General Information Series No. 783

Case Goods Secured with Tuff Wrap™
D.I.D. Bags
Intermodal Loading Guide Method F-4 (New)

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

Issued
April 2018

Published by
Association of American Railroads/TTCI
Damage Prevention and Loading Services
55500 DOT Road
Pueblo, CO 81001
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This approval may be withdrawn if the loads using these methods exhibit consistent load failure during actual shipments.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.

Method F-4—Case Goods Secured with Tuff Wrap™ D.I.D. Bags

Use this method for case goods unitized on pallets or slip sheets by minimum 90 gauge stretch wrap. Follow manufacturer’s instructions regarding the minimum number of wraps to be used, but in all cases use a minimum of three wraps for the top and bottom layers and two wraps for the center layers. The load that was tested weighed 45,000 lb.

Figure 4.34A:

1. Cover rough surfaces or projections of the sidewall, including: trailer/container tie down hooks, rings, logistics tracks, etc., with fiberboard sheets or other suitable material where Tuff Wrap airbags or freight come into contact with the sidewalls of trailer/container.

2. Plan the load so crosswise space is minimized. Use appropriate void fillers to prevent crosswise movement.

3. Lading weight in trailers and containers must be evenly distributed both crosswise and lengthwise, and the combined weight of lading must conform to all federal, state, provincial, and local regulations and transportation service requirements used at origin and to final destination.
4. Use Tuff Wrap D.I.D. bags to control lengthwise load movement as shown in Figure 4.34A. Tuff Wrap D.I.D. bags may be used to fill cumulative crosswise void space from 12 in. to 24 in. distributed equally at either side wall to control lengthwise movement.

**Sketch 1:** Use this method for loads in which the lading is positioned against the front end wall.

5. Use Tuff Wrap D.I.D. bags at two locations in the load: at the fourth and fifth stacks and at the last two stacks. The figure shows ten units in two rows. Depending on trailer/container size and unit weight, varying numbers of units may also be loaded. In any case, the first Tuff Wrap D.I.D. bag restrains approximately one half the load. Use Tuff Wrap D.I.D. bags wide enough to extend from 4 in. above the floor to the top of the lading. The length of the Tuff Wrap bags should be equal to twice the pallet length.

6. Place units in the trailer/container against the side walls except where the Tuff Wrap D.I.D. bags are installed. These pallets are centered in the trailer/container, leaving equal space on each side of the Tuff Wrap D.I.D. bags. Leave a 24 in. (approximate) space between the rear of the load and the trailer/container doors. Use hanging honeycomb void fillers or equivalent to fill the center void in each stack not filled by air bags.
Sketch 2: Use this method for case goods unitized on pallets when there is unfilled lengthwise pallet underhang and/or for case goods unitized on pallets or slip sheets that are loaded away from the front end wall to obtain proper weight distribution.

7. Use Tuff Wrap D.I.D. bags adjacent to every stack in the load. The D.I.D. bags contact the full surface of the units along the side walls of the trailer/container as shown in the Sketch 2. This figure shows ten units in two rows. Depending on trailer/container size and unit weight, varying numbers of units may also be loaded. Use D.I.D. bags wide enough to extend from 4 in. above the floor to the top of the lading. The length of the Tuff Wrap bags should be equal to twice the pallet length.

8. Alternately, use Tuff Wrap only at the first and last 2 pallets in the load and use either a square air bag in the center void, or 2 level 1 airbags on either side of the interior pallets.

9. Leave a 24 in. (approximate) space between the rear of the load and the trailer/container doors.
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Cased Goods Secured by Tuff Wrap™ D.I.D. Bags
(Intermodal Loading Guide Method F-4)

General Information Series Publications

749 50 in. Diameter Roll Paperboard in 50 ft. Cushioned Boxcars with Horizontal Airbags (8/16)
750 Double Layer Loads of 55 Gallon Closed Head Steel Drums Secured with Cordstrap® Barriers in a 20-ft Container
(Intermodal Loading Guide Method I-4HM) (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)
763 Roll Paperboard in Boxcars with Doorway Stacks on Risers and Rubber Mats (6/17)(Cancels GIS 762)
764 Non-metallic Strap Substitution for Steel Strap as Doorway Protection in Boxcars (Cancels GIS 756) (06/17)
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)
777 Double Layer Loads of 76-55 Gallon Drums Secured with Ty-Gard DS™ Barriers in 20-ft Containers (Intermodal
Loading Guide Method B-9)(3/18)
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-22)(3/18)
779 Double Layer Loads of Hazardous or Nonhazardous Materials Secured with Cordstrap® Barriers in a 20-ft Container
(ILG Method I-5HM) (4/18) Cancels GIS 744
780 Hazardous or Nonhazardous Loads Secured with Cordstrap® Barriers in 40-ft Containers (ILG Method I-5HM) (4/18)
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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)