

SECTION No. 6

Association of American Railroads

**OPERATIONS AND
MAINTENANCE DEPARTMENT**

MECHANICAL DIVISION

RULES GOVERNING

THE

**Loading of Department of
Defense Materiel On
Open Top Cars**

Adopted by the

**Former Master Car Builders' Association
as Recommended Practice, 1896**

Advanced to Standard 1908

EFFECTIVE FEBRUARY 1, 1960

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SECTION No. 6

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Loading of Department of Defense Materiel On Open Top Cars

NOTICE

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Preface.

Attention Shippers.

Index.

General Rules.

Instructions—Experimental Loads.

Dictionary of Car and Loading Terms.

Table Nos. 1 to 35, inclusive.

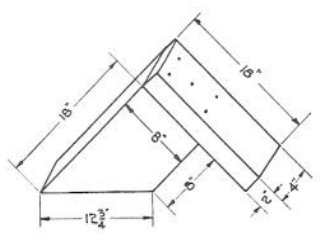
Where reference is made in the specifications of any of the figures in these rules to Fig. Nos. 1-B, 2, 3, 4, 5, 5-A or 5-B, see General Rules—Section No. 1.

Shippers of Department of Defense materiel desiring new, revision of, or additions to the present rules or specifications, must submit such proposals to the Military Traffic Management Agency, Washington 25, D. C. through the appropriate channels for handling with the Mechanical Division of the Association of American Railroads.

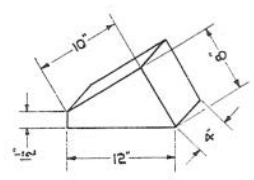
Figures covering other approved method of loading contained in the Association of American Railroads Section Nos. 2 to 5, inclusive, may be followed subject to the approval of the Department of Defense.



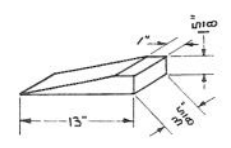
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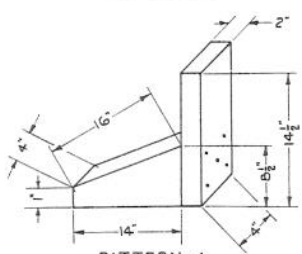
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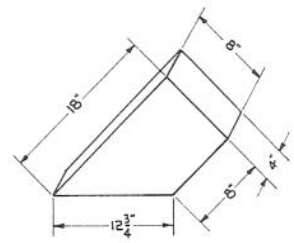
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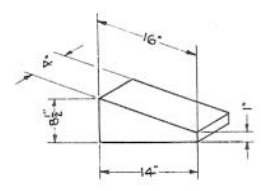
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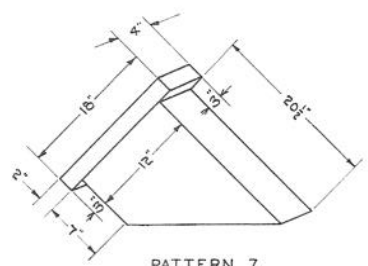
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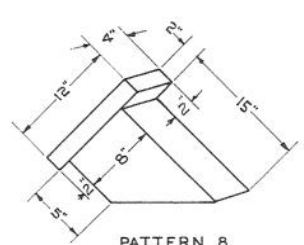
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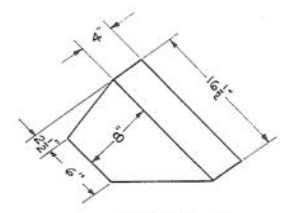
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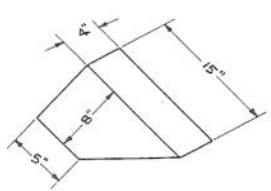
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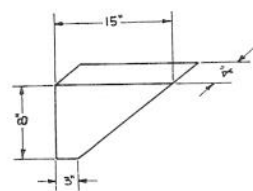
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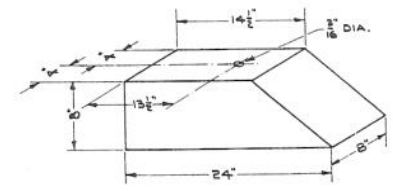
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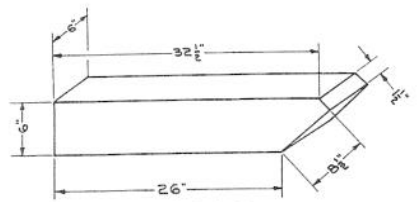
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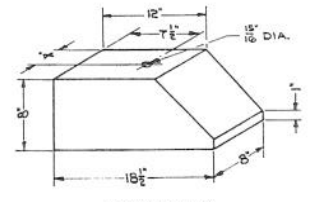
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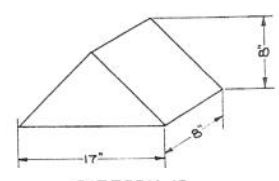
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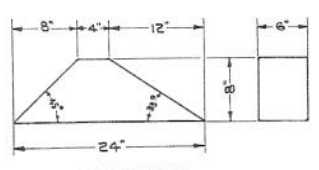
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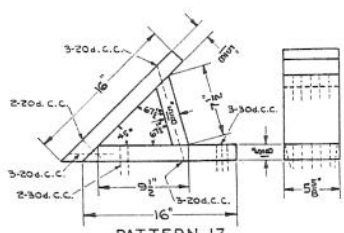
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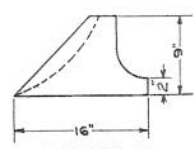
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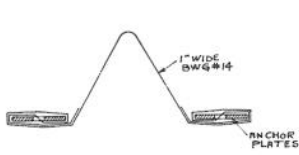


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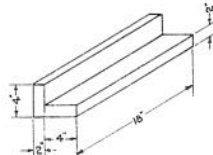


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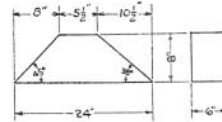
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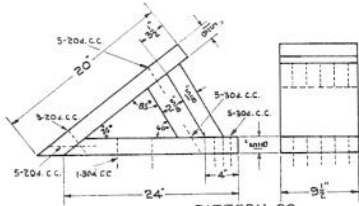
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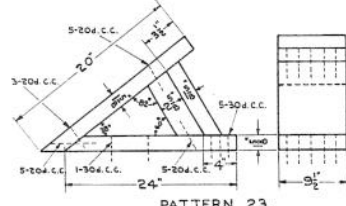
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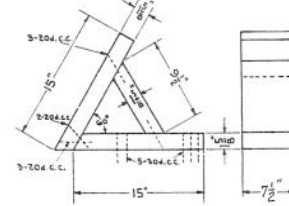
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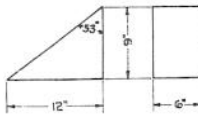
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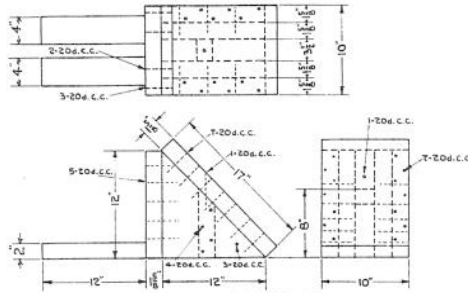
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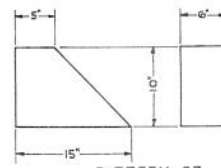
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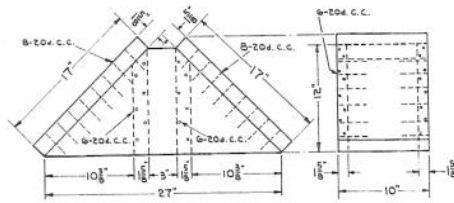
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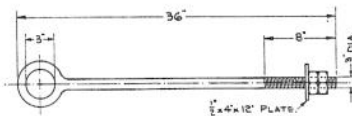
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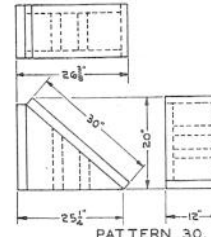
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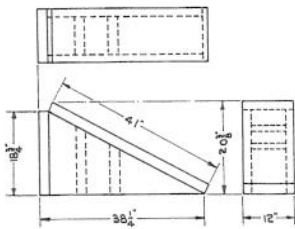
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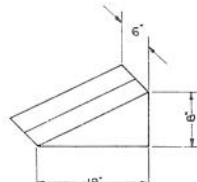
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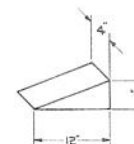
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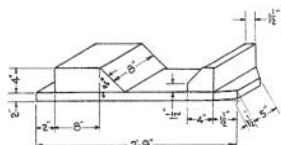
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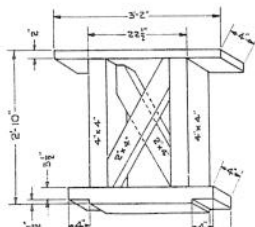
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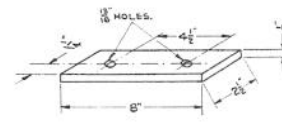
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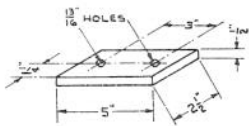


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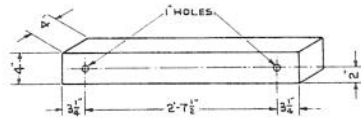


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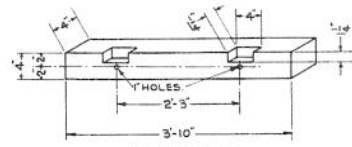
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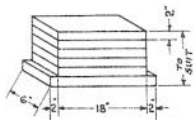
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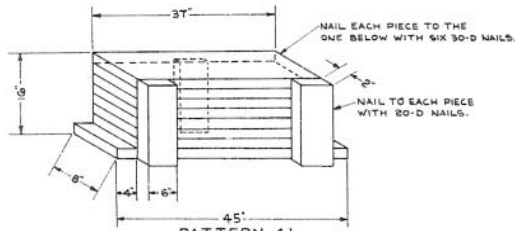
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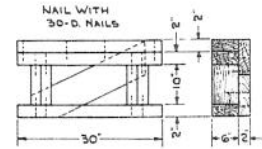
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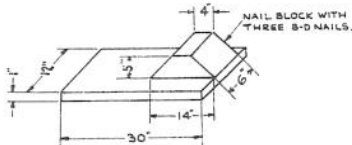
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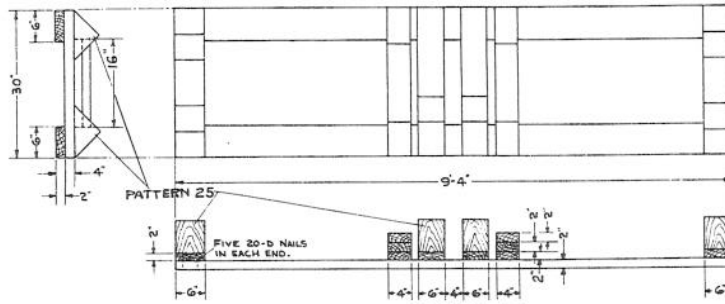
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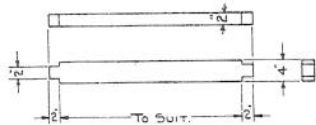
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PATTERN 43.



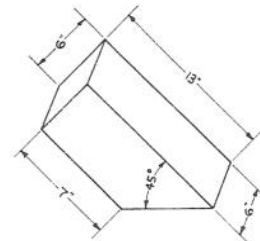
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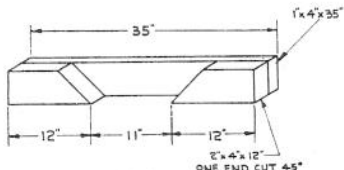
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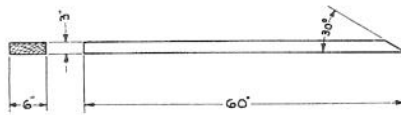
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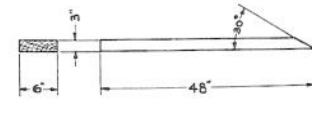
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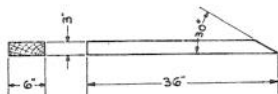
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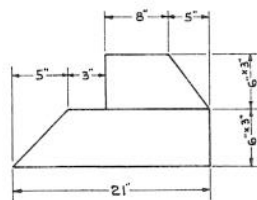
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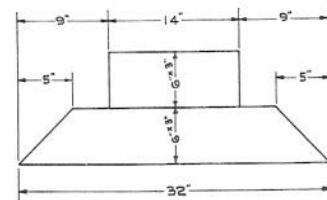
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PATTERN 51.

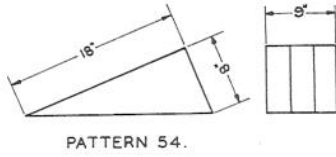


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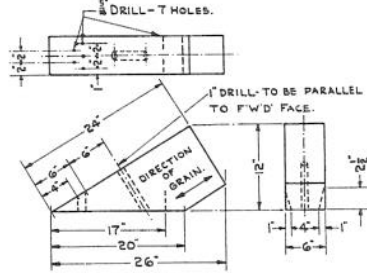


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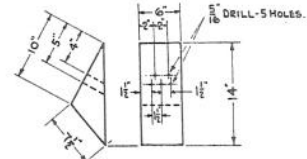
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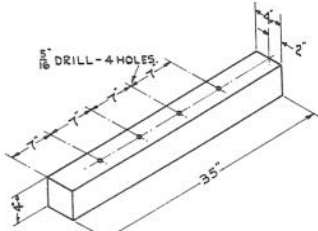
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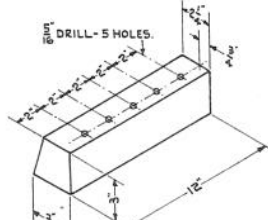
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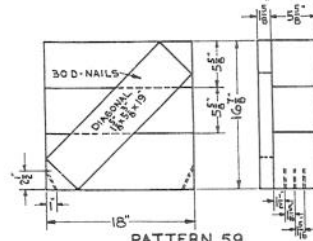
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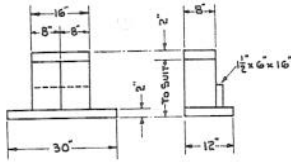
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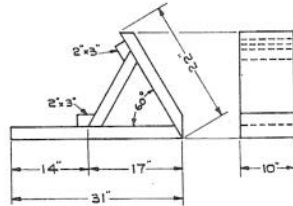
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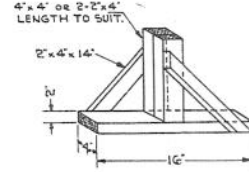
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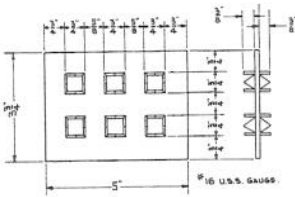
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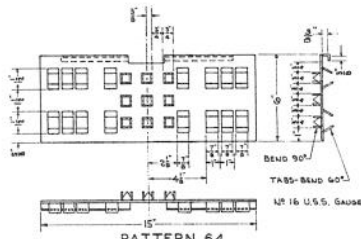
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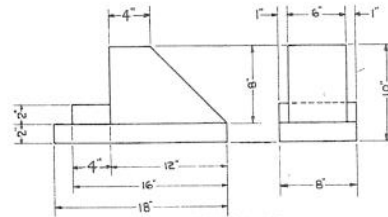
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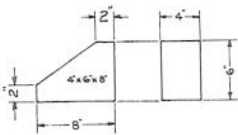
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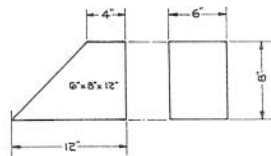
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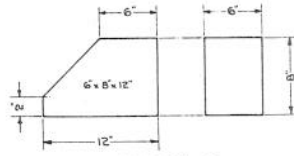
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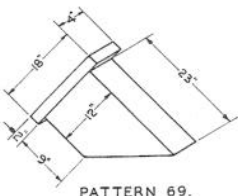
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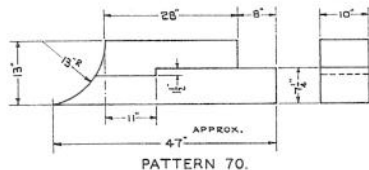
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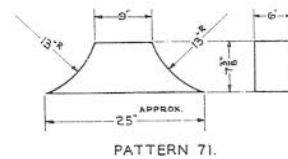
PATTERN 68.



PATTERN 69.

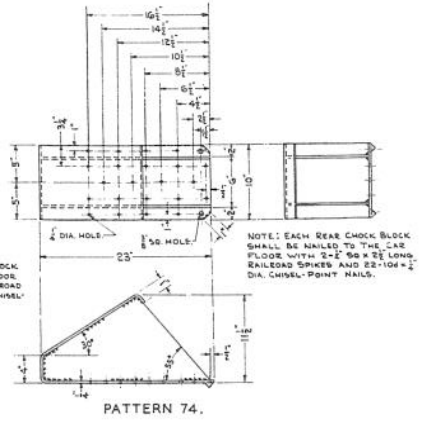
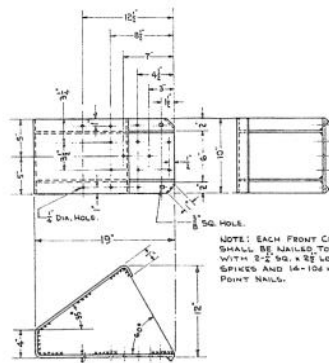
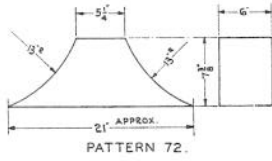


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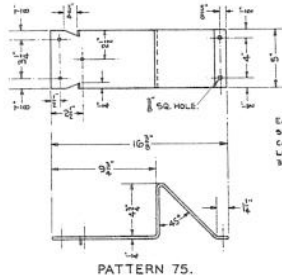
PATTERN 71.

MATERIAL CHART.

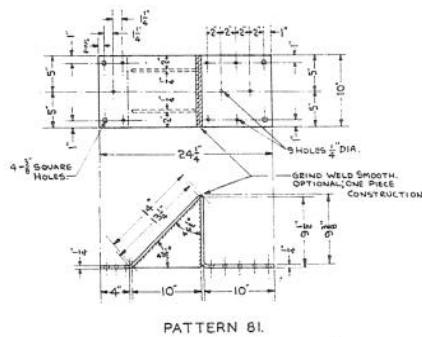
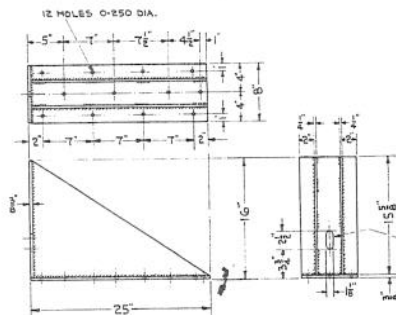
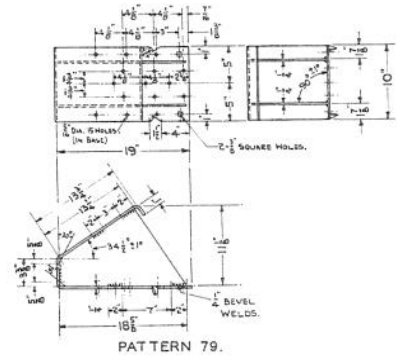
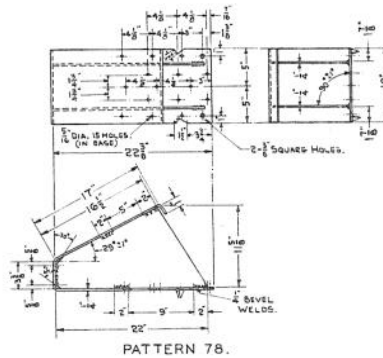
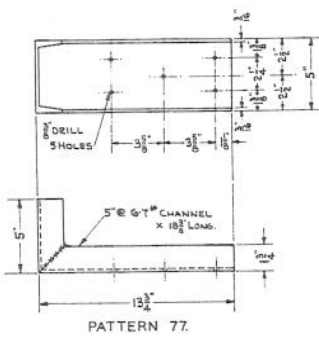
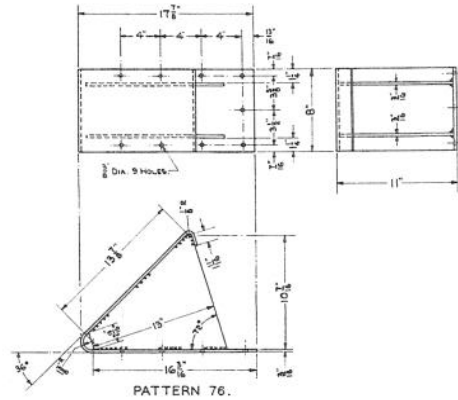


NOTE: EACH REAR CHOCK BLOCK SHALL BE NAILED TO THE CAR FLOOR WITH 2-2" SQ X 2 1/2" LONG RAILROAD SPIKES AND 22-10# 1/2" DIA. CHISEL POINT NAILS.

NOTE: EACH FRONT CHOCK BLOCK SHALL BE NAILED TO CAR FLOOR WITH 2-2" SQ X 2 1/2" LONG RAILROAD SPIKES AND 14-10# 1/2" DIA. CHISEL POINT NAILS.

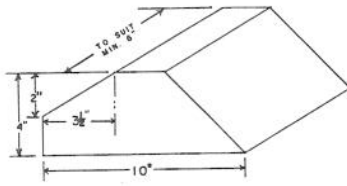


EACH TREAD SIDE CLEAT SHALL BE NAILED TO THE CAR FLOOR WITH 2-2" SQ X 2 1/2" LONG RAILROAD SPIKES AND 8-10# 1/2" CHISEL POINT NAILS.

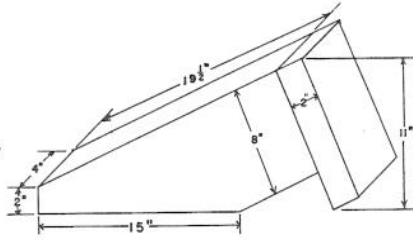


GRIND WELD SMOOTH. OPTIONAL ONE PIECE CONSTRUCTION.

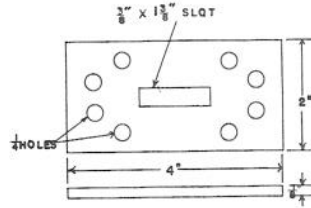
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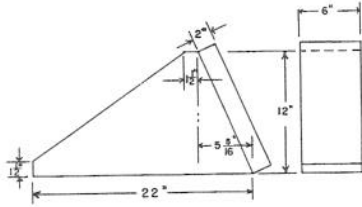
PATTERN 82



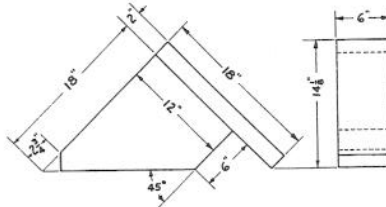
PATTERN 83



PATTERN 84

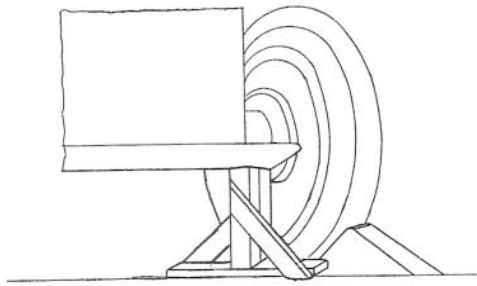
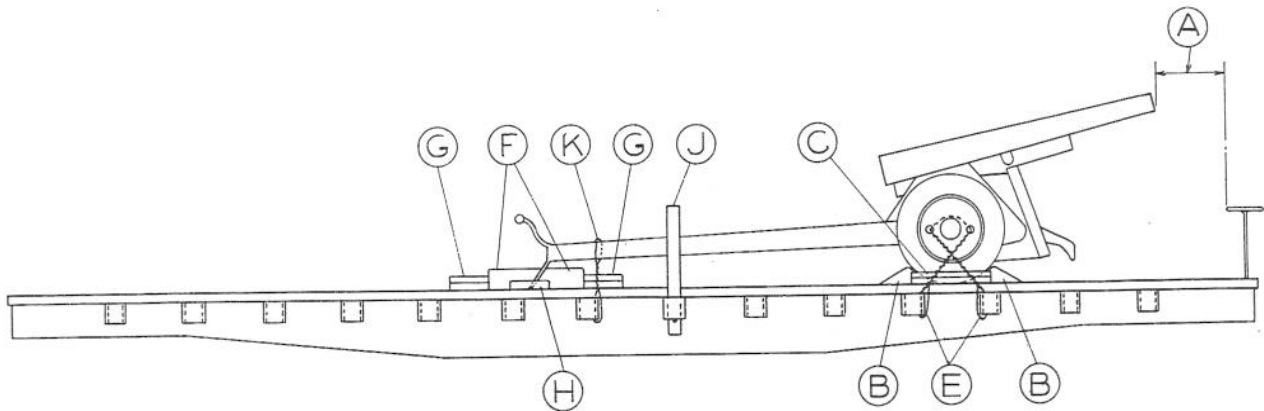


PATTERN 85



PATTERN 86

37, 40, 75, 90 and 105 M. M. MOUNTED GUN OR HOWITZER—FLAT OR DROP END GONDOLA CARS



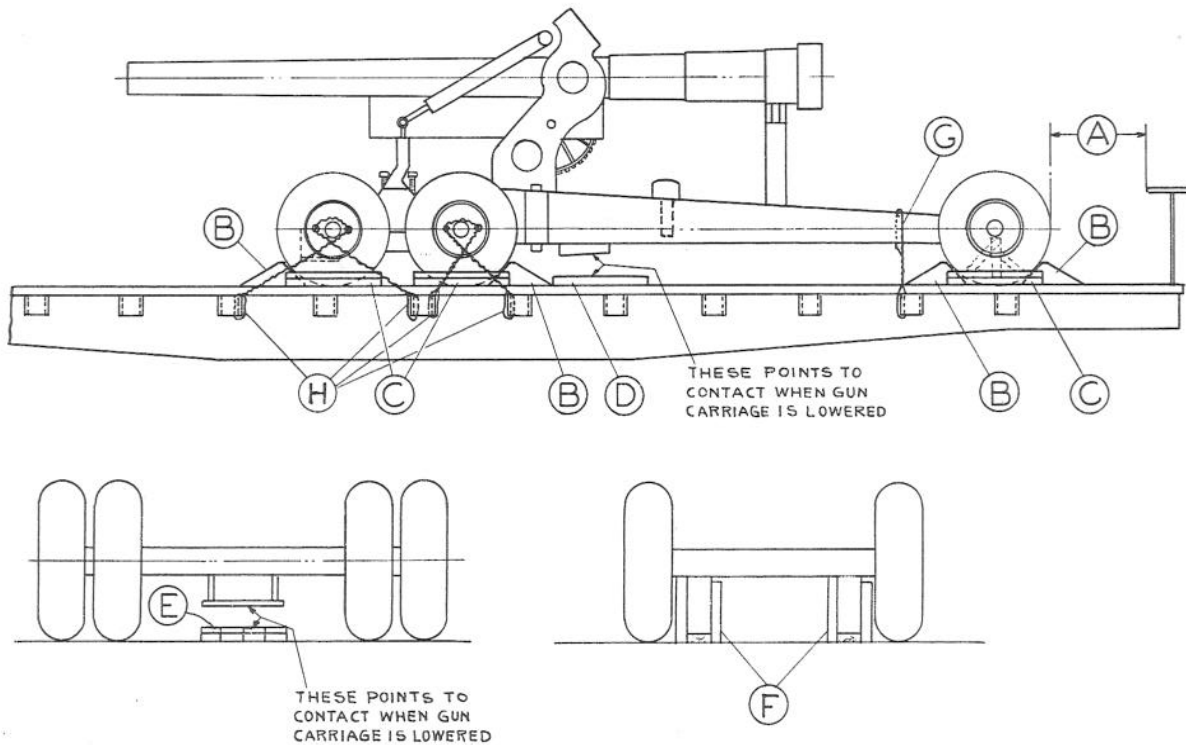
ITEM "D"

Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	4	Blocks, pattern 16. Locate 45 degree portion of block in front and rear of wheels. Secure heel of block to floor with three 40-D nails and toe nail that portion under tire to floor with two 40-D nails before Items "C" are applied.
C	2	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Secure lower piece to floor with three 40-D nails and top piece to one below in like manner.
D	2	Support, pattern 62, length $\frac{1}{4}$ in. longer than the distance between point of support on gun carriage and floor. Place between floor and gun carriage to partially relieve weight on tires. Secure each to floor with six 40-D nails.
E	2	4 strands, No. 8 ga. black annealed wire. Pass through holes in wheels and secure to stake pockets.
F	2 for single spade; 4 for double spade.	6 in. x 8 in. x 24 in., cut to fit contour of spade. Locate in front and rear of spade. Toe nail to floor with five 40-D nails.
G	2 each Item "F"	Each to consist of two pieces of 2 in. x 4 in. x 12 in. Secure lower piece to floor, against Item "F", with three 40-D nails and top piece to one below in like manner.
H	2	2 in. x 4 in. x 12 in. Locate against each side of spade and secure to floor with three 40-D nails.
J	1 pair.	Stakes or green saplings. Locate $\frac{1}{3}$ the distance from end of gun trail to center of wheels.
K	1	6 strands, No. 8 ga. black annealed wire. Loop around and over top of rear end of gun trail and secure to opposite stake pockets. Substitute, if desired, 2 in. x .050 in. high tension bands, or $\frac{1}{2}$ in. steel cables.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 10, 11, 14, 15 and 19-B for further details.

