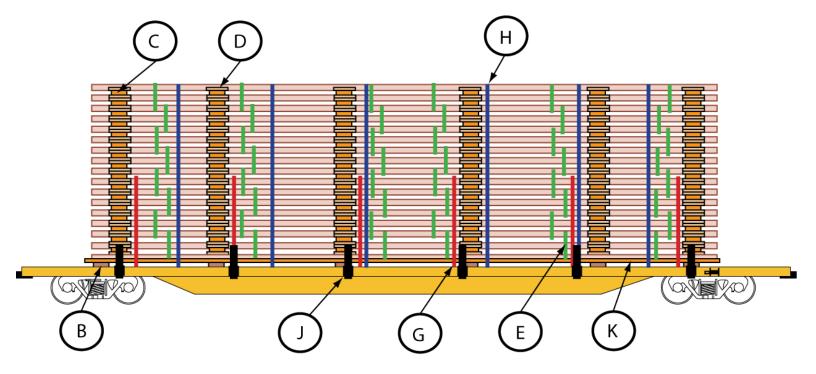
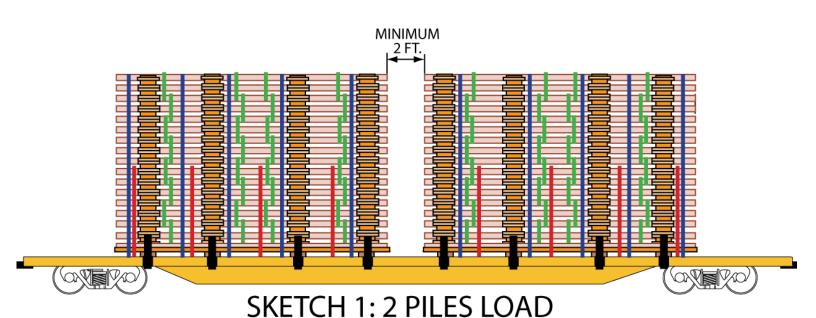


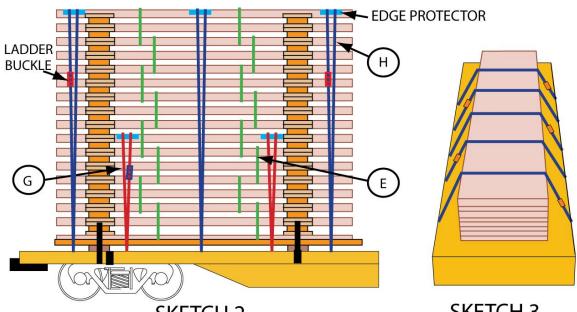
### RAC 15117 (Revised-02-2025)







RAC 15117 (Continued) (Revised-02-2025)

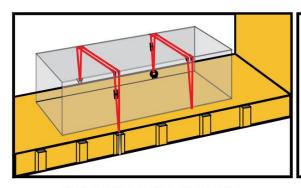


**SKETCH 2** 

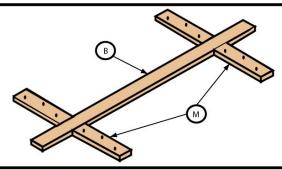
**SKETCH 3** 











**SKETCH 5** 



#### RAC 15117 (Continued) (Revised-02-2025)

Item	No. of Pcs.	Description
A		Vacant
В	2 per package 8ft long or less. Add one for each additional 10 ft or less.	Bearing pieces: 2in x 4in, lumber. Length must extend a minimum of 3 in beyond each side of pile, but not beyond the outside edge of stake pockets. Locate near the end of package with others, when required, equally spaced between. Bearing pieces must be of equal height and free of decay and strength impairing knots. Secure each car floor with four 16-D nails equally spaced across the length of bearing pieces, and nail length to be not less than 2in greater than thickness of bearing piece.
С	2 per package 8ft long or less. Add one for each additional 10ft or less.	Layer Separators: 2in x 4in lumber. Width must be greater than height, in one piece, length to be equal to width of load but must extend beyond width of load sufficient to permit full contact application of Item D chock. When practicable, locate in line with Items B.
D	4 per separator.	Chocks: 2in x 4in x 6in lumber. Item D chocks must be located against the side of packages, on top and bottom of each Item C layer separator. Position perpendicular to the separator as shown. Secure each chock with three 16-D nails.
Е	2 per package 8ft long or less. Add one for each additional 10ft or less.	Interlacing bands: 1 ¼ in x .029in high tension bands or can be substituted with Type 1A Grade 7 non-metallic bands. Bands to encircle the first, second and third layers. The next set of bands to encircle packages in the third, fourth and fifth layers. Interlacing must be repeated in this way between each additional group of three layers or less to top of load. Any layer containing coated product must have one additional Item E band applied to each package in the layer.
F	2 per package 8ft long or less. Add one for each additional 10ft or less.	Package Bands: 1 ¼ in x .029in high tension bands must be used. May be substituted with approved non-metallic strapping as permitted in Section 1, General Rule 19. (Not illustrated in above drawings).



