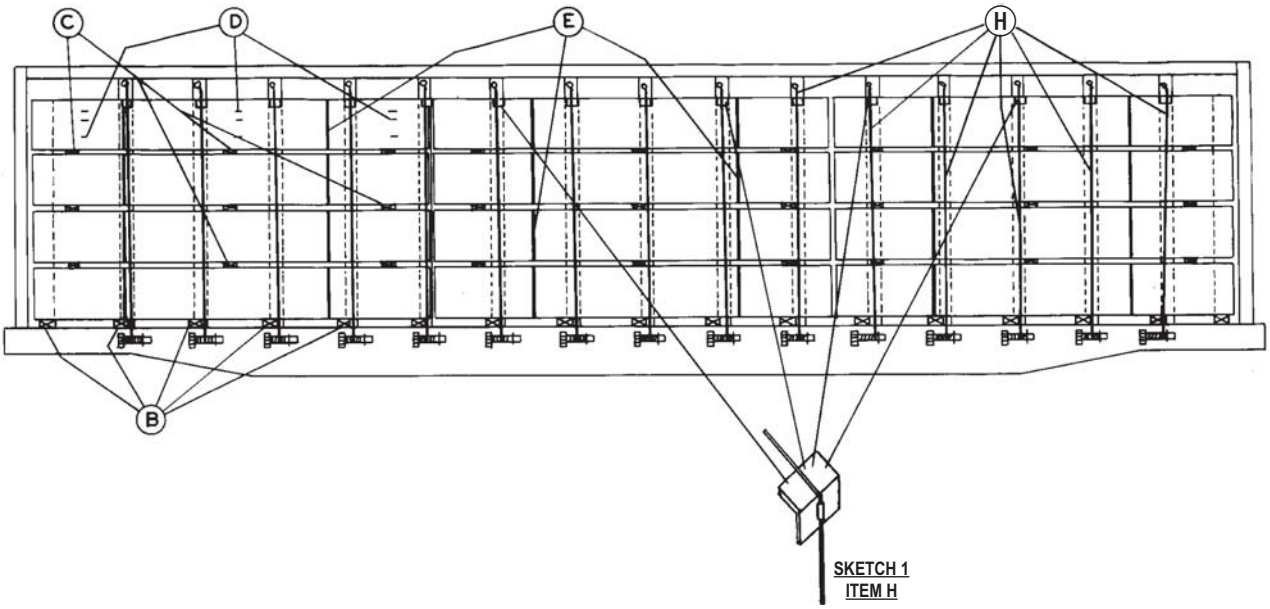
Fig. 54 (Rev. 11/19)
(New 9/77)

LUMBER, PACKAGED, 8 FT LONG OR OVER—CENTER A-FRAME FLATCARS, WITH CABLE TIE-DOWNS



SKETCH 1
ITEM H

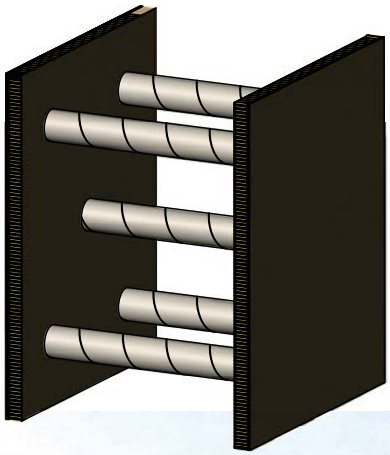
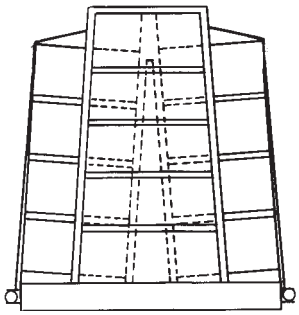
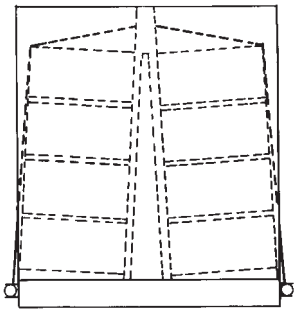


Fig. 54 (Rev. 11/19) (Continued)
(New 9/77)