155 M. M. GUN M-1 AND 8 INCH HOWITZER CARRIAGE—FLAT CARS



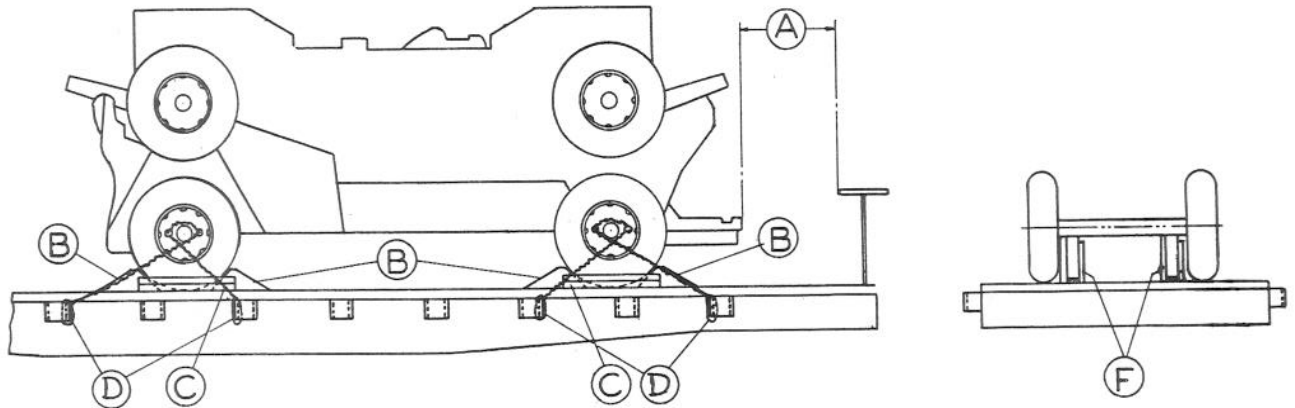
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8	Blocks, pattern 16. Locate 45 degree portion of block against front and rear of front wheels, in front of outside intermediate wheels and in back of outside rear wheels. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire to floor with two 40-D nails before Items "C" are applied.
C	6	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Secure lower piece to floor with three 40-D nails and top piece to one below in like manner.
D	2 each side	2 in. x 4 in. x 36 in. Place side by side, lengthwise of car and secure each to floor with three 40-D nails. Lower carriage to rest on Items "D" enough to partially relieve weight on tires.
E	As required.	Fill space under front end of gun carriage with 2 in. x 4 in. x 36 in. pieces. Wedge tight and secure with 30-D nails to prevent displacement.
F	2	Support, pattern 62, length $\frac{1}{4}$ in. longer than the distance between axle of limber and floor. Place between floor and axle to partially relieve weight on tires. Secure each to floor with six 40-D nails.
G	1	6 strands, No. 8 ga. black annealed wire. Loop around and over top of rear end of gun trail and secure to opposite stake pockets. Substitute, if desired, 2 in. x .050 in. high tension band, or $\frac{1}{2}$ in. steel cable.
H	4	6 strands, No. 8 ga. black annealed wire. Pass through holes in front wheels and secure to stake pockets.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 11, 14, 15 and 19-B for further details.

Sec. 6—Fig. 3

3 INCH ANTI-AIRCRAFT GUN—FLAT OR DROP END GONDOLA CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8	Blocks, pattern 16. Locate 45 degree portion of block against front and rear of wheels. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire to floor with two 40-D nails before Items "C" are applied.
C	4	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Secure lower piece to floor with three 40-D nails and top piece to one below in like manner.
D	4	6 strands, No. 8 ga. black annealed wire. Pass through holes in wheels and secure to stake pockets.
E		Vacant.
F	4	Support, pattern 62, length $\frac{1}{4}$ in. longer than the distance between axle and floor. Place between floor and axle to partially relieve weight on tires. Secure each to floor with six 40-D nails.

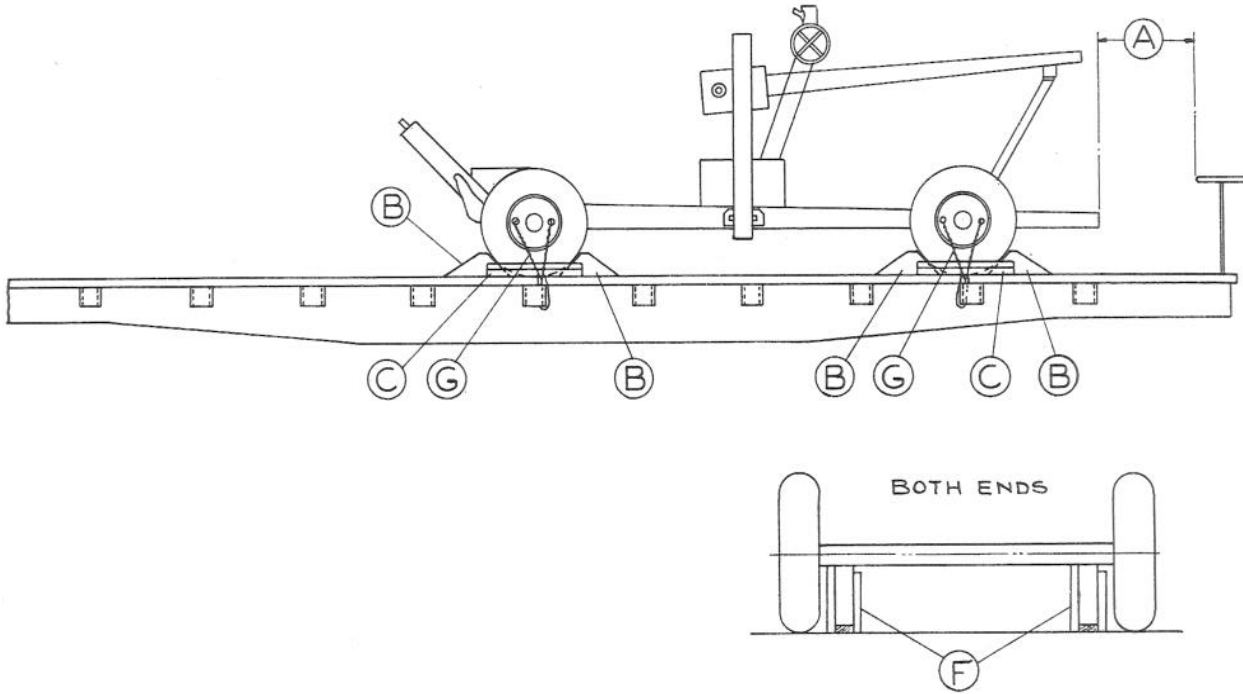
Superimposed units must be adequately secured to lower units.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 11, 14, 15 and 19-B for further details.

Sec. 6—Fig. 4

37 AND 40 MM ANTI-AIRCRAFT GUNS—FLAT OR GONDOLA CARS

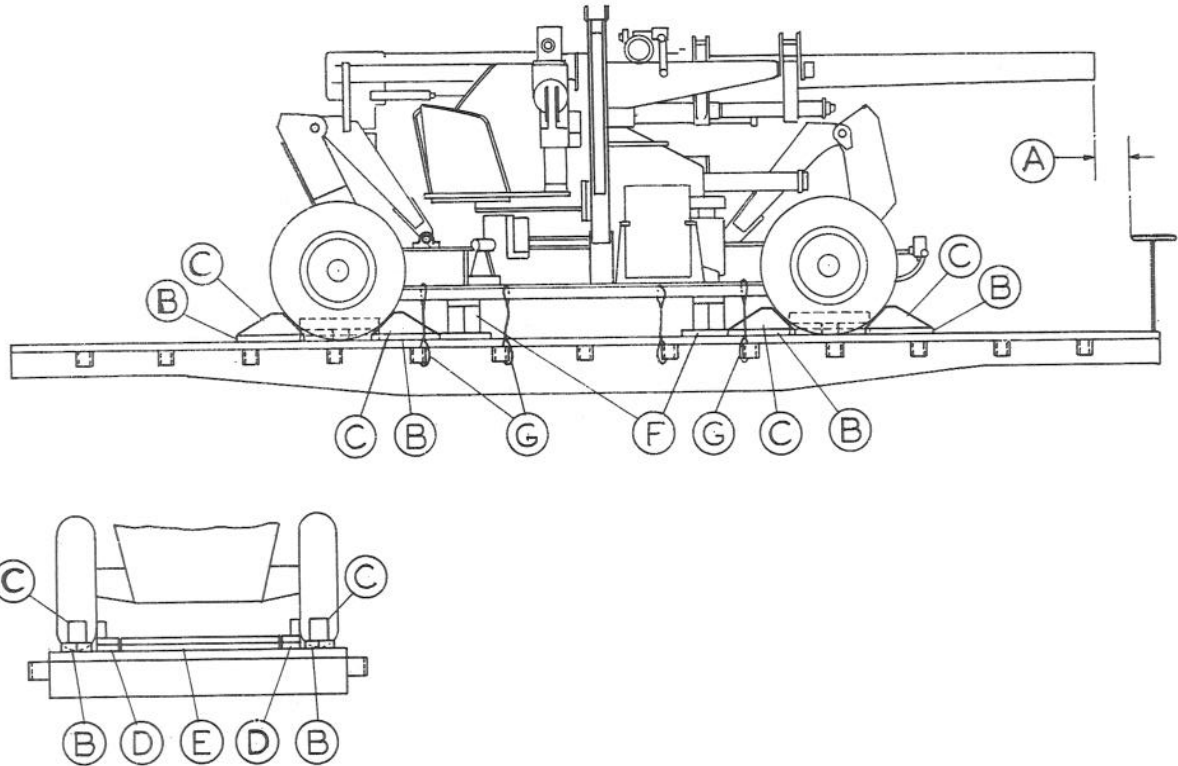


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8	Blocks, pattern 16. Locate 45 degree portion of block against front and rear of wheels. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire to floor with two 40-D nails before Items "C" are applied.
C	4	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Secure lower piece to floor with three 40-D nails and top piece to one below in like manner.
D		Vacant.
E		Vacant.
F	4	Support, pattern 62, length $\frac{1}{4}$ in. longer than the distance between axle and floor. Place between floor and axle to partially relieve weight on tires. Secure each to floor with six 40-D nails.
G	4	4 strands, No. 8 ga. black annealed wire. Pass through holes in wheels and secure to stake pockets.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 11, 14, 15 and 19-B for further details.

GUNS, 4.7 AND 90 M. M. ANTI-AIRCRAFT, SINGLE OR DUAL WHEELS—FLAT CARS

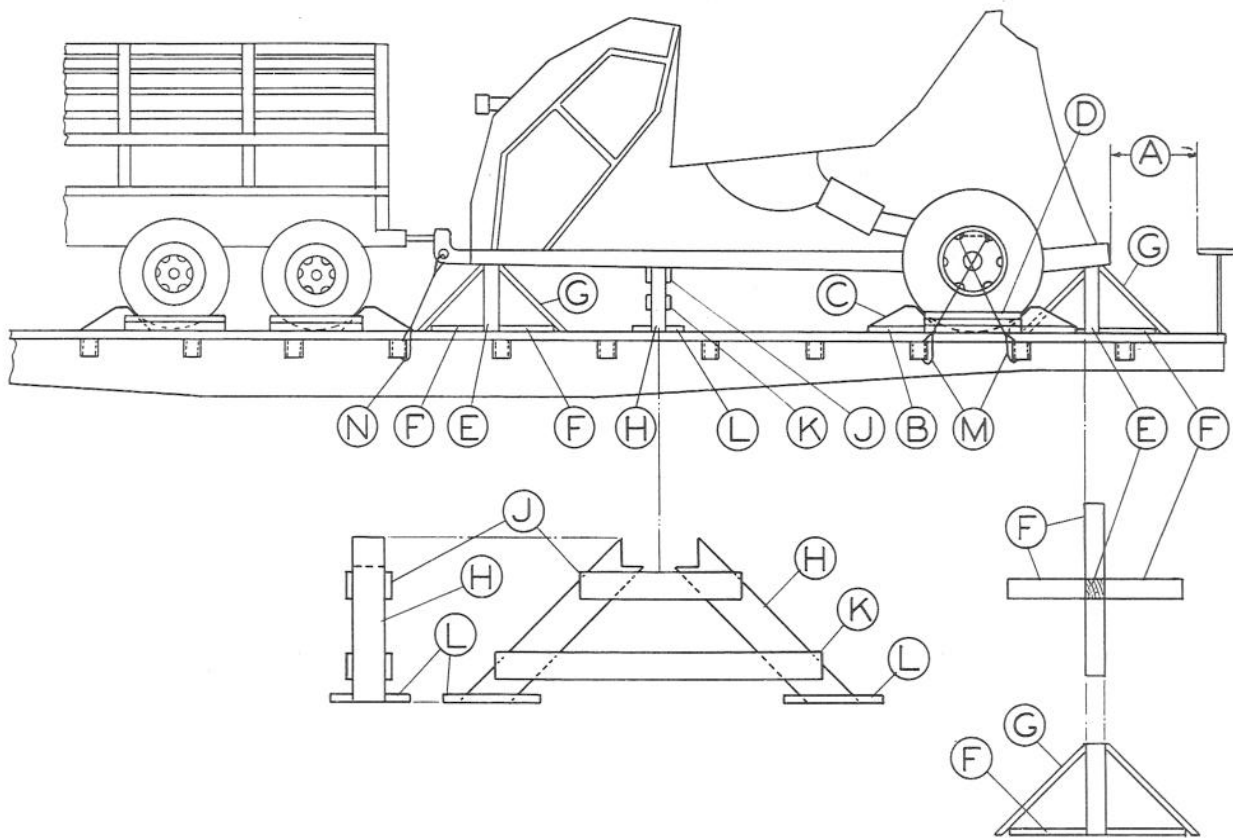


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8 for units with single wheels; 16 for units with dual wheels.	Each to consist of two pieces of 2 in. x 4 in. x 24 in. Secure two pieces, side by side, to the base of each Item "C" with four 40-D nails in each.
C	8 for units with single wheels; 16 for units with dual wheels.	Blocks, pattern 16. Locate 45 degree portion of block against front and rear of wheels. Secure heel of block to Items "B" and floor with three 60-D nails and toe-nail that portion under tire to floor with two 60-D nails.
D	4	Each to consist of three pieces of 2 in. x 4 in. x 36 in. Secure one wide surface of the intermediate piece to one of the edges of the top piece with five 20-D nails. Secure the bottom piece to other wide surface of the intermediate piece with five 20-D nails. One side of the three pieces to be flush. Locate against inside of inside tires and secure to floor with four 60-D nails.
E	2	Each to consist of two pieces of 2 in. x 4 in., length equal to distance between Items "D". Secure lower piece to floor with four 40-D nails and top piece to one below in like manner.
F	4	Blocks, pattern 60. Locate under bed of gun carriage to partially relieve weight on tires and secure each to floor with ten 40-D nails.
G	4 ea. side of unit	8 strands, No. 8 ga. black annealed wire. Attach to frame of unit and stake pocket. Substitute, if desired, at each location one 2 in. x .050 in. high tension band, or 1/2 in. steel cable.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 11, 14, 15, 19-A and 19-B for further details.

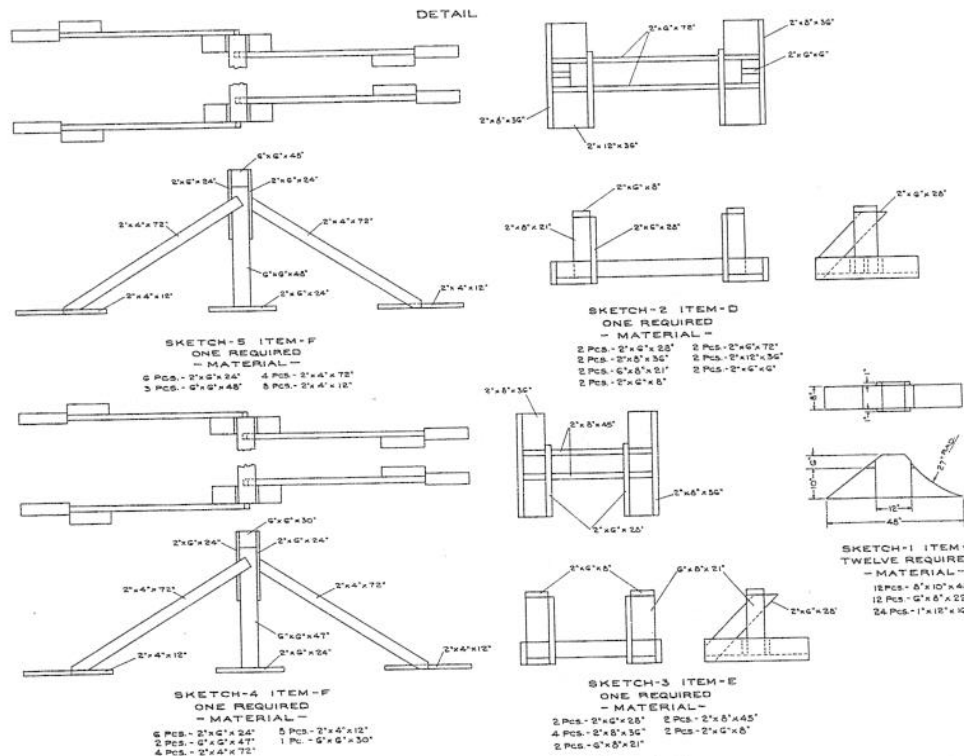
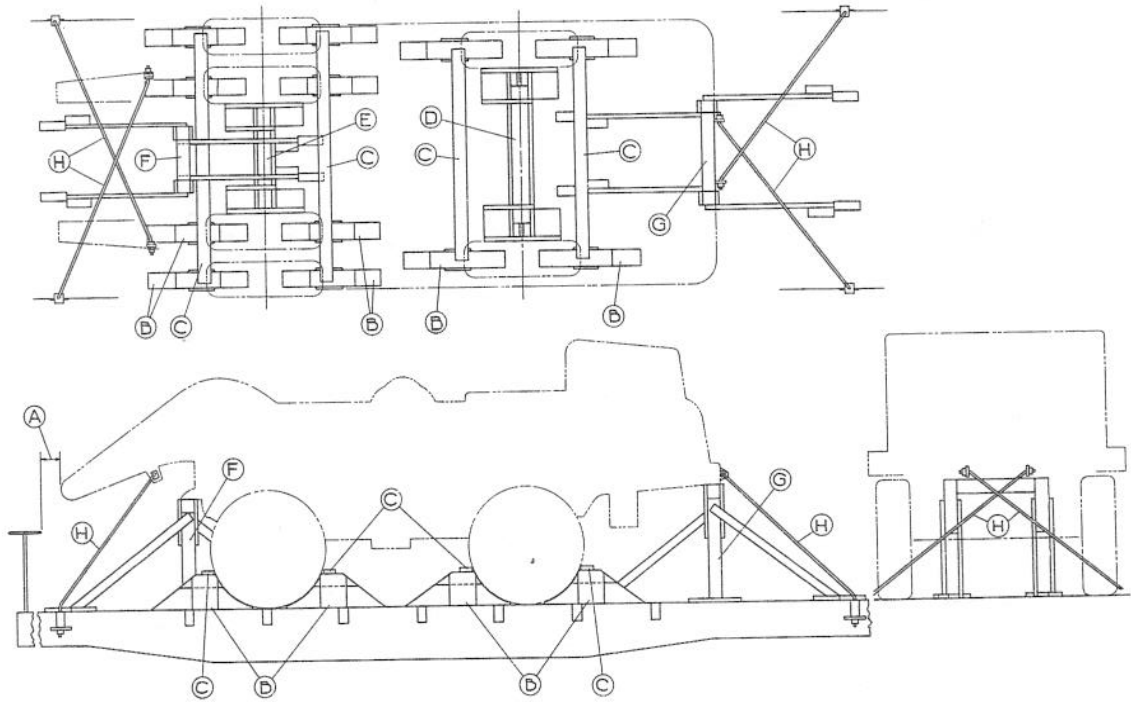
GUNS, 90 M. M. ANTI-AIRCRAFT, WITH DUAL WHEELS—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8	Each to consist of two pieces of 2 in. x 4 in. x 24 in. Secure two, side by side, to the base of each Item "C" with four 40-D nails.
C	8	Blocks, pattern 16. Locate 45 degree portion of blocks against outside of wheels. Secure heel of block to Item "B" and floor with three 60-D nails and toe-nail that portion under tire to floor with two 60-D nails.
D	2	Each to consist of three pieces of 2 in. x 4 in. x 36 in. Secure one wide surface of the intermediate piece to one of the edges of the top piece with five 20-D nails. Secure the bottom piece to the other wide surface of the intermediate piece with five 20-D nails. One side of the three pieces to be flush. Locate against outside of outside wheels and secure to floor with four 60-D nails in each.
E	2	6 in. x 6 in., length to suit. Toe-nail to floor under bed of unit.
F	8	1 in. x 6 in., length to suit. Locate on floor against Item "E", and secure to floor with four 20-D nails in each.
G	8	1 in. x 6 in., long enough to extend from floor to top of Item "E". Secure to Items "E", "F" and floor with three 20-D nails in each end.
H	2	6 in. x 6 in. diagonal braces, cut to fit under frame of unit. Toe-nail to floor with five 60-D nails in each.
J	2	1 in. x 4 in., length to suit. Secure to Items "H", directly beneath unit frame with five 20-D nails in each end.
K	2	1 in. x 4 in., length to suit. Secure to Items "H" midway between Items "J" and floor with five 20-D nails in each end.
L	4	1 in. x 4 in. x 18 in. Locate against each side of Items "H" and secure each to floor with five 20-D nails.
M	1 ea. outside wheel.	4 strands, No. 8 ga. black annealed wire. Pass through spokes, or holes in disc wheels, and through adjoining stake pocket.
N	1	6 strands, No. 8 ga. black annealed wire. Loop through and around pulling lug of unit and secure to opposite stake pockets.

Items "E", "F", "G", "H", "J", "K", "L" and "N" not required for units loaded without trailer and tow bars removed provided front end of unit is secured in accordance with Figure 1.
See General Rules 4, 5, 9, 11, 14, 15, 19-A and 19-B for further details.

