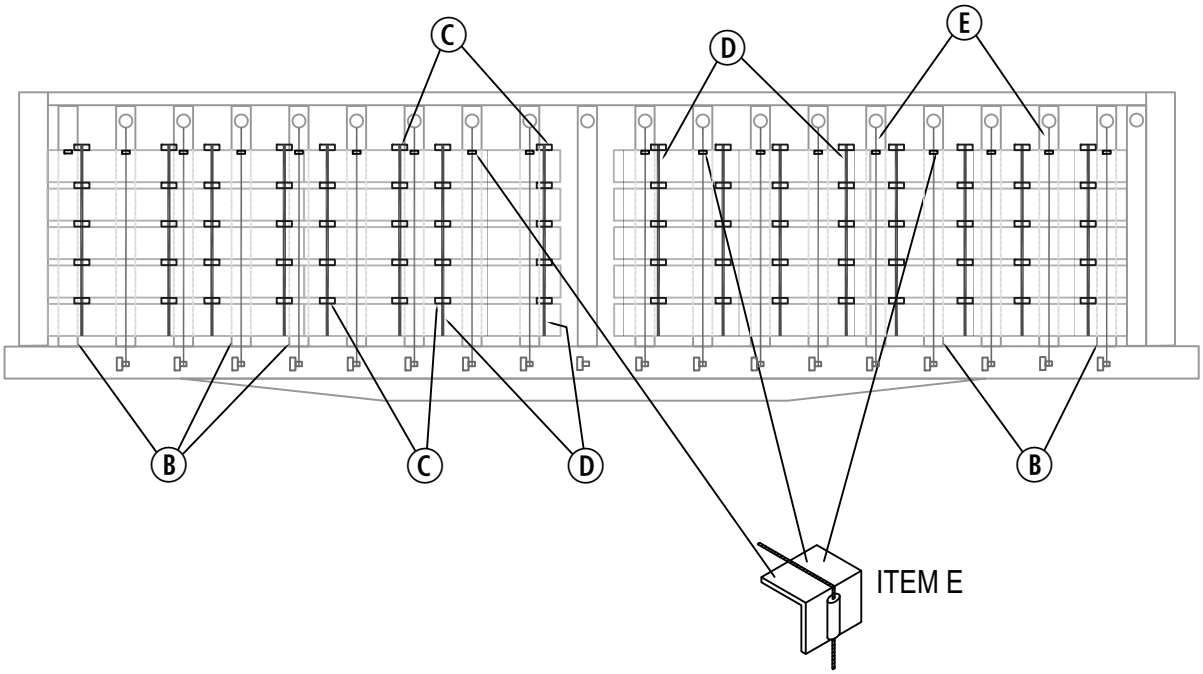
Fig. 58-B (Rev. 11/15)
(New 06/07)

CROSSTIES, PACKAGED, TREATED, UNTREATED, OR PLASTIC, 8 FT OR 9 FT TIES ON 73 FT CARS, 8 FT 6 IN. TIES ON 61 FT CARS—FLATCARS, WITH CENTER A-FRAME, PERMANENT END BULKHEADS, AND CABLE TIE-DOWN SYSTEM



Item	No. of Pcs.	Description
A		Vacant.
B	2 per unit.	Bearing pieces: cars are equipped with permanent floor bearing pieces wedged 90° to the A-frame.
C	Minimum 2 per package.	Separators: lumber, 1 1/2 in. x 3 1/2 in. Width must be at least 2 in. greater than height. All separators in a layer must be of equal height and in one piece. Locate each approximately 12 in. to 18 in. from each end of package. Separators must fully support the package by extending the full width of the package and be placed perpendicular (90°) to the A-frame. Separators must not extend more than 2 in. past the vertical edge of the packages. Separators may be attached to top or bottom of packages with Item E package bands. If separators are located on top of packages, all packages in the top layer must have separators secured with one 10-D nail in addition to the Item E package bands.
D	2 per package.	Package bands: 2,000 lb minimum breaking strength. Locate each approximately 12 in. to 18 in. from each end of package.
E	Minimum 2 per each top package.	Cables: 3/8 in. diameter; minimum 8,800 lb breaking strength. Cable assemblies must be equipped with edge protectors. 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 is 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	Minimum 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 12 in. to 18 in. from each end of package, with remaining pieces, if used, equally spaced. May be attached to package with Item E package ties.