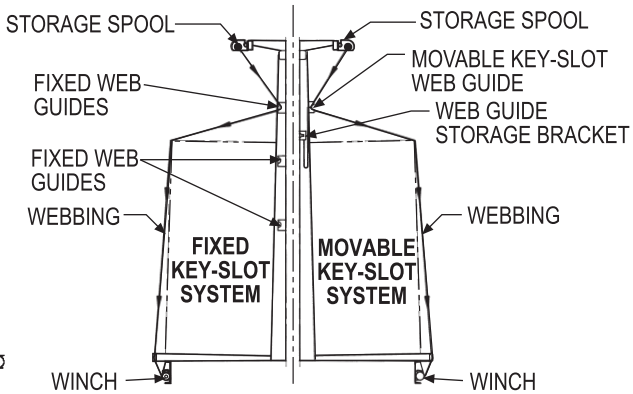
LUMBER, PACKAGED, 8 FT LONG OR OVER—CENTER A-FRAME FLATCARS, WITH CABLE TIE-DOWNS



END VIEW
PARTIAL BULKHEAD

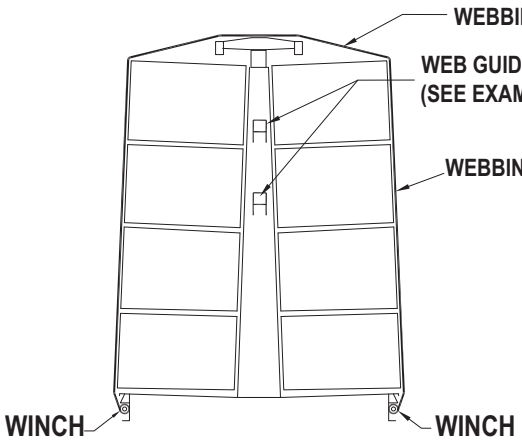


END VIEW
FULL BULKHEAD

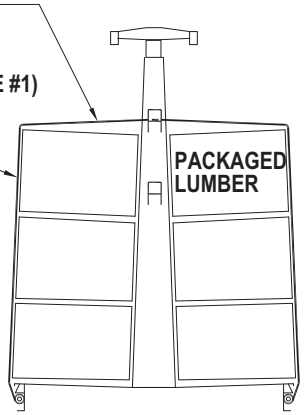


WEB ROUTE DIAGRAM
ALTERNATE ITEM H WEB ASSEMBLY

DETAIL FOR ALT. H1



LOAD HEIGHT ABOVE TOP WEB GUIDE
WEBBING GOES OVER THE TOP



LOAD HEIGHT BELOW WEB GUIDE
WEBBING GOES THROUGH LOWEST AVAILABLE WEB GUIDE

DRAFT 11/2019

Fig. 54 (Rev. 11/19) (Continued)
(New 9/77)

LUMBER, PACKAGED, 8 FT LONG OR OVER—CENTER A-FRAME FLATCARS, WITH CABLE TIE-DOWNS

Item	No. of Pcs.	Description
A		Vacant.
B	2 per package	Bearing pieces: cars are equipped with permanent floor bearing pieces wedged at 90° to A-frame.
C	2 each package 16 ft long or less. 3 if over 16 ft long.	Separators: lumber, 2 in. × 2 in. minimum. Height must not exceed width. Length must be equal to width of package. All separators in same layer separation 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 packages 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 is 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: 1,600 lb minimum breaking strength, high tension bands or wire. Locate one tie about 12 in. from each end of package, but outside of Item D stickers. This banding may be substituted with approved non-metallic strapping as permitted in Section 1, General Rule 19.
F	As required.	Void filler: LLP dunnage system. Comprised of two honeycomb end panels and five wax-coated/weather-resistant sono tubes. Panels must be wrapped/protected from the elements. This system is required in bottom two layers on both sides of the car with voids from 13 in. up to 36 in. Void filler must be secured to prevent displacement.
G	1 band on top package on either side of a void space greater than 4 ft.	Compression package band: 1 1/4 in. × .029 in. high tension band. May be substituted with approved 1 1/4 in. wide Type IA, Grade 4, polyester strapping per Section 1, General Rule 19. Locate near the center of the package as shown in Detail A. In accordance with Detail A, 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. × 4 in., length equal to about one third 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. See Sketch 1, Detail A and B. See Sketch 2 for required location of compression package(s).
H	2 per each top package 10 ft long or less. 3 per each top package over 10 ft.	Cables: 3/8 in. diameter, 8,800 lb minimum breaking strength. Cable assemblies must be equipped with edge protectors (steel or plastic). Winch assemblies must be equipped with a device to maintain tension. 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. Tension to be applied with the use of an 18 in. bar or 3/4 in. ratchet. Cables are to be secured to A-frame in slot nearest to top of package.
Alternate Item B—For cars not equipped with permanent bearing pieces		
Alt B	Min. 2 per package 8 ft long 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.