Sec. 6—Fig. 7
 CARS NO. 1 AND 2 (FOUR-CAR-SHIPMENT) 280 M. M. MOUNTED GUN—FLAT CARS

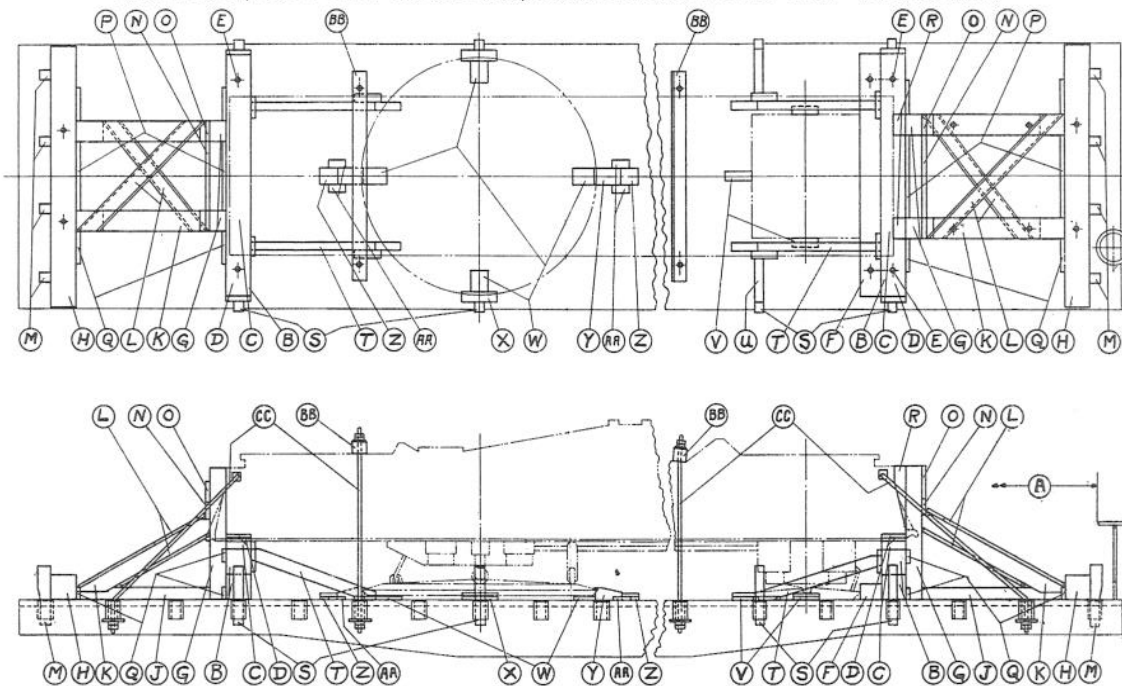


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	12	Blocks, Sketch 1. Locate at front and rear of each wheel and secure each to floor with nine 60-D nails.
C	4	2 in. x 6 in., length to suit. Locate against tires on top of Items "B", as shown, and secure to Items "B" with three 30-D nails at each location.
D	1	Support, Sketch 2. Locate under axle at single wheel end of unit, as shown, and secure to floor with twenty 30-D nails.
E	1	Support, Sketch 3. Locate under axle at dual wheel end of unit, as shown, and secure to floor with twenty 30-D nails.
F	1	Support, Sketch 4. Locate under frame of unit at dual wheel end, as shown, and secure to floor with fifty-two 30-D nails.
G	1	Support, Sketch 5. Locate under frame of unit at single wheel end, as shown, and secure to floor with fifty-two 30-D nails.
H	4	3/4 in. diameter rods. Locate one each side of front and rear of unit. Attach to lifting lugs and pass through stake pockets and 1/2 in. x 4 in. x 10 in. plates on opposite sides of car.

Hand brakes must be set and levers wired or blocked.
 See General Rules 4, 5, 7, 9, 11, 14, 15, 19-A and 19-B for further details.

Sec. 6—Fig. 7

CAR NO. 3 (FOUR-CAR-SHIPMENT) 280 M. M. MOUNTED GUN—FLAT CARS

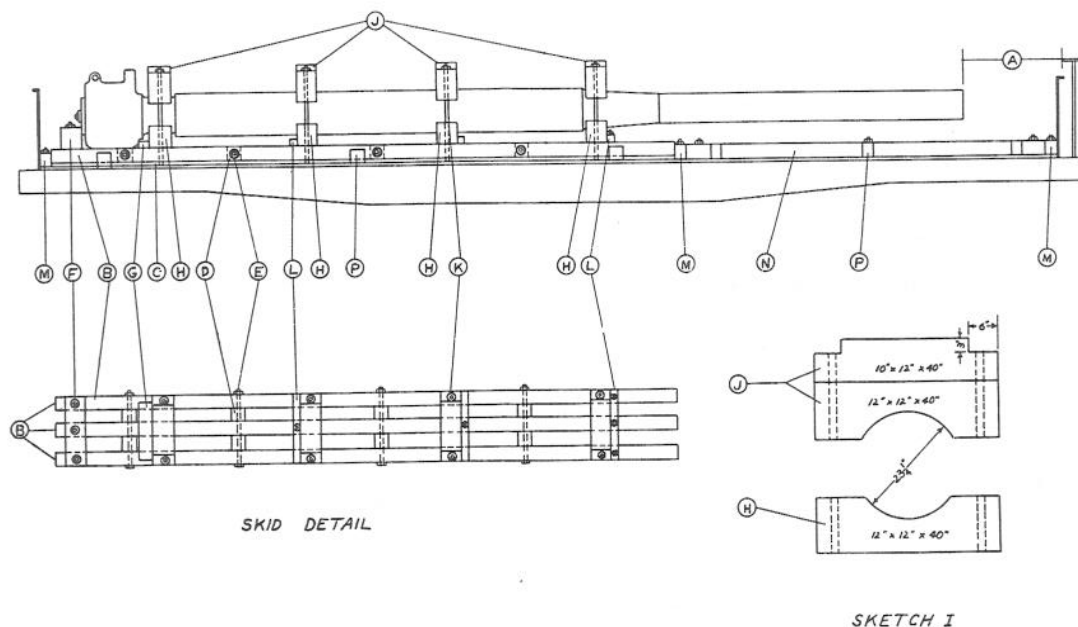


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2	Each to consist of two pieces of 12 in. x 12 in. x 9 ft. 2 in. Locate under frame at each end of unit, as shown.
C	2	4 in. x 12 in. x 9 ft. 2 in. Locate one on top of each Item "B", as shown.
D	4	Each to consist of two pieces of 2 in. x 12 in., length to suit. Locate lower piece on top of Item "C" at each end against flange of frame and top piece against frame of unit. Secure lower piece to Item "C" with six 30-D nails and top piece to one below in like manner.
E	4	1½ in. dia. bolts. Locate, as shown, passing through Items "B", "C", "D" and floor.
F	1	8 in. x 10 in. x 9 ft. 2 in. Locate, as shown, against Item "B" at front end of unit and secure to floor with two ¾ in. dia. bolts.
G	4	8 in. x 10 in. x 61 in. Locate suitably spaced against outside of Items "B" and "C", as shown. Secure each to Item "B" with two ¾ in. dia. bolts.
H	2	12 in. x 12 in. x 10 ft. Locate, as shown, and secure each to floor with two ¾ in. dia. bolts.
J	4	6 in. x 8 in., length to suit. Locate between Items "G" and "H", as shown.
K	4	8 in. x 10 in., beveled at ends, length to suit. Locate, as shown, between Items "G" and "H", and secure each with two ¾ in. dia. bolts passed through Items "J" and floor.
L	4	2 in. x 6 in., length to suit. Locate diagonally, as shown, and secure to Items "K" at each location with four 30-D nails.
M	8	End stakes. Locate in end stake pockets against Items "H", as shown.
N	2	2 in. x 8 in., length to suit. Locate, as shown, on top of Items "K" and secure to Items "G" with four 30-D nails at each location.
O	4	2 in. x 6 in. x 16 in. Locate against Item "N", as shown, and secure each to Item "G" with four 30-D nails.
P	4	2 in. x 6 in., length to suit. Locate, as shown, between Items "G" secured to Items "B", and between Items "J" secured to Items "H" with four 30-D nails in each.
Q	12	2 in. x 6 in. x 15 in. Locate, as shown, two against each Item "G", suitably spaced, and secured to Item "B" with four 30-D nails, and one against each Item "J" secured to Item "H" with four 30-D nails.
R	2	Wedge-shaped blocks, length, width and thickness to suit. Locate, as shown, between Items "G" and front end of frame and toe-nail to Items "G" with 30-D nails.
S	8	Side stakes, of sufficient length to extend 15 in. above floor. Locate, as shown.
T	4	4 in. x 6 in. x 56 in., beveled at ends. Locate two, as shown, against each Item "B" secured to Items "B" and floor with two 40-D nails at each location, and with 2 in. x 4 in. x 12 in. pocket cleats at ends secured to Item "B" or floor with three 30-D nails.
U	2	2 in. x 4 in., length to suit. Locate, as shown, between Items "S" and "T" and secure each to floor with three 30-D nails.
V	3	Each to consist of two pieces of 2 in. x 4 in. x 12 in. Locate against each side and at rear of front support of unit, as shown. Secure lower piece to floor with three 30-D nails and top piece to one below in like manner.
W	4	2¼ in. x 8 in. x 10 in. Locate under center support, as shown, and secure each to floor with three 30-D nails.
X	2	Each to consist of two pieces, 2 in. thick, 16 in. in length, width sufficient to fill space between Items "S" and center support. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
Y	2	5½ in. x 8 in. x 12 in., notched to fit against flange of center support. Locate, as shown, and toe-nail each to floor with four 40-D nails.
Z	2	Each to consist of two pieces of 2 in. x 8 in. x 12 in. Locate against Items "Y", as shown, and secure lower piece to floor with three 30-D nails and top piece to one below in like manner.
AA	4	2 in. x 4 in. x 12 in. Locate, as shown, against Items "Y" and "Z" and secure each to floor with three 30-D nails.
BB	2	6 in. x 8 in., length to suit, with ½ in. dia. bolts crosswise at ends to prevent splitting. Locate over frame of unit suitably spaced, as shown.
CC	8	1¼ in. dia. rods. Attach two at each end of unit and one to each end of Items "BB" and pass through stake pockets and ½ in. x 4 in. x 10 in. plates underneath stake pockets.

See General Rules 4, 5, 7, 9, 10, 11, 12, 14 and 15 for further details.

Sec. 6—Fig. 7

CAR NO. 4 (FOUR-CAR-SHIPMENT) GUN, 280 M. M.—GONDOLA CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	3	Skids, 8 in. x 8 in. x 30 ft. Locate, as shown, against Item "M".
C	3	Skid rubbing strips, 2 in. x 8 in., length to suit. Bevel ends and counter bore for application of Items "K". Secure each to Items "B" with 20-D nails spaced not over 12 in. apart.
D	8	Skid spacers, 8 in. x 8 in. x 8 $\frac{3}{4}$ in. Locate between Items "B", suitably spaced as shown.
E	4	Skid bolts, 1 in. dia. Locate, as shown, passed through Items "B" and "D".
F	1	Breech end block, 12 in. x 12 in. x 40 in. Locate against end of breech, as shown, and secure to each Item "B" with one 1 in. dia. bolt.
G	1	Breech filler block, 4 in. x 6 in. x 35 in. Locate as shown, and toe-nail to Items "B" with 40-D nails.
H	4	Cradle blocks, Sketch 1. Locate suitably spaced, as shown.
J	4	Cradle blocks, Sketch 1. Locate suitably spaced, as shown.
K	8	Cradle block bolts, 1 in. dia. Locate, as shown, passed through Items "B", "H" and "J".
L	3	Skid cross blocks, 4 in. x 4 in. x 40 in. Locate one, as shown, against inside Items "H" and secure to center Item "B" with one $\frac{3}{4}$ in. dia. bolt and toe-nail to outside Items "B" with four 40-D nails, and one against Item "H" at muzzle end, as shown, secured to each Item "B" with one $\frac{3}{4}$ in. dia. bolt.
M	3	6 in. x 8 in., length equal to width of car. Locate against ends of car and Items "B", as shown, and secure each to floor with three 1 in. dia. bolts.
N	2	6 in. x 8 in., length to suit. Locate, as shown, between Items "M" and secure each to floor with three 1 in. dia. bolts.
*O	3	6 in. x 8 in., length to suit. Locate suitably spaced between Items "N", and toe-nail each to floor with six 40-D nails, or secure to steel floors with two $\frac{3}{4}$ in. dia. bolts.
P	12	6 in. x 8 in., length to suit. Locate suitably spaced, as shown, between sides of car and Items "B" and "N". Toe-nail each to floor with six 40-D nails, or secure to steel floors with two $\frac{3}{4}$ in. dia. bolts.

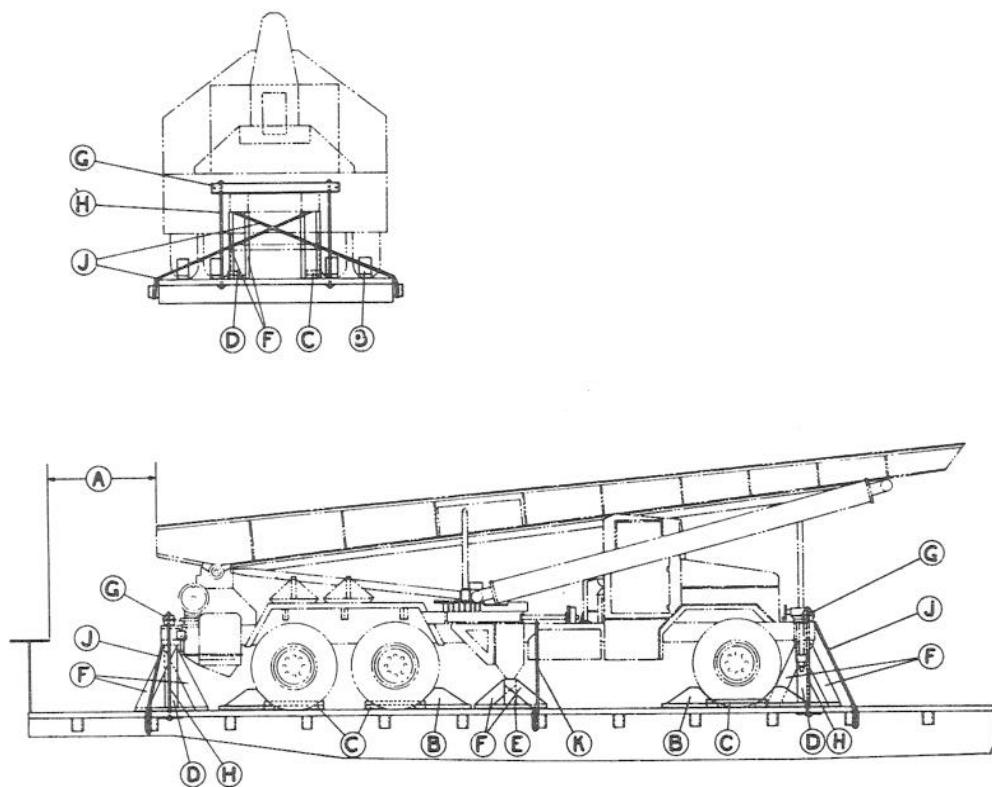
*Items "O" not shown on drawing.

Longitudinal center line of gun barrel must be directly over longitudinal center line of car.

See General Rules 4, 5, 9, 11, 14 and 15 for further details.

Sec. 6—Fig. 8

ROCKET LAUNCHERS—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	12	Each to consist of one block, pattern 16, with one piece of 2 in. x 6 in. x 28 in. secured to base with five 30-D nails. Locate against front and rear of front wheels, against front of intermediate wheels and against rear of rear wheels. Secure each to floor with five 50-D and two 40-D nails.
C	6	Each to consist of two pieces of 2 in. x 6 in. x 30 in. Locate against outside of front wheels and against inside of rear and intermediate wheels. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
D	4	6 in. x 6 in., length to suit, with nailed base piece, 2 in. x 6 in. x 36 in. Locate, as shown, under each side of frame of unit at each end. Secure each to floor with six 30-D nails.
E	2	6 in. x 8 in., length to suit, with nailed base piece, 2 in. x 8 in. x 36 in. Notch at top to provide clearance for projection on frame, and locate, as shown, under each side of unit at center. Secure each to floor with six 30-D nails.
F	2 ea. Items "D" and "E".	2 in. x 6 in., length to suit. Locate one against each side of Items "D" and "E", as shown. Secure each end to Items "D" or "E", and to base piece with three 30-D nails.
G	2	5 in. x 5 in., length to suit, with 1/2 in. dia. bolt at each end to prevent splitting. Locate, as shown, over frame at each end of unit.
H	2 ea. Item "G".	1 in. dia. rods passed through Items "G", floor and a 4 in. x 4 in. x 18 in. cleat or a 1/2 in. x 4 in. x 18 in. plate underneath floor on each side of frame.
J	4	5/8 in. x 6 x 7 steel cable, doubled. Locate two, as shown, at each end passed through frame of unit and opposite stake pockets.
K	1	5/8 in. x 6 x 7 steel cable, doubled. Locate, as shown, passed over top of frame of unit at center and through opposite stake pockets.

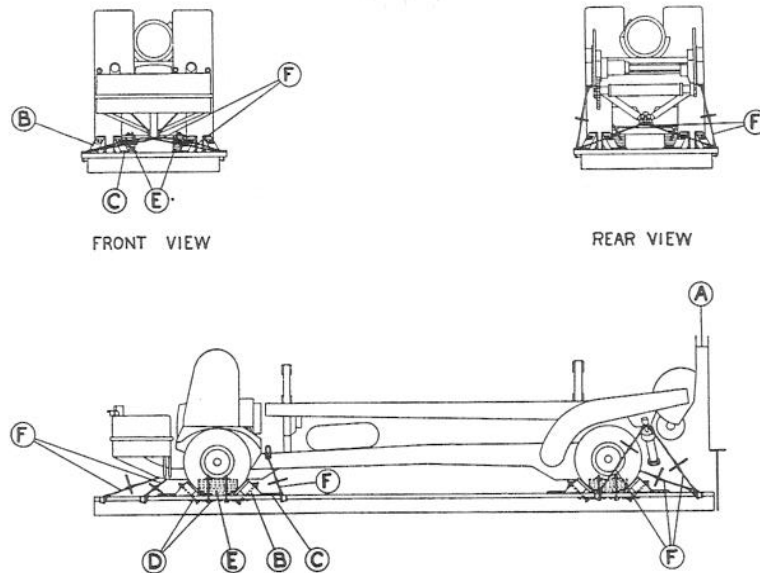
Superstructure must be placed and secured in lowered position on body or frame of unit.

Use suitable cushioning material between Items "C" and tires.

See General Rules 4, 5, 7, 9, 11, 14, 15, 19-A and 19-B for further details.

Sec. 6—Fig. 9

GUIDED MISSILE, ERECTOR UNITS, FOUR WHEEL—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	16	Blocks, pattern 86. Locate two, as shown, in front and rear of each wheel. Secure each to floor with three 40-D nails and one $\frac{5}{8}$ in. dia. bolt passed through floor and Item "D".
C	1 ea. Item "B".	2 in. x 6 in. x 15 in. Locate, as shown, against Item "B" and secure each to floor with four 30-D nails.
D	As required.	$\frac{1}{2}$ in. x 4 in. x 18 in. plate or 4 in. x 4 in. x 18 in. hardwood.
E	4	Axle supports built up of 2 in. x 6 in. x 36 in. height to suit. Locate, as shown, under axles and against inside of wheels. Secure each to floor with two $\frac{5}{8}$ in. dia. bolts passed through floor and Items "D".

Note.—The height of axle supports Items "E" should be 2 in. less than the distance from the car floor to the bottom of the front and rear axles (tires inflated to normal pressure).

F	12	Each to consist of eight strands No. 8 gage wire. Locate six on each side, as shown, attached to frame and stake pockets. Substitute, if desired, at each location steel cable doubled, of equivalent load strength.
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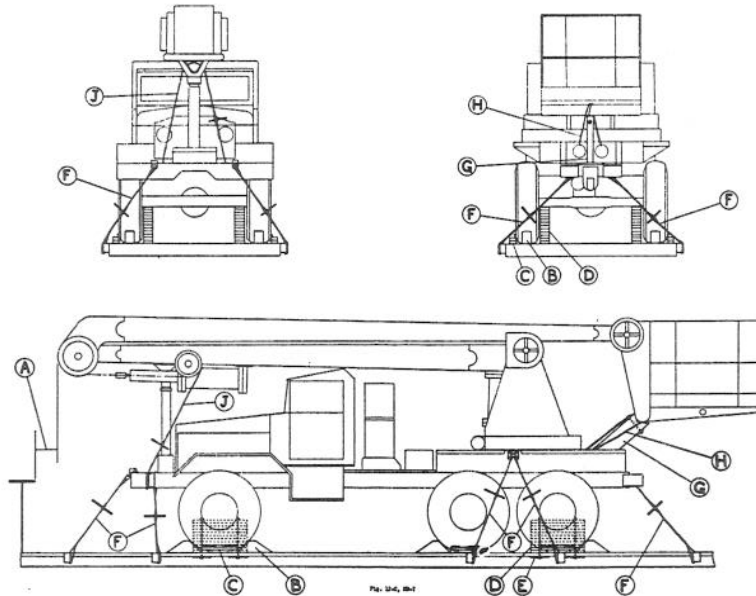
Superstructure must be placed and secured in lowered position on body or frame of unit.

Use suitable cushioning material between Items "E" and tires.

See General Rules 4, 5, 7, 9, 11, 14, 15, 19-A and 19-B for further details.

Sec. 6—Fig. 10

GUIDED MISSILE, SERVICER UNITS, SIX WHEEL—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8	Blocks, pattern 16. Locate 45 degree portion of block in front and rear of front wheels, in front of intermediate wheels and at rear of rear wheels. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire with two 40-D nails.
C	6	Each to consist of two pieces of 2 in. x 4 in. x 24 in. Locate, as shown, against outside of wheels and secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
D	4	Axle support, built up of 2 in. x 6 in. x 36 in., height to suit. Locate, as shown, under axles. Secure each to floor with two $\frac{5}{8}$ in. dia. bolts passed through floor and Items "E".
E	As required.	$\frac{1}{2}$ in. x 4 in. x 18 in. plates, or 4 in. x 4 in. x 18 in. hardwood.
F	10	Each to consist of eight strands No. 8 gage wire. Locate five on each side as shown, attached to frame and stake pockets. Substitute, if desired, at each location steel cable doubled, of equivalent load strength.
G	1	4 in. x 10 in., length to suit. Use one $\frac{1}{2}$ in. dia. bolt at top to prevent splitting. Notch at top and locate, as shown, between servicing platform and rear of frame.
H	2	Each to consist of four strands No. 8 gage wire. Locate one, as shown, between servicing platform and rear of frame, on each side.
J	2	Each to consist of eight strands No. 8 gage wire. Attached to superstructure at front of unit and to opposite sides of frame as shown. Substitute, if desired, at each location, steel cable, doubled, of equivalent load strength.

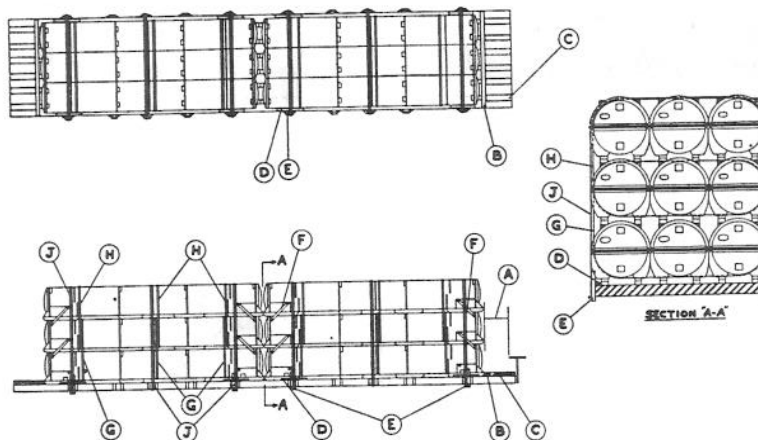
Superstructure must be placed and secured in lowered position on body of frame of unit.

Use suitable cushioning material between Items "C" and tires.

See General Rules 4, 5, 7, 9, 11, 14, 15, 19-A and 19-B for further details.

Sec. 6—Fig. 11

GUIDED MISSILE CONTAINERS, LOADED OR EMPTY—FLAT CARS



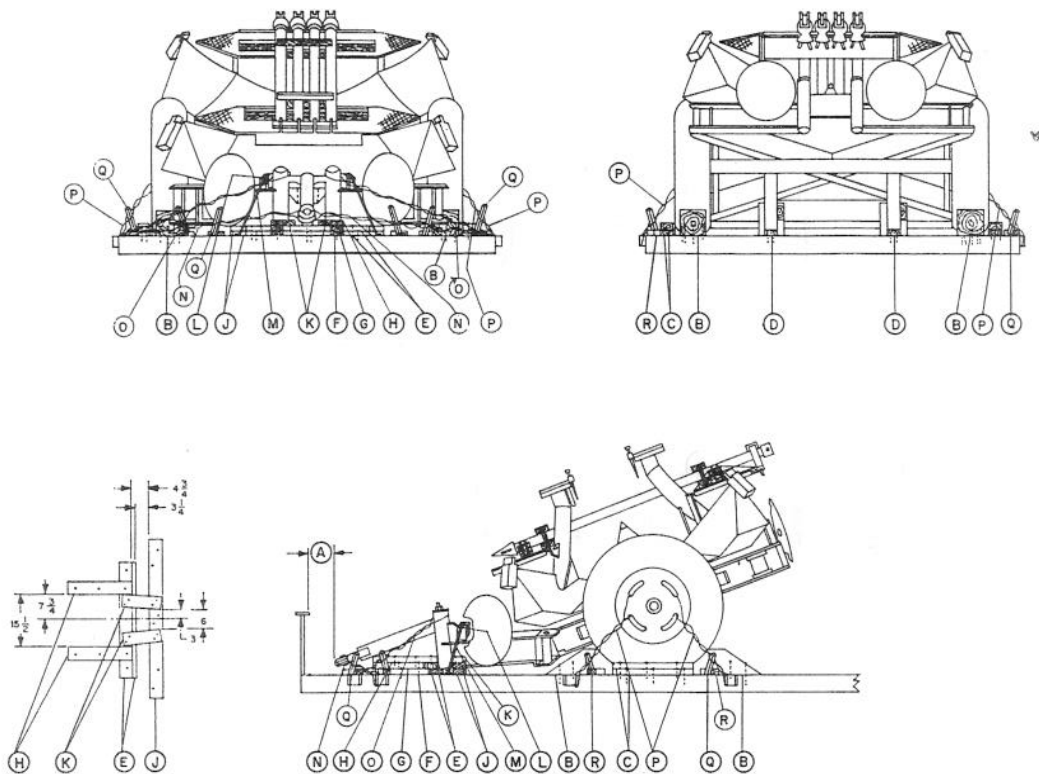
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	1 ea. end of load.	4 in. x 4 in., length to suit. Locate against ends of container skids, as shown, and secure each to floor with ten 60-D nails.
C	6 ea. end of load.	Each to consist of two pieces of 2 in. x 6 in. x 24 in. Locate suitably spaced against Item "B", as shown. Secure lower pieces to floor with five 20-D nails and top pieces to ones below in like manner.
D	4 per pile.	2 in. thick, 24 in. in length, width sufficient to fill space between skid and Item "E". Locate against outside of skids, as shown, and secure each to floor with five 20-D nails. When Items "E" are not used or cannot be applied, Items "D" must consist of two pieces of 2 in. x 6 in. x 24 in.
E	4 per pile.	Stakes, length sufficient to extend 9 in. above floor. Locate two, as shown, suitably spaced on each side of pile. Not required when two-piece Items "D" are used.
F	As required.	$\frac{1}{4}$ in. x 2 in. plates, length to suit. Locate two, as shown, at an angularity of about 45 degrees, on each side between each unit in layer above and layer underneath. Secure each to frame of upper unit and to stacking lug on lower unit with one $\frac{5}{8}$ in. dia. bolt at each location.
G	3 per pile.	$1\frac{1}{4}$ in. x .035 in. high tension bands. Locate suitably spaced, as shown, encircling bottom and intermediate layers.
H	3 per pile.	$1\frac{1}{4}$ in. x .035 in. high tension bands. Locate suitably spaced, as shown, encircling intermediate and top layers.
J	3 per pile.	2 in. x .050 in. high tension bands. Locate suitably spaced, as shown, attached to opposite stake pockets.

