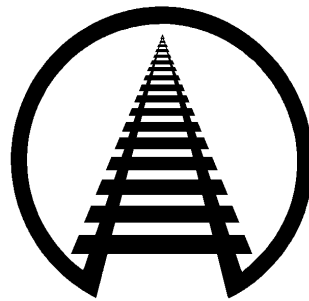


General Information Series No. 860

50 in. Diameter Paper Rolls T-Loaded in 50 ft. Boxcars

(CCLG Part 2 (12/19): Section 6.6.1 & 6.6.7 (revised);
Section 6.6.10 (new); Pattern 8-50-50-32-1 (new))

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



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GENERAL RULES

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This approval may be withdrawn if the loads using these methods exhibit consistent load failure during actual shipments.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

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 or applicable GIS updates.

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This method is only applicable to 50 in. diameter roll paper loaded in 50 ft. cushion underframe boxcars with a maximum 12 ft. doorway.

6.6 On-Side Loading (Also Referred to as Bilge or T-Loading)

6.6.1 (revised):

Under certain conditions pulpboard or similar heavy density roll paper may be loaded in its rolling direction lengthwise of a railcar (cores crosswise). Other paper grades are not recommended for on-side or T-loading.

6.6.7 (revised):

T-loading may be used for the following roll diameters and securement methods:

- 58 in. roll pulpboard – 50% blocking
- 58 in. roll pulpboard – 14 in. chock blocks
- 50 in. roll paper – 50% blocking

6.6.10 50 in. Roll Paper – 50% Blocking (See Figure 1 and Pattern 8-50-50-32-1)

6.6.10.1 Load the first-layer rolls on end following AAR approved pattern 8-50-50-24-3 (*CCLG Part 2*) for 50 in. roll paper. Use wall liner, as needed between the rolls and side wall and end wall to prevent roll damage. The wall liner used at the endwall must contact a minimum of 50% of the diameter of the on-side rolls. *Reference CCLG Part 2 - Section 5.6.4 – Wall Lining.*

6.6.10.2 Load the second-layer on-side rolls tight against the railcar end walls or wall liner on each end of the railcar. Load the second-layer rolls centered crosswise in the railcar with approximately equal void space between the rolls and each sidewall. On-side rolls must be a minimum of 70 in. in height or width to ensure they can remain balanced on the first-layer.

6.6.10.3 The second-layer may be loaded with a maximum of eight rolls in the T-loaded position, four on each end of the railcar. Six or seven T-loaded rolls may also be loaded, with the T-loaded rolls balanced in each end of the railcar. With seven T-loaded rolls one end of the railcar will contain four rolls, with the opposite end containing three rolls.

6.6.10.4 Chock on-side rolls. Apply two chocks, each measuring 6 in. high x 9 in. wide x 14 in. long for each on-side roll. Apply one chock on each base roll. Apply a minimum of 2 mm rubber mat (21 in. x 36 in.) strips under each on-side roll, one rubber mat on each base roll.

6.6.10.5 Two blocking rolls are loaded on each end of the railcar and must be loaded tight against both the base rolls and on-side rolls. The blocking roll must block the on-side roll by at least one-half of the on-side roll's diameter.

<p>Example: 72 in. [base roll height] + 25 in. [1/2 the diameter of the on-side roll, 50 in./2] = 97 in. [height blocking roll must reach]</p>

6.6.10.6 T-loaded blocking rolls may be placed on laminated square pad risers to achieve needed blocking height. Up to five pad risers may be laminated together but must not exceed a combined height of 30 in. for T-loading blocking applications. Risers must have a combined crush strength of 9,000 psf. *Reference CCLG Part 2 – Section 5.7.10 – Blocking Incomplete Layers and T-Loaded Rolls.*

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6.6.10.7 If blocking rolls consist of two rolls stacked and stepping down to an incomplete layer in the doorway, the stacked blocking rolls must also be blocked by at least 50% of the top blocking roll. Proper riser application must be followed. *Reference CCLG Part 2 – Section 5.7 – Risers.*

6.6.10.8 Use lengthwise void filler as needed between the blocking rolls and the doorway rolls to tighten the load pattern and reduce the size of the airbag void. Lengthwise filler panels must have a minimum crush strength of 2,250 psf. Do not use more than three fillers in any one lengthwise void location. The maximum space filled by void fillers is 12 in. in any one location. *Reference CCLG Part 2 – Section 5.6 – Void Fillers.*

6.6.10.9 Lengthwise void fillers may also be applied between the last roll stack with an on-side roll and the blocking rolls to prevent roll damage. Lengthwise filler panels must have a minimum crush strength of 2,250 psf.

