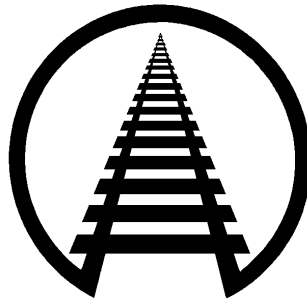


# General Information Series No. 866

## Doorway Protection for Baled Paper and Other Baled Products in Boxcars

(CCLG Part 8, Section 8.4 (Revised)); (Cancels GIS 854)

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



Issued  
September 2021

Published by  
Association of American Railroads/TTCI  
Damage Prevention and Loading Services  
55500 DOT Road  
Pueblo, CO 81001

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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-O 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This approval may be withdrawn if the loads using these methods exhibit consistent load failure during actual shipments.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:** Rail 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 rail car. Exercise caution when inside a partially loaded rail car. Lift operators should stay on lift equipment, whenever possible, while inside a partially loaded rail car.

#### General

Rail cars must be inspected by shipper at loading point to verify that rail cars are in suitable condition. Rail 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 rail car to be rejected.

It is important that rail cars 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 1, *Minimum Loading Standards for Freight in General Purpose Boxcars* (current edition) and Closed Car Loading Guide Part (CCLG) Part 8, *Minimum Loading Standards for Bagged and Baled Commodities in Closed Car* (July 2014).

This information is for paper bales or other types of baled products. For information on doorway protection for wood pulp bales reference the specific GIS (General Information Series) for load securement and doorway protection for wood pulp bales at <https://aar.com/standards/damage-publications.php>.

## Doorway Protection for Baled Paper and Other Baled Products in Boxcars

### CCLG Part 8 – Minimum Loading Standards for Bagged and Baled Commodities in Closed Cars

#### 8.4 Doorway Protection – Baled Paper & Other Baled Products

Apply doorway protection for paper bales and other baled products following the options below or as outlined in applicable GIS updates.

- Doorway Protection Straps – Steel or Nonmetallic
- Doorway Unitization Straps

**Note:** Figures outlining doorway protection application are to demonstrate the application of the doorway protection only. Reference Closed Car Loading Guide Part 8, *Minimum Loading Standards for Bagged and Baled Commodities in Closed Car* for load securement information and application.

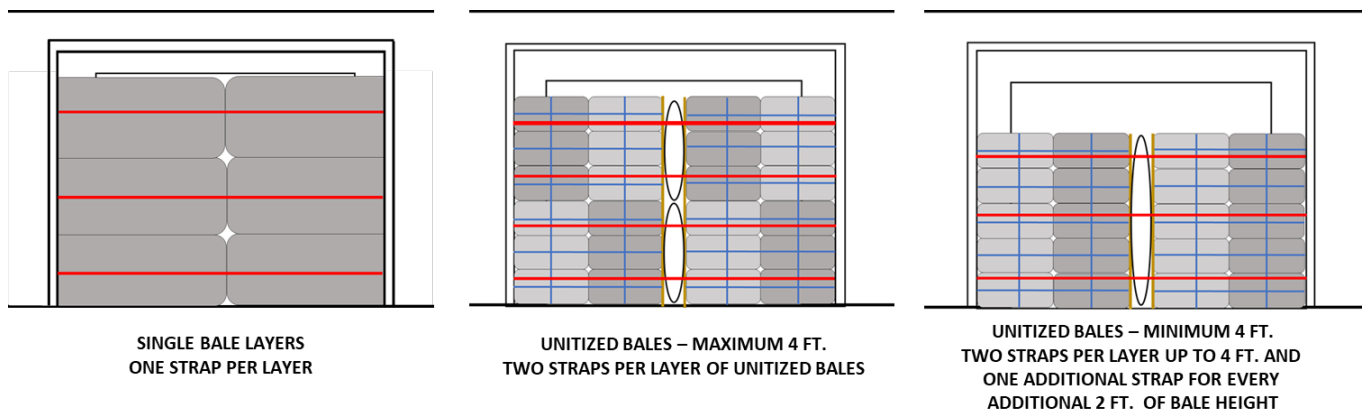
##### 8.4.1 Doorway Protection Straps – Steel or Nonmetallic

**8.4.1.1** Bales loaded in the doorway area can be single layer bales or bales unitized into bundles. Strapping can be applied in either conventional application with steel straps or in belt-loop application with nonmetallic straps. See Figure 1.