End to end piles must be butted together.

Items "F", "G" and "H" not required on single layer loads.

See General Rules 4, 5, 7, 9, 10, 11, 14 and 15 for further details.

Sec. 6—Fig. 12
GUIDED MISSILE, LAUNCHER UNIT, TWO WHEEL—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	4 ea. unit.	Blocks, pattern 16. Locate 45 degree portion of block against front and rear of each wheel. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire to floor with two 40-D nails.
C	2	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Locate against outside of each wheel. Secure lower piece to floor with three 40-D nails and top piece to one below in like manner.
D	2	Support, pattern 62. Locate under axle as shown. Length to be $\frac{3}{8} + \frac{1}{8}$ longer than the distance between points of support on axle and floor of car. Secure each support to floor with six 40-D nails.
E	2	Each to consist of one piece of 2 in. x 4 in. x 36 in. Locate as shown, secure lower piece to floor with three 40-D nails and top piece to one below in like manner.
F	2	Each to consist of one piece of 2 in. x 4 in. x $16\frac{1}{2}$ in. Locate ends against lower Item "E" as shown. Secure to floor with three 30-D nails.
G	2	Each to consist of one piece of 2 in. x 4 in. x $16\frac{1}{2}$ in. Locate on top of Item "F", with ends against upper item "E" and secure with three 40-D nails.
H	2	Each to consist of one piece 2 in. x 4 in. x 20 in. Locate as shown. Secure each piece to Item "G" with two 30-D nails and to Item "E" with one 30-D nail.
J	1	To consist of two pieces 2 in. x 4 in. x 48 in. Locate as shown and secure lower piece to floor with six 40-D nails and top piece to one below in like manner.
K	2	Each to consist of one piece 2 in. x 4 in. x 12 in. Locate as shown, secure one end to Item "J" with two 30-D nails and other end to Item "E" in like manner.
L	2	Support assembly, each to consist of one piece of plywood, $\frac{1}{4}$ in. x $3\frac{1}{2}$ in. x $3\frac{1}{2}$ in. x 45 degree secured between two blocks 2 in. x 4 in. x $5\frac{1}{2}$ in. with two 30-D nails. Locate as shown.
M	2	$1\frac{1}{4}$ in. x .035 in. high tension band with anchor plates. Locate as shown. Secure to Items "L" with band staples and secure each anchor plate to floor with eight 20-D nails.
N	2	Each to consist of eight strands No. 8 ga. black annealed wire to pass through eye of tow bar to stake pockets on each side of car. Substitute, if desired, at each location, steel cable, doubled, equivalent to load strength.
O	2	Each to consist of eight strands of No. 8 ga. black annealed wire. One around each support assembly to stake pockets on each side of car. Substitute, if desired, steel cable, doubled, equivalent load strength.
P	4	Each to consist of eight strands No. 8 ga. black annealed wire. Pass through wheels to stake pockets on each side of car, two per wheel. Substitute, if desired, steel cable, doubled, equivalent load strength.
Q	8	Each to consist of one 2 in. x 2 in. x 6 in. block. Secure block to wire with staples or nails.
R	8	Each to consist of one block 2 in. x 4 in. x 6 in. Secure block to floor and block-"Q" to block-"R" in a manner to prevent wire from untwisting.

Provide protection from edges of stake pockets and wheels.

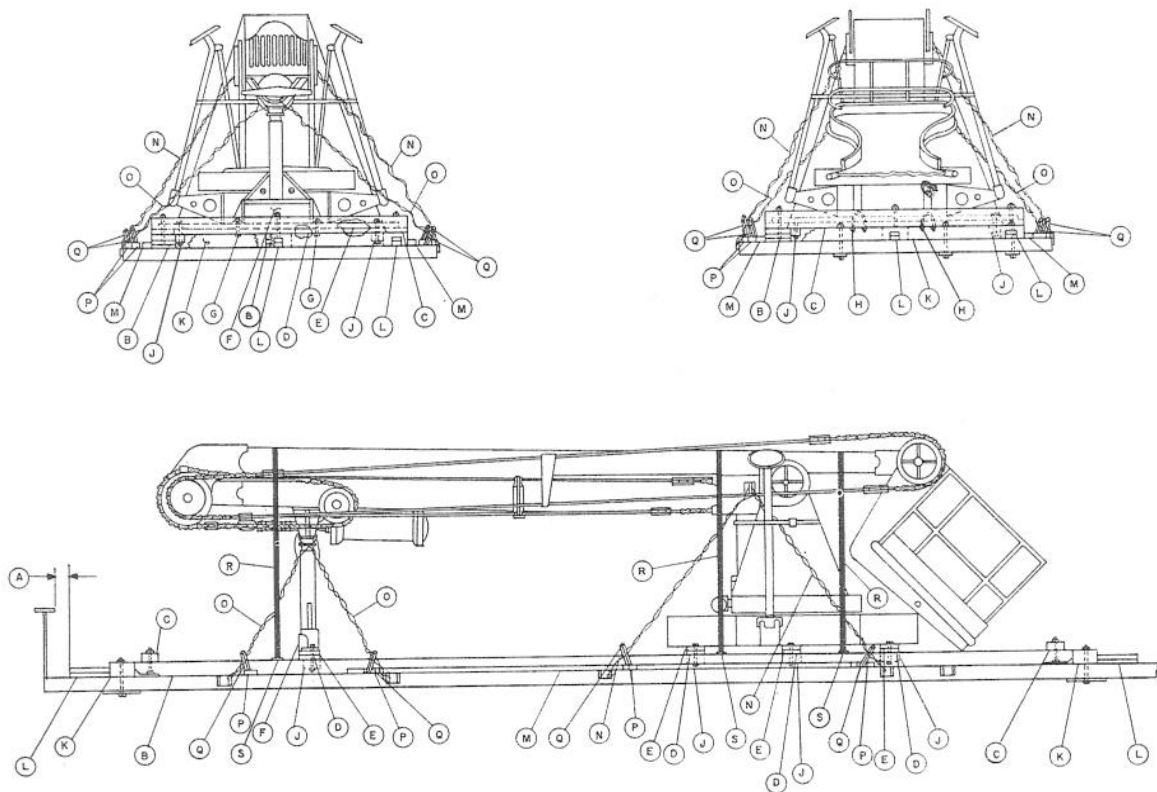
Use suitable cushioning material between Item "C" and tires, lower portion under lower Item "C", top portion extending 2 in. above upper Item "C".

Hand brakes must be set and levers wired or blocked.

Tire pressure must be 70 lbs. psi. when loaded.

See General Rules 4, 5, 7, 9, 11, 14, 15 and 19B for further details.

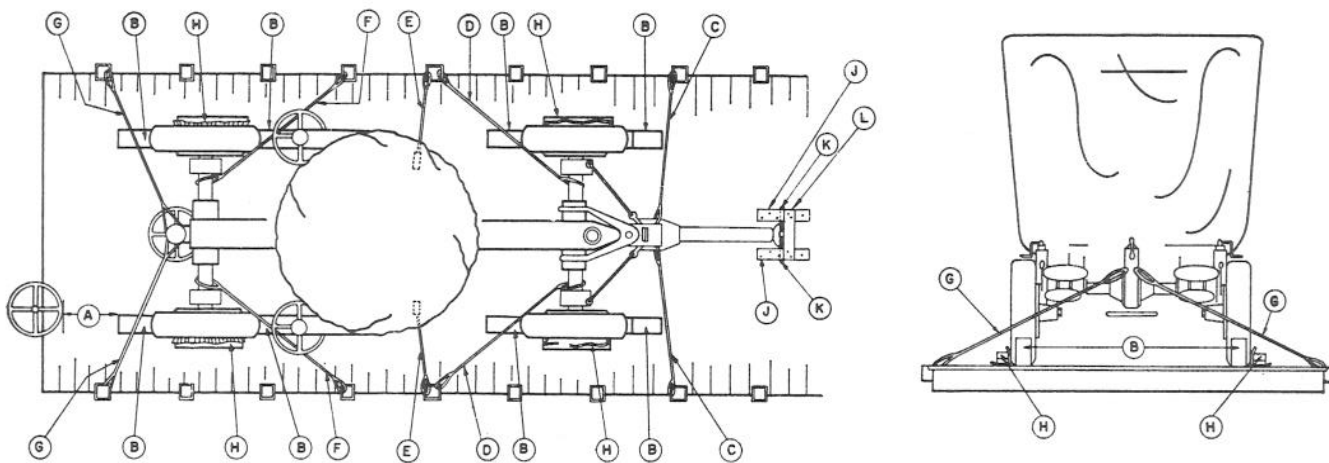
Sec. 6—Fig. 13
 SERVICING PLATFORM SUPERSTRUCTURE, GUIDED MISSILE, SKID MOUNTED—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	3	6 in. x 11 in. x 440 in. Locate as shown, lengthwise of car. Skid members may be laminated as shown in Illustration No. 14, according to Note 7, Part 2 of Section No. 4.
C	2	4 in. x 8 in. x 112 in. Locate not less than 3 inches from ends of skid members (Item "B"). Secure to Item "B" with 3/4 in. dia. bolts with washers under head and nut. The underside of skid (Item "B") must be counterbored or rabbetted out to accommodate bolt heads.
D	4	2 in. x 8 in. x 112 in. Locate as shown. Secure to each Item "B" with four 40-D nails.
E	4	2 in. x 8 in. x 106 in. Locate on top of each Item "D". Secure with eight 40-D nails. Secure to Items "D" and "B" with suitable length 5/8 in. dia. bolts, passing through Items "B", "D" and "E". Three per each Item "E", with washers under head and nut. The underside of skid (Item "B") must be counterbored to accommodate bolt heads.
F	1	6 5/8 in. x 6 in. x 27 1/2 in. Locate as shown. Toe nail to Item "E", with six 40-D nails.
G	4	1/2 in. dia. bolts. Long enough to pass through base of unit and Items "D" and "E".
H	4	3/4 in. dia. "U" bolts. Long enough to pass through azimuth unit and Items "D" and "E".
J	8	4 in. x 4 in. x 8 in. Locate under each Item "D" against inner side of each outer skid (Item "B"). Toe nail to Item "B" with four 40-D nails. Secure to Items "D" and "E" with 5/8 in. dia. bolt, passing through Items "D", "E" and "J" with washers under head and nut.
K	2	6 in. x 11 in. x 112 in. Locate against each end of skid members (Item "B"). Secure to car floor with four 3/4 in. dia. bolts. A 4 in. x 4 in. x 18 in. hardwood cleat, or 1/2 in. x 4 in. x 18 in. plate, must be used under car floor.
L	12	2 in. x 4 in. x 18 in. Locate against Item "K" as shown. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
M	2	2 in. x 4 in. x 220 in. Locate on floor against outside of outside skid runners (Item "B"). Secure to floor with 30-D nails spaced not more than 12 in. apart.
N	4	Each to consist of eight strands of No. 8 ga. black annealed wire. Extend through lower boom tie down support to stake pockets. If desired, steel cable doubled, of equivalent load strength may be substituted.
O	4	Each to consist of eight strands of No. 8 ga. black annealed wire. Extend through lifting pad to stake pockets. If desired, steel cable doubled, of equivalent load strength may be substituted.
P	8	2 in. x 4 in. x 6 in. Secure to car floor in a position to keep Item "Q" blocked, to prevent untwisting of Items "N" and "O".
Q	8	2 in. x 2 in. x length to suit. Secure to wire, Items "N" and "O" with staples or nails.
R	3	2 in. x .050 in. high tension bands, pass over unit in three places as shown. Secure to outer skid members with Item "S".
S	6	High tension band anchor. Secure to Item "B" with eight 20-D nails.

Provide protection from edges of stake pockets and superstructure tie downs.
 See General Rules 4, 5, 7, 9, 11, 12, 14 and 15 for further details.

ANTENNA GROUP, TRAILER MOUNTED, FOUR SINGLE WHEELS—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8	Blocks, pattern 16. Locate 45 degree portion in front and rear of wheels. Secure heel of blocks to floor with five 40-D nails, toe-nail each side with two 40-D nails.
C	2	Each, four strands No. 8 ga. black annealed wire. Pass through steering mechanism and stake pockets on each side of car. Twist taut.
D	2	Each, four strands No. 8 ga. black annealed wire. Pass around front axles and through stake pockets on each side of car. Twist taut. Wire must not rub tires.
E	2	Each, four strands No. 8 ga. black annealed wire. Pass through bracket on underside of outrigger and stake pockets on each side of car. Twist taut.
F	2	Each, four strands No. 8 ga. black annealed wire. Pass around rear axles and through stake pockets on each side of car. Twist taut. Wire must not rub tires.
G	2	Each, four strands No. 8 ga. black annealed wire. Pass around "jack post" and through stake pockets on each side of car. Twist taut. Wire must not rub tires.
H	4	Each, 2 in. x 4 in. x 36 in. doubled. Secure lower piece to floor with four 30-D nails, upper piece to one below in like manner.
J	2	Each, 2 in. x 4 in. x 20 in. doubled. Locate as shown. Secure to floor with four 30-D nails after ends of Item "K" are wrapped around each lower piece, upper piece secured to one below with four 30-D nails.
K	2	1 1/4 in. x .035 high tension band length to suit, pass through lunette ends and wrap around lower pieces Item "J".
L	1	2 in. x 4 in. x 18 in. Locate on top Items "J". Secure with two 30-D nails at each location.

Suitable cushioning material must be used between Items "B" and tires to prevent chafing.

Canvas cover or other suitable material must be in place when loaded.

Outriggers must be locked in retracted position when loaded, and leveling jacks fully retracted.

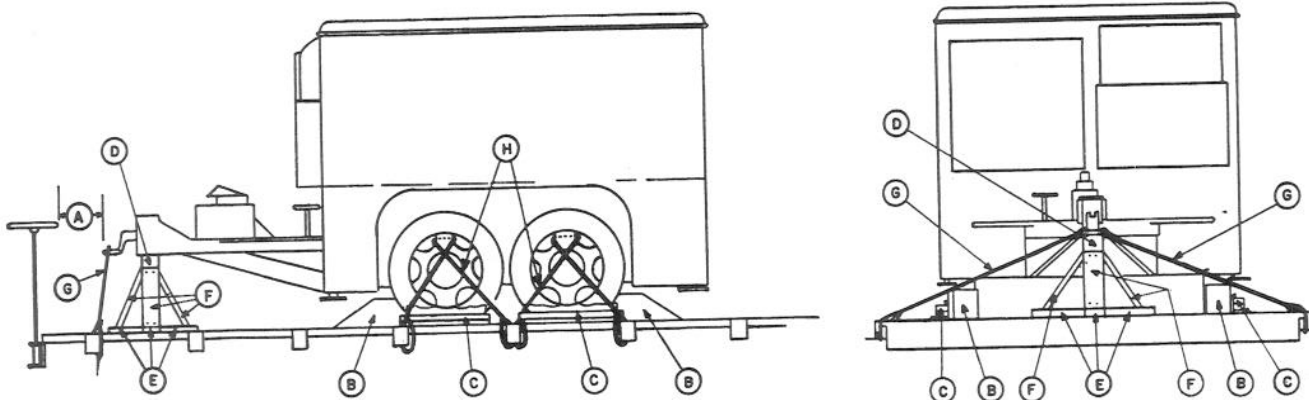
Hand brakes must be set and levers wired or blocked.

Red or amber lights or reflectors must be covered to prevent reflection to avoid conflict with train operating signals or lights.

See General Rules 4, 5, 7, 9, 11, 14, 15 and 19-B for further details.

Sec. 6—Fig. 15

COMPUTER GROUP, RADIO SET, OR COMPRESSOR UNIT GUIDED MISSILE, TRAILER MOUNTED, FOUR CENTER WHEELS—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	4	Blocks, pattern 16. Locate 45 degree portion against front of front wheels and rear of rear wheels, as shown. Secure heels of block to floor with five 40-D nails, toenail each side with two 40-D nails.
C	4	Each, 2 in. x 4 in. x 36 in. doubled. Locate as shown. Secure lower piece to floor with four 30-D nails, upper piece to one below in like manner.
D	1	4 in. x 4 in. x 22 in. or length to suit. Locate as shown. Toenail each side to floor with two 30-D nails.
E	4	Each, 2 in. x 4 in. x 18 in. Locate as shown. Secure to floor with three 30-D nails.
F	4	Diagonals, 2 in. x 4 in. x 20 in. Locate as shown. Secure upper ends to sides of Item "D" with two 20-D nails at each location, lower ends to Items "E" with two 20-D nails.
G	2	Each, six strands No. 8 ga. black annealed wire. Pass through lunette and stake pockets on each side of car as shown. Twist taut.
H	8	Each, four strands No. 8 ga. black annealed wire. Pass through upper vent holes of wheels and stake pockets, crossed as shown. Twist taut.

Suitable cushioning material must be used between Items "C" and tires to prevent chafing.

Red or amber lights or reflectors must be covered to prevent reflections, to avoid conffiction with train operating lights or signals.

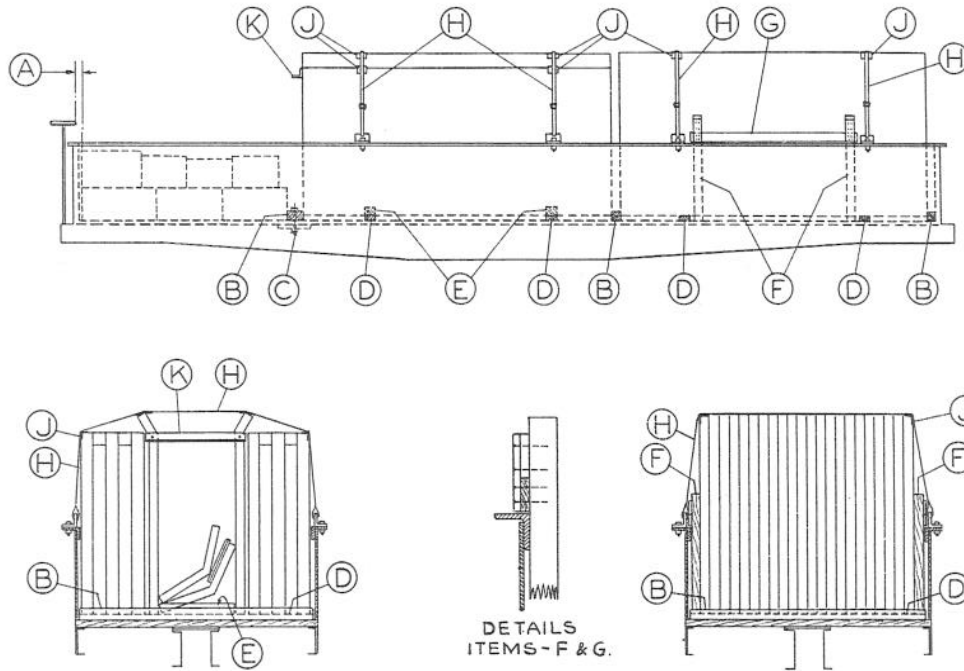
Hand brakes must be set and levers wired or blocked when loaded.

Substitute, if desired, steel cable doubled, of equal load strength, for No. 8 ga. black annealed wire at each location.

See General Rules 4, 5, 7, 9, 11, 14, 15, 19-A and 19-B for further details.

Sec. 6—Fig. 16

CAR NO. 1 (THREE-CAR-SHIPMENT)

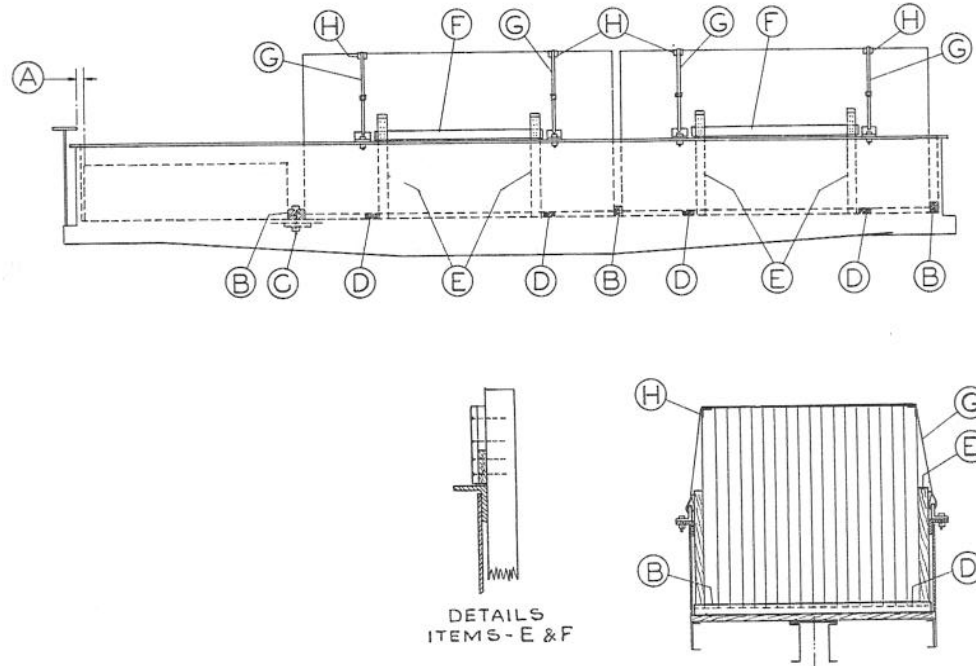
BARGES, BOLTED, SECTIONAL, FOR LIQUID OR DRY CARGO, SECURED WITH HIGH TENSION BANDS—
GONDOLA CARS

Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	3	End and intermediate floor blocks, as shown, length about equal to inside width of car, width to suit, height sufficient to contact bottom of lading.
C	2	$\frac{3}{4}$ in. dia. bolt, long enough to pass through Item "B" and floor.
D	2 ea. pile.	Floor bearing pieces, as shown, length about equal to inside width of car, width to suit, height sufficient to keep lading off floor. Width must exceed height.
E	2	Crosswise spacers, as shown, dimensions to suit. Locate on top of and secure to Item "D" to prevent displacement.
F	4	Vertical fillers, as shown, length and width to suit, thick enough to completely fill space between lading and car sides.
G	1 ea. pr. of Items "F"	Horizontal ties as shown. Secure to each Item "F" with four 10-D nails. When it cannot be placed between vertical filler and car side, secure same to outside face of each vertical filler as near top of car side as possible with four 10-D nails. Use suitable filler above same, cover filler and tie with one 1 in. x 4 in. x 12 in. piece secured to vertical and horizontal fillers with three 10-D nails in each. (See Details Items "F" and "G").
H	2 per pile.	2 in. x .050 in. bands. Attach by passing through an eye bolt or angle securely bolted to top side angle.
J	As required.	Protection angles, 20 gage, 4 in. wide, applied so as to prevent displacement.
K	2 per pile.	$1\frac{1}{2}$ in. x $1\frac{1}{2}$ in., angles, as shown, securely bolted to barge sections, to retain load in upright position.

See General Rules 4, 5, 7, 9, 10, 11, 14 and 15 for further details.

Sec. 6—Fig. 16

CAR NO. 2 (THREE-CAR-SHIPMENT)
 BARGES, BOLTED, SECTIONAL, FOR LIQUID OR DRY CARGO, SECURED WITH HIGH TENSION BANDS—
 GONDOLA CARS

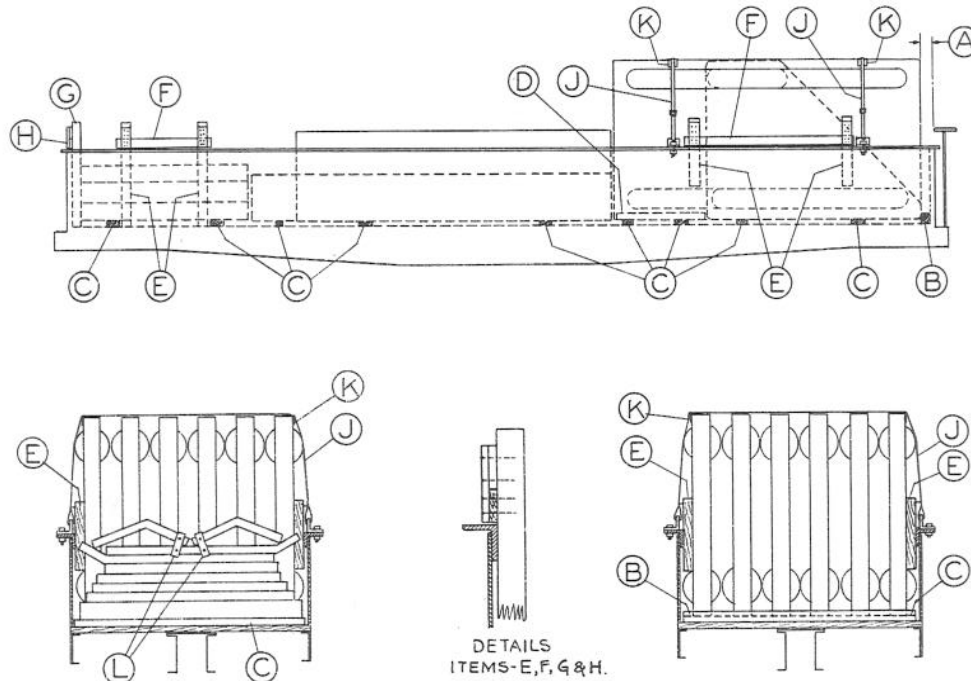


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	3	End and intermediate floor blocks, as shown, length about equal to inside width of car, width to suit, height sufficient to contact bottom of lading.
C	2	$\frac{3}{4}$ in. dia. bolt, long enough to pass through Item "B" and floor.
D	2 ea. pile.	Floor bearing pieces, as shown, length about equal to inside width of car, width to suit, height sufficient to keep lading off floor. Width must exceed height.
E	2 pr. ea. pile.	Vertical fillers, as shown, length and width to suit, thick enough to completely fill space between lading and car sides.
F	1 ea. pr. of Items "E"	Horizontal ties, as shown, secure to each Item "E" with four 10-D nails. When it cannot be placed between vertical filler and car side, secure same to outside face of each vertical filler as near top of car side as possible with four 10-D nails. Use suitable filler above same, cover filler and tie with one 1 in. x 4 in. x 12 in. piece, secured to vertical and horizontal fillers with three 10-D nails in each. (See details Items "E" and "F".)
G	2 per pile.	2 in. x .050 in. bands. Attach by passing through an eye bolt or angle securely bolted to top side angle.
H	As required.	Protection angles, 20 gage, 4 in. wide, applied so as to prevent displacement.

