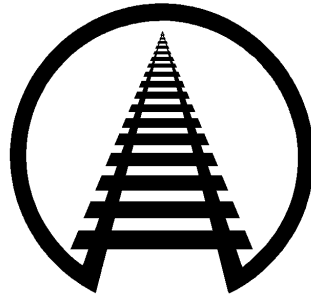


General Information Series No. 825

Loading Bundled Ingots with Open Doorways

(CCLG Part 10, Section 3.2; 6.2; & 6.6.10 (revised))

Approved by
DAMAGE PREVENTION & FREIGHT CLAIM COMMITTEE
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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.

Boxcars for the loading of metals of heavy concentrated weight must be inspected to verify that they are in suitable condition to safely carry loads to destination. The shipper should check that boxcar to verify that the floors and supporting structure are in good condition. If the shipper has any doubts concerning the condition of the car, the serving railroad should be contacted. Reference CCLG Part 10 – Sections 21.7 – 2.1.9 for further information on concentrated weight shipments.

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This approval may be withdrawn if the loads using these methods exhibit consistent load failure during actual shipments.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 to carry load safely to destination. Cars must have sound roofs, sides, floors and end walls; and operable, snug-fitting doors.

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 10, *Minimum Loading Standards for Primary Metal Products in Closed Cars* (October 2014)

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Closed Car Loading Guide Part 10 – *Minimum Loading Standards for Primary Metal Products in Closed Cars*

Section 3.2 Loading Partial and Incomplete Layers (revised)

3.2.1 When necessary to load a partial or incomplete layer or an open doorway loading method of bundled ingots, product must be secured to prevent shifting.

3.2.2 Where the incomplete layer (either floor layer or upper layers) is secured in the ends of the car, place approximately the same amount in each end to balance the car. Check the car's load limit to ensure that you do not overload one or both set of trucks. Place end loads behind full-height gates of 2 in. x 6 in. lumber extending from the top of floor bundles to the top of the incomplete layer and secured with steel straps to alternating vertical wall anchors at least 3 ft. from face of load.

Section 6.2 Rigidly Braced Large Ingots in a Single Layer (revised)

6.2.4. Bundled ingots in a single layer loaded in an open doorway loading method may require the construction of a gate to prevent the upper ingot in the bundles from shifting. Reference CCLG Part 10 paragraphs 6.3.5 and 6.6.10 for information on gate construction.

6.6.10 Loading of Partial and Incomplete Layers (revised)

6.6.10.1 When necessary to load a partial or incomplete layer or an open doorway loading method of bundled ingots, secure against shifting.

6.6.10.2 Where the incomplete layer (either floor layer or upper layers) is secured in the ends of the car, place approximately the same amount in each end to balance the car. Check the car's load limit to ensure that you do not overload one or both set of trucks. Place end loads behind full-height gates of 2 in. x 6 in. lumber extending from the top of floor bundles to the top of the incomplete layer and secured with steel straps to alternating vertical wall anchors at least 3 ft. from face of load.

6.6.10.3 The number, size, and strength of steel straps required with this method of loading will vary depending upon the weight and dimensions of the bundles loaded. Never use steel straps having a minimum breaking strength of less than 4,750 lbs. Make the combined joint strength of the number of steel straps equal to or greater than the weight of the bundles in the incomplete layer (floor layer or upper layers).

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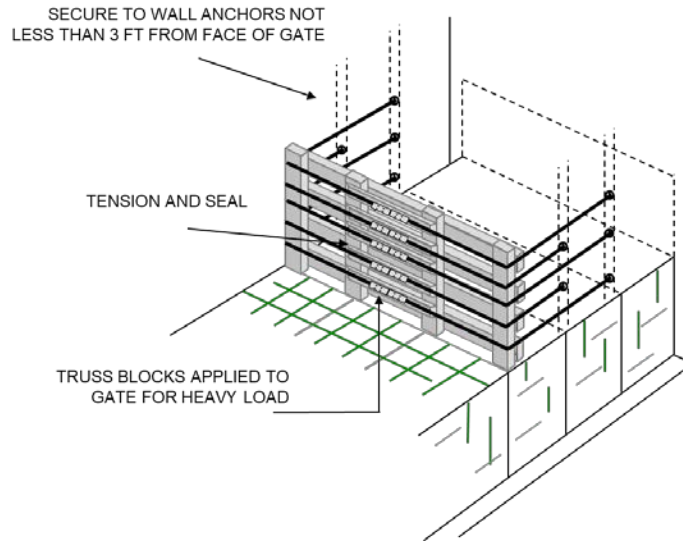