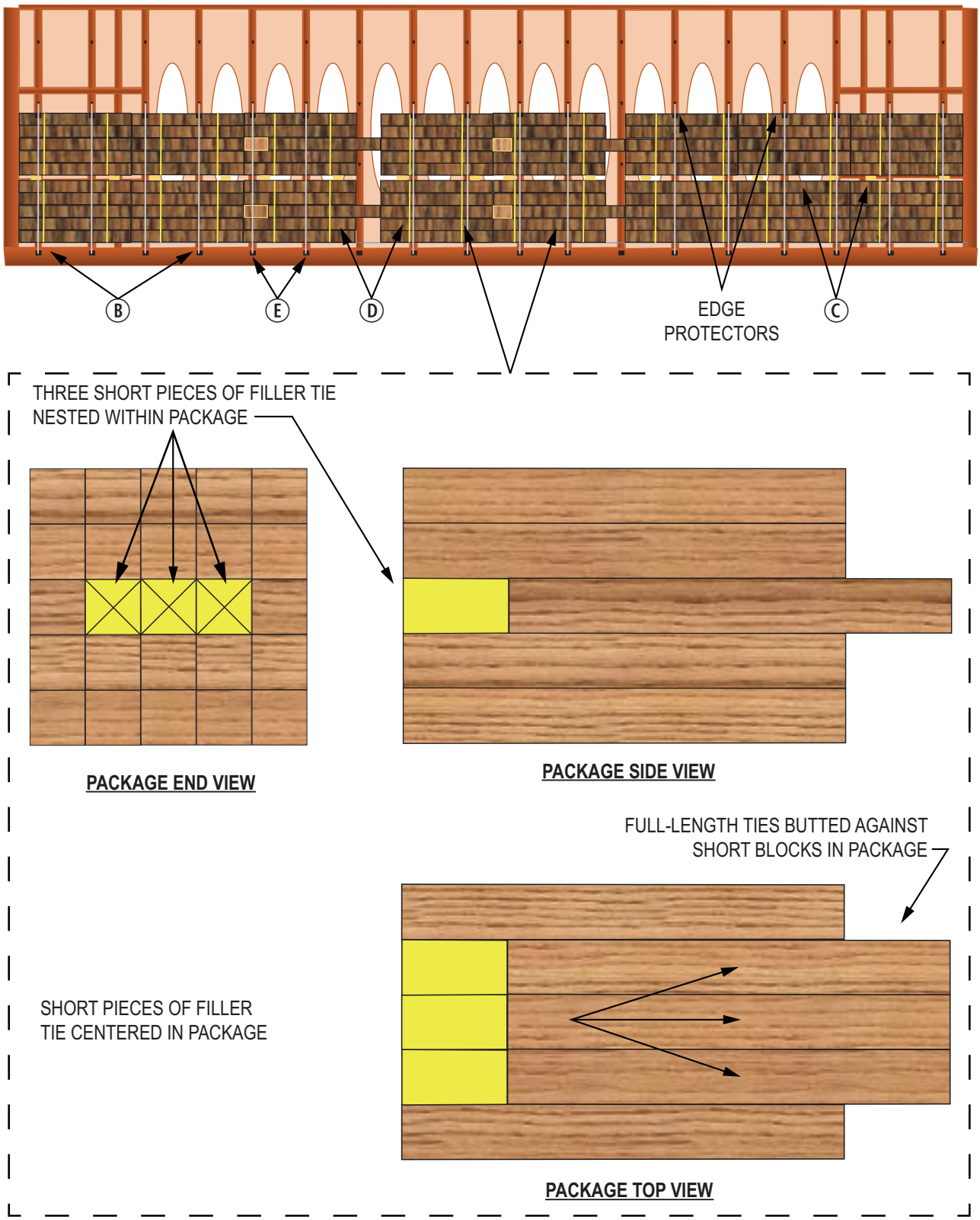
Notes and Additional Requirements:

1. Packages must not exceed 36 in. in height and 48 in. in width.
2. Packages must be placed tight against A-frame to prevent loosening of cables.
3. Height of load must not exceed height of A-frame.
4. All packages in a layer must be of equal height except in the top layer where a minimum height of 12 in. is permitted.