Fig. 54 (Rev. 11/19) (Continued)
(New 9/77)

LUMBER, PACKAGED, 8 FT LONG OR OVER—CENTER A-FRAME FLATCARS, WITH CABLE TIE-DOWNS

Item	No. of Pcs.	Description
Alternate Item H—For cars equipped with polyester top-mounted web-strap assembly and storage system		
Alt H	2 per each top package 10 ft long or less. 3 per each top package over 10 ft.	Web tie-down assemblies: polyester webbing, 4 in. wide with a minimum 20,000 lb MBS. Web winch must be an approved design with a minimum 20,000 lb MBS. Web assembly must be an approved eave- or top-mounted web-strap assembly and storage system as listed in Section 1, General Rule 20.8.4 in Alt H only. Refer to end view of illustration for application of tie-down strapping. During application, all web strapping must be pulled from the top-mounted anchor and storage spool. The web must be routed through the web guide closest to the top of the load, over the load, and then to the fixed winch on the side sill. The winch directly in line with the top-mounted anchor and storage spool must be used. Thread at least 6 in. of webbing through the slot in the winch mandrel. Prior to tightening, there must be a minimum of two wraps of webbing around the winch mandrel. The strap is to be tensioned on each side by using a winch bar 30 in. to 40 in. long. When practical, all straps must be used.
Alt H1	2 per each top package 10 ft long or less. 3 per each top package over 10 ft.	Web tie-down assemblies: polyester webbing, 4 in. wide with a minimum 20,000 lb MBS. Refer to end view of illustration for application of tie-down strapping. The web must be routed through the web guide closest to the top of the load, over the load, and then to the fixed winch on the side sill. Thread at least 6 in. of webbing through the slot in the winch mandrel. Prior to tightening, there must be a minimum of two wraps of webbing around the winch mandrel. The strap is to be tensioned by the effort of one person using a winch bar 30 in. to 40 in. long. When practical, all straps must be used.

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. Load must comply with Item F when either of the bottom two layers have voids of 13 in. up to 36 in.
3. Top packages on either side of a void space greater than 4 ft must be protected using Item G. A top layer package is defined as any package with no packages loaded directly above. A package that is not “completely” covered by a package above is also considered a top package and is required to have a compression package band applied. (See Detail B). Where customer requirements mandate the use of package wrap, the compression package band must be applied over the package wrap.
4. 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.
5. The packages must be placed tight against the A-frame to prevent loosening of cables.
6. 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.
7. Dunnage, attached or otherwise, must not be placed on top of permanent floor risers or bearing pieces.
8. 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.
9. When lumber of unequal lengths is included in the same package, the following variances are allowable:
   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.

Fig. 54 (Rev. 11/19) (Continued)
(New 9/77)

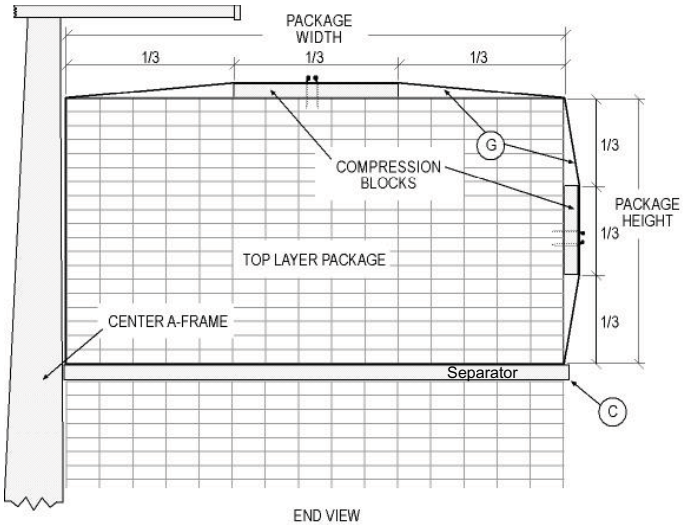
LUMBER, PACKAGED, 8 FT LONG OR OVER—CENTER A-FRAME FLATCARS, WITH CABLE TIE-DOWNS

