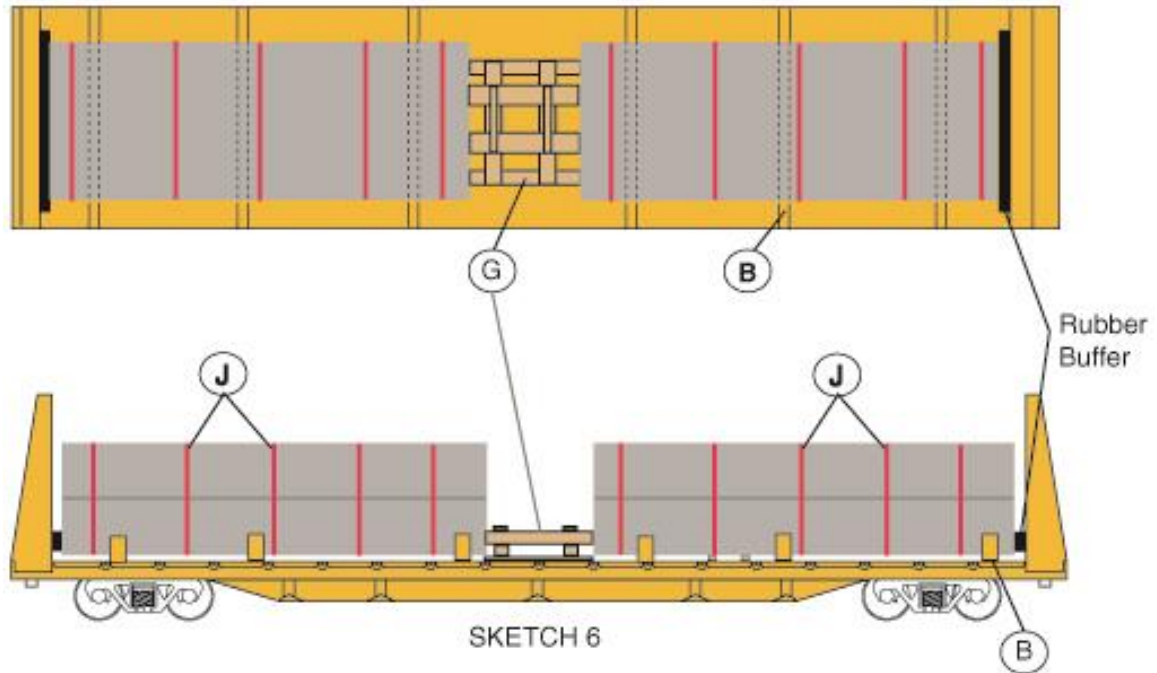
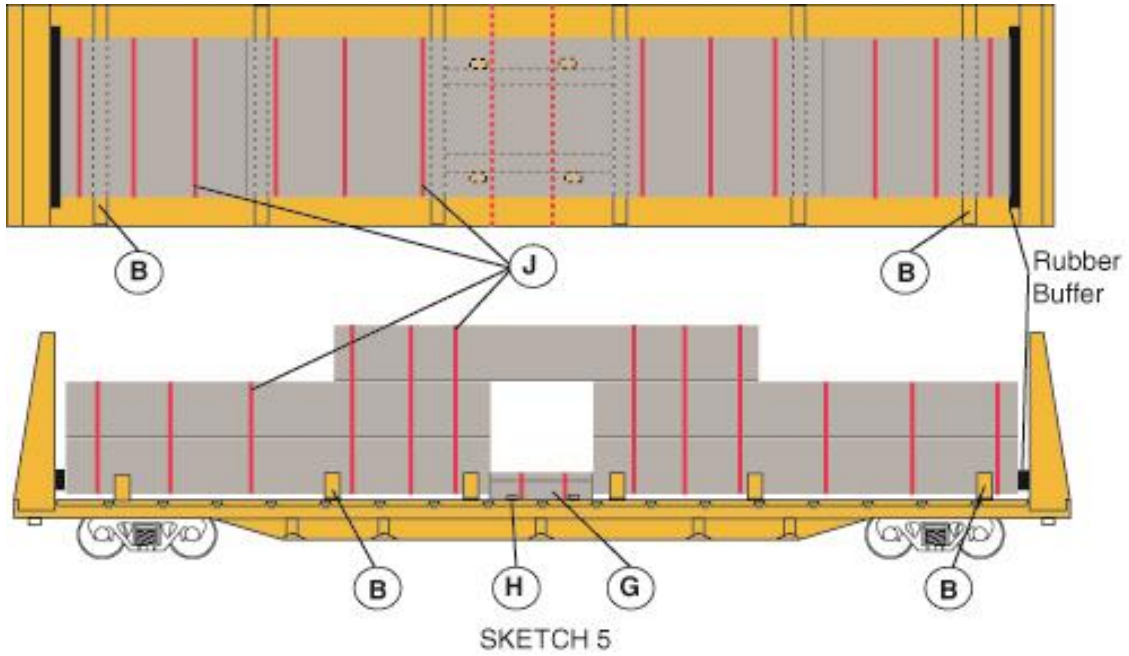