- Single layer bales: use one strap per layer in the doorway.

**Note:** Apply AAR approved Type 1A Grade 3 straps with two straps on the top bale layer, and one strap on the remaining bale layers.

- Unitized bales (maximum 4 ft. in height): use two straps spaced over the height of the total unitized bundle. If unitized bales are stacked in the doorway apply two straps for each layer of bundled bales. Example: unitized bales are double stacked – four total straps applied in each doorway.
- Unitized bales (over 4 ft. in height): Use one additional strap for every additional 2 ft. of unitized bundle height over 4 ft. Example: unitized bales are 6 ft. in height – three total straps applied in each doorway. Space straps evenly over the height of the unitized bundles.



**Figure 1:** Application of doorway strapping

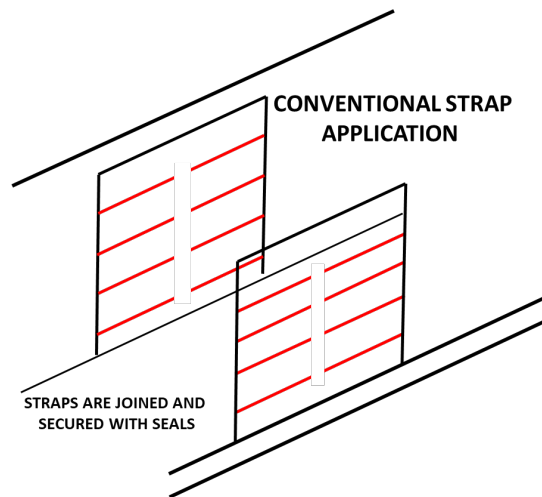
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**8.4.1.2** Conventional doorway strapping with steel straps is applied with straps anchored to matching opposite doorpost anchors and brought together under tension and joined with seals. See Figure 2.

- Use AAR approved 1 ¼ in. x 0.029 in. steel straps. Follow manufacturer's instructions for seal application and tensioning. More detailed information regarding steel strapping is available in Closed Car Loading Guide, Part 1 - *Minimum Loading Standards for Freight in General Purpose Boxcars*.

**Note:** for the latest updates of approved strapping reference: <http://www.aar.com/standards/OpenTop-approvals.html>

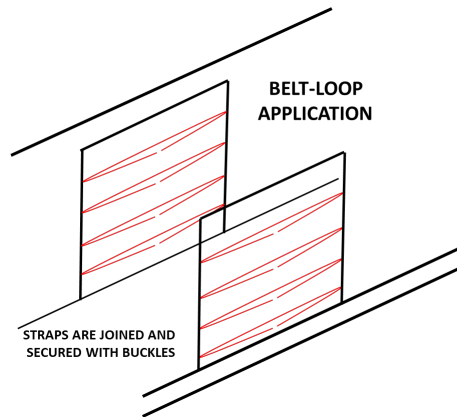


**Figure 2:** Conventional doorway strapping application

**8.4.1.3** Belt-loop doorway strapping with nonmetallic straps is applied with straps threaded through matching opposite doorpost anchors as one continuous strap and brought together and joined with a buckle and tensioned. See Figure 3. On the loading door, two straps and two buckles may be used to create the looped strap.

- Use AAR approved Type 1A Grade 3, Grade 4, or Grade 5 strap. Follow manufacturer's instructions for buckle application and tensioning. More detailed information regarding steel strapping is available in Closed Car Loading Guide, Part 1 - *Minimum Loading Standards for Freight in General Purpose Boxcars*. **Note:** for the latest updates of approved strapping reference: <http://www.aar.com/standards/OpenTop-approvals.html>
- 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. (<https://aar.com/standards/damage-publications.php>)