#### RAC 15117 (Continued) (Revised-02-2025)

Item	No. of Pcs.	Description
G	2 per package 10 ft long or less. Add one additional over 10 ft.	Securement Bands: AAR approved Type 1A polyester, Grade 8 strapping. Position straps as shown in drawing. Apply strapping over bottom half of load, from stake pocket or floor anchor to opposite stake pocket or floor anchor. Strap must return to the other side of railcar keeping separated (do not overlap return strap over strap) and join ends with ladder buckle. Apply light tension to straps and place the remainder of load on railcar. When loading is complete tension straps. Edge protectors are required at all sharp edges. (Double tiedown method. See <b>SKETCH 2</b> and <b>4</b> ).
Alt. G	2 per package 10ft long or less. Add one additional over 10ft.	Securement Bands: Polyester Web strapping 4in wide with 20,000lbs MBS may be used if cars equipped with winches.
Н	3 per package 10ft long or less. Add one for each additional 10ft or less.	Securement Bands: AAR approved Type 1A polyester, Grade 8 strapping. Position straps as shown in drawing. Apply strapping over top of entire load, from stake pocket or floor anchor to opposite stake pocket or floor anchor. Strap must return to the other side of railcar keeping separated (do not overlap return strap over strap) and join ends with ladder buckle. Edge protectors are required at all sharp edges. (Double tie-down method. See <b>SKETCH 2</b> and <b>4</b> ).
Alt. H	3 per package 10ft long or less. Add one for each additional 10ft or less.	Securement Bands: Polyester Web strapping 4in wide with 20,000lbs MBS may be used if cars equipped with winches.
J	2 pairs per bottom package 8ft long or less. Add one pair for each additional 10ft or less.	Stub stakes: Lumber 4in x 5in extending to 10in above car floor must be placed in the first two stake pockets at each end of load and every other stake pocket between on both sides of car. If voids between stub stakes and guide rails exceed 2in, suitable filler must be applied.



#### RAC 15117 (Continued) (Revised-02-2025)

Item	No. of Pcs.	Description
K	1 per each side of load.	Guide rails: 1 ½ in x 2 ¼ in lumber, must be continuous and extend to ends of load in bottom layer. Secure to Item B with two 16-D nails. Guide rails must be made of lengths spanning at least two bearing pieces. Item B butted and capped with similar material of the same dimension as guide rails, a minimum of 36in in length, secured with six 16-D nails, three on each side of the joint. Joints must be made between bearing pieces. Locate parallel with and approximately ½ in from base of load. When material in the layer is coated, full 2in x 4in guide rails must be applied.
L	1 per tie down band.	Ladder buckle: AAR-approved buckle as per General Rules Table 19.3. Buckles must be placed alternately side to side (i.e., first strap buckle placed on right side of load, second strap buckle placed on left side of load). (See <b>PHOTO 1</b> and <b>SKETCH 2, 3</b> and <b>4).</b>
M	4 per each <b>Item</b> B	Cleats 2 in. x 6 in. x 2 ft. Locate approximately 18 in. from side of car, two on each side of <b>Item</b> B. Secure each to car deck with three 20-D nails and toenail each cleat to the bearing pieces for lateral securement. See <b>SKETCH 5.</b> Not required when <b>Item</b> B bearing pieces are secured to the car floor. Not illustrated in main <b>SKETCH.</b>

#### **NOTES:**

- 1. The load height must not exceed plate C dimensions. See AAR OTLR section 1 appendix A.
- 2. Each pile is to be considered its own load. Tie down sequence as shown on main sketch and listed on **Items** is to be followed for each pile (**See main SKETCH**).
- 3. Combined Center of Gravity of both load and car must not exceed 98 inches.
- 4. All products in a package must be of the same length.
- 5. Longer packages are to be in the bottom portion of load when practical.
- 6. All packages have sides and ends square.
- 7. Packages in each layer to be of uniform thickness.



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- 8. Single pile: load to be placed on center of car both longitudinally and laterally at origin.
- 9. Separate piles or units may be loaded on one car providing they are located not closer than 2 ft. to the adjacent pile or unit.
- 10. Cars be free of ice, snow, and debris prior loading.
- 11. Package or packages in a layer may overhang end or package or packages in the layer below by a maximum of 3ft at each end of load. No package in any layer is to overhang end packages in the bottom layer by more than 3ft. When possible, longer packages must be in the bottom portion of load and end overhangs kept to a minimum.
- 12. Polyester strap Type 1A, Grade 8 should not be secured to car winches.

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