INGOTS ALUMINUM, SPECIALLY EQUIPPED FLAT CARS WITH PERMANENT
END BULKHEADS

RAC 12043K (continued)

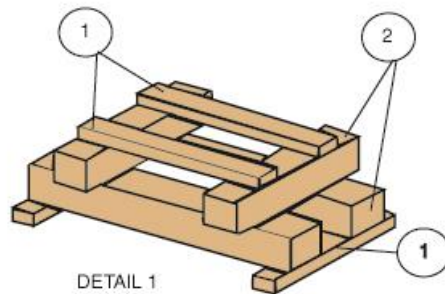
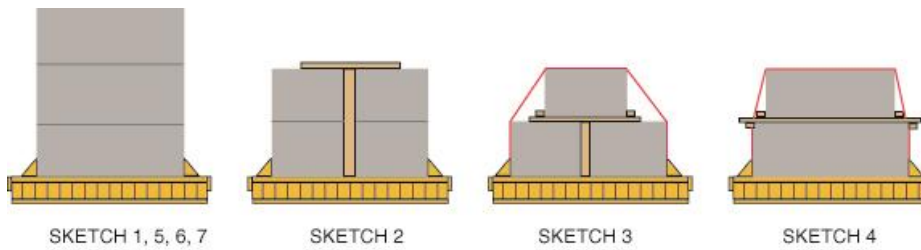
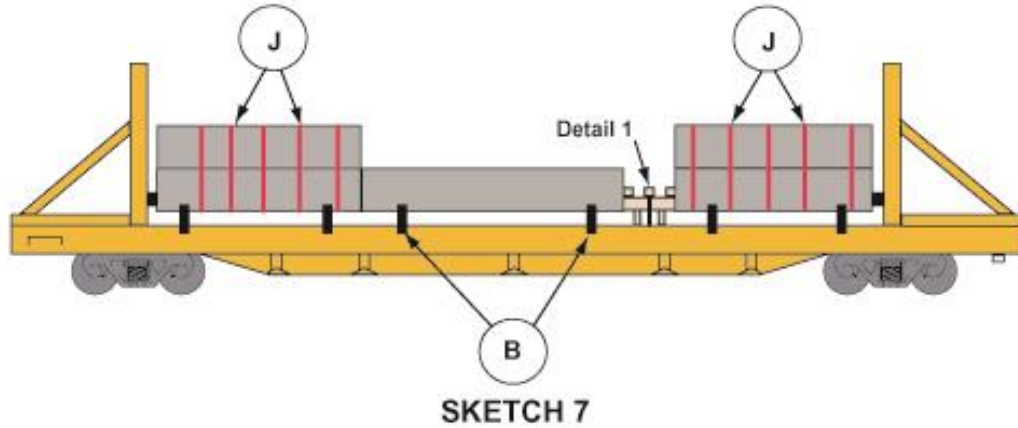
Revised Nov. 06 (Ref: AAR Fig. 43K)