Figure 6.8
Bracing incomplete layers of unitized aluminum ingots

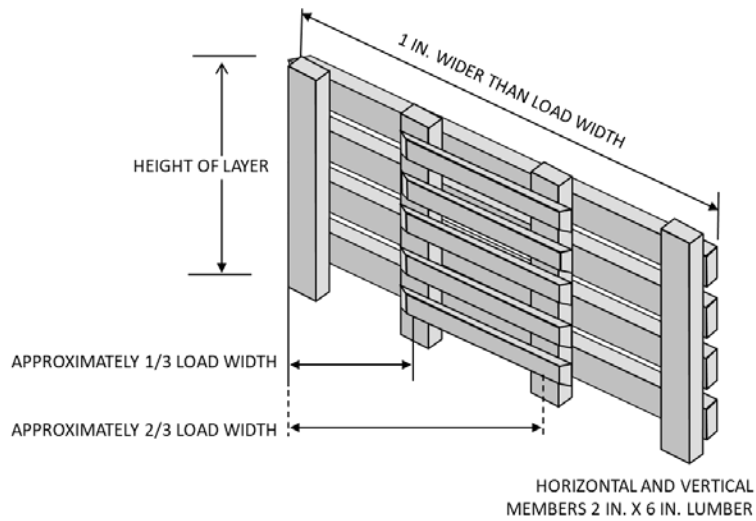


Figure 6.9
Gate construction for bracing incomplete layer

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General Information Series Publications

