 ft. Cushioned Boxcars with 12 ft. Plug Doors (CCLG Part 2) (6/20)
- 842** 52 in. Diameter Roll Paper Loaded in 50 ft. Cushioned Boxcars with Plug Doors. (CCLG Part 2) (6/20)
- 843** Doorway Protection for Baled Paper and Wood Pulp Products in Boxcars (CCLG Part 8) (7/20)
- 844** 46 in. Diameter Roll Paper Loaded in 50 ft. Cushioned Boxcars with Plug Doors. (CCLG Part 2) (7/20)

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**50 in. Diameter Roll Paper in 50 ft. Boxcars - 21 & 22 Floor Spots**

**General Information Series Publications**

**845** Roll Paper in Boxcars with Doorway Rolls on Risers and Rubber Mats (CCLG Part 2) (7/20)

**846** Securing Incomplete Layers of Paper Rolls (CCLG Part 2) (7/20)

**847** 50 in. Diameter Roll Paper in 50 ft. Boxcars – 21 & 22 Floor Spots (CCLG Part 2) (7/20)