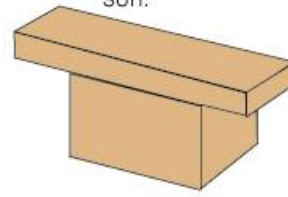
INGOTS ALUMINUM, SPECIALLY EQUIPPED FLAT CARS WITH PERMANENT
END BULKHEADS

RAC 12043K (continued)

Revised Nov. 06 (Ref: AAR Fig. 43K)



CUT TOP PIECE TO
FILL VOID, SECURE TO
BOTTOM PIECE WITH
THREE NAILS, SIZE TO
SUIT.



1 4 PIECES, 2"X4" LUMBER,
LENGTH TO SUIT. BOTTOM
PIECES SECURED TO CAR
FLOOR WITH SIX 16-D NAILS,
EQUALLY SPACED. SECURE
TOP PIECES TO PIECES
BELOW WITH SIX 16-D
NAILS

2 4 PIECES, 6"X6" HARDWOOD
LENGTH TO SUIT, CROSS
PIECES SECURED TO FLOOR
PIECES WITH EIGHT 40-D
NAILS, TWO AT EACH CONTACT
POINT. SECURE LENGTHWISE
PIECES TO PIECES BELOW
WITH EIGHT 40-D NAILS,
TWO AT EACH CONTACT
POINT.

**INGOTS ALUMINUM, SPECIALLY EQUIPPED FLAT CARS WITH PERMANENT
END BULKHEADS**

RAC 12043K (continued)

Revised Nov. 06 (Ref: AAR Fig. 43K)

Item	No. of Pcs.	Description
A		Vacant
B	Sketch 1, 2, 3 and 4, 7 - 2 per pile	Fabricated steel bearing pieces with moveable side chocks. Locate approximately ¼ length from each end of pile. Moveable side chocks must be placed as close to side of ingot as possible.
C	2 between side- by-side ingots	Vertical stabilizers, lumber, 4 in. x 8 in., length to extend from top to bottom of pile. Cross piece, lumber, 2 in. x 4 in. x 24 in. secure to top of vertical piece with 3, 20-D nails. Locate approximately 2 ft. in from ends of pile. See sketch 2. When loading to Sketch 3, crosspiece is omitted.
D	Sketch 3 – 2 per pile Sketch 4 – 2 per pile	Separators, lumber, 2 in. x 6 in. length sufficient for application of Item E guide rails. Secure each to Items C with 6, 20-D nails. Separators, lumber, 2 in. x 6 in. length sufficient for application of Item F side blocks. Locate approximately 2 ft. in from ends of pile.
E	Sketch 3 – 2 per pile	Guide rails, lumber, 2 in. x 4 in. in one piece. Locate longitudinally against each side of ingot and secure to each Item D separator with 4, 16-D nails.
F	Sketch 4 – 4 per each Item D	Side blocks, lumber, 2 in. x 6 in. x 6 in. Locate against ingots, on top and bottom of Item D separators, and secure each with 4, 16-D nails.

INGOTS ALUMINUM, SPECIALLY EQUIPPED FLAT CARS WITH PERMANENT
END BULKHEADS

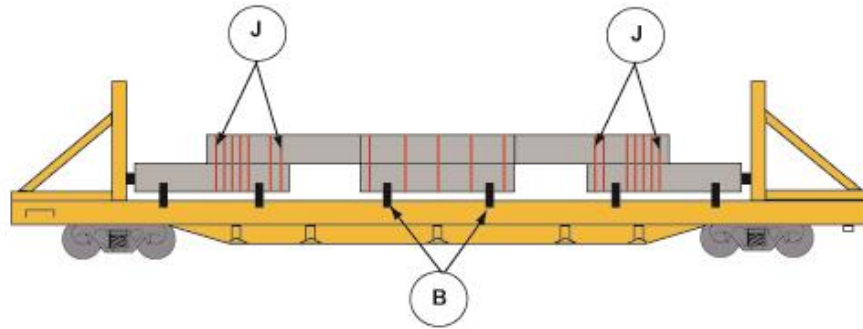
RAC 12043K (continued)
Revised Nov. 06 (Ref: AAR Fig. 43K)