See General Rules 4, 5, 7, 9, 10, 11, 14 and 15 for further details.

Sec. 6—Fig. 16

CAR NO. 3 (THREE-CAR-SHIPMENT)

BARGES, BOLTED, SECTIONAL, FOR LIQUID OR DRY CARGO, SECURED WITH HIGH TENSION BANDS—
GONDOLA CARS

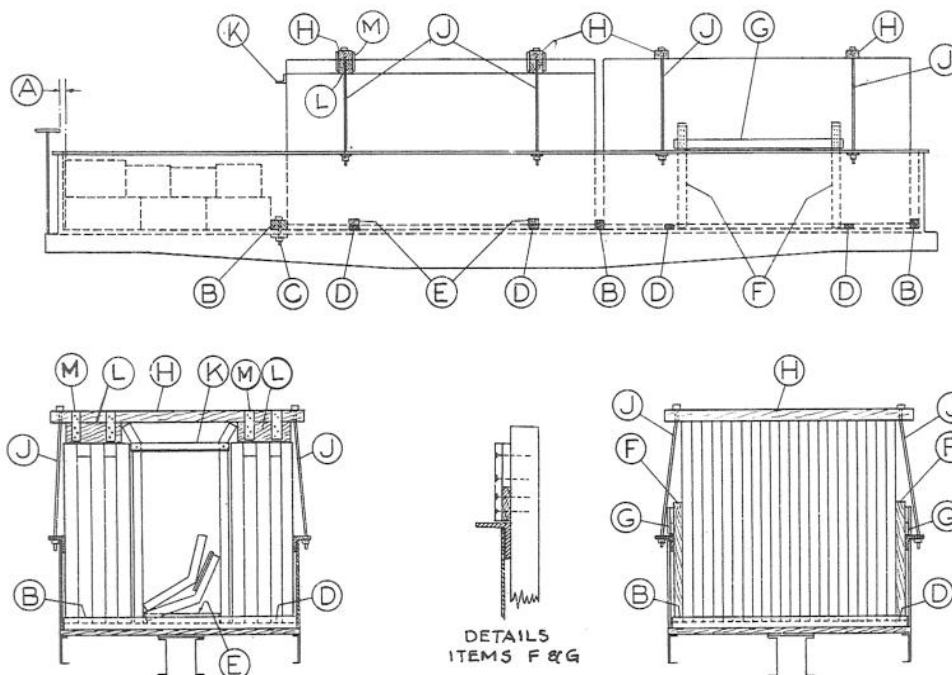
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	1	End floor block, as shown, length about equal to inside width of car, width to suit, height sufficient to contact bottom of lading.
C	9	Floor bearing pieces, as shown, length about equal to inside width of car, width to suit, height sufficient to keep lading off floor. Width must exceed height.
D	2	Longitudinal end blocking for short section of barge. Locate on top of and secure to Items "C" with two 20-D nails at each location.
E	2 pr. ea. end pile.	Vertical fillers, as shown, length and width to suit, thick enough to completely fill space between lading and car sides.
F	1 ea. pr. of Items "E"	Horizontal ties, as shown. Secure to each Item "E" with four 10-D nails. When it cannot be placed between vertical filler and car side, secure same to outside face of each vertical filler as near top of car side as possible with four 10-D nails. Use suitable filler above same, cover filler and tie with one 1 in. x 4 in. x 12 in. piece, secured to vertical and horizontal fillers with three 10-D nails in each. (See Details Items "E", "F", "G" and "H".)
G	2	Vertical end fillers, as shown, length and width to suit, thick enough to completely fill space between lading and end of car.
H	1	Horizontal tie, as shown. Secure to each Item "G" with four 10-D nails. When it cannot be placed between vertical filler and car end, secure same to outside face of each vertical filler as near top of car end as possible with four 10-D nails. Use suitable filler above same, cover filler and tie with one 1 in. x 4 in. x 12 in. piece, secured to vertical and horizontal fillers with three 10-D nails in each. (See Details Items "E", "F", "G" and "H".)
J	2	2 in. x .050 in. bands. Attach by passing through an eye bolt or angle securely bolted to top side angle.
K	As required.	Protection angles, 20 gage, 4 in. wide, applied so as to prevent displacement.
L	4	Tie plates securely bolted to hold barge sections together and prevent displacement.

See General Rules 4, 5, 7, 9, 10, 11, 14 and 15 for further details.

Sec. 6—Fig. 17

CAR NO. 1 (THREE-CAR-SHIPMENT)

BARGES, BOLTED, SECTIONAL, FOR LIQUID OR DRY CARGO, SECURED WITH CLAMPS AND RODS—GONDOLA CARS



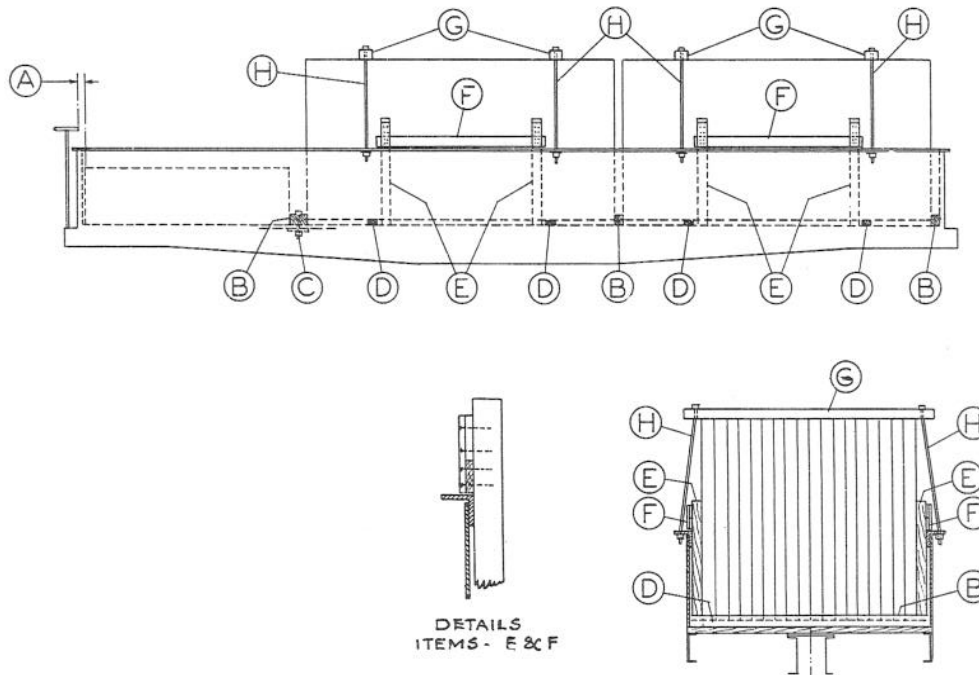
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	3	End and intermediate floor blocks, as shown, length about equal to inside width of car, width to suit, height sufficient to contact bottom of lading.
C	2	$\frac{3}{4}$ in. dia. bolt, long enough to pass through Item "B" and floor.
D	2 ea. pile.	Floor bearing pieces, as shown, length about equal to inside width of car, width to suit, height sufficient to keep lading off floor. Width must exceed height.
E	2	Crosswise spacers, as shown, dimensions to suit. Locate on top of and secure to Item "D" to prevent displacement.
F	4	Vertical fillers, as shown, length and width to suit, thick enough to completely fill space between lading and car sides.
G	1 ea. pr of Items "F".	Horizontal ties, as shown. Secure to each Item "F" with four 10-D nails. When it cannot be placed between vertical filler and car end, secure same to outside face of each vertical filler as near top of car end as possible with four 10-D nails. Use suitable filler above same, cover filler and tie with one 1 in. x 4 in. x 12 in. piece, secured to vertical and horizontal fillers with three 10-D nails in each. (See Details Items "F" and "G".)
H	2 ea. pile.	6 in. x 8 in., as shown, with $\frac{1}{2}$ in. dia. bolt at each end to prevent splitting.
J	2 ea. Item "H".	$\frac{7}{8}$ in. diameter rods, as shown, passed through Item "H" and top side angle.
K	2 per pile.	$1\frac{1}{2}$ in. x $1\frac{1}{2}$ in. angles, as shown, securely bolted to barge sections, to retain load in upright position.
L	As required.	Suitable fillers, as shown, secured to Items "H".
M	8	Cleats, dimensions to suit, securely nailed to Items "H" and "L".

See General Rules, 4, 5, 7, 9, 10, 11, 14 and 15 for further details.

Sec. 6—Fig. 17

CAR NO. 2 (THREE-CAR-SHIPMENT)

BARGES, BOLTED, SECTIONAL, FOR LIQUID OR DRY CARGO, SECURED WITH CLAMPS AND RODS—GONDOLA CARS



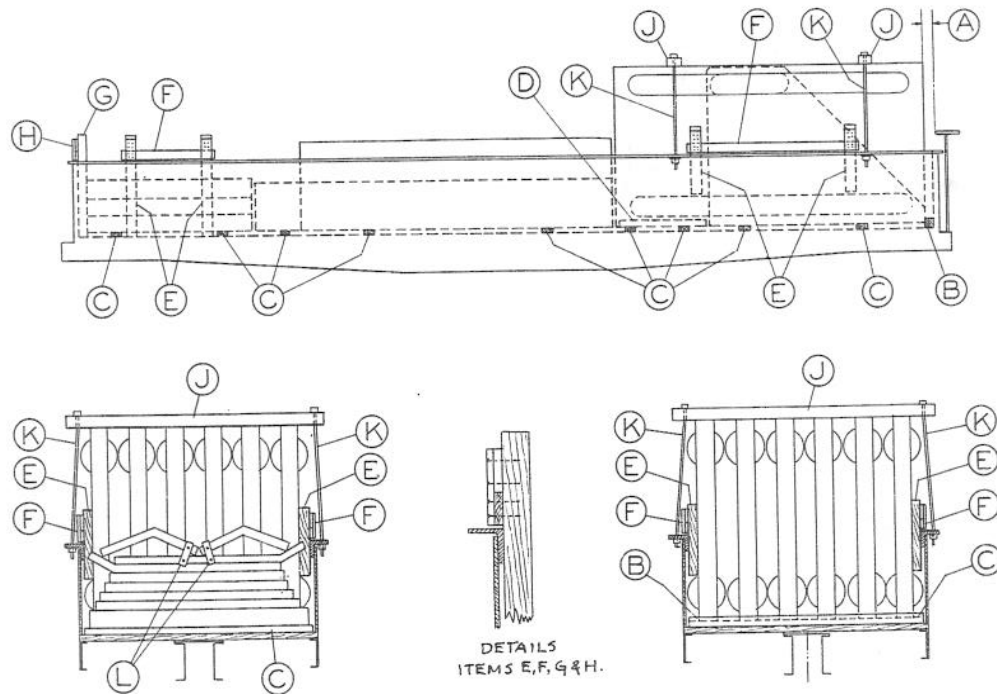
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	3	End and intermediate floor blocks, as shown, length about equal to inside width of car, width to suit, height sufficient to contact bottom of lading.
C	2	$\frac{3}{4}$ in. dia. bolt, long enough to pass through Item "B" and floor.
D	2 ea. pile.	Floor bearing pieces, as shown, length about equal to inside width of car, width to suit, height sufficient to keep lading off floor. Width must exceed height.
E	2 pr. per pile.	Vertical fillers, as shown, length and width to suit, thick enough to completely fill space between lading and car sides.
F	1 ea. pr. of Items "E".	Horizontal ties, as shown. Secure to each Item "E" with four 10-D nails. When it cannot be placed between vertical filler and car side, secure same to outside face of each vertical filler as near top of car side as possible with four 10-D nails. Use suitable filler above same, cover filler and tie with one 1 in. x 4 in. x 12 in. piece, secured to vertical and horizontal fillers with three 10-D nails in each. (See Details Items "E" and "F".)
G	2 ea. pile.	6 in. x 8 in., as shown, with $\frac{1}{2}$ in. dia. bolt at each end to prevent splitting.
H	2 ea. Item "G".	$\frac{7}{8}$ in. diameter rods, as shown, passed through Item "G" and top side angle.

See General Rules 4, 5, 7, 9, 10, 11, 14 and 15 for further details.

Sec. 6—Fig. 17

CAR NO. 3 (THREE-CAR-SHIPMENT)

BARGES, BOLTED, SECTIONAL, FOR LIQUID OR DRY CARGO, SECURED WITH CLAMPS AND RODS—GONDOLA CARS

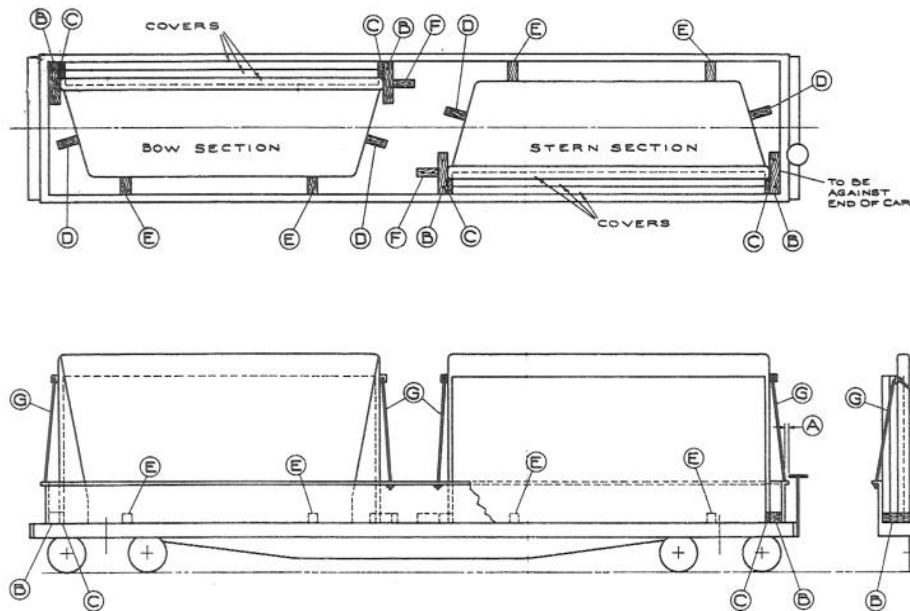


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	1	End floor block, as shown, length about equal to inside width of car, width to suit, height sufficient to contact bottom of lading.
C	9	Floor bearing pieces, as shown, length about equal to inside width of car, width to suit, height sufficient to keep lading off floor. Width must exceed height.
D	2	Longitudinal end blocking for short section of barge. Locate on top of and secure to Items "C" with two 20-D nails at each location.
E	2 pr. ea. end pile.	Vertical fillers, as shown, length and width to suit, thick enough to completely fill space between lading and car sides.
F	1 ea. pr. of Items "E"	Horizontal ties, as shown. Secure to each Item "E" with four 10-D nails. When it cannot be placed between vertical filler and car side, secure same to outside face of each vertical filler as near top of car side as possible with four 10-D nails. Use suitable filler above same, cover filler and tie with one 1 in. x 4 in. x 12 in. piece, secured to vertical and horizontal fillers with three 10-D nails in each. (See Details Items "E", "F", "G" and "H".)
G	2	Vertical end fillers, as shown, length and width to suit, thick enough to completely fill space between lading and end of car.
H	1	Horizontal tie, as shown. Secure to each Item "G" with four 10-D nails. When it cannot be placed between vertical filler and car end, secure same to outside face of each vertical filler as near top of car end as possible with four 10-D nails. Use suitable filler above same, cover filler and tie with one 1 in. x 4 in. x 12 in. piece, secured to vertical and horizontal fillers with three 10-D nails in each. (See Details Items "E", "F", "G" and "H".)
J	2	6 in. x 8 in., as shown, with $\frac{1}{2}$ in. dia. bolt at each end to prevent splitting.
K	2 ea. Item "J"	$\frac{7}{8}$ in. dia. rods, as shown, passed through Item "J" and top side angle.
L	4	Tie plates securely bolted to hold barge sections together and prevent displacement.

See General Rules 4, 5, 7, 9, 10, 11, 14 and 15 for further details.

Sec. 6—Fig. 18

CAR NO. 1 (TWO-CAR-SHIPMENT)
 BARGES, BOLTED, SECTIONAL, FOR DECK CARGOES—GONDOLA CARS



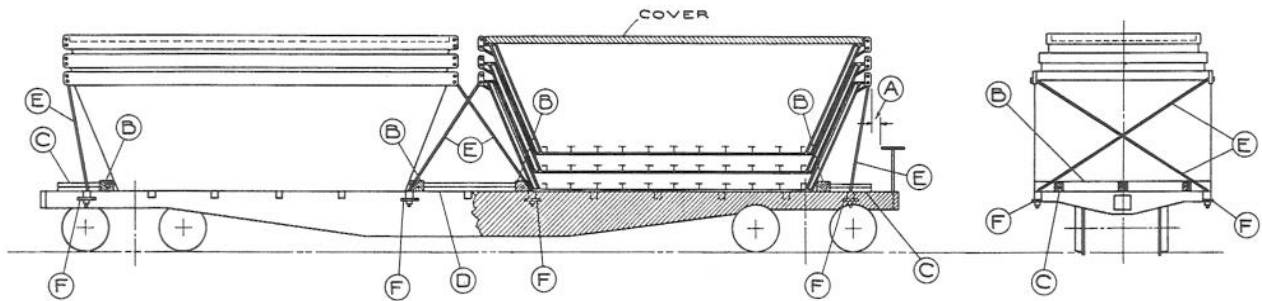
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	4	8 in. x 8 in., length to suit. Locate against ends of units, as shown, and secure each to floor with two $\frac{3}{4}$ in. dia. bolts.
C	4	Filler block, 8 in. in height, length and thickness to suit, toe-nailed to Items "B".
D	4	6 in. x 8 in. x 24 in. Locate against sides of end sections, suitably spaced, as shown, and secure each with two $\frac{3}{4}$ in. dia. bolts.
E	4	6 in. x 8 in., length to suit. Locate suitably spaced between units and car sides, as shown, and toe-nail each to floor with six 40-D nails.
F	2	6 in. x 8 in. x 24 in. Locate against inside Items "B", as shown, and secure each to floor with two $\frac{3}{4}$ in. dia. bolts.
G	8	1 in. dia. rods. Attach to top of end sections, as shown, and pass through top side angles.

Each unit consisting of bow or stern sections, and three covers, must be adequately secured together at top with two $\frac{7}{8}$ in. dia. rods.

Units must be loaded in diagonal corners of car.

See General Rules 4, 5, 9, 11, 14 and 15 for further details.

CAR NO. 2 (TWO-CAR-SHIPMENT)
 BARGES, BOLTED, SECTIONAL, FOR DECK CARGOES—FLAT CARS

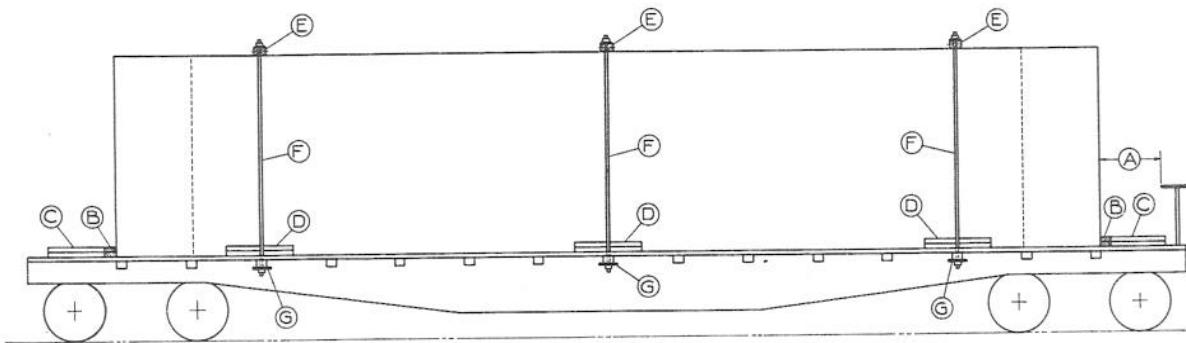
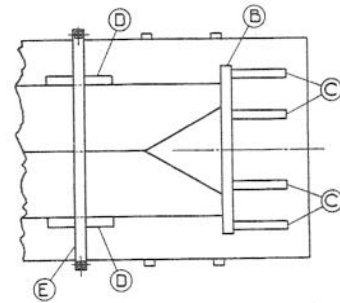


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	4	6 in. x 8 in., length to suit. Locate against ends of unit, as shown, and secure each to floor with four $\frac{3}{4}$ in. dia. bolts.
C	6	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Locate, as shown, suitably spaced against outside Items "B", and secure lower piece to floor with six 30-D nails and top piece to one below in like manner.
D	3	Each to consist of two pieces of 2 in. x 4 in., length to fully fill space between inside Items "B", suitably spaced. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
E	8	1 in. dia. rods. Attach to each end of unit, as shown, and pass through opposite stake pockets and Item "F".
F	8	$\frac{1}{2}$ in. x 4 in. x 10 in. plates.

Covers attached to barge sections must be adequately secured with bolts.

See General Rules 4, 5, 9, 11, 14 and 15 for further details.

BARGES, TWO-SECTION—FLAT OR GONDOLA CARS

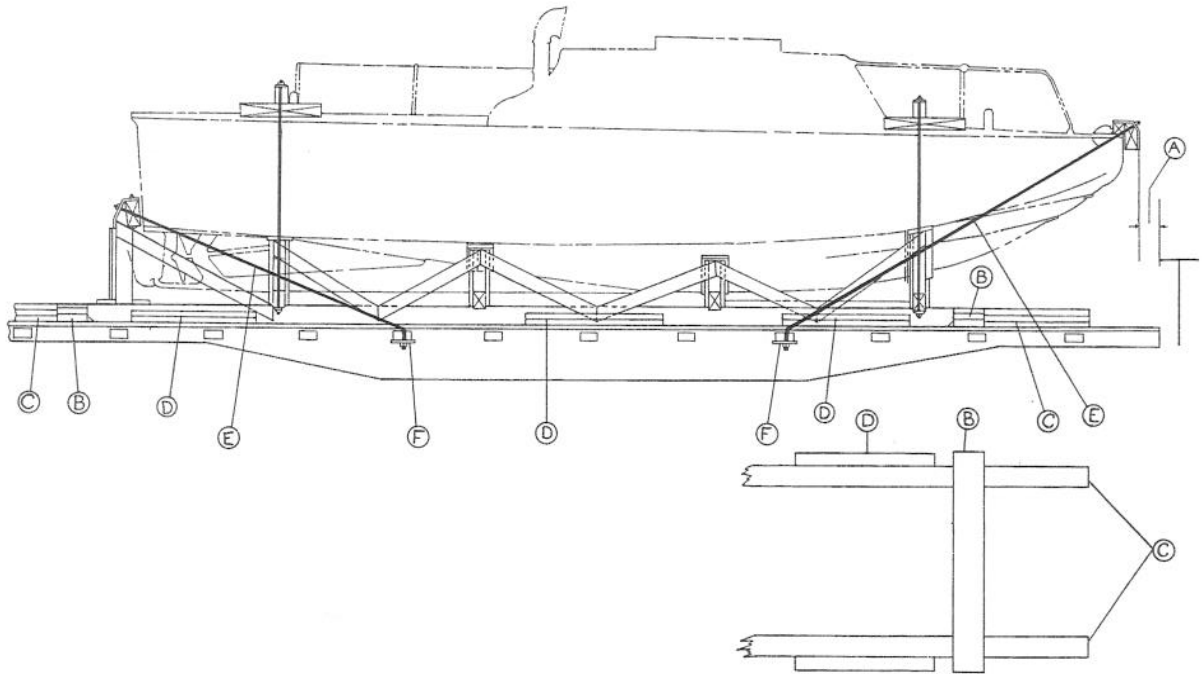


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2	Each to consist of two pieces of 2 in. x 6 in., length to suit. Locate against ends of units, as shown, and secure lower piece to floor and with eight 30-D nails and top piece to one below in like manner.
C	8	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Locate against Item "B", suitably spaced, as shown, and secure lower piece to floor with six 30-D nails and top piece to one below in like manner.
D	6	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Locate against each side of units, suitably spaced, as shown, and secure lower piece to floor with six 30-D nails and top piece to one below in like manner.
E	3	4 in. x 6 in., length to suit. Use one bolt, $\frac{1}{2}$ in. dia., crosswise, at each end, to prevent splitting.
F	2 ea. Item "E"	$\frac{7}{8}$ in. dia. rods with plate washers. Pass through Items "E", stake pocket, and Items "G". On units loaded in gondola cars, rods may be attached to top side angle.
G	As required.	$\frac{1}{2}$ in. x 4 in. x 10 in. plates.

Barge sections must be secured together at top of load with two $\frac{7}{8}$ in. dia. rods, suitably spaced.