Notes and Additional Requirements (concluded):

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. × 2 in. material, 3 ft to 4 ft long, in packages 8 ft long, refer to Option A with accompanying specifications and notes.
13. When shipping 2 in. × 4 in. or larger material, 4 ft long, in packages 8 ft long, refer to Option B with accompanying specifications and notes.
14. For Alt H1, web guide must be of equal strength rating of web assembly and must contain a retaining feature. Guide must be located as close to the top of the load as practical (see Example 1).

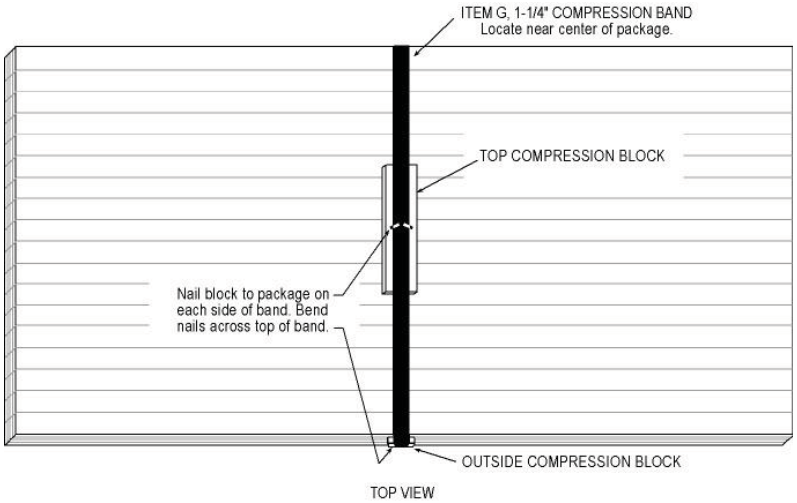
Reference the General Rules in Section 1 of the *Open Top Loading Rules Manual* for additional details.

SKETCH 1



END VIEW

DETAIL A



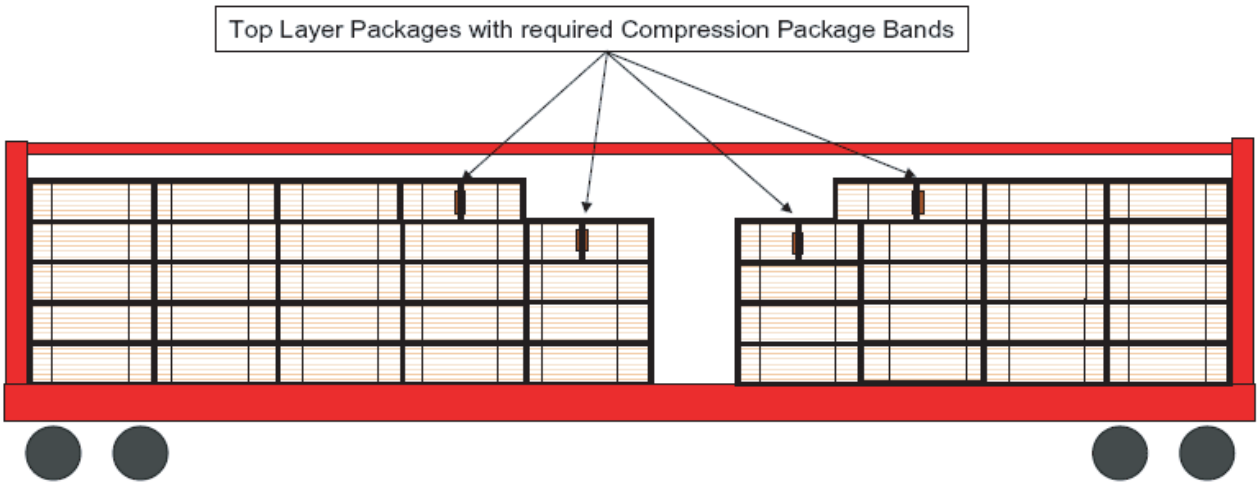
TOP VIEW

DETAIL B

Fig. 54 (Rev. 11/19) (Continued)
(New 9/77)