Item	No. of Pcs.	Description
G	As required	<p>Filler blocking. When voids are less than 24 in. between piles, apply as outlined in Detail 1.</p> <p>T-form aluminum ingot blocking cut to size. Must be used when void between piles is 24 in. or greater. May be placed longitudinally or laterally between ingots. When T-ingot is 48 in. or less in length, secure with 1, 2 in. x .044 in. high-tension band located over t-ingot and secure to stake pockets or lading strap anchors on each side of car. For T-ingot over 48 in. in length, 2 securement bands must be applied. If T-ingots do not completely fill void, blocking per Detail 2 must be applied.</p>
H	<p>4 per T-ingot (2 each side) up to 48 in. in length</p> <p>6 per T-ingot (3 each side) 48 in. and over in length.</p>	<p>Cleats, lumber, 2 in. x 4 in. x 18 in. Locate each perpendicular to and against T-ingot and secure to car floor with 4, 20-D nails.</p>
J	<p>4 per pile up to 155 in. in length</p> <p>5 per pile up to 155 in. and over in length.</p>	<p>Encircling bands, 2 in. x .044 in. high tension. Locate one not less than 12 in. in from each end of pile, with others equally spaced between.</p>

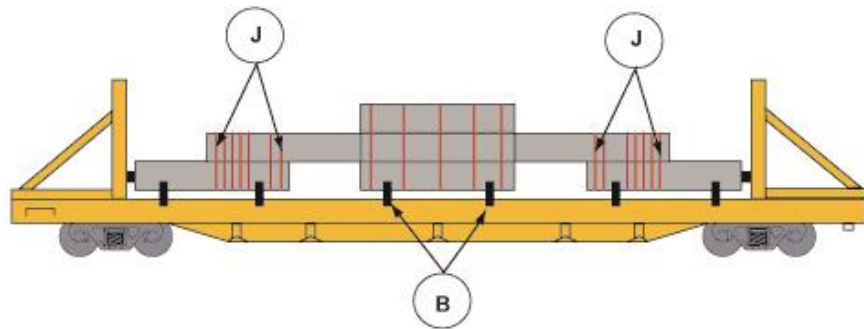
INGOTS ALUMINUM, SPECIALLY EQUIPPED FLAT CARS WITH PERMANENT
END BULKHEADS

RAC 12043K (continued)

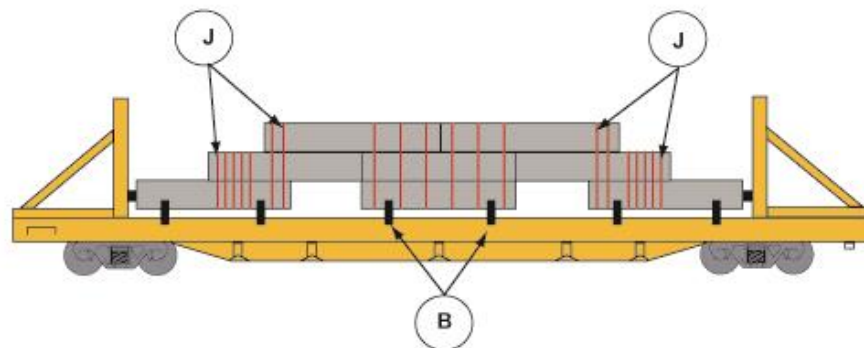
Revised Nov. 06 (Ref: AAR Fig. 43K)