See General Rules 4, 5, 9, 11, 14 and 15 for further details.

BOATS IN CRADLES—FLAT OR GONDOLA CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2	Each to consist of three pieces of 2 in. x 6 in., length to suit. Locate at ends of cradles, as shown, and secure lower piece to floor with six 30-D nails and top pieces to those below in like manner.
C	4	Each to consist of three pieces of 2 in. x 4 in. x 36 in. Locate suitably spaced, as shown, against Item "B" and secure lower piece to floor with six 30-D nails and top pieces to those below in like manner.
D	6	Each to consist of two pieces of 2 in. x 4 in. x 24 in. Locate suitably spaced, as shown, against cradle and secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
E	4	$\frac{3}{4}$ in. dia. rods. Attach to each corner of cradle, as shown, and pass through stake pocket and Item "F", or through floor.
F	As required.	$\frac{1}{2}$ in. x 4 in. x 10 in. plates.

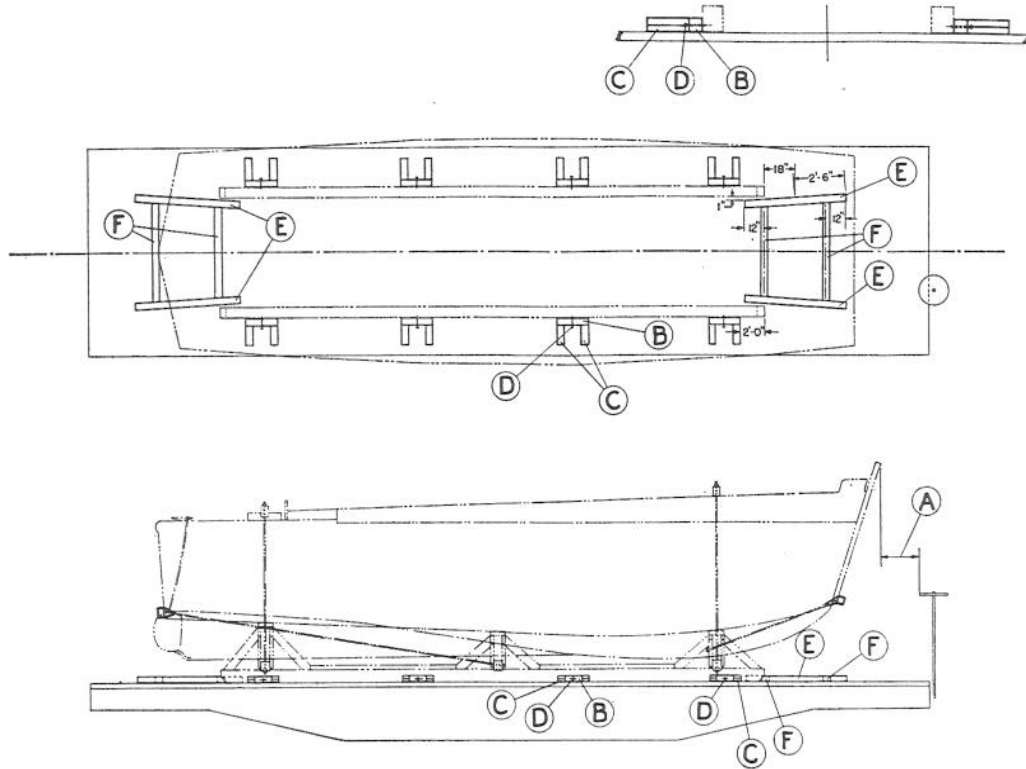
Cradles must be strong enough to prevent failure in transit.

Boats must be adequately secured to cradles.

See General Rules 4, 5, 9, 11, 14 and 15 for further details.

Sec. 6—Fig. 21

BOATS, LANDING CRAFT, IN CRADLES—FLOATING TYPE LOAD—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8	4 in. x 4 in. x 18 in. Locate, as shown, against cradle longitudinal skid members. Secure each to floor with four 60-D nails. Pre-drill for 60-D nails and Items "D".
C	2 ea. Item "B".	Each to consist of two pieces of 2 in. x 4 in. x 12 in. Locate against Items "B", as shown. Secure lower piece to floor with three 30-D nails and top piece to one below in like manner.
D	1 ea. Item "B".	$\frac{1}{2}$ in. x 6 in. lag screws. Locate in pre-drilled hole in Items "B" and turn into cradle skid a minimum of $\frac{1}{2}$ in. All Items "D" to be turned into skid members an equal distance.
E	4	4 in. x 4 in. x 5 ft. Locate as shown. Secure each to floor with seven 60-D nails.
F	4	4 in. x 4 in. length and cut to suit. Locate as shown and secure each to floor with five 60-D nails.

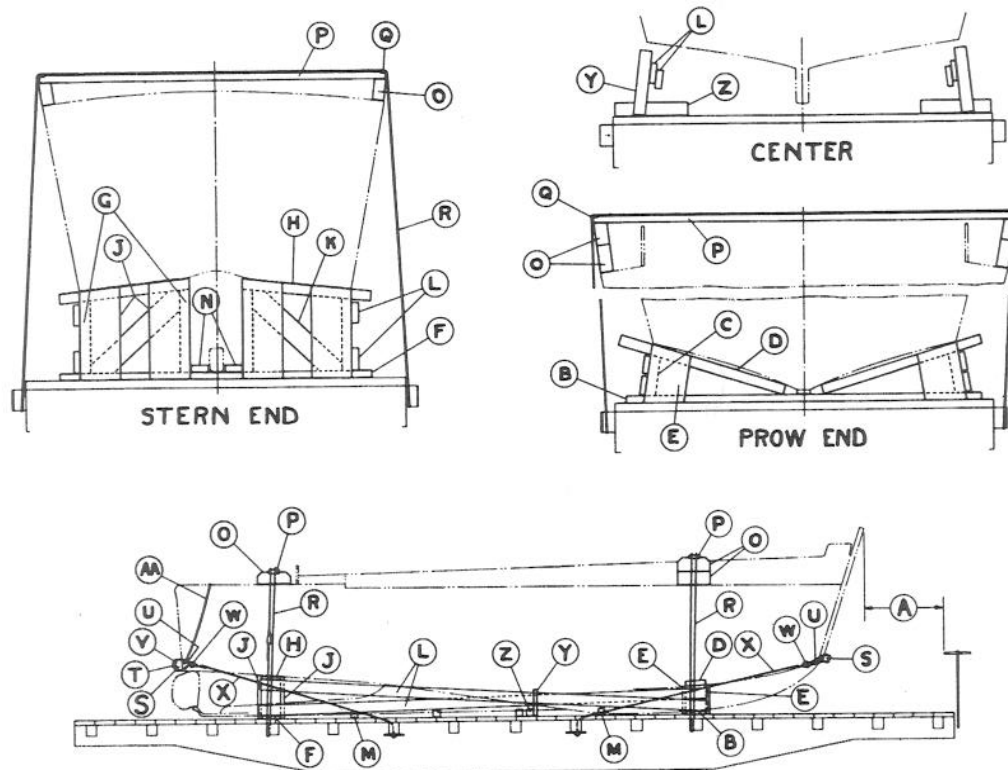
Cradles must be strong enough to prevent failure in transit.

Boats must be adequately secured to cradles.

Units must have a minimum of 6 ft. of vacant floating space at each end.

See General Rules 4, 5, 7, 9, 11, 14, 15 and 19-A for further details.

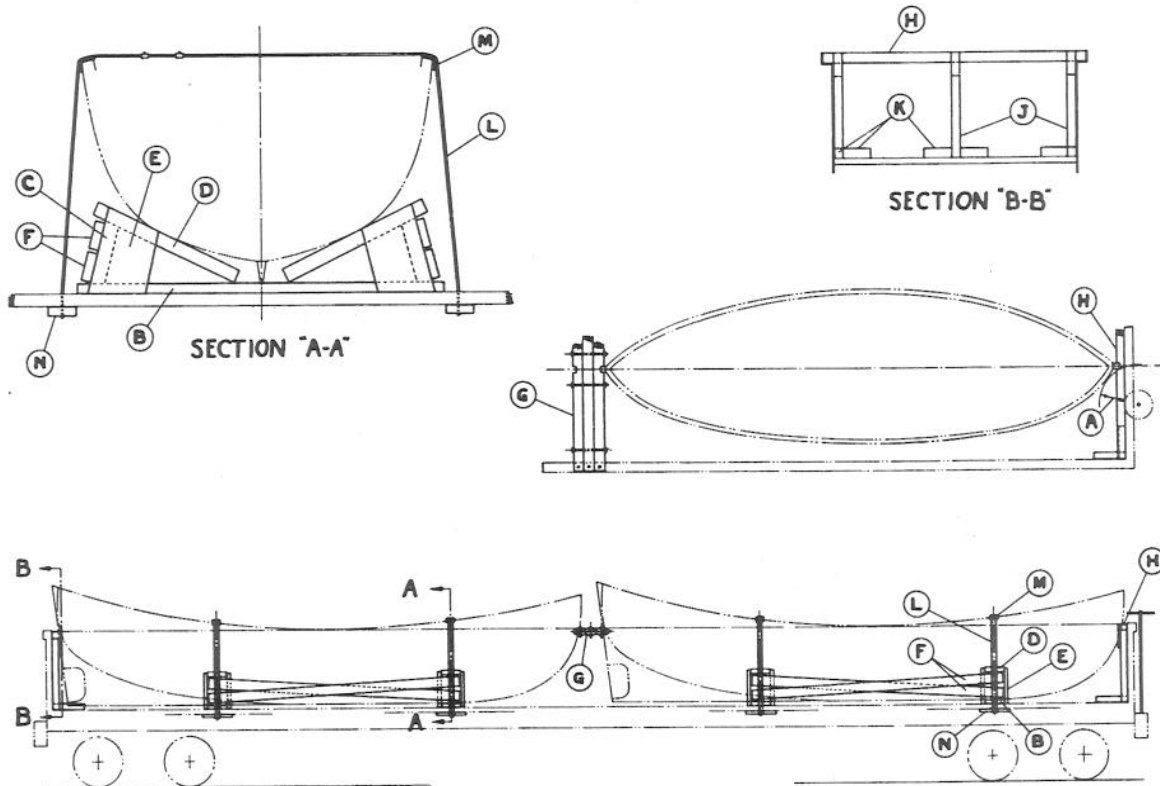
Sec. 6—Fig. 22
BOATS, LANDING CRAFT—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	1	2 in. x 12 in., length to suit. Locate on floor under prow end of boat, as shown, and secure with eight 30-D nails.
C	2	3 in. x 12 in., length to suit. Locate, as shown, and secure to Item "B" with three 30-D nails before application of Item "B".
D	2	3 in. x 12 in., length to suit. Locate, as shown, and secure to Items "B" and "C" with three 30-D nails at each location.
E	4	2 in. x 12 in., length and cut to suit. Locate, as shown, and secure to Items "B" and "D" with three 30-D nails at each location.
F	1	2 in. x 12 in., length to suit. Locate on floor under stern end of boat, as shown, and secure with eight 30-D nails.
G	4	3 in. x 12 in., length to suit. Locate, as shown, and secure each to Item "F" with three 30-D nails before application of Item "F".
H	2	3 in. x 12 in., length to suit. Locate, as shown, and secure to Items "G" with three 30-D nails at each location.
J	8	2 in. x 12 in., length and cut to suit. Locate, as shown, and secure to Items "F", "G" and "H" with three 30-D nails at each location.
K	2	2 in. x 6 in., length and cut to suit. Locate, as shown, and secure to Items "F", "H" and "G" with two 30-D nails at each location.
L	4	2 in. x 6 in., length to suit. Locate, as shown, and secure to each Item "C" and outside Items "G" with three 30-D nails at each location.
M	4	4 in. x 6 in., wedges. Locate suitably spaced under keel, as shown, and secure each to floor with two 30-D nails.
N	2	2 in. x 6 in. x 12 in. Locate, as shown, and secure each to Item "F" with two 30-D nails.
O	4	Filler pieces, length, height and width to suit, minimum thickness 4 in. Locate, as shown.
P	2	2 in. x 6 in., length to suit. Locate, as shown, and secure to Items "O" with two 30-D nails at each location.
Q	4	Protection angles, 20 gage, 4 in. wide, applied so as to prevent displacement.
R	2	$\frac{5}{8}$ in. x 6 x 7 steel cable, doubled. Locate, as shown, over Items "O", "P" and "Q", and pass through opposite stake pockets.
S	3	4 in. x 6 in., length to suit. Locate, as shown, one on prow and two on stern end.
T	1	$\frac{3}{8}$ in. x 3 in. x 7 ft. metal bridle support, attached to Items "U" and "S" on stern end.
U	4	$\frac{3}{8}$ in. x 3 in. metal bridle straps. Locate over each end of Item "S" on prow end and outside ends of Items "S" and "V" on stern end.
V	2	4 in. x 6 in., length and tapered to suit. Secure to outside ends of Items "S" on stern end.
W	4	$\frac{3}{4}$ in. bolts. Attach to Items "U" and "X", as shown.
X	4	$\frac{3}{4}$ in. diameter rods. Attach to each Item "U" and pass through stake pockets and $\frac{1}{2}$ in. x 4 in. x 12 in. plate, as shown.
Y	2	2 in. x 4 in., length to suit. Locate, as shown, and secure to Items "L" and "Z" with three 30-D nails at each location.
Z	2	4 in. x 6 in., length to suit. Locate, as shown, and toe-nail each to floor with four 30-D nails.
AA	2	$\frac{1}{2}$ in. diameter rod. Secure to top of boat and to Items "U" on stern end, as shown.

See General Rules 4, 5, 7, 9, 11, 14, 15 and 19-A for further details.

BOATS—MOTOR WHALE—GONDOLA CARS

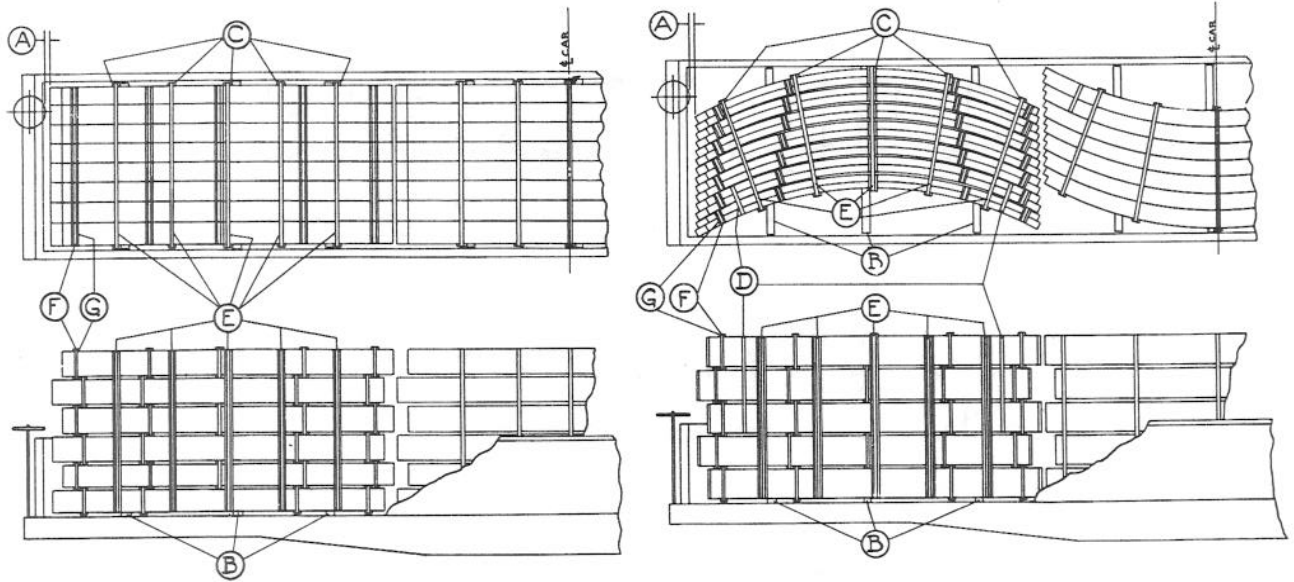


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	4	2 in. x 12 in., length to suit. Locate, as shown and secure each to floor with eight 30-D nails.
C	8	3 in. x 12 in., length to suit. Locate, as shown, and secure to Items "B" with three 30-D nails before application of Items "B".
D	8	3 in. x 12 in., length to suit. Locate, as shown, and secure to Items "B" and "C", with three 30-D nails at each location.
E	16	2 in. x 12 in., length and cut to suit. Locate, as shown, and secure to Items "B" and "D" with three 30-D nails at each location.
F	8	2 in. x 6 in., length to suit. Locate, as shown, and secure to each Item "C" with three 30-D nails.
G	3	4 in. x 6 in., length equal to outside width of car. Secure each to car sides with $\frac{1}{2}$ in. diameter bolts. Outside Items "G" notched as shown for boat keels. Apply four $\frac{5}{8}$ in. diameter split bolts suitably spaced, as shown, through all items.
H	2	4 in. x 5 in., length to suit. Locate as shown, against ends of car, supported by and securely nailed to each Item "J" with 1 in. x 4 in. x 12 in. cleats, as shown.
J	6	4 in. x 4 in., length equal to distance from floor to underside of Items "H". Locate, as shown.
K	12	4 in. x 4 in. x 15 in. Locate, as shown, to secure Items "J" in position and secure each to floor with three 30-D nails.
L	4	$\frac{5}{8}$ in. x 6 in. x 7 steel cable, doubled. Locate, as shown, passed over top of boat, through floor and Items "N".
M	8	Rubber or other similar padding, as required. Locate under cable, as shown.
N	8	2 in. x 4 in. x 8 in., drilled to match cable holes through floor, located as shown.

When boats do not fill entire space between Items "H" at each end of car, sufficient dunnage must be placed between Items "H" and ends of car to completely fill vacant space.

See General Rules 4, 5, 9, 11, 14, 15 and 19-A for further details.

BUILDINGS, PREFABRICATED, STRAIGHT AND CURVED RIB CRATES—GONDOLA CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	3 per pile.	2 in. x 4 in., length about 2 in. less than width of car. Locate one about 2 ft. from each end of pile.
C	10 per pile.	2 in. x 4 in., length equal to height of pile. Locate under Items "E" as shown.
D	2 per pile. *	1¼ in. x .035 in. high tension bands. Locate about 2 ft. from ends of pile. Bands to encircle about 6 crates and must go around one crate extending at least 4 in. below top of car side as shown. Not required on straight rib crates.
E	5 per pile.	1¼ in. x .035 in. high tension bands. Locate end bands about 18 in. from ends of crate, intermediate bands to be equally spaced. On curved rib crates apply radially as shown.
F	5 per crate.	1¼ in. x .035 in. high tension bands. Locate end bands about 10 in. from each end of crate, intermediate bands to be equally spaced.
G	10 per crate.	1 in. x 3 in., length equal to width of crate. Locate under Item "F" top and bottom of crate.

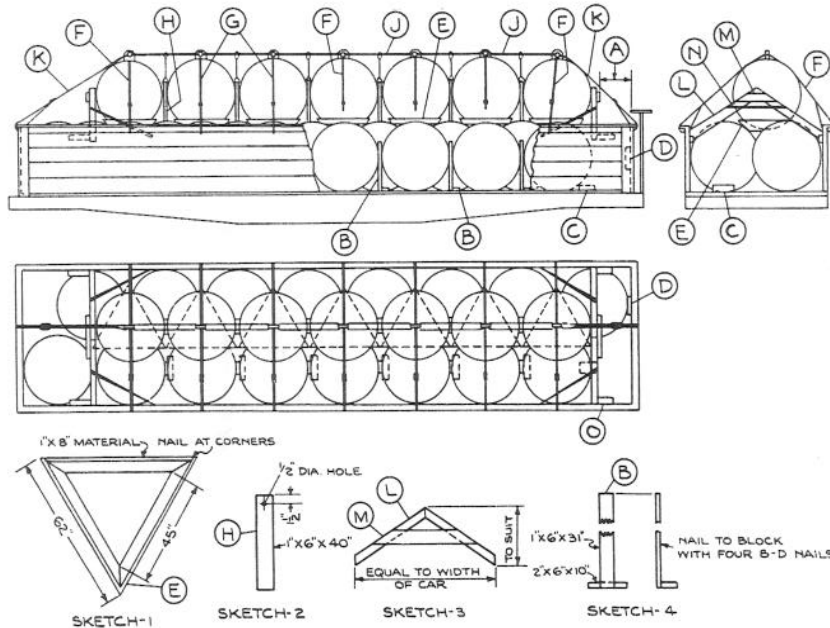
Battens, Item "G", must be uniformly spaced so as to provide proper contact when stagger nested as shown.

On end piles locate battens on top row of crates inside of battens on next row below, as shown.

See General Rules 4, 5, 7, 9, 11 and 15 for further details.

Sec. 6—Fig. 25

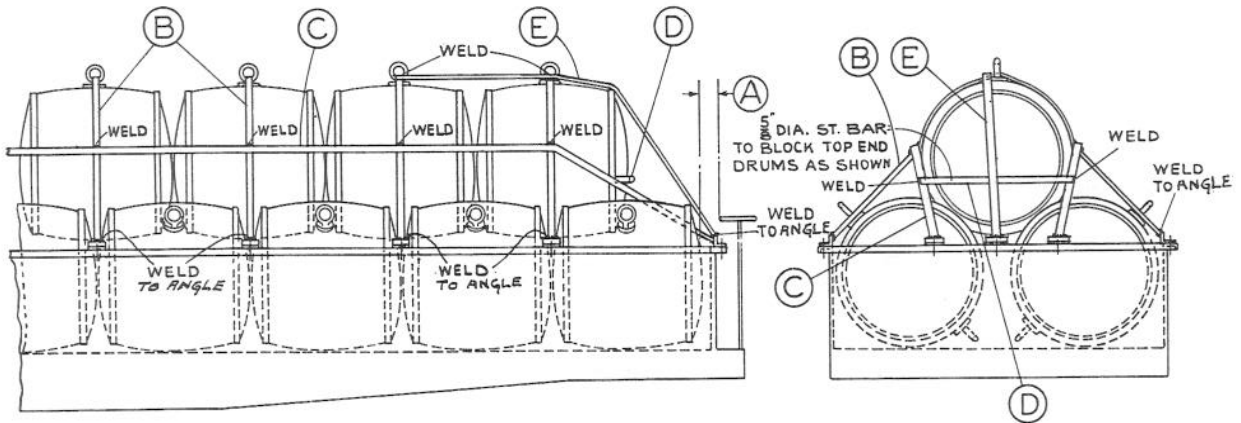
BUOYS, MARINE—GONDOLA CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	As required.	Vertical separators, per Sketch 4. Locate between buoys to prevent them from contacting each other and between buoys and end of car when steel end cars are used.
C	1	To consist of two pieces of 2 in. x 6 in. x 10 in. Locate as shown. Secure lower piece to floor, against buoy, with three 20-D nails and top piece to one below in like manner.
D	As required.	Suitable blocking to fill space between end buoy and end of car.
E	1 ea. top buoy.	Cradle, per Sketch 1. Locate under each top buoy.
F	3	1 1/4 in. x .035 in. high tension bands. Pass through hole in top plate of end and center buoys and attach to top of car sides.
G	4	3/4 in. x .035 in. high tension bands. Pass through hole in top plate of intermediate buoys and attach to top car sides.
H	As required.	1 in. x 6 in. x 40 in., vertical separators. Use one between each two buoys in top row. Secure to Items "J" with one strand of No. 8 ga. black annealed wire.
J	1 ea. two adjacent buoys.	1 1/4 in. x .035 in. high tension band. Pass through holes in top plates of buoys.
K	1 ea. end of load.	1 1/4 in. x .035 in. high tension band. Pass through hole in top plate of buoys and attach to top of car ends.
L	1 ea. end of load.	Brace, per Sketch 3. Each to consist of two pieces of 4 in. x 4 in., length to suit. Locate against end buoys in top row, toe-nail bottom ends to car sides with three 20-D nails in each, and toe-nail to each other at top in like manner.
M	1 ea. Item "L".	Cleat, per Sketch 3. 1 in. x 8 in., length to suit. Secure to Item "L" with four 8-D nails in each end.
N	1 ea. Item "L".	Each to consist of two pieces of 1 1/4 in. x .035 in. high tension band. Attach lower ends to car sides and pass around outside of Item "L".
O	2 ea. Item "L".	4 in. x 4 in. x 12 in., wedge-shaped block. Secure one each to car side, against each lower end of Items "L", with three 30-D nails.

See General Rules 4, 5, 9, 11, 14 and 15 for further details.

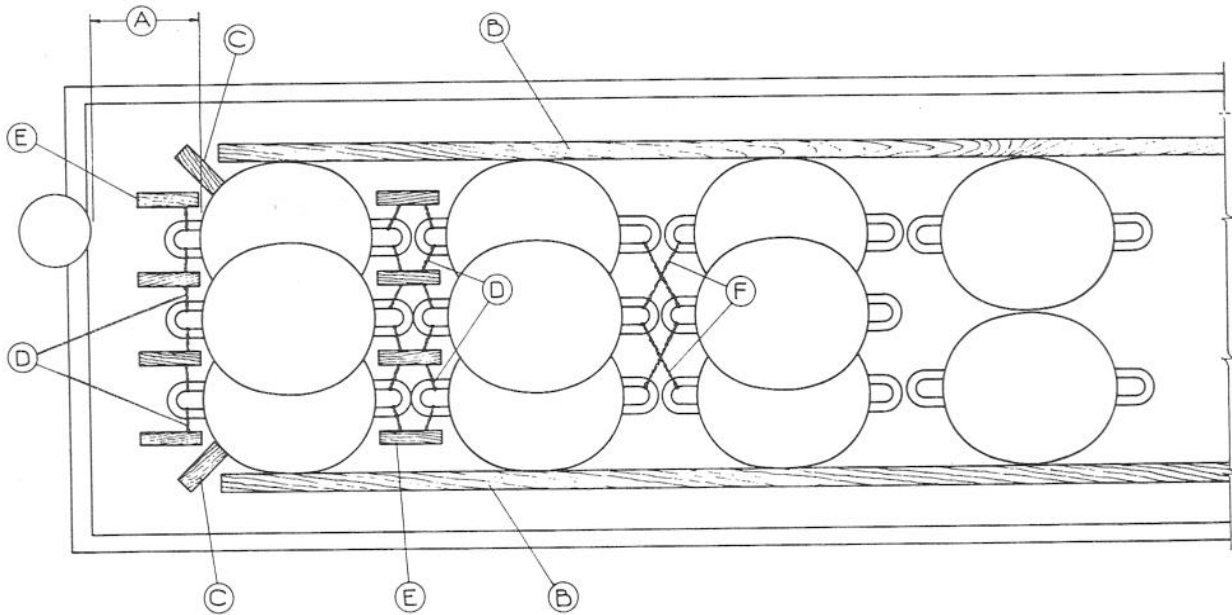
BUOYS, MARINE (BILGED DRUMS)—GONDOLA CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	1 ea. top buoy.	No. 10 ga. steel strap, 2½ in. wide, length to suit. Pass one end through ring of buoy and weld to angle bolted to top side angle.
C	2 per load.	No. 10 ga. steel strap, 2½ in. wide, length to suit. Locate on each side of top row and weld at each junction with Items "B". Weld ends to angle bolted to top end angle.
D	1 ea. end of load.	5/8 in. dia. rod. Form to fit contour of buoy and weld ends to Items "C".
E	1 ea. end of load.	No. 10 ga. steel strap. Locate along side of rings on top of end and next to end buoys, weld to Items "B" at each location and weld lower end to angle bolted to top end angle.

