

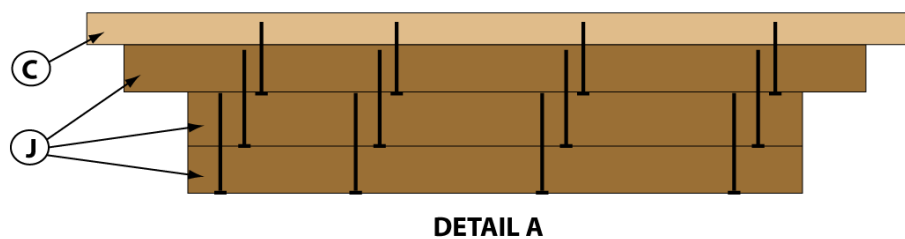
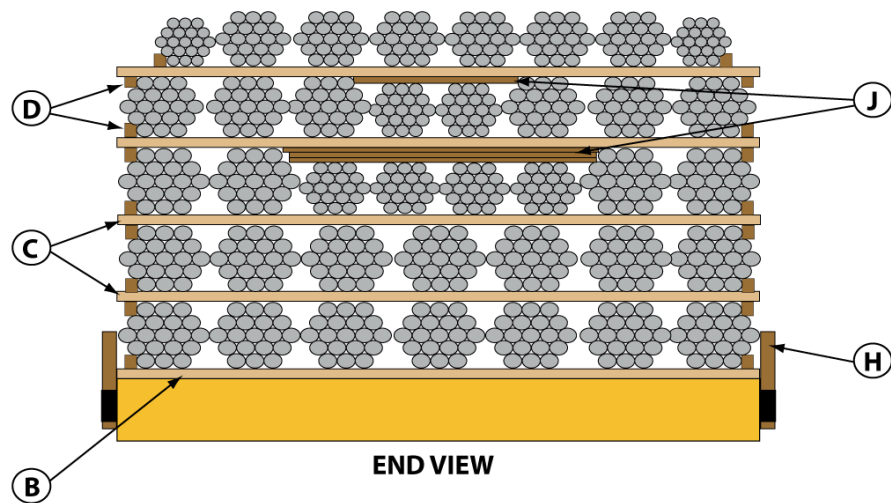
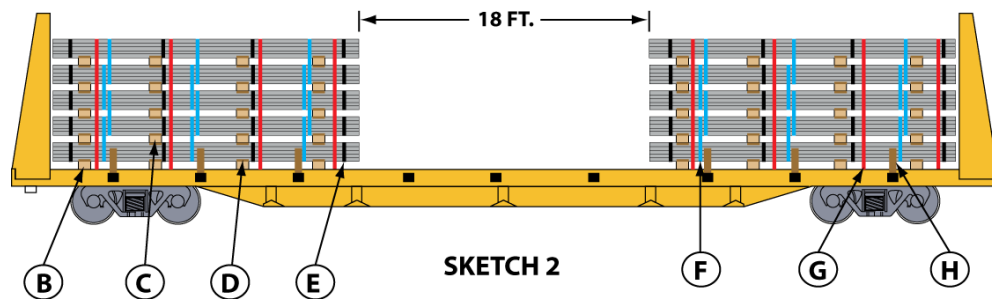
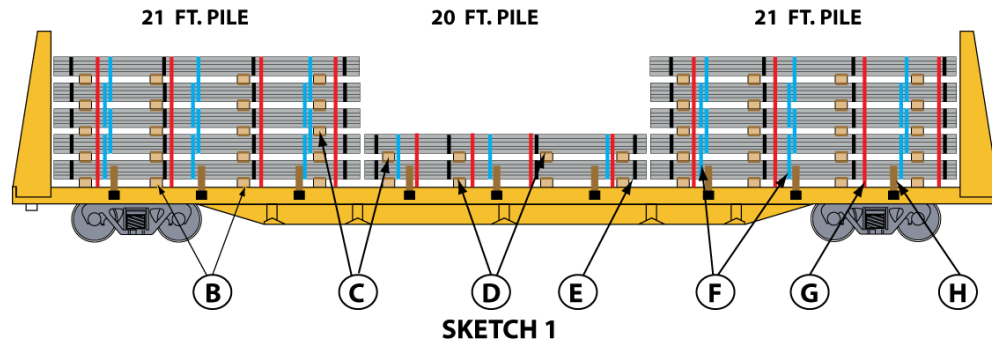