LUMBER, PACKAGED, 8 FT LONG OR OVER—CENTER A-FRAME FLATCARS, WITH CABLE TIE-DOWNS

SKETCH 2



EXAMPLE 1

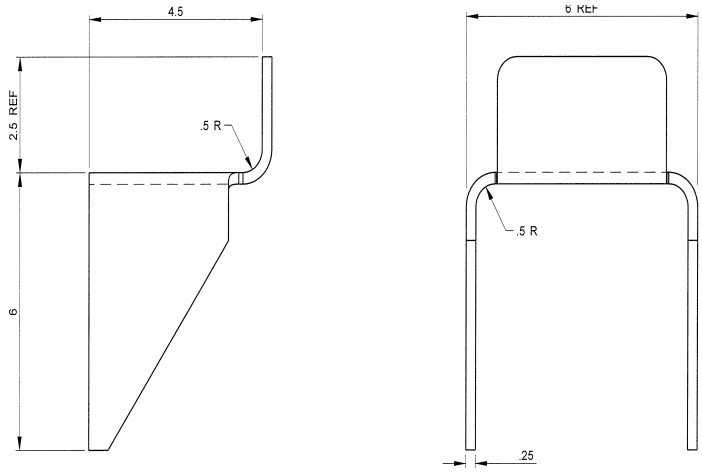
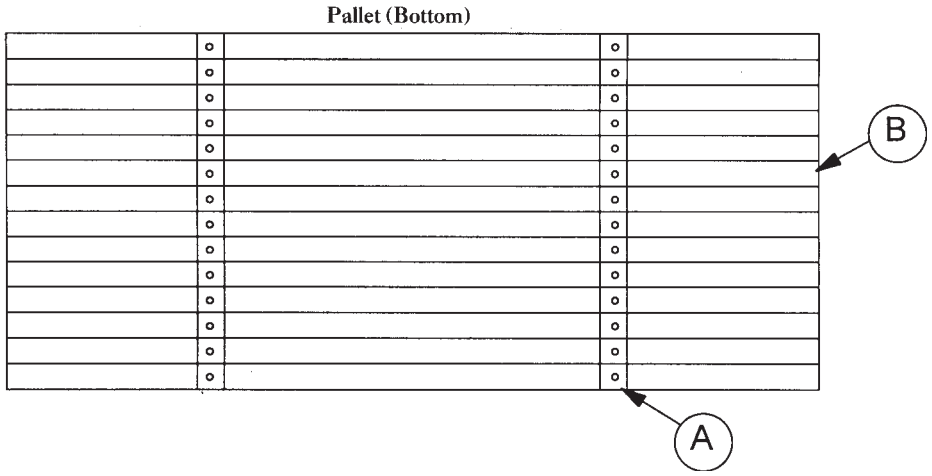
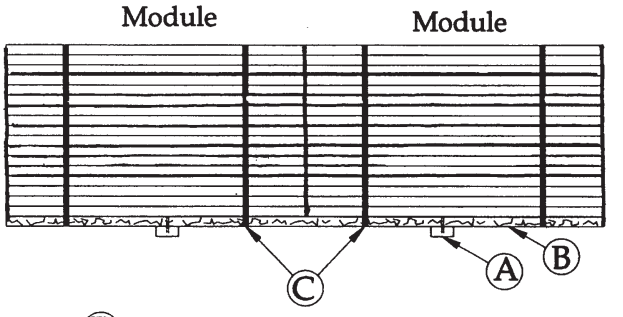