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

Fig. 58-C
(New 11/15)

RAILROAD TIES, TREATED OR UNTREATED, PACKAGED, 8 FT LONG AND OVER—FLATCARS WITH CENTER A-FRAME, PERMANENT END BULKHEADS, CUSHIONING DEVICES, AND CABLE TIE-DOWN SYSTEM



DETAIL A—VOID FILLER PACKAGE

IMPLEMENTED 12/2015

Fig. 58-C (Concluded)
(New 11/15)

RAILROAD TIES, TREATED OR UNTREATED, PACKAGED, 8 FT LONG AND OVER—FLATCARS WITH CENTER A-FRAME, PERMANENT END BULKHEADS, CUSHIONING DEVICES, AND CABLE TIE-DOWN SYSTEM

Item	No. of Pcs.	Description
A		Vacant.
B	Minimum 2 per each bottom layer package.	Bearing pieces: cars are equipped with permanent floor bearing pieces wedged 90° to the A-frame.
C	Minimum 2 per package. (Use optional)	Separators: lumber, minimum 2 in. × 4 in., width must be greater than height. All separators in a layer must be of equal height and in one piece. Locate each approximately 12 in. to 18 in. from each end of package. Separators must fully support the package by extending the full width of the package and be placed perpendicular (90°) to the A-frame. Separators must not extend more than 2 in. past the vertical edge of the packages. Separators may be attached to top or bottom of packages with Item E package bands.If separators are located on top of packages, all packages in the top layer must have separators secured with one 10-D nail in addition to the Item E package bands.
D	2 per package.	Package bands: 1 1/4 in. × .029 in. high tension bands. Locate each band about one-fourth package length inward from each end of package. (Not shown in drawings.)
E	Minimum 14 per load.	Cables: 3/8 in. diameter, 8,800 lb minimum breaking strength. Cable assemblies must be equipped with edge protectors. 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 shall be applied with the use of an 18 in. bar or ¾ in. ratchet. Cables shall 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	Minimum 2 per each bottom layer 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 in. to 24 in. from each end of package, with remaining pieces equally spaced between.

Notes and Additional Requirements:

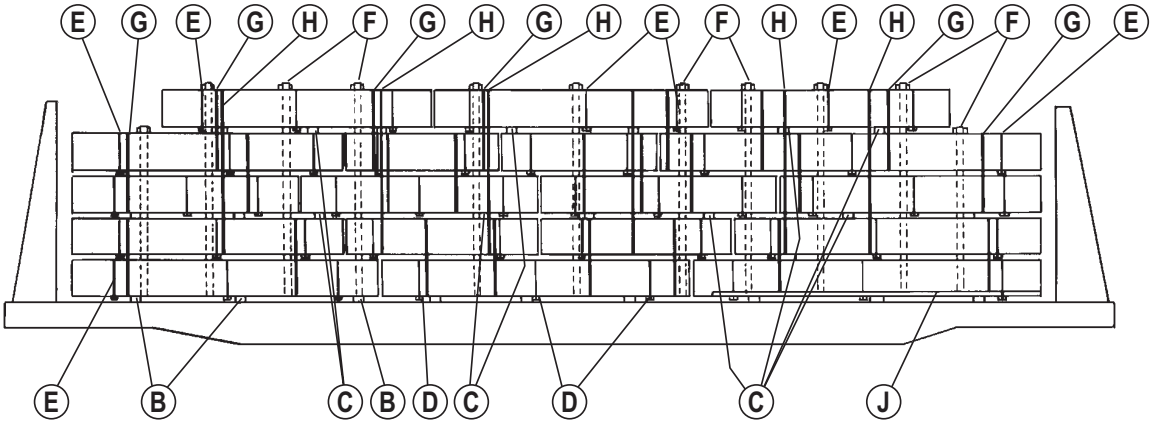
1. Packages must be loaded end to end, and the longitudinal void, if any, must be in center of load and kept to a minimum, except as provided in Note 2.
2. If the total longitudinal void space between bulkheads exceeds 24 in. but is less than 48 in., one package in each layer, located as near the center of the load as practical, must be configured in accordance with Detail A. If the total longitudinal void space between bulkheads is 48 in. or more but is less than a full package length, two packages in each layer, located as near the center of the load as practical, must be configured in accordance with Detail A. When two augmented packages per layer must be used, they shall be oriented as shown in the main drawing.
3. Three short tie pieces shall be inserted flush in one end of the augmented package and must be surrounded by full-length ties on each side as shown in the end view. The short tie pieces may be treated or untreated, but each must be of one piece and be equal to the width and height of other ties in the package. The lengths of the tie pieces shall be equal in length and must be more or less equal to the total longitudinal void space in that layer. The length of short tie pieces must be not less than 24 in.
4. Partial layers are not permitted in this diagram. If there are insufficient packages to complete the top layer, the size of the packages must be rearranged so as to fill out the layer space between the bulkheads.
5. All ties in a package must be of the same dimension.
6. Packages must not exceed 36 in. in height and 48 in. in width.
7. Packages must be placed tightly against A-frame to prevent loosening of cables.
8. Height of load must not exceed height of A-frame.
9. All packages in a layer must be of equal height.
10. All layers on the same side of the center partition must be of equal width.
11. Unless permission has been received from the car owner in writing, the car surfaces shall be protected from creosote contamination. Polyethylene sheeting or other suitable material may be used as an option to protect steel surface from contact with creosote. Protective material must be applied in such a fashion as to avoid displacement. Excess protective material must be removed to avoid extending beyond the car side and presenting a hazard during transit.