SKETCH A



SKETCH B

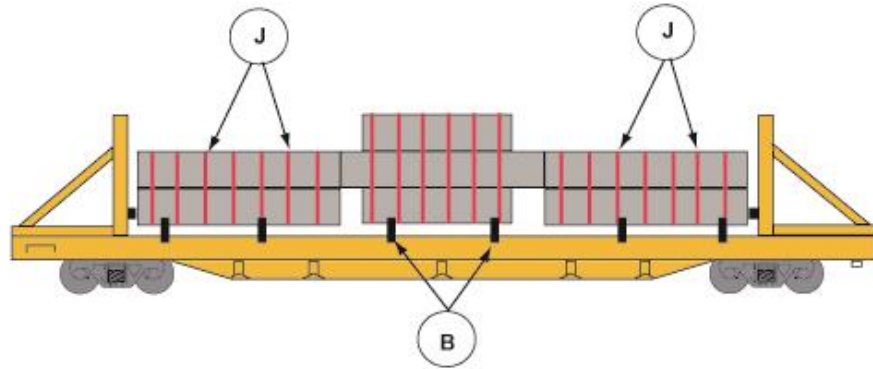


SKETCH C

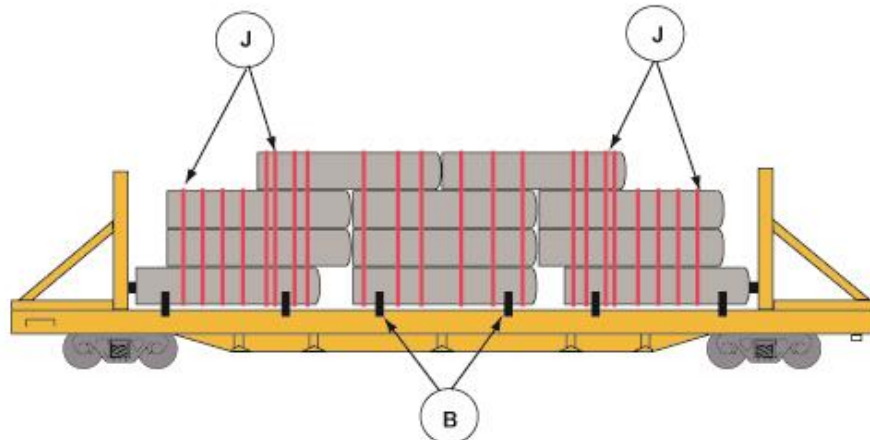
INGOTS ALUMINUM, SPECIALLY EQUIPPED FLAT CARS WITH PERMANENT
END BULKHEADS

RAC 12043K (continued)

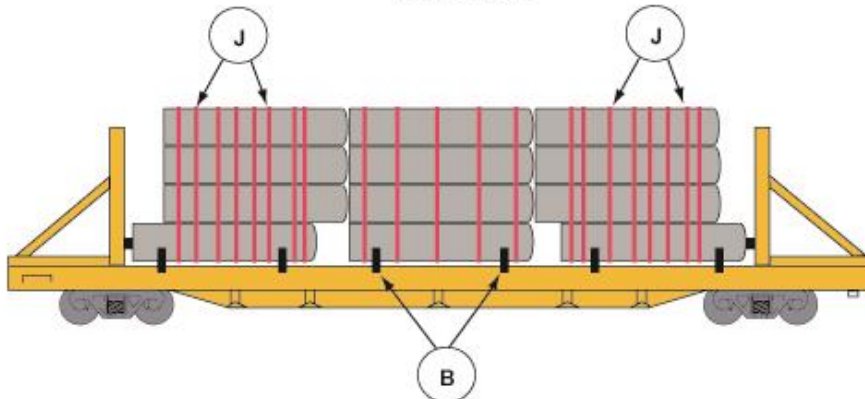
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SKETCH D