See General Rules 4, 5, 9 and 15 for further details.

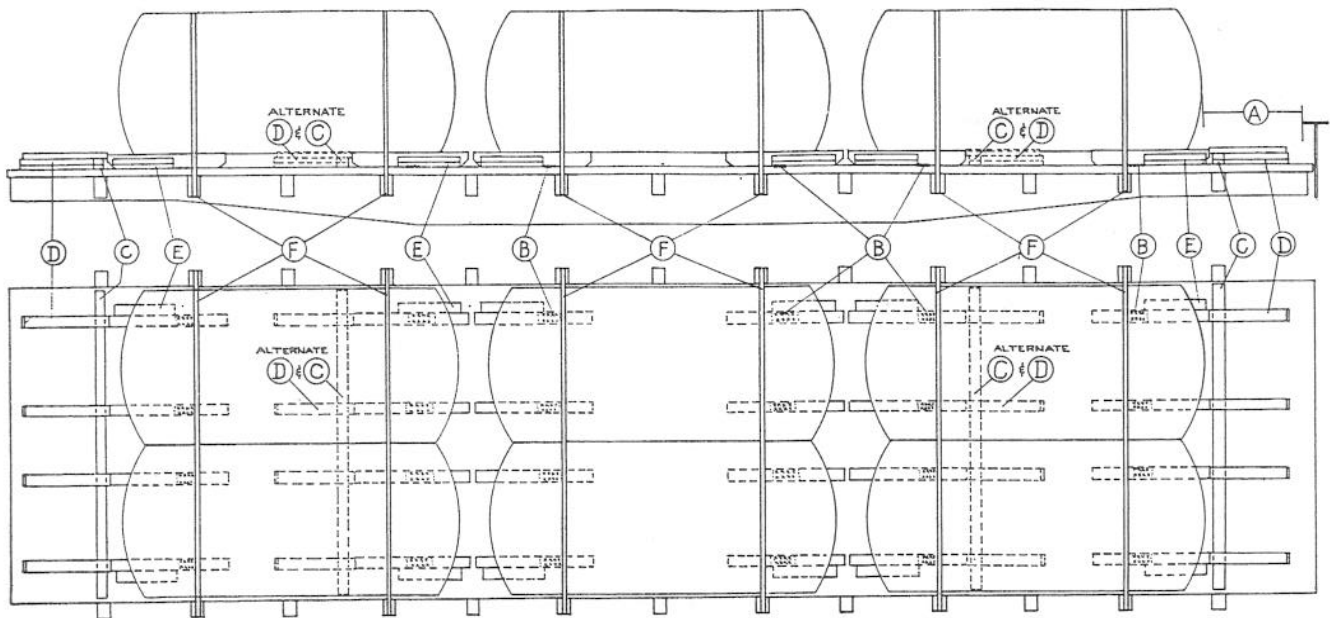
MARINE BUOYS—GONDOLA CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2	2 in. x 6 in., length to suit. Locate one against each side of units and secure to floor with 30-D nails spaced about 18 in. apart.
C	4	2 in. x 6 in., length to suit. Locate two at outside ends of bottom row of units, as shown. Secure each to floor with four 30-D nails.
D	4 per unit.	Each to consist of two strands No. 8 gage wire. Attach two at each end of unit, as shown, and pass around cleat, Item "E".
E	As required.	2 in. x 4 in. x 36 in. Locate, as shown, and secure each with six 30-D nails.
F	As required.	Each to consist of two strands No. 8 gage wire. Attach two at each end of top unit and to units in bottom layers of adjacent piles, as shown.

See General Rules 4, 5, 9, 11, 14 and 15 for further details.

JET ENGINE CONTAINERS, LOADED OR EMPTY, LENGTHWISE, SIDE BY SIDE, SINGLE-DECKED—FLAT CARS



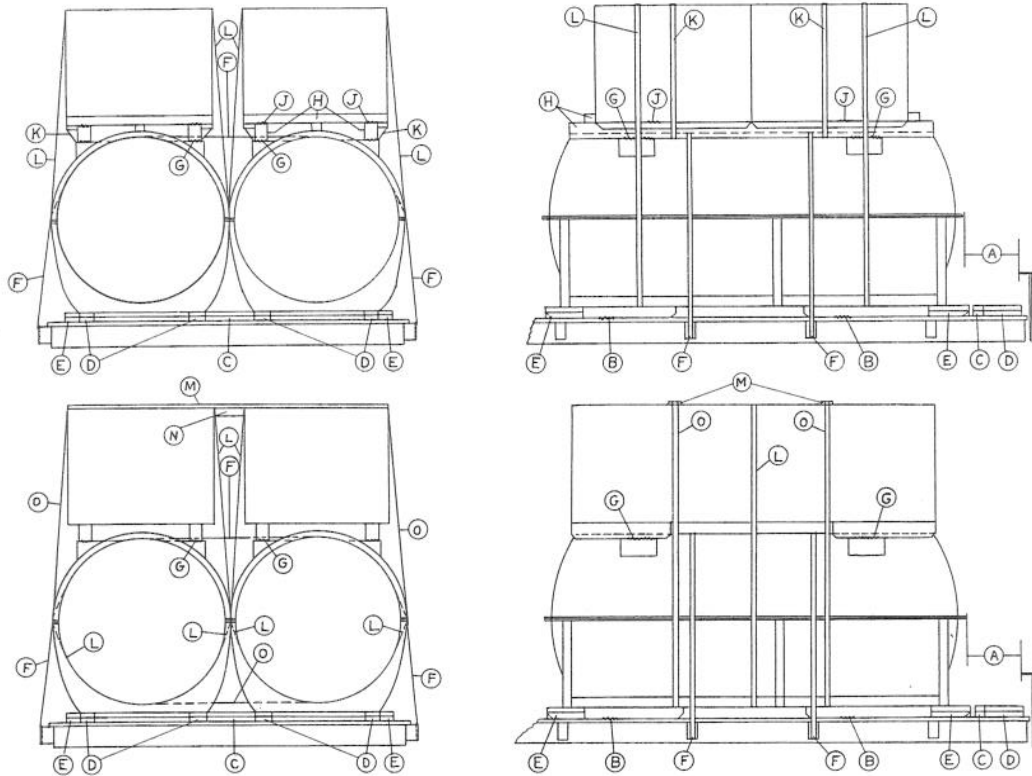
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	4 ea. unit.	Anti-skid plates, pattern 63. Locate between skids of units and floor, as shown. Load must be stenciled on both sides in one inch letters to read, "Anti-Skid Plates".
C	2	Each to consist of two pieces of 2 in. x 6 in., length to suit. Locate at each end of load, as shown, and secure lower piece to floor with eight 30-D nails and top piece to one below in like manner.
D	4 ea. Item "C".	Each to consist of three pieces of 2 in. x 4 in. x 36 in. Locate suitably spaced as shown, with intermediate and bottom pieces against Item "C" and secure bottom piece to floor with six 30-D nails. Secure intermediate piece to bottom piece in like manner. Extend top piece across Item "C" against butt-end of skid and secure to intermediate piece with six 30-D nails.
E	4 ea. pile.	Each to consist of two pieces of 2 in. x 4 in. x 24 in. Locate at each end of each side of pile, as shown, and secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
F	2 ea. pile.	2 in. x .050 in. high tension bands. Locate, as shown, suitably spaced.

Units should be located with not more than 1 inch space between ends of skids of adjacent piles, and between skids and Items "C".

Alternate locations of Items "C" and "D" are shown for use on flat cars too short to be arranged as above.

See General Rules 4, 5, 9, 11, 14 and 15 for further details.

**JET ENGINE CONTAINERS, LOADED, LENGTHWISE, SIDE BY SIDE, WITH BOXED PARTS SUPERIMPOSED—
FLAT CARS**



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	4 ea. unit.	Anti-Skid Plates, pattern 63. Locate between skids of units and floor, as shown. Load must be stenciled on both sides in one inch letters to read, "Anti-Skid Plates".
C	2	Each to consist of two pieces of 2 in. x 6 in., length to suit. Locate at each end of load, as shown, and secure lower piece to floor with eight 30-D nails and top piece to one below in like manner.
D	4 ea. Item "C".	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Locate suitably spaced, as shown, against Item "C" and secure lower piece to floor with six 30-D nails and top piece to one below in like manner.
E	4 ea. pile.	Each to consist of two pieces of 2 in. x 4 in. x 24 in. Locate at each end of each side of pile, as shown, and secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
F	2 ea. pile.	2 in. x .050 in. high tension bands. Locate, as shown, suitably spaced.
G	4 ea. unit.	Anti-Skid Plates, pattern 64. Locate, as shown, between stacking lugs on bottom layers, and skids or platform of units in top layers.
H	As required.	Platform built up of two lengthwise 4 in. x 4 in. and two crosswise 2 in. x 4 in. pieces. Locate, as shown, on top of lower units and Items "G".
J	As required.	Anti-Skid Plates, pattern 63. Locate two, suitably spaced, as shown, between each boxed unit and platform.
K	1 ea. boxed unit on Item "H".	2 in. x .050 in. high tension band. Locate, as shown, around boxed unit and Item "H".
L	1 ea. boxed unit.	2 in. x .050 in. high tension band. Locate, as shown, around boxed unit and unit in bottom layer.
M	2 per pile.	2 in. x 4 in., length to suit. Locate, suitably spaced, as shown, on top of boxed parts, and secure each with 20-D nails.
N	1 ea. Item "M".	2 in. x 4 in., length to suit. Locate, as shown, between boxed units, and secure each to Item "M" with three 30-D nails.
O	2 ea. pile.	2 in. x .050 in. high tension bands. Locate, as shown, over top of pile and Items "M".

Items "H", "J" and "K" not required on piles where Items "M", "N" and "O" are used, and vice-versa. Units should be located with not more than 1 inch space between ends of skids of adjacent piles, and between skids and Items "C".

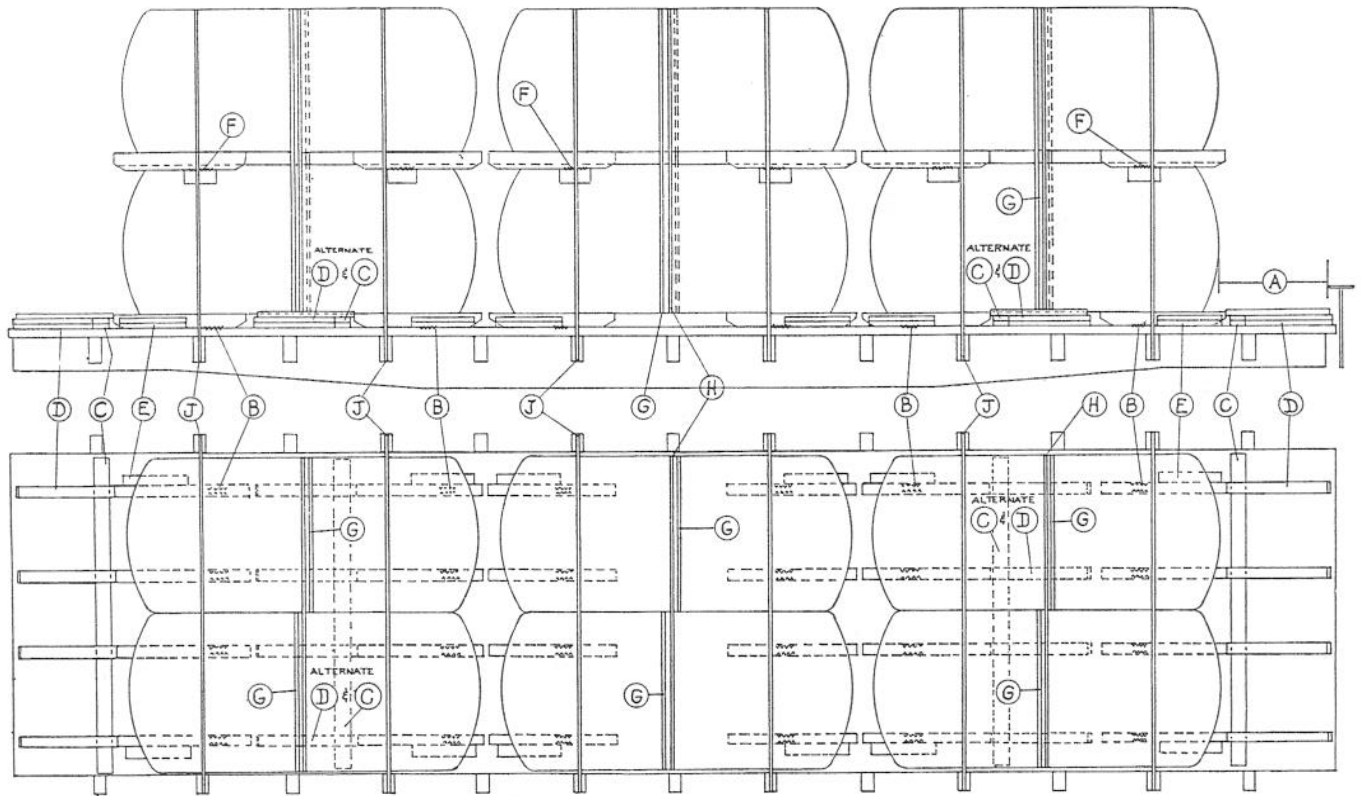
Skids on boxed units loaded on platforms, must be outside of, and not more than one-half inch from, lengthwise 4 in. x 4 in., pieces of platform.

When pattern 64 anti-skid plates cannot be applied, the use of other suitable types are permissible if of equivalent strength and secured to prevent displacement.

Boxes must be strong enough to prevent failure in transit.

See General Rules 4, 5, 9, 10, 11, 14 and 15 for further details.

JET ENGINE CONTAINERS, EMPTY, LENGTHWISE, SIDE BY SIDE, DOUBLE DECKED WITH 2 IN. X .050 IN. HIGH TENSION BANDS—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	4 ea. unit in bottom layers.	Anti-Skid Plates, pattern 63. Locate between skids, of units and floor, as shown. Load must be stenciled on both sides in one inch letters to read, "Anti-Skid Plates".
C	2	Each to consist of two pieces of 2 in. x 6 in., length to suit. Locate at each end of load, as shown, and secure lower piece to floor with eight 30-D nails and top piece to one below in like manner.
D	4 ea. Item "C".	Each to consist of three pieces of 2 in. x 4 in. x 36 in. Locate suitably spaced as shown, with intermediate and bottom pieces against Item "C" and secure bottom piece to floor with six 30-D nails. Secure intermediate piece to bottom piece in like manner. Extend top piece across Item "C" against butt-end of skid and secure to intermediate piece with six 30-D nails.
E	4 ea. pile.	Each to consist of two pieces of 2 in. x 4 in. x 24 in. Locate at each end of each side of pile, as shown, and secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
F	4 ea. unit in top layers.	Anti-Skid Plates, pattern 64. Locate, as shown, between stacking lugs on bottom layers and skids of units on top layers.
G	2 ea. pile.	Bands, as shown, encircling each top and bottom unit of pile.
H	1 ea. pile.	Band, as shown, encircling pile.
J	2 ea. pile.	Bands, as shown, suitably spaced.

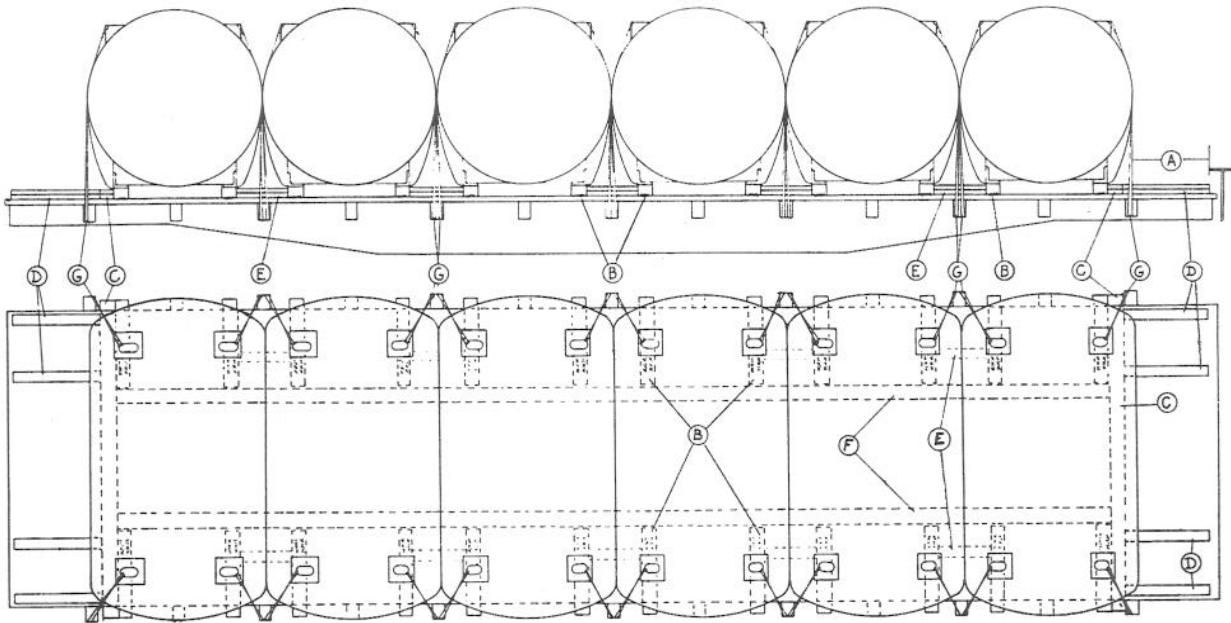
Units should be located with not more than 1 inch space between ends of skids of adjacent piles, and between skids and Items "C".

When pattern 64 anti-skid plates cannot be applied, the use of other suitable types are permissible if of equivalent strength, and secured to prevent displacement.

Alternate locations of Items "C" and "D" are shown for use on flat cars too short to be arranged as above.

See General Rules 4, 5, 9, 11, 14 and 15 for further details.

ROTARY ENGINE CONTAINERS, LOADED OR EMPTY, CROSSWISE, SINGLE-DECKED—FLAT CARS



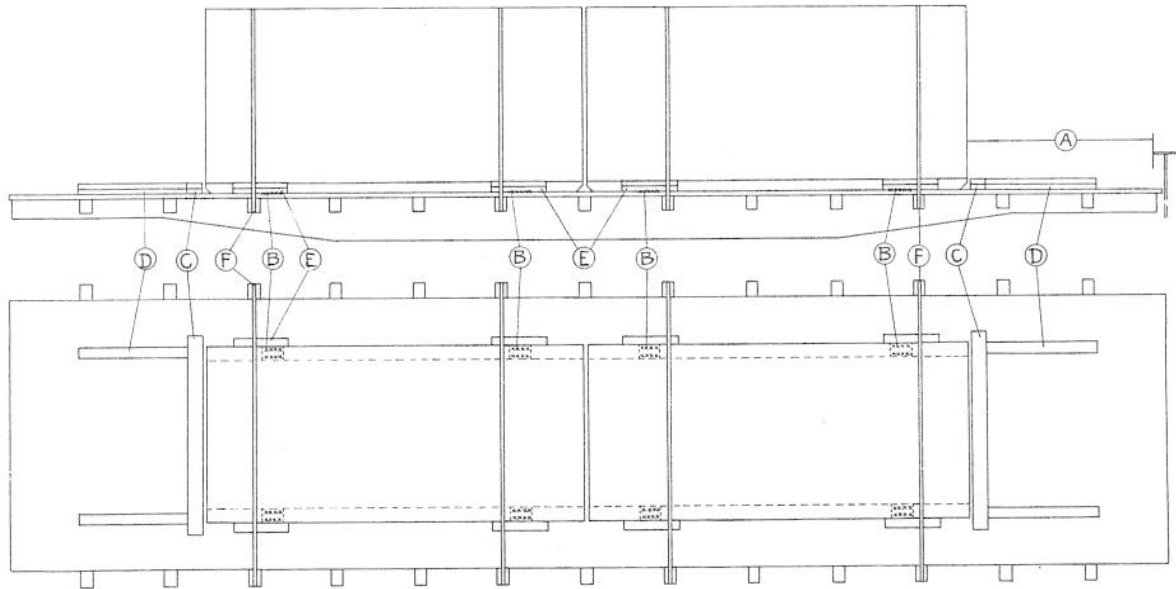
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	4 ea. unit.	Anti-Skid Plates, pattern 63. Locate between skids of units and floor, as shown. Load must be stenciled on both sides in one inch letters to read, "Anti-Skid Plates".
C	2	Each to consist of two pieces of 2 in. x 6 in., length to suit. Locate at each end of load, as shown, and secure lower piece to floor with eight 30-D nails and top piece to one below in like manner.
D	4 ea. Item "C".	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Locate suitably spaced, as shown, against Item "C" and secure lower piece to floor with six 30-D nails and top piece to one below in like manner.
E	As required.	Each to consist of two pieces of 2 in. x 6 in., length to suit. Locate on each side, as shown, between outside skids of units and secure lower piece to floor with three 30-D nails and top piece to one below in like manner.
F	2	Each to consist of two pieces of 2 in. x 4 in., length to suit. Locate, as shown, against inside of skids of units and secure lower piece to floor with 30-D nails spaced about 18 in. apart and top piece to one below in like manner.
G	4 ea. unit.	2 in. x .050 in. high tension bands. Locate at each corner of unit attached to stacking lugs or a slotted angle shaped plate, minimum thickness .134 in., secured to top face of container flange with two $\frac{5}{8}$ in. dia. bolts, and to stake pockets.

Piles must be loaded with reinforcing rims contacting each other.

See General Rules 4, 5, 7, 9, 11, 14 and 15 for further details.

Sec. 6—Fig. 32

ROTARY ENGINES IN WOODEN CONTAINERS, LENGTHWISE, SINGLE-DECKED—FLAT OR GONDOLA CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	4 ea. unit.	Anti-Skid Plates, pattern 63. Locate between skids of units and floor, as shown. Load must be stenciled on both sides in one inch letters to read, "Anti-Skid Plates".
C	2	Each to consist of two pieces of 2 in. x 6 in., length to suit. Locate at each end of load, as shown, and secure lower piece to floor with eight 30-D nails and top piece to one below in like manner.
D	2 ea. Item "C".	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Locate suitably spaced, as shown, against Item "C" and secure lower piece to floor with six 30-D nails and top piece to one below in like manner.
E	4 ea. pile.	Each to consist of two pieces 2 in. x 4 in. x 24 in. Locate at each end of each side of pile, as shown, and secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
F	2 ea. pile.	2 in. x .050 in. high tension bands. Locate, as shown, suitably spaced.

Units should be located with not more than 1 inch space between ends of skids of adjacent piles, and between skids and Items "C".

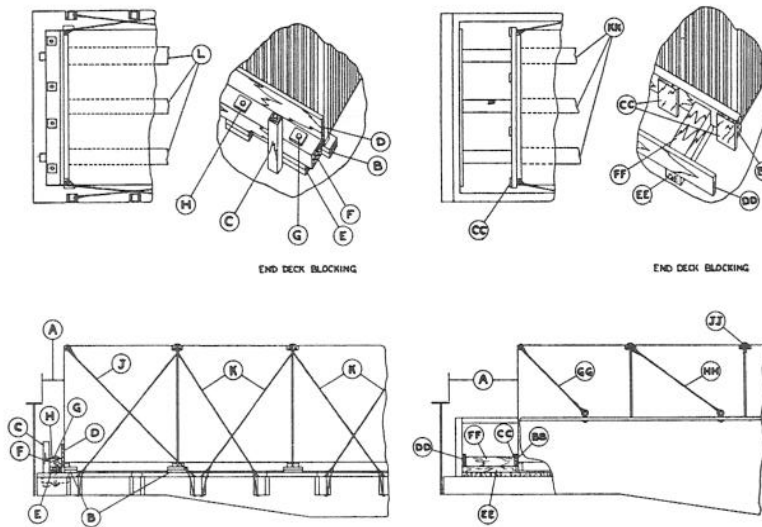
Boxes must be strong enough to prevent failure in transit.

For units loaded in gondola cars Items "F" must be attached to top side angle.

See General Rules 4, 5, 9, 11, 14 and 15 for further details.

