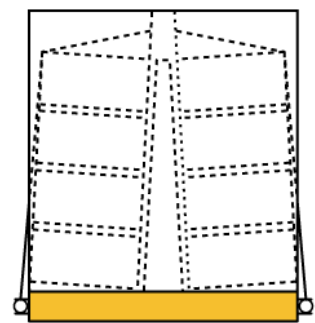
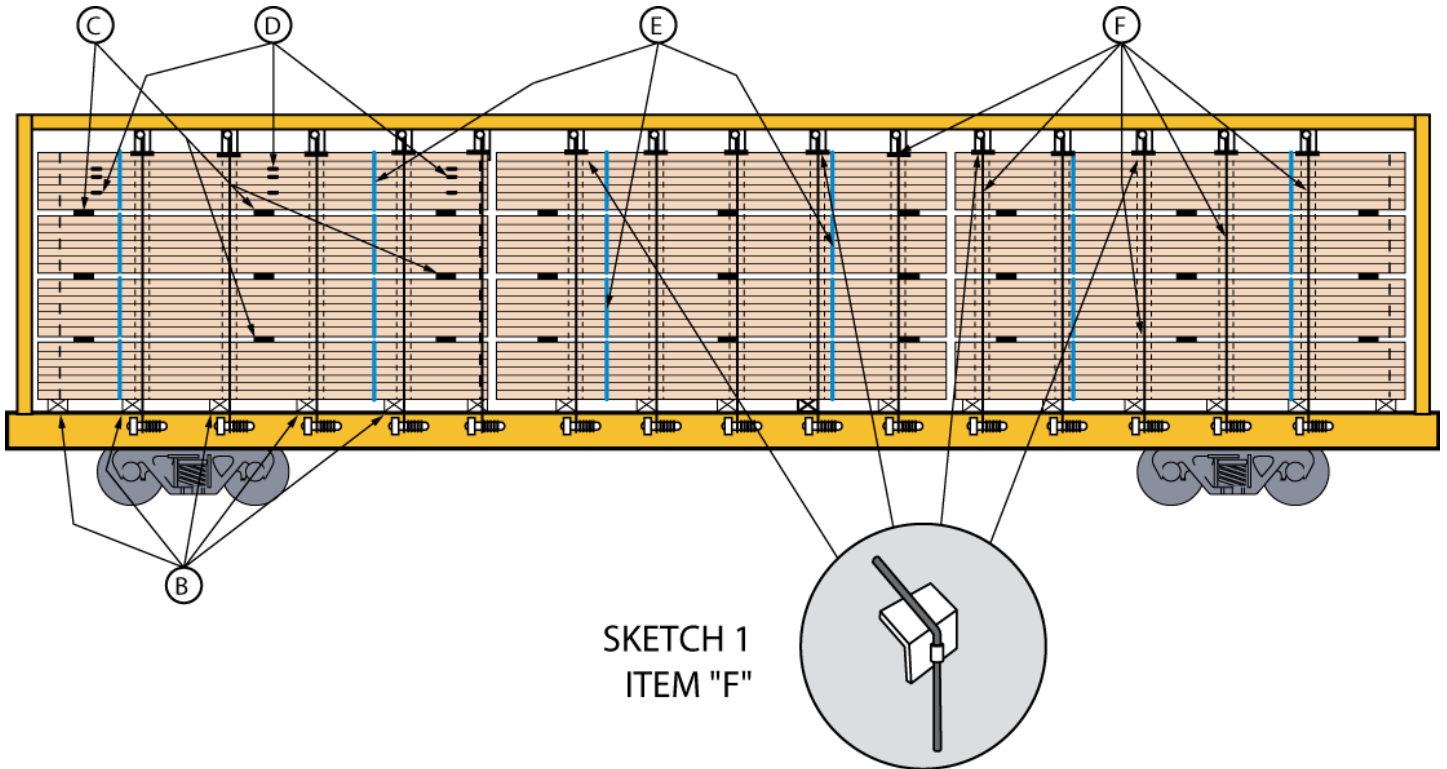