6.6.10.10 Doorway rolls are loaded in a four-roll inset pattern with doorpost rolls a minimum of 50% behind the doorpost. Doorway rolls should be centered crosswise in the boxcar and not contacting either door.

6.6.10.11 Use air bags installed horizontally to fill the lengthwise void. Air bags are a minimum two-thirds the height of the adjacent stacks they are securing but not less than 36 inches in width and the appropriate level for the weight of the load. Air bags installed horizontally are to be at least 6 inches greater than twice the roll diameter (or width when installed horizontally). Inflate to 8.0 psi or manufacturer's recommendation. Check each air bag 30 minutes after inflating and re-inflate as necessary to proper inflation pressure. *Reference CCLG Part 2 – Section 6.2 – Horizontal Air Bags.*

6.6.10.12 For boxcars with single plug doors, follow the inset doorway loading method for doorway protection. *Reference CCLG Part 2 – Section 7.6 – Inset Doorway Loading.* For boxcars with single sliding doors, additional methods of doorway protection will be necessary. *Reference CCLG Part 2 – Section 7.0 – Doorway Protection.*

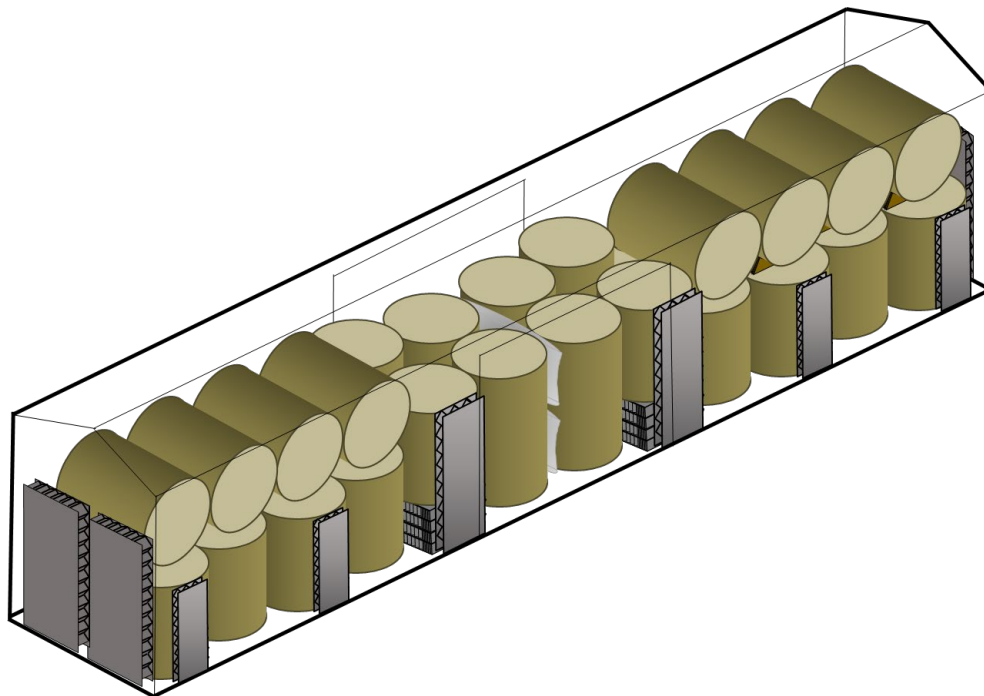


Figure - 1
Loading Diagram

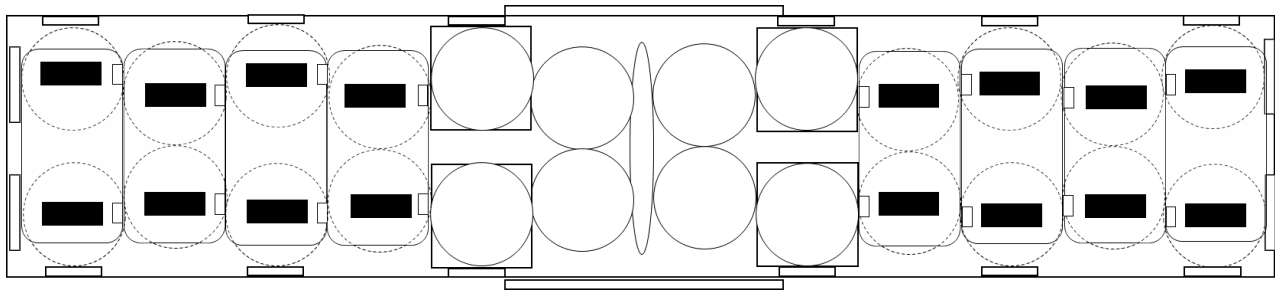
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8-50-50 50 ft. Car – 50 in. Diameter Rolls

Load Plan Number	Car Size	Floor Spots	Securement	Paragraph Reference Number
8-50-50-32-1	50'6" x 9'6"	24 Base; 8 T-Loaded	Horizontal dunnage bags	5.6 – Void Fillers 5.7 – Risers 6.2 – Horizontal Airbags 6.6-On-side Loading

8-50-50-32-1 50 in. Diameter T-Loaded 50-6 x 9-6 Railcar Horizontal Dunnage Bags 24 Floor Spots 8 T-Loaded – On-Side



Suitable Door Types	Doorway Protection	Maximum Door Width (ft)	Suitable Draft Gear Type
Single Sliding	7.3/7.4 – Doorway Straps	12	Cushion Underframe
Single Plug	7.6 – Inset Doorway	12	

Reference paragraph 5.6 – Void Fillers, 5.7 – Risers, 6.2 – Horizontal Airbags, 6.6 – On-side Loading

Note: Roll damage may occur using this pattern.

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50 in. Diameter Paper Rolls T-Loaded in 50 ft. Boxcars