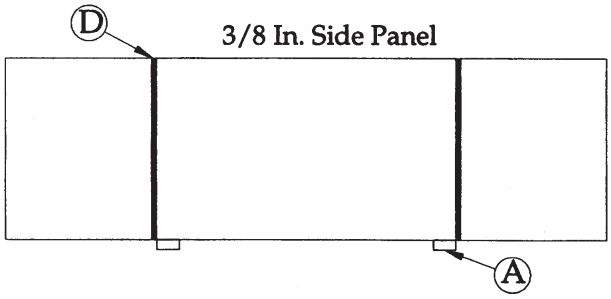
Fig. 54 (Rev. 11/19) (Continued)
(New 9/77)

LUMBER, PACKAGED, 8 FT LONG OR OVER—CENTER A-FRAME FLATCARS, WITH CABLE TIE-DOWNS

OPTION A
Palletized Short Material, 2 in. × 2 in. Minimum, 4 ft Long, in Packages ft Long







Item	No. of Pcs.	Pallet Description
A	2 per each package.	Lumber: 2 in. × 4 in., length equal to width of package. Locate each approximately one-fourth the length in from each end of Items B.
B	14	Lumber: 2 in. × 4 in., length equal to length of package. Secure each piece to each Item A with one 10-D common nail.
		Module Description
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 3/4 in. × .020 in. high tension bands located approximately 6 in. from each end encircling each module and pallet.

Fig. 54 (Rev. 11/19) (Concluded)
(New 9/77)

LUMBER, PACKAGED, 8 FT LONG OR OVER—CENTER A-FRAME FLATCARS, WITH CABLE TIE-DOWNS

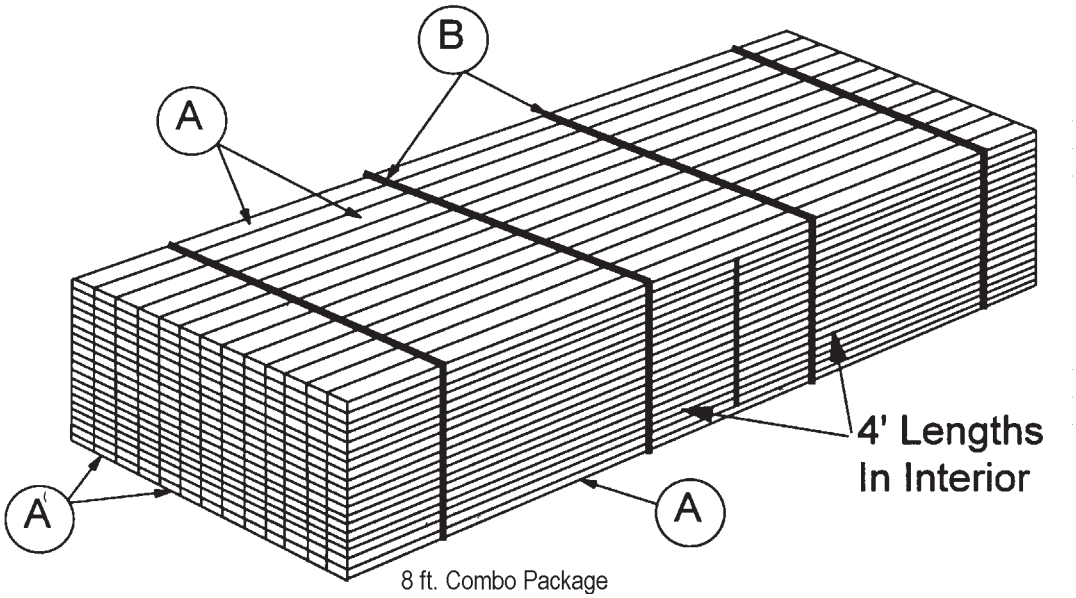
OPTION A (CONTINUED)

Item	No. of Pcs.	Pallet Description
D	2 per each package.	Side panels: 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 6-D common nails equally spaced. Apply two 3/4 in. × .020 in. high tension bands, located approximately 2 ft in from each end encircling module, sides and pallet.

Notes and Additional Requirements:

1. Package size not to exceed 2 ft high × 4 ft wide.
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.

OPTION B
Method for Shipping 4-ft Lumber Combined in 8-ft Packages



8 ft. Combo Package

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 package.	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 and Additional Requirements:

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 A 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.