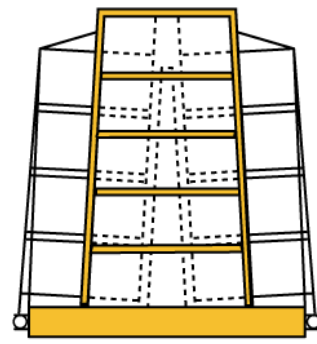
LUMBER IN PACKAGES, 8FT. LONG OR OVER FLAT CARS WITH CENTER A-FRAME, PERMANENT END BULKHEADS AND CABLE TIE-DOWN SYSTEM.

RAC 15054

Rev. 06-2019 (Ref: AAR Fig. 54)



END VIEW  
FULL BULKHEAD



END VIEW  
PARTIAL BULKHEAD

**LUMBER IN PACKAGES, 8FT. LONG OR OVER FLAT CARS WITH CENTER A-FRAME, PERMANENT END BULKHEADS AND CABLE TIE-DOWN SYSTEM.**

RAC 15054 (continued)

Rev. 06-2019 (Ref: AAR Fig. 54)

<b>Item</b>	<b>No. of Pcs.</b>	<b>Description</b>
A		Vacant
B	2 per package, 8 ft. long or less	Bearing pieces: cars are equipped with permanent floor bearing wedged 90 degrees to the A-frame.
C	2 per package, 16 ft long or less 3 if over 16 ft. long	Separators: lumber, 2 in. x 2 in. minimum. Height must not exceed width. Length must be equal to width of package. All separators in same layer must be in one piece. Locate approximately 18 in. from each solid end of package, with others when needed, equally spaced in between. Separators with minimum width of 3 in. may be secured to top or bottom of package with Item "E" package ties. When attached to top of packages in the top layer of load, each separator must be secured to the package with one 10-D nail. (Use of separators optional.)
D	Optional	Stickers: When used they must be uniform thickness throughout. Length of sticker must be equal to width of package.
E	2 per package	Package Ties: 1600 lbs. minimum breaking strength, high-tension bands or wire, except on 2 ft. x 4 ft. wide package, high-tension bands or wire with minimum breaking strength of 1275 lbs. Locate one tie about one-fourth the length from each end of package. This banding may be substituted with approved non-metallic strapping as permitted in General Rule 19 of Section No.1.
F	2 per each top package 10 ft. or less  3 per each top package over 10 ft.	Cables: 3/8 in. diameter, of 8,800 lbs. minimum breaking strength. Cable assemblies must be equipped with edge protectors ( <b>Sketch 1</b> ).. Prior to tightening, there must be a minimum of 2-1/2 wraps of cable around the winch drum. When practical, all cables must be used, and must be free of kinks and tangles. Cable must be winded level on spool to avoid crossed cables. Tension to be applied with the use of an 18-inch bar or 3/4 inch ratchet. Cables are to be secured to A-frame in slot nearest to top of package.

LUMBER IN PACKAGES, 8FT. LONG OR OVER FLAT CARS WITH CENTER A-FRAME, PERMANENT END BULKHEADS AND CABLE TIE-DOWN SYSTEM.

RAC 15054 (continued)

Rev. 06-2019 (Ref: AAR Fig. 54)

Alternate Item B—For cars not equipped with permanent bearing pieces

Item	No. of Pcs.	Description
Alt B	Min. 2 per package 8 ft long or less. Add 1 for each additional 4 ft.	Bearing pieces: lumber of one piece, preferably rough. Width must be 2 in. greater than height and the length equal to width of bottom package. Locate approximately 18-24 in. from each end of package with remaining pieces equally spaced. May be attached to package with Item E package ties.

**Notes and Additional Requirements:**

1. Voids, if any, must be in center of load and kept to a minimum. Layers differing in combined length resulting in longitudinal void space are to be configured so as to locate layers with the greatest void at the top of the load and descending in void length toward the bottom. Void spaces in excess of 12 in. must not be bridged or overlapped with package above.
2. Top packages on either side of a void space greater than 4 ft must be protected with the following method to prevent package coring.