## Doorway Protection for Baled Paper and Other Baled Products in Boxcars



**Figure 3:** Belt-loop doorway strapping application

### 8.4.2 Doorway Unitization Straps

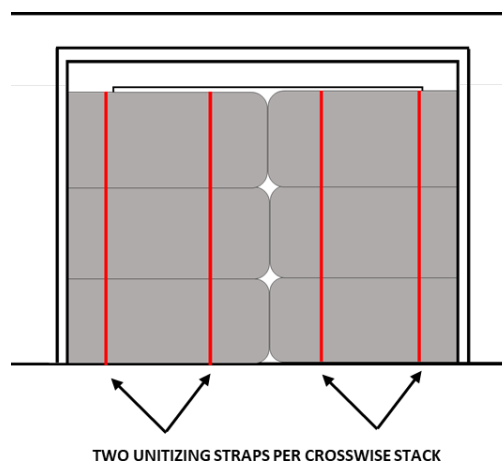
**8.4.2.1** If doorpost anchors are not present in the boxcar or if another method of doorway protection is preferred a unitizing method of doorway protection may be applied. The loaded bales in each crosswise doorway stack (door to door) will be unitized as outlined below.

**8.4.2.2** Apply AAR approved strapping, either 1 ¼ in. x 0.029 in. steel straps or Type 1A Grade 4 nonmetallic straps. Follow manufacturer's instructions for seal or buckle application and tension.

- More detailed information regarding steel or nonmetallic strapping is available in Closed Car Loading Guide, Part 1 - *Minimum Loading Stands for Freight in General Purpose Boxcars*.

**Note:** for the latest updates of approved strapping reference: <http://www.aar.com/standards/OpenTop-approvals.html>

**8.4.2.3** If bales in the doorway are stacked to greater than 50% of the height of the doorframe, use two vertical unitizing steel or nonmetallic straps on each total crosswise stack in the doorway area. See Figure 4.

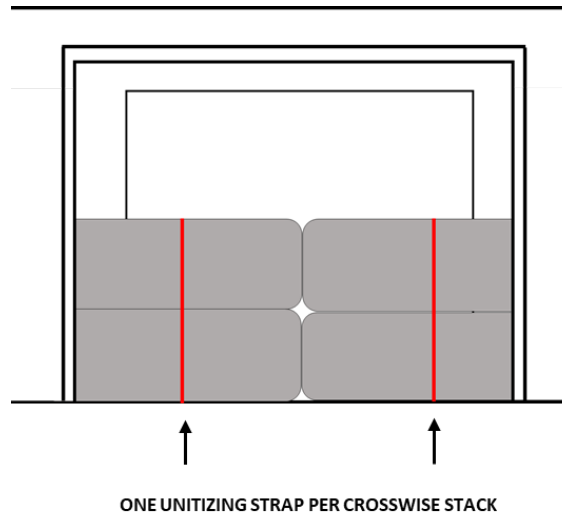


**Figure 4:** Doorway unitizing application – two straps

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**8.4.2.4** If bales in the doorway are stacked to less than 50% of the height of the doorframe use one vertical unitizing steel or nonmetallic strap on each total crosswise stack in the doorway area. See Figure 5.



**Figure 5:** Doorway unitizing application – one strap

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#### 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)
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- 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)
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- 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)
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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)
- 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)
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- 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)

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- 848** Securing Incomplete Layers of Paper Rolls (CCLG Part 2) (7/20)
- 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)
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- 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)
- 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)
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- 860** 50 in. Diameter Paper Rolls T-Loaded in 50 ft. Boxcars (CCLG Part 2) (3/21)
- 861** Case Goods Secured with Floor Blocking and the Super Wedge® XL, Intermodal Wedge XL®, or Intermodal Wedge (Logistick Inc.) (ILG Method H-14) (3/21)
- 863** 59 in. Diameter Cellulose Loaded in 50 ft. Cushioned Boxcars with Maximum 16 ft. Plug Doors (CCLG Part 2) (9/21)
- 864** 58 in. Diameter Roll Paper Loaded in 60 ft. Cushioned Boxcars with Double Doors – Roll Omission (CCLG Part 2) (9/21)
- 865** Bales of Wood Pulp in Boxcars (CCLG Part 8) (9/21)
- 866** Doorway Protection for Baled Paper and Other Baled Products in Boxcars (CCLG Part 8) (9/21)