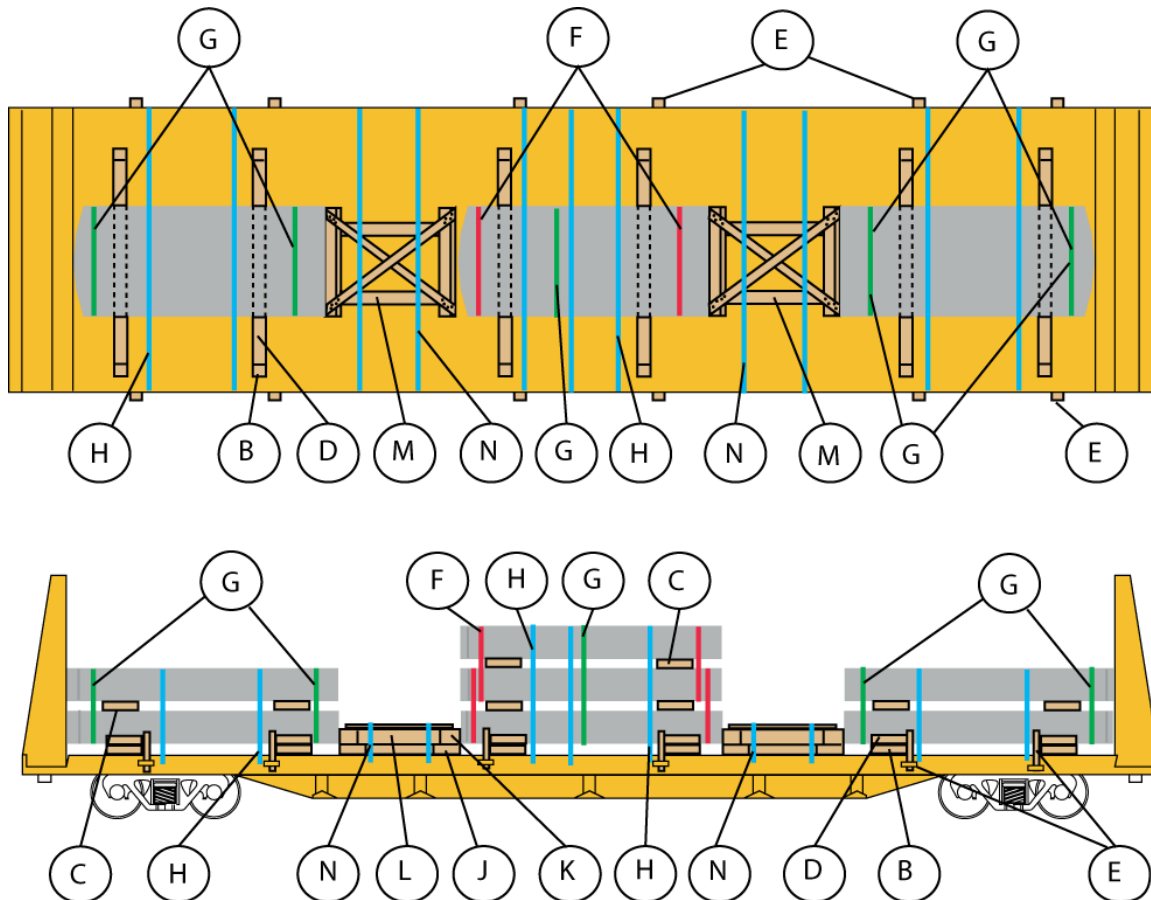


**INGOTS ALUMINUM, MINIMUM WIDTH 53 INCHES FLAT CARS WITH
PERMANENT END BULKHEAD**

RAC 12043I

Revised 01-2015



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Figure 2, Section 1.
B	2 per pile	Bearing pieces, minimum 2 in. x 6 in. lumber, length to extend 15 in. beyond each side of pile, or length equal to width of car. Locate minimum 24 in. from end of pile. Secure to car floor with 5, 40-D nails. Pieces at each end of car may be toe nailed to stub stakes.
C	2 per pile	Separators, minimum 2 in. x 6 in. lumber, length equal to width of pile. Locate in line with bearing pieces, Item B.
D	2 ea. Item B.	Side blocking, minimum 4 in. x 6 in. x 12 in. long lumber. Locate against bottom ingot and secure to Items B with 5, 60-D nails each.

**INGOTS ALUMINUM, MINIMUM WIDTH 53 INCHES FLAT CARS WITH
PERMANENT END BULKHEAD**

RAC 12043I (Continued)

Revised 01-2015

Item	No. of Pcs.	Description
E	12 per car, as required	Stub stakes, 4 in. x 6 in., length to extend 11 in. above car floor. Required only to secure bearing pieces Items B when cars have steel decks between bolsters and end bulkheads.
F	4 per pile 3 ingots high	Interlacing bands. Locate 2 bands to encircle lower two ingots and two bands to encircle top two ingots, minimum 12 in. from each end of pile.
G	2 per pile 2 ingots high. 1 per pile 3 ingots high	Encircling bands, 2 in. x .044 in. high-tension bands. Locate 12 in. minimum from each end of pile 2 ingots high and on center of pile 3 ingots high, encircling all ingots in pile.
H	2 per pile 155 in. or less in length 3 per pile over 155 in. in length	Tie-down bands, 2 in. x .044 in. high-tension bands. Locate close to bearing pieces and secure to stake pockets or lading strap anchors on each side of car.
J	2 per center void	Filler blocking, minimum 2 in. x 6 in. lumber, length equal to width of load. Locate against each end of load at voids.
K	2 per center void	Filler blocking, minimum 4 in. x 6 in. lumber, length equal to Item "J". Locate against each end of load at center voids with 6 in. dimension vertical. Toe-nail to Items "J" with 6, 40D nails each.
L	2 per center void when ingot is 60 in. wide or less 3 when ingots over 60 in. wide	Filler blocking, minimum 4 in. x 6 in. lumber, length to fill void between Items K. Space equally and toe nail each end to Items K with 3, 40-D nails.
M	2 each center void	Filler blocking, 1 in. x 6 in. lumber. Apply diagonally over Items L and K. Secure to Items L and K with 2, 10-D nails at each joint.

INGOTS ALUMINUM, MINIMUM WIDTH 53 INCHES FLAT CARS WITH
PERMANENT END BULKHEAD

RAC 12043I (concluded)

Revised 01-2015

Item	No. of Pcs.	Description
N	1 per filler blocking 36 in. or less, 2 over 36 in. in length	Filler blocking tie-down bands 2 in. x .044 in. Secure to stake pockets or lading strap anchors on each side of car.

Notes:

1. The use of item D blocks is optional when load is prepared on flat cars equipped with cushioning devices.
2. Blocking may be used between ingots and end bulkheads id secured to prevent displacement.
3. Inspect stake pockets for cracks in welds and or deformity prior to attaching securement.

See General Rules for further details.