Compression package band: 1 1/4 in. × .029 in. high tension band. Apply one band to top packages on either side of a void space greater than 4 ft. Locate near the center of the package as shown in **sketch 3**. In accordance with **sketch 3**, apply two compression blocks, one on top of the package and one on the side of the package facing away from the centerbeam. Blocks are to be lumber, minimum 2 in. x 4 in., length equal to about 1/3 the width of the surface to which they are to be applied. Position each block centrally across the package surface as shown. Secure each block with a minimum of two nails. The nail length must be sufficient to penetrate package material at least 1 in., and have about 3/4 in. remaining above the block. Encircle the package with the band, placing it over both blocks, then bend the nail heads over the band as shown. (**Sketch 3**)

3. Finished packages must have sides square and must be composed of pieces of uniform width and thickness. All packages must be loaded with the squared end towards ends of car. The packages must be placed tight against the A-frame to prevent loosening of cables.
4. The packages must be placed tight against the A-frame to prevent loosening of cables. Packages must not exceed 48 in. in height. Overlapping of mixed height packages is permitted, provided the layer is maintained at an even height without the use of laminated separators.

LUMBER IN PACKAGES, 8FT. LONG OR OVER FLAT CARS WITH CENTER A-FRAME, PERMANENT END BULKHEADS AND CABLE TIE-DOWN SYSTEM.

RAC 15054 (continued)  
Rev. 06-2019 (Ref: AAR Fig. 54)

5. Packages must not exceed 48 in. in height. Overlapping of mixed height packages is permitted, provided the layer is maintained at an even height without the use of laminated separators.
6. Dunnage, attached or otherwise, must not be placed on top of permanent floor risers or bearing pieces.
7. Bottom packages must not overhang the outside edge of permanent bearing pieces by more than one half the width of the outside board in bottom packages. Packages 6 ft. long must not be loaded at the bottom layer on riser cars.
8. Packages 6 ft long should not be loaded at the bottom layer on riser cars unless they are combo and also they should not be loaded on the top layer unless they have top corner cap.
9. When lumber of unequal lengths is included in the same package, the following variances are allowable:
  - Solid 6 ft. packages may include 8 ft. lengths.
  - Solid 8 ft. packages may include 10 ft. lengths.
  - Solid 10 ft. packages may include 12 ft. and 14 ft. lengths.
  - Solid 12 ft. packages may include 14 ft. and 16 ft. lengths.
  - Solid 14 ft. packages may include 16 ft. and 18 ft. lengths.
  - Solid 16 ft. packages and over may include additional lengths up to 6 ft. longer.
10. Height of load must not exceed height of A-frame.
11. When load consists of mixed width packages, wide packages must be placed on bottom tiers with narrow packages above.
12. When shipping 2 in. x 2 in. material, 3 ft. or 4 ft. length, in package 6 ft. or 8 ft. in length refer to **Sketch 4** with accompanying specifications and notes.
13. When load consists of pieces 4 ft. long in an 8 ft. long combined package refer to **Sketch 5**.
14. Missing or broken cable and/or winch can be substitute with Type 1A grade 8 Polyester straps.

