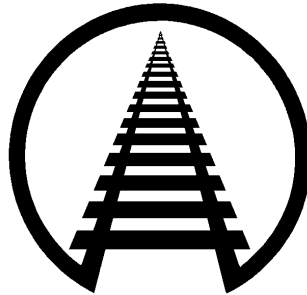


# **General Information Series No. 783**

## **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*



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### Cased Goods Secured by Tuff Wrap™ D.I.D. Bags (Intermodal Loading Guide Method F-4)

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This approval may be withdrawn if the loads using these methods exhibit consistent load failure during actual shipments.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

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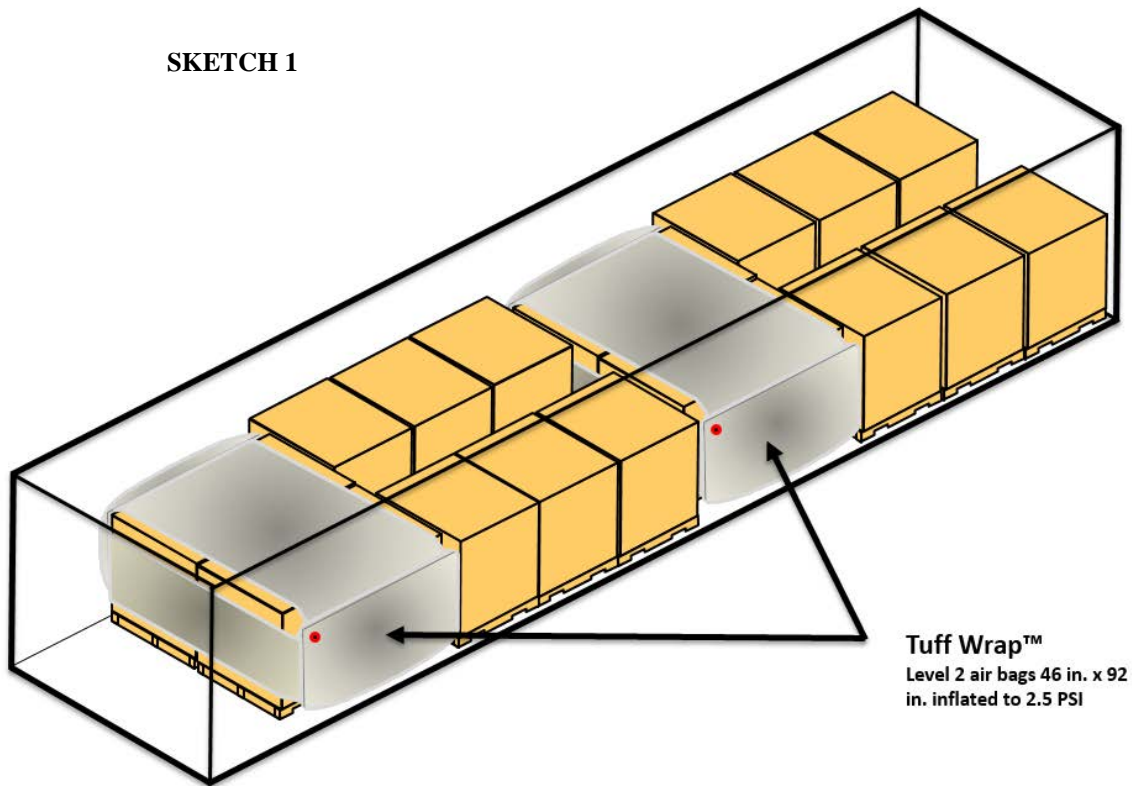
### Cased Goods Secured by Tuff Wrap™ D.I.D. Bags (Intermodal Loading Guide Method F-4)

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.