SKETCH E

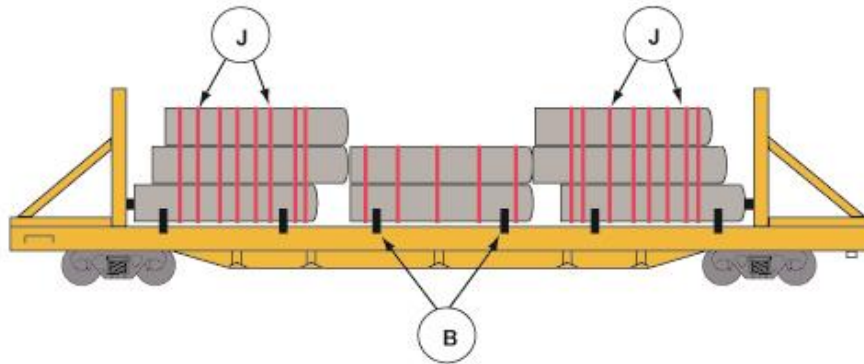


SKETCH F

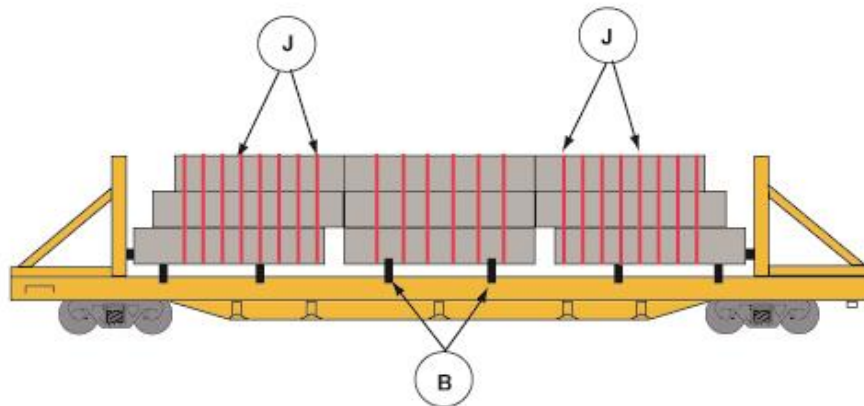
INGOTS ALUMINUM, SPECIALLY EQUIPPED FLAT CARS WITH PERMANENT
END BULKHEADS

RAC 12043K (continued)

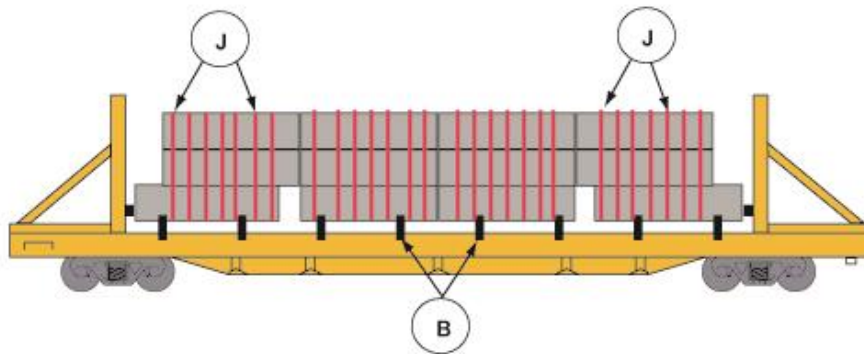
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SKETCH G