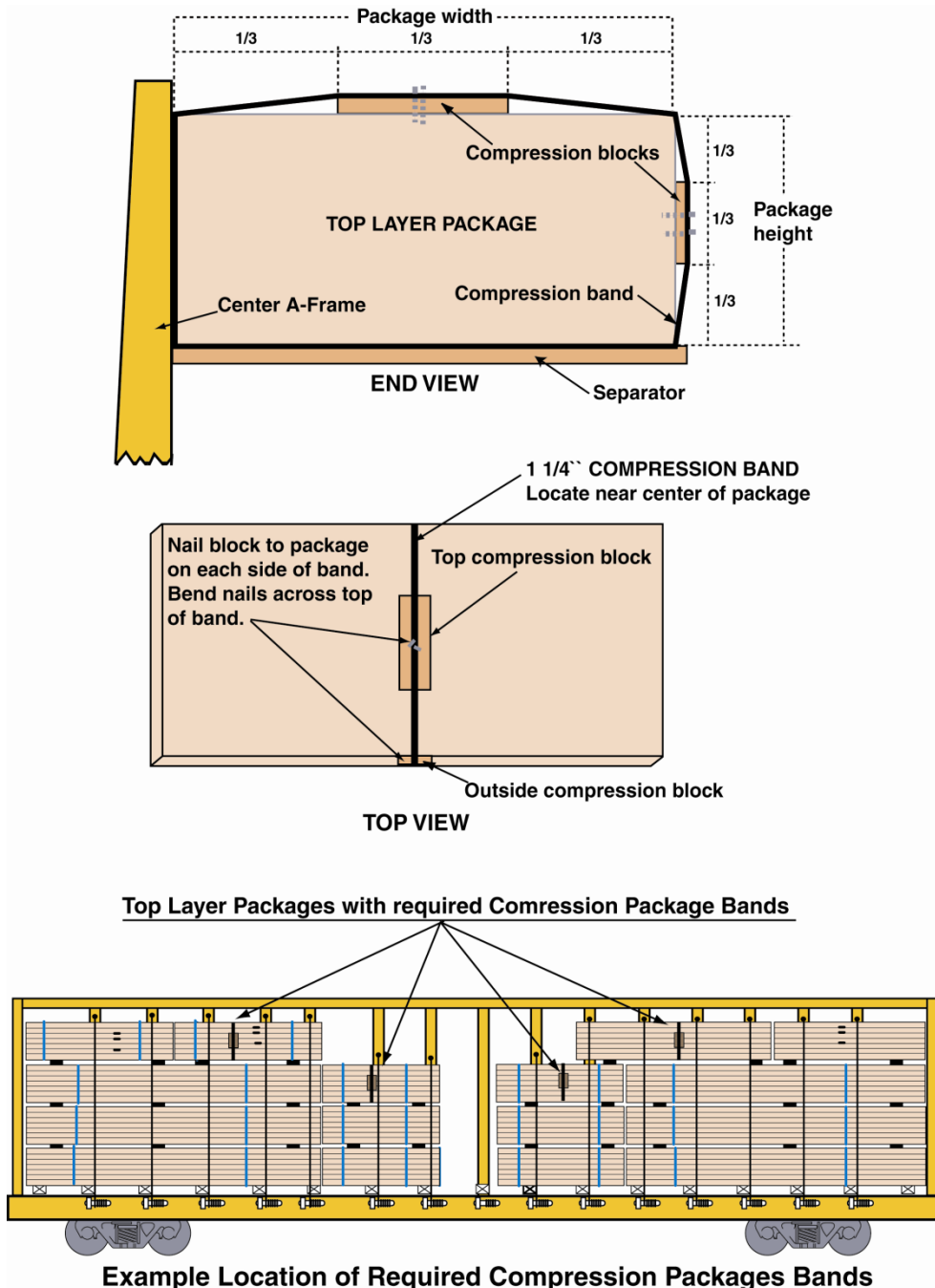
See General Rules for further details.

LUMBER IN PACKAGES, 8FT. LONG OR OVER FLAT CARS WITH CENTER A-FRAME, PERMANENT END BULKHEADS AND CABLE TIE-DOWN SYSTEM.