Railway Association
of Canada

PIPE, CONDUIT OR TUBING, STEEL, ½ IN. TO 9 IN. O.D., 10 FT TO 45 FT
LONG, BUNDLED-BULKHEAD FLATCARS WITH CUSHIONING DEVICES

RAC 12120

New 11-2021 (Ref. AAR Fig.120)



PIPE, CONDUIT OR TUBING, STEEL, ½ IN. TO 9 IN. O.D., 10 FT TO 45 FT LONG,
BUNDLED-BULKHEAD FLATCARS WITH CUSHIONING DEVICES

RAC 12120 (Continued)

New 11-2021 (Ref. AAR Fig.120)

| Item | No. of Pcs. | Description |
|------|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A | | Vacant. |
| B | 3 per pile 12 ft long or less. Add 1 for each additional 10 ft or less. | Bearing pieces: hardwood, minimum 3 in. x 4 in., in one piece and preferably rough. Length equal to width of car but not extend beyond outside face of stake pockets. Secure each to car floor with 4 common nails, the length to be not less than 2 in. greater than thickness of bearing pieces. Space nails equally across the length of the bearing piece. |
| C | 3 per pile 12 ft long or less. Add 1 for each additional 10 ft or less. | Separators: hardwood, minimum 3 in. x 4 in., in one piece and preferably rough. Length equal to width of car but must not extend beyond outside face of stake pockets. Locate in line with ITEM B bearing pieces when practical. |
| D | 2 per each Item B. and 4 per each Item C. | Chock blocks: lumber, 2 in. x 4 in. x 4 in. Locate at each end of ITEMS B against pipe and secure each with two 16-D common nails. On ITEMS C , locate one top and bottom on each side of load against pipe and secure each with two 16-D common nails. |
| E | 3 per package 20 ft. long or less. Add 1 for each additional 10 ft. or less. | Package bands: 1 1/4 in. x 0.029 in. high tension bands to encircle each bundle of pipe. Locate one band near each end with others spaced equally between. |
| F | 3 per layer 22 ft long or less. Add 1 for each additional 10 ft or less. | Interlacing bands: 1 1/4 in. x .029 in. high tension bands. Locate bands 2 to 3 ft from end of pile with others equally spaced between as shown. Bands are to encircle two adjacent layers together. Encircle layers 1 and 2, 2 and 3, 3 and 4 etc. to top of load. Bands are to be located at least 2 in. apart and as far from ITEMS B as practical. |

PIPE, CONDUIT OR TUBING, STEEL, ½ IN. TO 9 IN. O.D., 10 FT TO 45 FT LONG,
BUNDLED-BULKHEAD FLATCARS WITH CUSHIONING DEVICES

RAC 12120 (Concluded)

New 11-2021 (Ref. AAR Fig.120)

| Item | No. of Pcs. | Description |
|------|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| G | 2 pair per pile 10 ft long. long or less. Add 1 for each additional 8 ft or less. | Tie-down straps: AAR approved Type 1A polyester Grade 7 strapping (double tie-down method). Position one strap near each end of pile with others equally spaced between. Strapping must be tensioned with the proper tensioning tool and secured with the appropriate ladder buckle in accordance with manufacturer's recommendations. |
| H | As required | Stub stakes: hardwood, 4 in. × 5 in., length to extend from bottom of stake pocket to 10 in. above car floor. Locate 1 pair of stakes near the ends of each pile and every other stake pocket between. Secure to prevent displacement. |
| J | As required | Filler blocks: hardwood, each piece to be 4 in. x 2 in. or less. Length and number sufficient to fill lateral and vertical void resulting from mixed height bundles in the same layer, not to include the top. Must be laminated to ITEM C . Each piece must be secured with 4 nails a minimum of 2 in. longer than thickness of filler piece. See DETAIL A . |

Notes:

1. At origin, end piles must be placed against bulkheads with additional pile(s), when applicable, located between. The load must be distributed as equally as possible over the length of the car to minimize load height as well as longitudinal void space.
2. Height of load must not exceed 11 ft. above car floor or load height must not exceed load width.
3. Bundles must be hexagon in shape, height must not exceed width and all pipes must be nested within the package.
4. When mixed height bundles are loaded in a layer, shorter height bundles must be in center of layer. The smaller bundles may not make up than 4 ft of the layer width. Outside bundles must be of equal height, except in the top layer.
5. Each pile must be protected by at least two pairs of stub stakes at all time.
6. Any layer above the bottom tier must be supported by a layer of equal or greater width.

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