- 749 50 in. Diameter Roll Paperboard in 50 ft. Cushioned Boxcars with Horizontal Airbags (8/16)
- 752 Large Diameter Paper Rolls in 60 ft. Cushioned Boxcars with Anchored Straps (10/16)
- 753 60 in. Diameter Roll Paperboard in 60 ft. Boxcars with Doorway Stacks on Risers (10/16)
- 754 Wood Bins Braced by Disposable Inflatable Dunnage Bags and Lengthwise Fillers (CCLG Part 7, Section 6.3 Revised 10/16)
- 755 55-Gallon Steel Drums on Pallets Secured with Cordstrap® Barriers in 40-ft ISO Containers (Nonhazardous Materials only) (Intermodal Loading Guide Method I-6) (new 11/16)
- 758 58 in. Diameter Roll Pulpboard with an Incomplete Second Layer Loaded On End (Former Pamphlet No. 39, Method 11) (2/17)
- 759 Revision to Paragraph 2.5, Distribution of Weight Crosswise in Cars, CCLG Part 10, Primary Metals (2/17)
- 760 Incomplete Layers of Plywood Secured in Boxcars with Nonmetallic Straps, CCLG Part 3, Plywood (2/17)
- 761 37 in. Diameter Plastic Stretch Wrapped Kraft Rolls Loaded in a Single Layer in 60 ft. Cushioned Boxcars Using Rubber Mats and Lengthwise Filler Panels (3/17)
- 765 Wood Bins Braced by Disposable Inflatable Dunnage Bags and Shock-Gard® Lengthwise Void Fillers (7/17)
- 766 45 in. Diameter Roll Paper in 60 ft. Cushioned Boxcars with Double Plug Doors (8/17)
- 768 Gearboxes Mounted on Sleds in 20 ft. Long ISO Containers (9/17)
- 769 42 in. Diameter Roll Paper in 60 ft. Cushioned Boxcars Using Rubber Mats and Airbags (CCLG Part 2, 8.3.2.6) (9/17)
- 771 50 in. Diameter Roll Paper in 50 ft. Cushioned Boxcars Using Sidewall Fillers and Horizontal Airbags (CCLG, Part 2, Sections 5.6.10 & 8.2.4.4 Revised) (10/17)
- 772 81 in. Diameter Roll Paperboard in 50 ft. Standard Draft Gear Boxcars with Sliding Doors (CCLG Part 2, Section 8.2.8.1) (10/17)
- 773 42 in. Diameter Roll Paper in 50 ft. Cushioned Boxcars with 12 ft. Doors (CCLG Part 2, Section 8.2.2.5) (12/17)
- 774 48 in. Diameter Roll Paper in 60 ft. Cushioned Boxcars with 16 ft. Double Doors (CCLG Part 2, Section 8.3.4.5) (12/17)
- 776 45 in. Diameter Roll Paper in 50 ft. Cushioned Boxcars with 12 ft. Doors (CCLG Part 2, Section 8.2.3.8) (2/18)
- 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 (Intermodal Loading Guide Method E-23) (3/18)
- 781 Wood Bins Braced by Disposable Inflatable Dunnage Bags and BIN-PAK or M-PAK Lengthwise Void Fillers (4/18)
- 782 Plastic Intermediate Bulk Containers with Disposable Inflatable Dunnage Bags and Lengthwise Void Fillers – Schoeller Allibert (CCLG Part 7, Section 6.2) (4/18)
- 783 Cased Goods Secured by Tuff Wrap™ D.I.D. Bags (Intermodal Loading Guide Method F-4 New) (4/18)
- 784 Cased Goods Secured by S.A.M. D.I.D. Bags (Intermodal Loading Guide Method F-4 New) (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, Section 8.6) (6/18)
- 787 Universal Storage Containers Loaded in 53 ft. Intermodal Containers (ILG Method H-15 New) (6/18)
- 788 60 in. Diameter Roll Paperboard in 60 ft. Cushioned Boxcars with 12 ft. Wide Plug Doors (CCLG Part 2, 8.3.7.2) (6/18)
- 790 58 in. Diameter Roll Paperboard in 50 ft. Cushioned Boxcars with 12 ft. Wide Plug Doors (CCLG Part 2, 8.2.5.8 Revised) (6/18)
- 791 DRUM-PAK® Dunnage for Open Head Drums in Cushioned Boxcars (CCLG Part 7, Section 6.9) (6/18)
- 792 Double Layer Loads of Hazardous or Nonhazardous Materials Secured with Cordstrap® Barriers in a 20-ft Container (ILG Method I-4) (7/18) (Cancels GIS 779)
- 793 Hazardous or Nonhazardous Loads Secured with Cordstrap® Barriers in 40-ft Containers (ILG Method I-5HM) (8/18) (Cancels GIS 780)
- 794 Peat Moss, Bagged or Baled, in Cushioned Boxcars (CCLG Part 8, Section 6.6, New) (8/18)
- 795 Coiled Metal on Platforms/Skids in Boxcars (CCLT Part 9, Section 3.2, New) (8/18)
- 796 58 in. Diameter Roll Pulpboard with an Incomplete Layer (CCLG Part 2, Section 5.8 New) (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, Revised) (11/18)
- 798 Intermodal Loads Secured with TyGard DS™ (Intermodal Loading Guide Method B-9, Revised) (11/18)
- 799 46 in. to 57 in. Diameter Roll Paper on End Using Rubber Mats (Intermodal Loading Guide Method E-21, Revised) (12/18)
- 800 54 in. Diameter Paperboard on End Using Rubber Mats (Intermodal Loading Guide Method E-22) (12/18)
- 801 49 in. Diameter Roll Paper in 52 ft. Cushioned Boxcars with 12 ft. Wide Plug Doors (12/18) (New)
- 803 Stretch Film Roping of Steel Coils and Coil Loading Methods for Railroad Shipments (CCLG Part 9, Section 4.4. Revised; (12/18)
- 804 Lengthwise Void Filler Panels in Rigidly Braced Roll Paper Load Securement (CCLG Part 2, Section 5.7.2, 7.10.1, 7.10.5, 7.10.6 & 7.10.7 Revised) (2/19)
- 807 54 in. Diameter Roll Paper in 60 ft. Cushioned Boxcars with 16 ft. Wide Plug Doors. (CCLG Part 2, 7.10.8; Section 8, 60 ft Cars – 54 in. Diameter Rolls) (New) (4/19)
- 808 45 in. Diameter Roll Paper in 50 ft. Cushioned Boxcars Using Horizontal Airbags (CCLG Part 2, 8.2.3.9, New) (4/19)
- 809 Metal Intermediate Bulk Containers with Disposable Inflatable Dunnage Bags and Lengthwise Void Fillers – Goodpack USA (CCLG Part 7, Section 6.10-New) (4/19)
- 810 Reinforced Longitudinal Void Fillers for Plastic, Metal or Wood Intermediate Bulk Containers with Tomato Products (CCLG Part 7, 6.1.6, 6.2.10.6, 6.3.6, 6.10.6 (revised) (4/19)