RAC 15054 (continued)  
Rev. 06-2019 (Ref: AAR Fig. 54)

Sketch 3

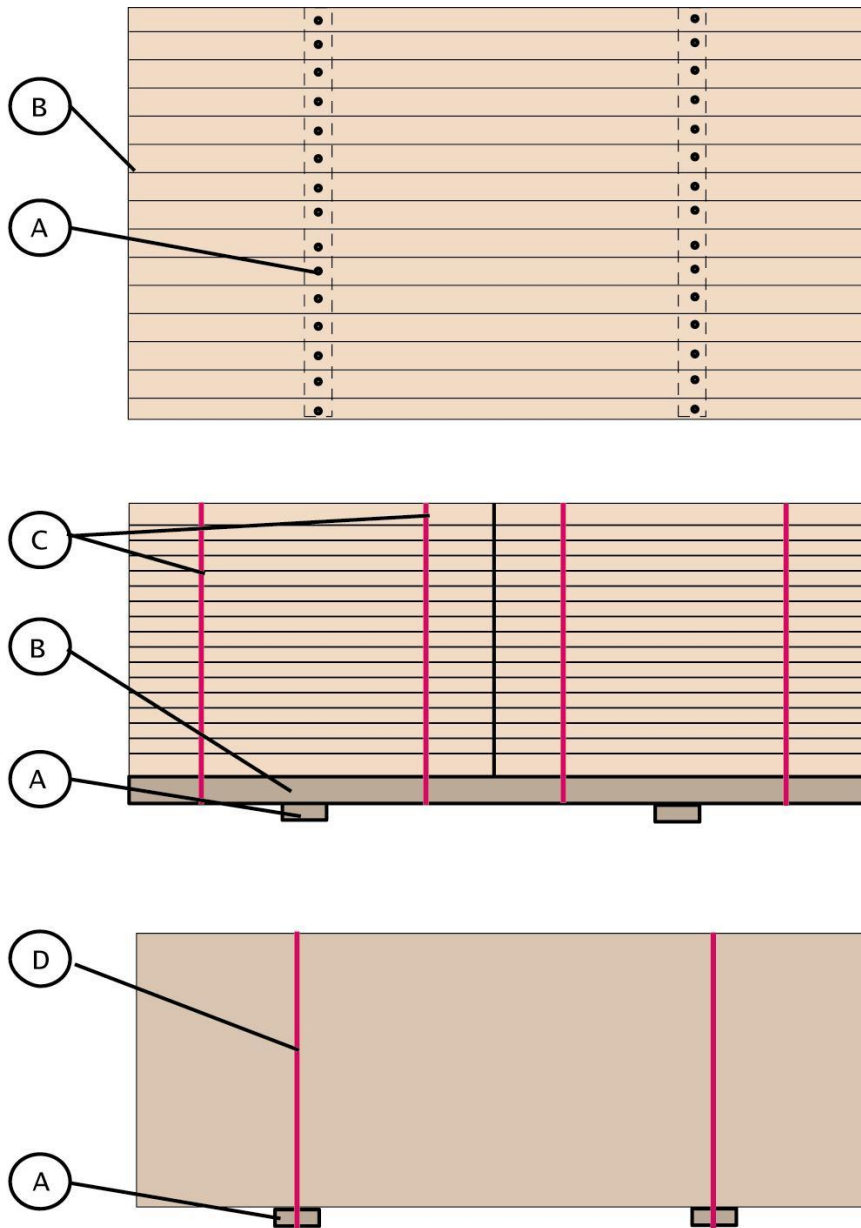
COMPRESSION BAND AND COMPRESSION BLOCKS



LUMBER IN PACKAGES, 8FT. LONG OR OVER FLAT CARS WITH CENTER  
A-FRAME, PERMANENT END BULKHEADS AND CABLE TIE-DOWN SYSTEM.

RAC 15054 (continued)  
Rev. 06-2019 (Ref: AAR Fig. 54)

Sketch 4  
METHOD FOR SHIPPING 3 OR 4-FT LUMBER COMBINED IN 6-FT TO 8-FT  
PACKAGES



**LUMBER IN PACKAGES, 8FT. LONG OR OVER FLAT CARS WITH CENTER  
A-FRAME, PERMANENT END BULKHEADS AND CABLE TIE-DOWN SYSTEM.**

RAC 15054 (continued)  
Rev. 06-2019 (Ref: AAR Fig. 54)