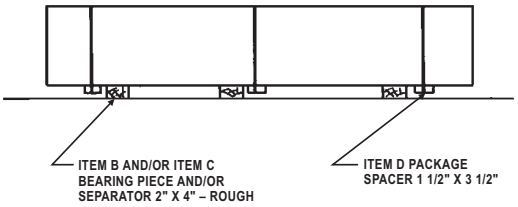
Reference the General Rules in Section 1 of the AAR *Open Top Loading Rules Manual* for additional details.

IMPLEMENTED 12/2015

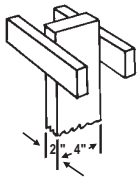
Fig. 59 (Rev. 9/94)
(New 9/77)

LUMBER, PACKAGED, 8 FT LONG OR OVER, PACKAGE HEIGHT UP TO 36 IN.—BULKHEAD FLATCARS



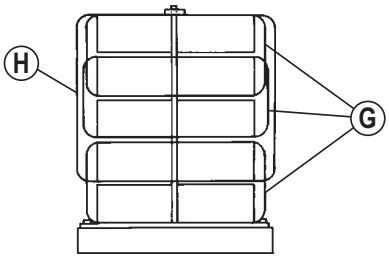


SKETCH 1



DETAIL ITEM F

VERTICAL LOAD STABILIZERS



END VIEW

Item	No. of Pcs.	Description
A		Vacant.
B	Pile 20 ft long or less, 3 per pile. Add one for each additional 10 ft or less.	Bearing pieces: rough, in one piece, minimum thickness 2 in., width 2 in. greater than thickness. Length must extend a minimum of 6 in. beyond side of pile but not beyond outside edge of stake pockets. Bearing pieces at all locations to be of equal height. Bearing pieces must be free from decay and strength impairing knots. Locate under pile, one about one fifth the length from each end and one in the center of each pile. Secure to floor with a minimum of four common nails, the length to be not less than 2 in. greater than the thickness of bearing pieces. When practical, place 6 in. to 9 in. diagonally and parallel across car. See Sketch 1.
C	2 each unit 16 ft long or less. 3 if over 16 ft long.	Separators: rough, in one piece, minimum thickness 2 in., width 2 in. greater than thickness. Length must be equal to width of load, but not to extend beyond deck of car. Separators at all locations to be of equal height. Place one about one-fourth the length from each end and one in center of each package if needed. Separations to be spaced maximum vertical height of 4 ft 6 in. See Sketch 1.
D	2 each package 10 ft long or less. 3 if over 10 ft long.	Attached dunnage: 2 in. × 4 in. commercial dressed (net 1 1/2 in. thick minimum), in one piece. Length must be equal to width of package but not wider. Locate about one-fourth the length from each end of package plus sufficient distance to avoid contact with bearing pieces or separators if load shifts. Secure to package with Items E. See Sketch 1. Package spacers of increased thickness may be used provided that the thickness of Items B and C are also increased to prevent attached spacers from bearing on car deck or packages below. If spacers are located on top of packages, each spacer on top of packages on the top layer of load must be secured with one 10-D nail.
E	1 per each Item D.	Package bands: 5/8 in. × .020 in. high tension bands. Locate one tie about one-fourth the length from each end of package. Locate per each Item D. See Sketch 1. This banding may be substituted with approved non-metallic strapping as permitted in General Rule 19 of Section 1.