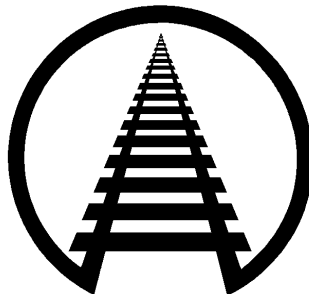


General Information Series No. 815

Doorway Protection for Baled Paper and Wood Pulp Products in Boxcars

(cancels GIS 806; CCLG Part 8, section 8.4 (revised))

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-M 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This approval may be withdrawn if the loads using these methods exhibit consistent load failure during actual shipments.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 Director Damage Prevention and Loading Services, AAR/TTCI, 55500 DOT Road, Pueblo, CO 81001.*

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) 1, *Minimum Loading Standards for Freight in General Purpose Boxcars* and Closed Car Loading Guide Part 8, *Minimum Loading Standards for Bagged and Baled Commodities in Closed Car* (July 2014)

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8.4 Paper Bales & Wood Pulp Bales

8.4.1 Steel Strapping: – Use 1 ¼ in. x .029 in. steel straps

8.4.1.1 Use steel strapping as doorway protection in boxcar shipments of baled paper and wood pulp products. More detailed information regarding steel strapping is available in the [Closed Car Loading Guide, Part 1, "Minimum Loading Standards for Freight in General Purpose Boxcars."](#)

Note: For the latest updates of approved strapping, go to the TTCI Web site at:
<http://www.aar.com/standards/OpenTop-approvals.html>

8.4.2 Nonmetallic Strapping

8.4.2.1 Approved nonmetallic strapping can be used as an alternative to steel strapping. Apply straps as listed in Table No.1 based on grade of strapping and application method.

Only the nonmetallic strap listed on the [Nonmetallic Strap Substitution for Doorway Protection Product Performance Profile](#) is approved for use as a method of doorway protection. More detailed information regarding nonmetallic strapping is available in the [Closed Car Loading Guide, Part 1, "Minimum Loading Standards for Freight in General Purpose Boxcars."](#)

Note: For the latest updates of approved strapping, go to the TTCI Web site at:
<http://www.aar.com/standards/OpenTop-approvals.html>

ASTM Type and Grade*	Size	Application
Type 1A, Grade 3	1¼ in. Wide	Belt Loop Application
Type 1A, Grade 4	1¼ in. Wide	Belt Loop Application
Type 1A, Grade 5	1½ in. Wide	Belt Loop Application
Type 1A, Grade 4	1¼ in. Wide	Doorway Unitization

* See ASTM Standard D3950, Standard Specification for Strapping, Nonmetallic, for information on strapping type and grade, and testing procedures.

Table No. 1

8.4.2.2 The straps are to be tensioned and joined using the correct buckle and tensioning tools in accordance with manufacturer's instructions. It is important that the buckle be applied properly to maintain strap tension.

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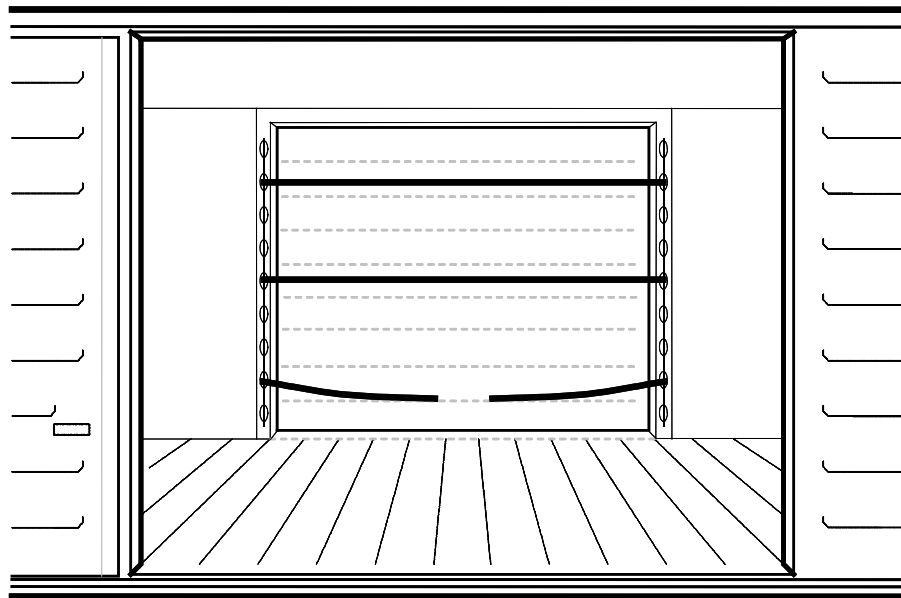
8.4.3 Doorway Straps Application

8.4.3.1 Bales loaded in the doorway area can be individual bales or unitized into bundles. Strapping can be applied in either conventional or belt-loop application based on strapping type and grade.