SKETCH H

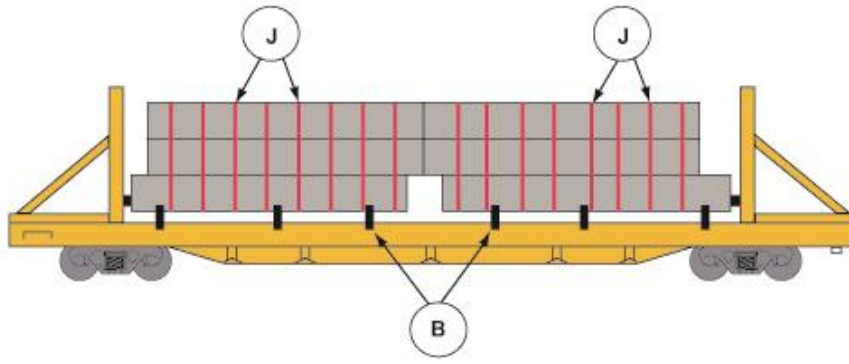


SKETCH J

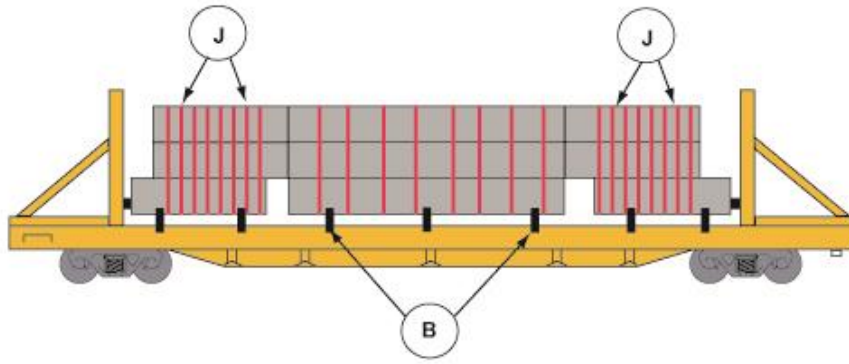
INGOTS ALUMINUM, SPECIALLY EQUIPPED FLAT CARS WITH PERMANENT
END BULKHEADS

RAC 12043K (continued)

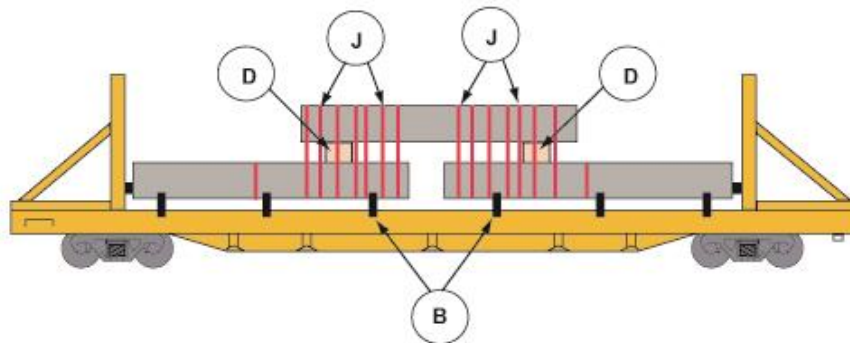
Revised Nov. 06 (Ref: AAR Fig. 43K)