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)
- 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)
- 826 Building Brick in Closed Cars – Incomplete Layer Securement – Woodpack Walls (Litco) (CCLG Part 5) (11/19)
- 827 Drum Layer Separators for Intermodal Shipments (Hazardous or Nonhazardous) (ILG Methods: B-3; B-8; B-9 (GIS 798); G-2; G-3; I-1; I-2; I-3; & I-4 (GIS 792)) (11/19)
- 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)
- 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 HFLASH 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)
- 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)
- 844 46 in. Diameter Roll Paper Loaded in 50 ft. Cushioned Boxcars with Plug Doors. (CCLG Part 2) (7/20)
- 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)
- 848 Securing Incomplete Layers of Paper Rolls (CCLG Part 2) (7/20)

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50 in. Diameter Paper Rolls T-Loaded in 50 ft. Boxcars

General Information Series Publications

- 849** 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) (7/20)
- 850** Unitizing – On Wood Pallets (CCLG Part 1) (8/20)
- 851** 50 in. Diameter Roll Paper in 50 ft. Cushioned Boxcars with Plug Doors – 23 Floor Spots (CCLG Part 2) (8/20)
- 852** Cased Goods Secured by Cargo Tuff Dually™ D.I.D. Bags (ILG Method F-7) (9/20)
- 853** 59 in. Diameter Cellulose Loaded in 60 ft. Cushioned Boxcars with 16 ft. Plug Doors (CCLG Part 2) (10/20)
- 854** Doorway Protection for Baled Paper and Wood Pulp Products in Boxcars (CCLG Part 8) (10/20)
- 855** 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) (10/20)
- 856** 76 in. Diameter Rolls Loaded in 60 ft. Cushioned Boxcars with 16 ft. Double Plug Doors Secured with Anchored H-Strap (CCLG Part 2) (10/20)
- 857** Incomplete Layer Securement for 50 in. Roll Paper in 50 ft. or 60 ft. Cushioned Boxcars (CCLG Part 2) (11/20)
- 858** Bales of Wood Pulp in Boxcars (CCLG Part 8) (3/21)
- 859** 69 in. Diameter Rolls Loaded in 50 ft. Boxcars Secured with Anchored U-Straps (CCLG Part 2) (3/21)
- 860** 50 in. Diameter Paper Rolls T-Loaded in 50 ft. Boxcars (CCLG Part 2) (3/21)