- Individual bales: Use 1 strap per layer in the doorway
- Unitized bundles maximum 4 ft. in height – Use 2 straps spaced over the facing of the unitized bundles.
- Unitized bundles over 4 ft. in height – Use 1 additional strap for every additional 2 ft. of unitized bundle height over 4 ft. Space straps evenly across the facing of the unitized bundles.

8.4.3.2 Conventional Doorway Strap Application

In conventional doorway strap application, steel straps are anchored to opposite doorposts and brought together under tension and joined with seals. See Figure No. 1.



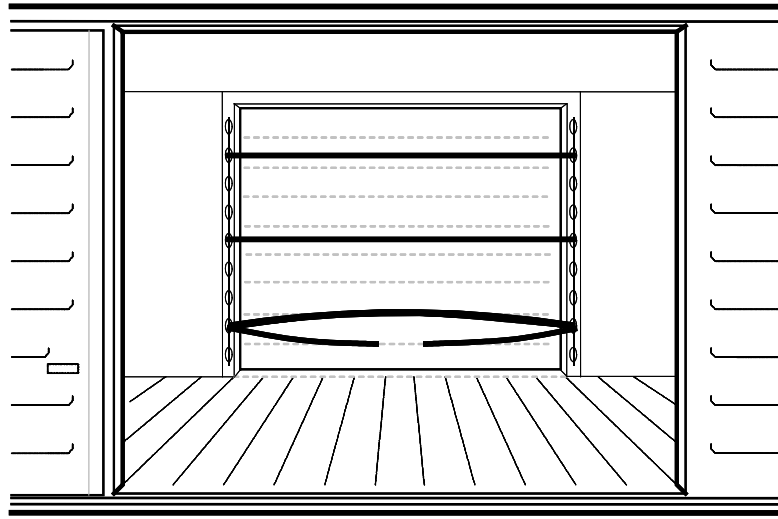
Conventional Doorway Application

Figure No. 1

8.4.3.2 Belt Loop Application

In a belt loop application, a nonmetallic strap is threaded through matching anchor points on opposite doorposts as one continuous strap and brought together and joined with a buckled and tensioned. On the loading door, two straps and two buckles may be used to create the looped strap. See Figure No. 2.

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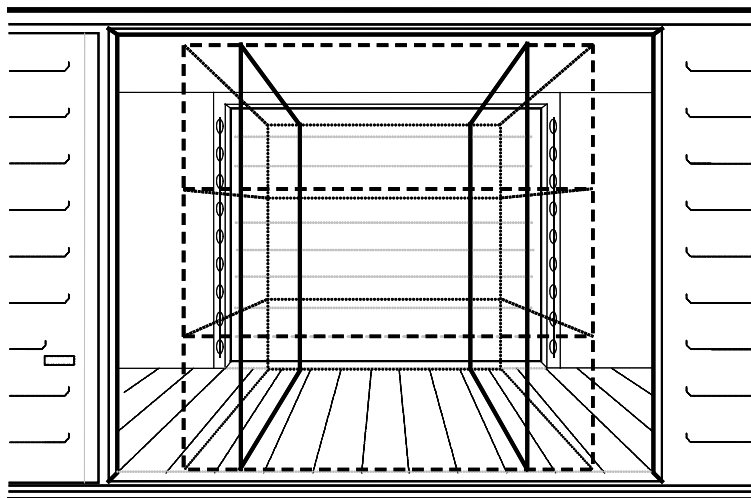


**Belt Loop Application
Figure No. 2**

8.4.4 Doorway Unitization Application

8.4.4.1 Doorway Unitization Application – Paper Bales

This application is limited to loads where the lengthwise doorway stacks fill the entire door opening. Use a minimum of two vertically oriented straps as shown for a single stack in the doorway area. If there is more than one stack completely in the doorway area, use two straps per stack. See Figure No. 3.