SKETCH K



SKETCH L

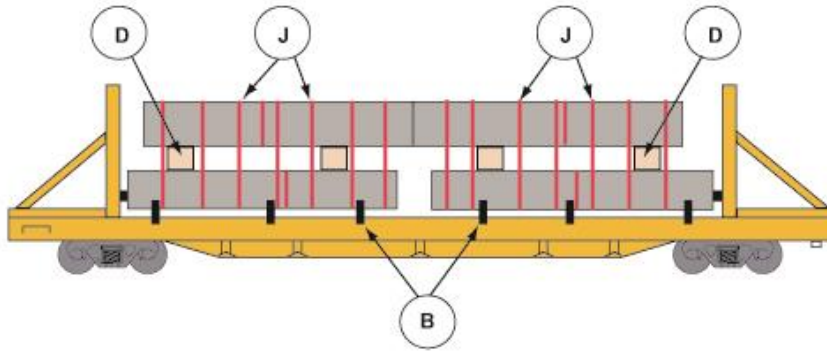


SKETCH M

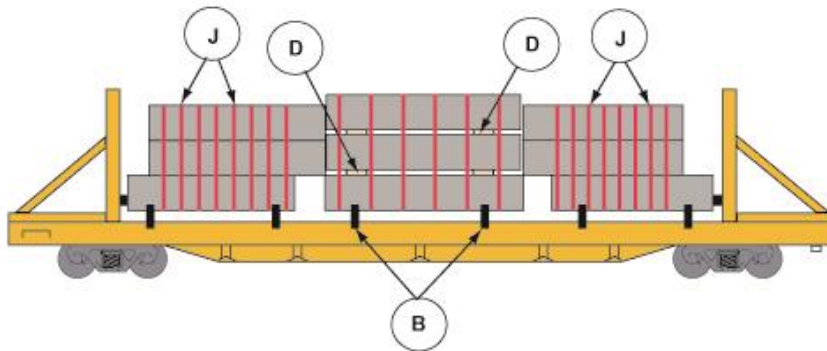
INGOTS ALUMINUM, SPECIALLY EQUIPPED FLAT CARS WITH PERMANENT
END BULKHEADS

RAC 12043K (continued)

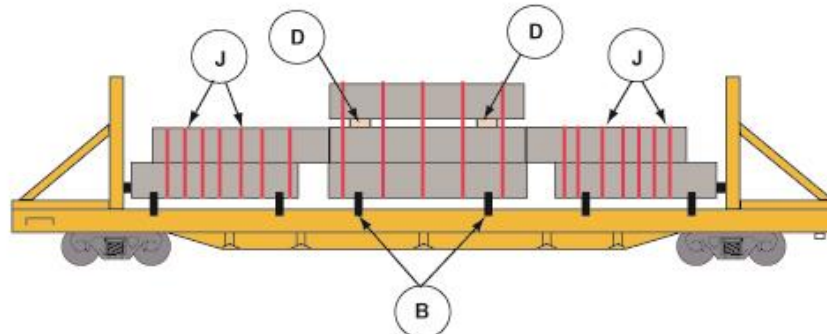
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SKETCH N



SKETCH P



SKETCH Q

INGOTS ALUMINUM, SPECIALLY EQUIPPED FLAT CARS WITH PERMANENT
END BULKHEADS

RAC 12043K (continued)

Revised Nov. 06 (Ref: AAR Fig. 43K)

Item	No. of Pcs.	Description
A		Vacant
B	Sketch A to J, P and Q: 2 per pile Sketch K, M, N 3 per pile Sketch L: 3 on center pile, 2 on end piles	Bearing pieces: fabricated steel bearing pieces with moveable side chocks. Locate approximately ¼ length from each end of pile. Moveable side chocks must be placed as close as possible to side of ingots. For Sketch E and F locate at a minimum distance of 24 in. and at a maximum distance of 30 in. from ends of pile
D	Sketch M, N: 2 per pile Sketch P, Q 2 per pile	Separators, lumber, 5 in. x 5 in. Locate approximately 2 ft. in from ends of pile. Separators, lumber, 2 in. x 6 in Locate approximately 2 ft. in from ends of pile. Do not use separators when loading to Sketch E and F.
J	Sketch A, B, Q 5 per pile and 7 per pile with overhang in length. Sketch C, D 6 and 7 Sketch E, H, P 6 and 8 Sketch F, G 5 and 8 Sketch J, M,N 7 per pile Sketch K, L 8 per pile	Encircling bands, 2 in. x .044 in. high tension. Locate one not less than 12 in. in from each end of pile, with others equally spaced between. At origin, bands must be placed to avoid contact with bearing pieces. On piles with overhang located at each end of the car: Locate 2 bands in front of bearing pieces toward overhang with other bands equally spaced between the bearing pieces. Centre pile: Locate one band not less than 12 in. in from each end of pile, with other bands equally spaced between the bearing pieces.

INGOTS ALUMINUM, SPECIALLY EQUIPPED FLAT CARS WITH PERMANENT
END BULKHEADS

RAC 12043K (concluded)

Revised Nov. 06 (Ref: AAR Fig. 43K)

Notes:

1. Flats cars loaded to this configuration must have rubber buffers permanently attached to bulkheads.
2. Overhang method must be used to eliminate voids.
3. Ingots may not overhang or extend supporting ingot by more than 40% of the overhanging ingot length. Overhanging length must include combined overhang.
4. Ingots in center pile must be of equal width.
5. Narrow ingots must be loaded to Sketch Nos. 1 or 2.

See General Rules for further details.