**Pallet Description**

<b>Item</b>	<b>No. of Pcs.</b>	<b>Description</b>
A	2 per each package	Lumber, 2 in. x 4 in., length equal to width of package. Locate each approximately ¼ length in from each end of Items “B”.
B	14	Lumber, 2 in. x 4 in., length equal to length of package. Secure each piece to each Item “A” with one (1) 10-D nail.
C	2 per each module	Each module consists of 30 pieces wide and 15 pieces high. To provide added stability, stickers of uniform thickness must be applied on two levels within the module. Two modules are located end-to-end on pallet and each secured with two (2) ¾ in. x .020 in. high tension bands located approximately 6 in. from each end encircling each module and pallet.
D	2 per each package	3/8 in. Oriented Strand Board, Chipboard, Aspenite or Plywood. Side panels must be full length and height of packages. Secure each to pallet with four (4) 6-D nails equally spaces. Apply two (2) ¾ in. x .020 in. high-tension bands. Located approximately 2 ft. in from each end encircling module, sides and pallet.

**Notes:**

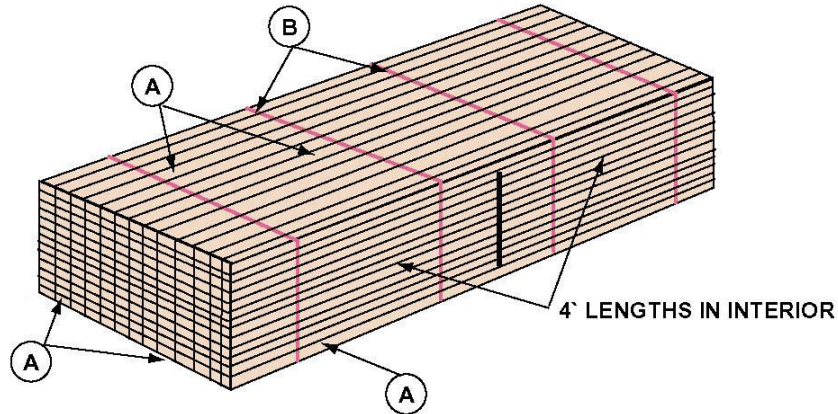
1. Package size not to exceed 2 ft × 4 ft.
2. Packages will consist of a pallet, modules, package sides and be wrapped and marked on the side with the letter S to signify it contains shorts.
3. A maximum of 30% of the load can be made up of these packages. Packages containing shorts are not permitted in the top or bottom layers or next to a void.

See General Rules for further details.

**LUMBER IN PACKAGES, 8FT. LONG OR OVER FLAT CARS WITH CENTER  
A-FRAME, PERMANENT END BULKHEADS AND CABLE TIE-DOWN SYSTEM.**

RAC 15054 (concluded)  
Rev. 06-2019 (Ref: AAR Fig. 54)

**Sketch 5  
METHOD FOR SHIPPING 4-FT LUMBER COMBINED IN 8-FT PACKAGES**



**Module Description**

Item	No. of Pcs.	Description
A	As required	Lumber 8 ft long to comprise the top and bottom layers in the combo package as described in Note 1 below.
B	4 per packages	Packages ties: 1275-lb minimum breaking strength, high tension bands or wire. Locate one tie approximately 12 in. and another approximately 36 in. in from each end of combo package.

**Notes:**

1. Combo packages must be made up with a bottom layer of 8-ft-long lumber, equal to the width of the package. Two stacks of 4-ft-long lumber are to be placed on top of the bottom layer of 8-ft lumber, butted tight end to end with total width to equal the width of the 8-ft-long lumber in bottom layer. A top layer of 8-ft-long lumber is to be placed on top of the two stacks of 4-ft-lumber to complete the combo package. Item B package ties are to be applied to make a solid 8-ft package. See illustration.
2. Height of combo packages must not exceed 24 in.
3. Combo packages must not be located in the top or bottom layers or in any layer where lengthwise void exceed 12 in.

See General Rules for further details.