**Doorway Unitizing Application – Paper Bales
Figure No. 3**

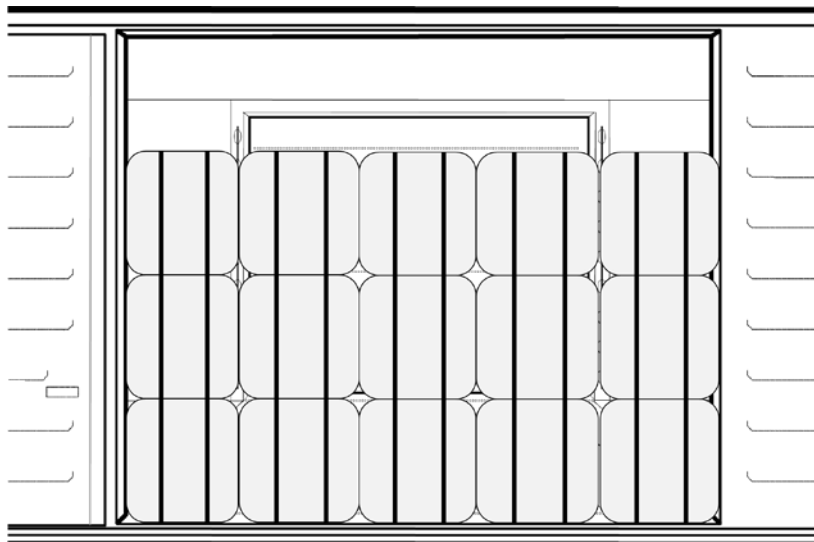
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Doorway Protection for Baled Paper and Wood Pulp Products in Boxcars

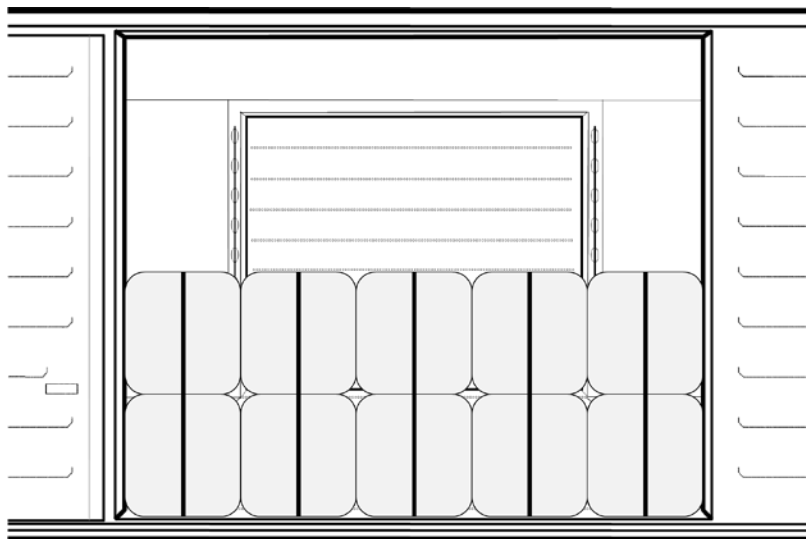
8.4.4.2 Doorway Unitization Application – Wood Pulp Bales

8.4.4.2.1 If bales in the doorway area are stacked to greater than 50% of the height of the doorframe, use two vertical steel or nonmetallic straps per row in the doorway area. See Figure No. 4.

8.4.4.2.2 If bales in the doorway area are stacked to less than 50% of the height of the doorframe, use one vertical steel or nonmetallic strap per row in the doorway area. See Figure No. 5.



**Doorway Unitizing Application – Wood Pulp
Figure No. 4**



**Doorway Unitizing Application – Wood Pulp
Figure No. 5**

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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 (Nonhaz Materials only)(ILF Method I-6) (new 11/16)
- 758** 58 in. Diameter Roll Pulpboard with an Incomplete Second Layer Loaded On End (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)
- 770** 48 in. Diameter Roll Paper in 50 ft. Cushioned Boxcars Using Horizontal Airbags (CCLG, Part 2, Section 8) (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 Nonhaz 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)
- 802** 58 in. Diameter Paper Rolls T-Loaded in 60 ft. Boxcars with 16 ft. Double Plug Doors Using Lengthwise Void Filler Panels (CCLG Part 2. 6.6.16.1.7 & 5.7.12.1) (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)

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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)

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)