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- 811** Plastic Intermediate Bulk Containers with Disposable Inflatable Dunnage Bags - Horen (CCLG Part 7, Section 6.11-New) (6/19)
- 812** 49 in. Diameter Roll Paper in 50 ft. and 60 ft. Cushioned Boxcars Using Horizontal Airbags (CCLG Part 2, Section 8, 50 ft. & 60 ft. Cars – 49 in. Diameter Rolls) (6/19)
- 813** Roll Paperboard in Boxcars with Doorway Stacks on Risers and Rubber Mats (6/19) (Cancels GIS 763)
- 814** Bales of Wood Pulp in Boxcars (CCLG Part 8 Section 6.5.1 (revised) and Section 6.5.5 (new) (6/19) (Cancels GIS 805)
- 815** Doorway Protection for Baled Paper and Wood Pulp Products in Boxcars (cancels GIS 806; CCLG Part 8, Section 8.4 (revised) (6/19)
- 816** Pallet Grip® Stretch Wrap (CCLG Part 1 Section 5.4.3; CCLG Part 6 Section 4.6.3 – New) (6/19)
- 817** Case Goods Secured by Stopack Max Blocker D.I.D Bags (Intermodal Loading Guide Method F-5 - New) Revised (9/19)
- 818** 51 in. Diameter Roll Paper in 50 ft. and 60 ft. Cushioned Boxcars using Horizontal Airbags (CCLG Part 2 – Section 8, 50 ft. & 60 ft. boxcars, 51 in. Diameter Rolls – New) (7/19)
- 819** 48 in. Diameter Roll Paper in 50 ft. Cushioned Boxcars using Horizontal Airbags (CCLG Part 2 – Section 8, 50 ft. boxcars 48 in. Diameter Rolls – Cancels GIS 770) (7/19)
- 820** 54 in. Diameter Roll Paper in 50 ft. Cushioned Boxcars with 20 Floor-Spots (CCLG Part 2 – Section 8, 50 ft. boxcars, 54 in. Roll Paper – New) (7/19)
- 821** 58 in. Diameter Paper Rolls T-Loaded in 60 ft. boxcars with 16 ft. Wide Double Plug Doors Using Lengthwise Filler Panels (CCLG Part 2, Section 6.6.16.1.7 (T-Loading); 8.3.6.8 (Pattern); 5.7.12.1 (Risers); Cancels GIS 802)
- 822** Palletized or Crated Auto Parts Secured by Web Strap Assemblies in 53 ft. Containers (Intermodal Loading Guide Method H-16 – New) (9/19)
- 823** Plywood and Similar Panels Products – Loading Doorway Areas (CCLG Part 3 – Section 7.3.1; 7.3.2; 7.3.3; and 7.4.3 (revised)) (10/19)
- 824** Case Goods Secured by Stopack Blocker D.I.D Bags (Intermodal Loading Guide Method F-6 – New) (10/19)
- 825** Loading Bundled Ingots with Open Doorways (CCLG Part 10 – Section 3.2; 6.2; and 6.10 (revised)) (10/19)