**Figure 4.34A**  
Method F-4  
Palletized Cased Goods Secured with Tuff Wrap™ Load Securement System

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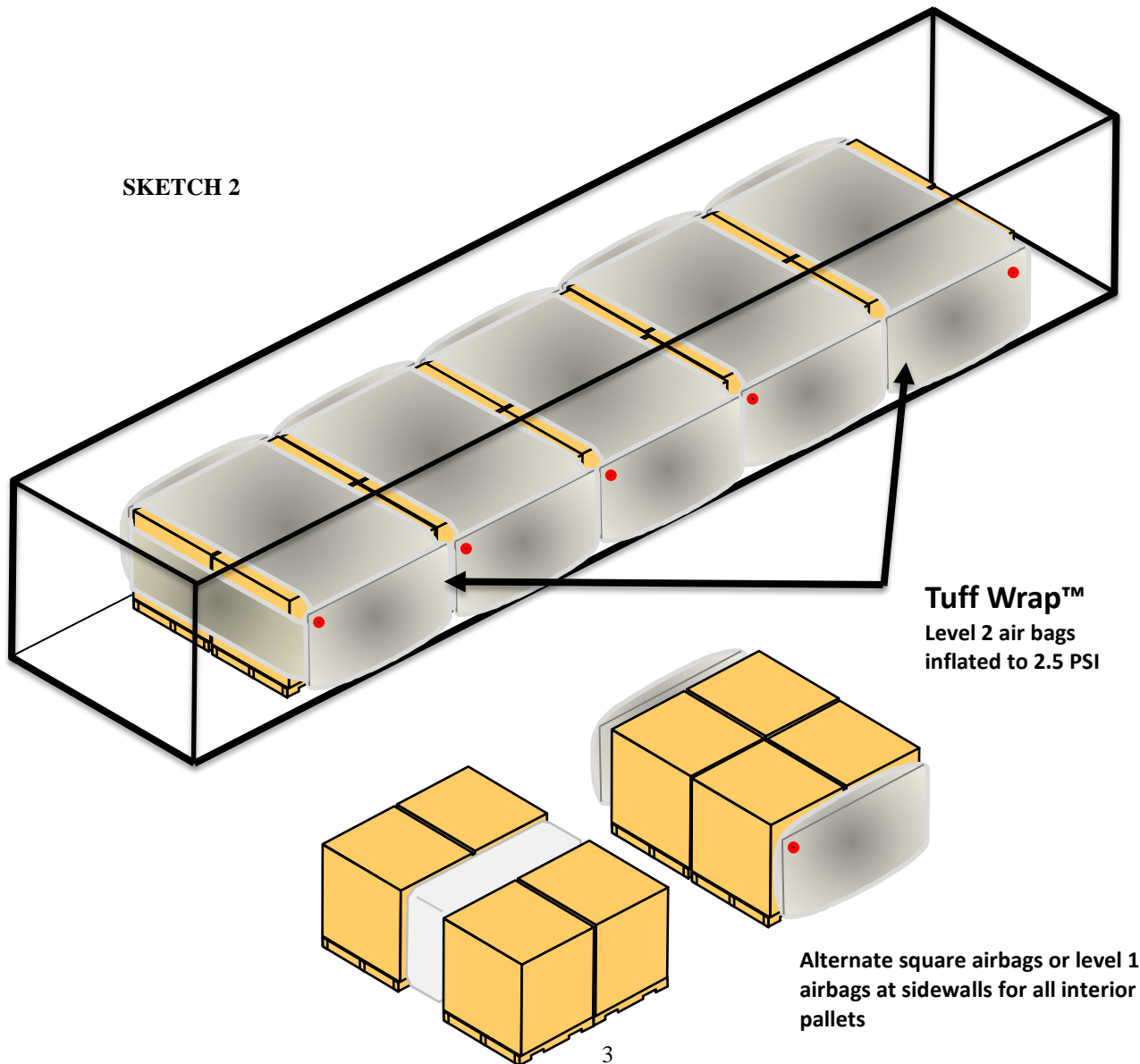
### Cased Goods Secured by Tuff Wrap™ D.I.D. Bags (Intermodal Loading Guide Method F-4)

**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.



## General Information Series No. 783

### 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)
- 757** 46 in. to 57 in. Diameter Roll Paper on End Using Rubber Mats (Revised Intermodal Loading Guide Method E-21) (1/17)
- 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)
- 775** 54 in. Diameter Paperboard on End Using Rubber Mats (New Intermodal Loading Guide Method E-22)(January 2018)
- 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-4HM) (4/18) Cancels GIS 744
- 780** Hazardous or Nonhazardous Loads Secured with Cordstrap® Barriers in 40-ft Containers (ILG Method I-5HM) (4/18) Cancels GIS 745
- 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)