Sec. 6—Fig. 33

CONTAINERS, CONEX TYPE, FULL OR HALF-SIZE, CROSSWISE, LOADED OR EMPTY, SINGLE DECK—FLAT OR GONDOLA CARS WITH WOOD OR STEEL FLOORS



FLAT CARS

Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	As required.	Each to consist of 2 pieces of 2 in. x 8 in. x 12 in. Secure lower piece to floor with three 20-D nails and top piece to one below in like manner.
C	2 ea. end of load.	4 in. x 5 in., length to suit. Locate as shown in opposite end stake pockets beyond ends of load.
D	1 ea. end of load.	2 in. x 8 in., length equal to width of units. Locate as shown, on end of and against lower portion of unit. Secure to Item "F" with five 20-D nails before placing against unit.
E	8 ea. end of load.	Each to consist of 2 pieces 2 in. x 8 in. x 12 in. Locate under Item "F" as shown.
F	1 ea. end of load.	6 in. x 8 in., length equal to width of load. Secure each to floor of car with four $\frac{5}{8}$ in. dia. bolts, Items "G"; each passing through Items "E", "F", "H" and "N".
G	4 ea. end of load.	$\frac{5}{8}$ in. dia. bolts, length to suit. Locate as shown.
H	4 ea. end of load.	$\frac{3}{8}$ in. x 4 in. x 4 in. washer. Locate as shown, on top of Item "F" and secured with Item "G".
J	2 ea. end unit.	Each to consist of 6 strands No. 8 gage black annealed wire. Pass through lifting lug at end units on each side and through stake pockets as shown.
K	As required.	Each to consist of 6 strands No. 8 gage black annealed wire. Pass through each two adjacent lifting lugs on each side and to stake pockets as shown.
L	3 per car.	1 in. x 6 in. length equal to length of load. Locate as shown and secure to floor of car with 10-D nails.
M	As required.	Each to consist of 6 strands, No. 8 gage black annealed wire. Pass through each two adjacent inner lifting lugs, twist tie. Not required for full size transporters.
N	1 ea. Item "G".	4 in. x 4 in. x 18 in. hardwood cleat, or $\frac{1}{2}$ in. x 4 in. x 18 in. plate.

Sec. 6—Fig. 33

CONTAINERS, CONEX TYPE, FULL OR HALF-SIZE, CROSSWISE, LOADED OR EMPTY, SINGLE DECK—FLAT OR GONDOLA CARS WITH WOOD OR STEEL FLOORS

GONDOLA CARS WITH WOOD FLOORS

Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
BB	1 ea. end of load.	2 in. x 8 in., length equal to width of units. Locate as shown on end of and against lower portion of unit.
CC	4 ea. end of load.	1 in. x 6 in., length to suit. Locate as shown, secure each to Item "BB" with five 8-D nails. Use optional.
DD	1 ea. end of load.	2 in. x 8 in. length to suit. Locate against inside of end of car as shown. If there is any space between Item "DD" and end of car, sufficient dunnage must be used to completely fill space opposite Items "FF".
EE	3 ea. end of load.	4 in. x 6 in. length to suit. Locate under each Item "FF" as shown.
FF	2 ea. end of load.	6 in. x 6 in. length to suit. Locate on top of Items "EE" and between Items "BB" and "DD" as shown. Toenail to Items "BB", "DD" and "EE".
GG	2 ea. end unit.	Each to consist of 6 strands No. 8 gage black annealed wire. Pass through lifting lug at end unit on each side and through $\frac{1}{2}$ in. eye bolts in top rail of car as shown.
HH	As required.	Each to consist of 6 strands No. 8 gage black annealed wire. Pass through lifting lugs of each two adjacent units and through $\frac{1}{2}$ in. eye bolts in top rail of car as shown.
JJ	As required.	Each to consist of 6 strands No. 8 gage black annealed wire. Pass through each two adjacent lifting lugs on each side of units beyond end units and securely twist tie.
KK	3 per car.	1 in. x 6 in. length equal to length of load. Locate as shown and secure to floor of car with 10-D nails. Not required for empty transporters.

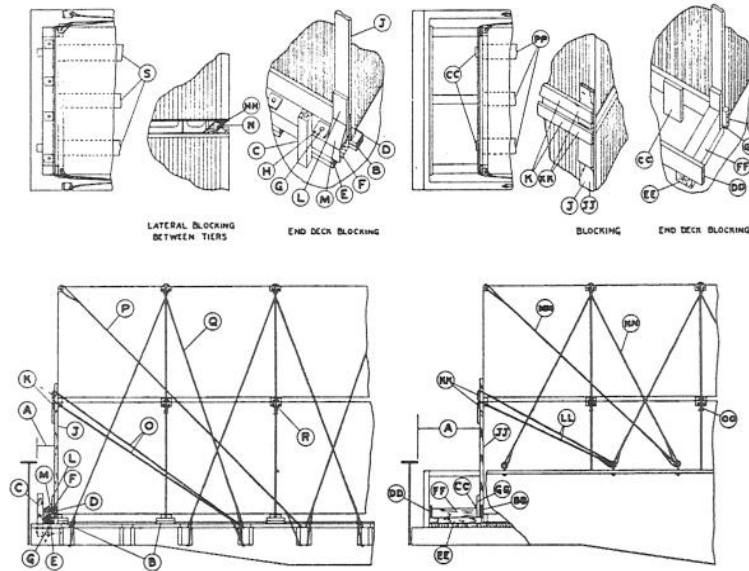
GONDOLA CARS WITH STEEL FLOORS

A		Brake wheel clearance. See Fig. 2.
BB	1 ea. end of load.	2 in. x 8 in., length equal to width of units. Locate as shown on end of and against lower portion of units.
CC	4 ea. end of load.	1 in. x 6 in., length to suit. Locate as shown. Secure each to Item "BB" with five 8-D nails. Use optional.
DD	1 ea. end of load.	2 in. x 8 in., length to suit. Locate as shown against inside of end of car. If there is any space between Item "DD" and end of car, sufficient dunnage must be used to completely fill space opposite Items "FF".
EE	3 ea. end of load.	4 in. x 6 in., length to suit. Locate as shown on top of Items "KK" and under Items "FF".
FF	3 ea. end of load.	6 in. x 6 in., length to suit. Locate as shown on top of Items "EE" and between Items "BB" and "DD". Toenail to Items "BB" and "DD". Secure outside pieces to floor of car with one $\frac{5}{8}$ in. dia. bolt Items "LL", each passing through Items "MM", "EE", "FF", "KK" and "NN".
GG	2 ea. end unit.	Each to consist of 6 strands No. 8 gage black annealed wire. Pass through lifting lug at end unit on each side and through $\frac{1}{2}$ in. eye bolts in top rail of car.
HH	2 ea. end of load.	Each to consist of 6 strands No. 8 gage black annealed wire. Pass through lifting lugs of first and second units and through $\frac{1}{2}$ in. eye bolts in top rail of car.
JJ	As required.	Each to consist of 6 strands No. 8 gage black annealed wire. Pass through each two adjacent lifting lugs on each side of units beyond end units and securely twist tie.
KK	3 per car.	1 in. x 6 in., length to suit.
LL	3 ea. end of load.	$\frac{5}{8}$ in. dia. bolts, length to suit.
MM	3 ea. end of load.	$\frac{3}{8}$ in. x 4 in. x 4 in. washer. Locate on top of Items "FF", and secure with Item "LL",
NN	1 ea. Item "LL".	4 in. x 4 in. x 18 in. hardwood cleat, or $\frac{1}{2}$ in. x 4 in. x 18 in. plate.

Where 6 strands of No. 8 black annealed wire is specified, $\frac{3}{8}$ in. dia. cable may be substituted.

See General Rules 4, 5, 9, 10, 11, 14 and 15 for further details.

CONTAINERS, CONEX TYPE, FULL OR HALF-SIZE, CROSSWISE, EMPTY, DOUBLE DECKED—FLAT OR GONDOLA CARS WITH WOOD OR STEEL FLOORS



FLAT CARS

Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	As required.	Each to consist of 2 pieces of 2 in. x 8 in. x 12 in. Secure lower piece to floor with three 20-D nails and top piece to one below in like manner.
C	2 ea. end of load.	4 in. x 5 in., length to suit. Locate as shown in opposite end stake pockets beyond end of load.
D	1 ea. end of load.	2 in. x 8 in., length equal to width of units. Locate as shown against lower portion of units. Secure to Item "F" with five 20-D nails before placing against unit.
E	1 ea. end of load.	Each to consist of 2 pieces 2 in. x 8 in. x 12 in. Locate under Item "F" as shown.
F	1 ea. end of load.	6 in. x 8 in., length equal to width of load. Secure each to floor of car with four 5/8 in. dia. bolts, Item "G", each passing through Item "E", "F", "H" and "U".
G	4 ea. end of load.	5/8 in. dia. bolts, length to suit, locate as shown.
H	4 ea. end of load.	3/8 in. x 4 in. x 4 in. washer. Locate as shown on top of Item "F" and secured with Item "G".
J	2 ea. end of load.	2 in. x 8 in. length to suit. Locate on end at each side of unit as shown, with bottom of item on top of Item "D".
K	2 ea. end of load.	2 in. x 6 in., length equal to width of unit. Secure to each Item "J" with five 16-D nails. 2 in. x 4 in. x 8 in. cleat under each item, secured to Item "J" with four 16-D nails.
L	2 ea. end of car.	2 in. x 8 in. x 15 in. Locate on top of Item "F", against Items "D" and "J". Secure to end Items "D" and "J" with four 16-D nails.
M	2 ea. end of car.	6 in. x 6 in. x 8 in. wedge block. Locate on top of Item "F" and against Item "L" as shown. Secure with four 20-D nails.
N	As required.	2 in. x 4 in., length and cut to suit. Locate between stacking lugs of bottom and top tier as shown.
O	2 ea. end of load.	Each to consist of six strands of No. 8 gage black annealed wire. Pass around end of car on top of each Item "K" and to opposite stake pockets as shown.
P	2 ea. end of load.	Each to consist of 6 strands No. 8 gage black annealed wire. Pass through lifting lug at end units on each side and through stake pockets as shown.
Q	As required.	Each to consist of 6 strands of No. 8 gage black annealed wire. Pass through each two adjacent lifting lugs on each side and to stake pockets as shown.
R	As required.	Each to consist of 6 strands of No. 8 gage black annealed wire. Pass through each two adjacent lifting lugs on each side between bottom and top tiers as shown.
S	3 per car.	1 in. x 6 in., length equal to length of load. Locate as shown and secure to floor of car with 10-D nails.
T	As required.	Each to consist of 6 strands, No. 8 gage black annealed wire. Pass through each two adjoining lifting lugs and twist taut. Not required for full size cargo transporters.
U	1 ea. Item "G".	4 in. x 4 in. x 18 in. hardwood cleat, or 1/2 in. x 4 in. x 18 in. plate.

Sec. 6 —Fig. 34

CONTAINERS, CONEX TYPE, FULL OR HALF-SIZE, CROSSWISE, EMPTY, DOUBLE DECKED—FLAT OR GONDOLA CARS WITH WOOD OR STEEL FLOORS

GONDOLA CARS WITH WOOD FLOORS

Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
BB	1 ea. end of load.	2 in. x 8 in., length equal to width of units. Locate as shown on each of and against lower portion of unit.
CC	2 ea. end of load.	1 in. x 6 in. length to suit. Locate as shown, secure to Item "BB" with five 8-D nails.
DD	1 ea. end of load.	2 in. x 8 in. length to suit. Locate against inside of end of car as shown. If there is any space between Item "DD" and end of car, sufficient dunnage must be used to completely fill space opposite Item "FF".
EE	3 ea. end of load.	4 in. x 6 in. length to suit. Locate under each Item "FF" as shown.
FF	3 ea. end of load.	6 in. x 6 in. length to suit. Locate on top of Item "EE" and between Items "DD" and "GG" as shown. Toenail to Items "DD", "EE" and "GG".
GG	2 ea. end of load.	2 in. x 8 in. length to suit. Locate as shown and secure each to Items "BB" and "JJ" with five 8-D nails in each.
HH	As required.	2 in. x 8 in. length and cut to suit. Locate between stacking lugs of bottom and top tiers as shown.
JJ	2 ea. end of load.	2 in. x 8 in. length to suit. Locate on end and each side of end unit as shown, with bottom of item on top of Item "BB".
KK	2 ea. end of load.	2 in. x 6 in. length equal to width of unit. Secure to each Item "JJ" with five 16-D nails. 2 in. x 4 in. x 8 in. cleat under each item, secured to Items "JJ" with four 16-D nails.
LL	2 ea. end of load.	Each to consist of 6 strands of No. 8 gage black annealed wire. Pass around end of car on top of each Item "KK" and through ½ in. eye bolts in top rail on opposite sides of car as shown.
MM	2 ea. end of load.	Each to consist of 6 strands of No. 8 gage black annealed wire. Pass through lifting lugs at end units on each side and through ½ in. eye bolts in top rail on opposite sides of car as shown.
NN	As required.	Each to consist of 6 strands No. 8 gage black annealed wire. Pass through each two adjacent lifting lugs on each side and through ½ in. eye bolts on each side in top rail on opposite sides of car as shown.
OO	As required.	Each to consist of 6 strands No. 8 gage black annealed wire. Pass through each two adjacent lifting lugs on each side between bottom and top tiers as shown.
PP	3 per car.	1 in. x 6 in. length equal to length of load. Locate as shown and secure to floor of car with 10-D nails.

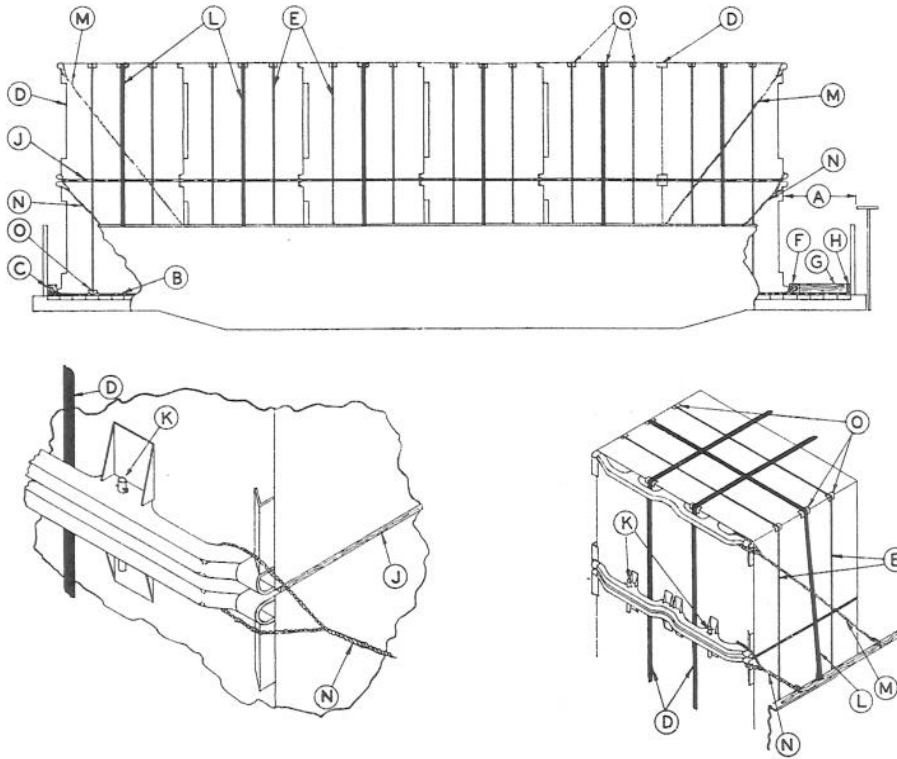
GONDOLA CARS WITH STEEL FLOORS

A		Brake wheel clearance. See Fig. 2.
BB	1 ea. end of load.	2 in. x 8 in., length equal to width of units. Locate as shown on each of and against lower portion of units.
CC	2 ea. end of load.	1 in. x 6 in. length to suit. Locate as shown. Secure to Item "BB" with five 8-D nails.
DD	1 ea. end of load.	2 in. x 8 in. length to suit. Locate as shown against inside of end of car. If there is any space between Item "DD" and end of car, sufficient dunnage must be used to completely fill space opposite Item "FF".
EE	3 ea. end of load.	4 in. x 6 in. length to suit. Locate as shown on top of Items "PP" and under Items "FF".
FF	3 ea. end of load.	6 in. x 6 in. length to suit. Locate on top of Items "EE" and between Items "DD" and "GG" as shown. Toenail to Items "DD" and "GG". Secure each to floor of car with one ⅝ in. dia. bolt, Item "QQ" passing through Items "RR", "EE", "FF", "PP" and "TT".
GG	2 ea. end of load.	2 in. x 8 in. length to suit. Secure each to Items "BB" and "JJ" with five 8-D nails in each.
HH	As required.	2 in. x 4 in. length and cut to suit. Locate between stacking lugs of bottom and top tiers.
JJ	2 ea. end of load.	2 in. x 8 in. length to suit. Locate on end and each side of end unit as shown, with bottom of item on top of Item "BB".
KK	2 ea. end of load.	2 in. x 6 in. length equal to width of unit. Secure to each Item "JJ" with five 16-D nails. 2 in. x 4 in. x 8 in. cleat under each item, secured to Items "JJ" with four 16-D nails.
LL	2 ea. end of load.	Each to consist of 6 strands of No. 8 gage black annealed wire. Pass around end of car on top of each Item "KK" and through ½ in. eye bolts in top rail on opposite sides of car.
MM	2 ea. end of load.	Each to consist of 6 strands of No. 8 gage black annealed wire. Pass through lifting lugs at end units on each side and through ½ in. eye bolts in top rail on opposite sides of car.
NN	As required.	Each to consist of 6 strands No. 8 gage black annealed wire. Pass through each two adjacent lifting lugs on each side and through ½ in. eye bolts on each side in top rail on opposite sides of car.
OO	As required.	Each to consist of 6 strands No. 8 gage black annealed wire. Pass through each two adjacent lifting lugs on each side between bottom and top tiers.
PP	3 per car.	1 in. x 6 in., length to suit.
QQ	3 ea. end of load.	⅝ in. dia. bolts, length to suit.
RR	3 ea. end of load.	⅝ in. x 4 in. x 4 in. washer. Locate on top of Items "FF" and secure with Item "QQ".
TT	1 ea. Item "QQ".	4 in. x 4 in. x 18 in. hardwood cleat, or ½ in. x 4 in. x 18 in. plate.

Where 6 strands of No. 8 gage black annealed wire is specified, ⅝ in. dia. cable may be substituted.

See General Rules 4, 5, 9, 10, 11, 14 and 15 for further details.

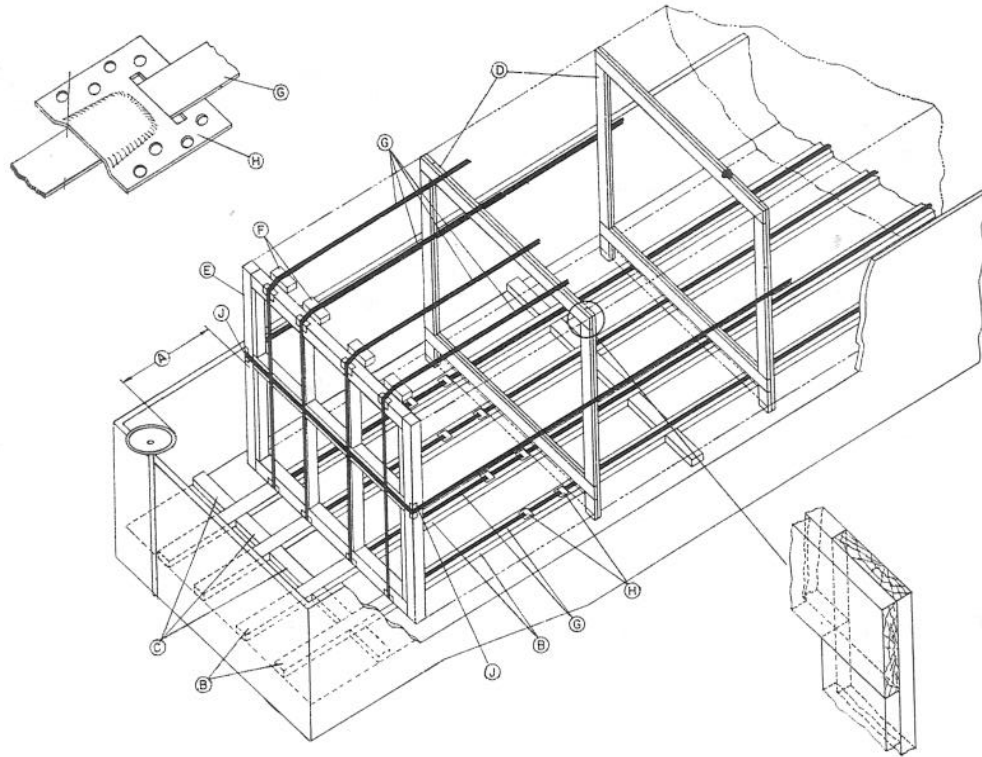
CONTAINERS, CONEX TYPE, FULL OR HALF-SIZE, CROSSWISE, LOADED ON SIDES, EMPTY, DOUBLE-DECKED
—GONDOLA CARS WITH WOOD OR STEEL FLOORS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	3 per car.	1 in. x 6 in. full length of car.
C	1 at "A" end of car.	6 in. x 6 in. length full width of car. Place against end of car. Skid of transporter to be placed against Item "C" and skids of each adjacent transporter to be recessed except last unit which should be reversed with skids facing "B" end of car.
D	2 per load.	2 in. x .050 in. high tension bands encircling entire load lengthwise of car.
E	2 ea. unit.	1 1/4 in. x .035 in. high tension bands crosswise and encircling top and bottom transporters into a unit.
F	1 at "B" end of car.	6 in. x 6 in. length full width of car placed against skid of end transporter. To be secured to floor with five 60-D nails or three 5/8 in. bolts.
G	3 at "B" end of car.	6 in. x 6 in. length to suit. Locate between Items "F" and "H". To be secured to floor with five 60-D nails or one 5/8 in. bolt.
H	As required.	Filler block against end of car, full width of car. Dimensions to suit.
J	3 per load.	1 in. x 6 in. separators, full length of load. To be placed between tiers.
K	2 ea. end of load.	1 3/4 in. dia. x 12 in. pin with crosswise retainer top and bottom. Insert through round holes in skids of top and bottom transporters as shown.
L	1 per unit.	2 in. x .050 in. high tension band to pass over each unit from top of car side to opposite top of car side or band anchorage.
M	2 ea. end of load.	Each to consist of six strands of No. 8 ga. black annealed wire. Pass through each corner skid opening of top transporters diagonally and through to top of car side or band anchorage as shown.
N	2 ea. end of load.	Each to consist of six strands of No. 8 ga. black annealed wire. Pass through each top and bottom corner skid opening at corner of transporters and to top of car side as shown.
O	As required.	Stake pocket protector. To be used where items "D", "L", and "E" pass over sharp corners as shown.

Where 6 strands of No. 8 ga. black annealed wire is specified, 3/8 in. dia. cable of equal strength may be substituted. See General Rules 4, 5, 7, 9, 11, 14 and 15 for further details.

CONTAINERS, CONEX TYPE, FULL OR HALF SIZE, CROSSWISE, LOADED OR EMPTY, SINGLE DECK—GONDOLA CARS WITH WOOD OR STEEL FLOORS



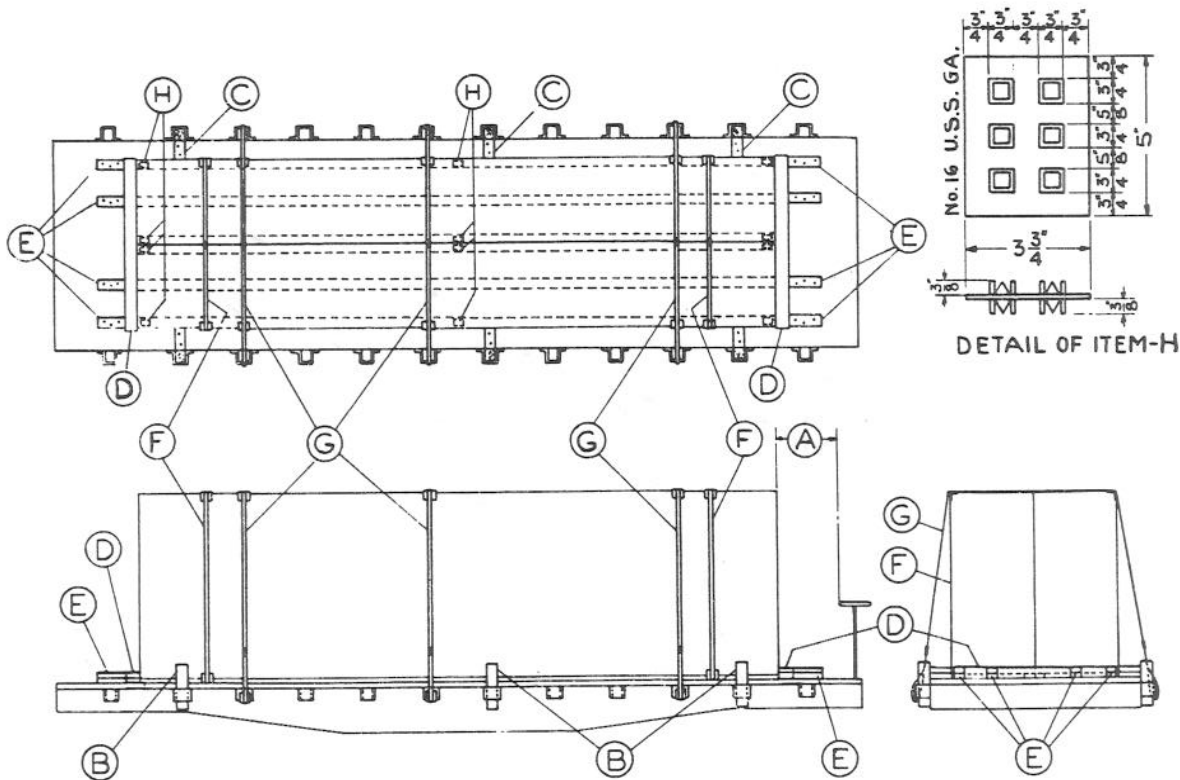
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	Wood floor cars, 2 or 3. Steel floor cars, 4.	Floor bearing pieces. Wood floor cars—1 in. x 6 in. full length of car. Locate to coincide with spacing of skids on containers. Secure to floor with ten, 10-D nails spaced about 12 in. apart. Steel floor cars—2 in. x 8 in. full length of car. Locate to coincide with spacing of bands.
C	As required, steel floor cars only.	Spacers, 2 in. x 4 in. length to suit. Locate between each Item "B" and sides of car. Secure to Items "B" with two 10-D nails.
D	As required.	Separators as shown. Locate between each container.
E	1 ea. end of load.	Bulkheads as shown.
F	4 ea. end of load.	Band supports, 2½ in. x 6 in. x 12 in. Locate on top of Items "E", as shown.
G	4 per load.	2 in. x .050 in. high tension bands encircling entire load longitudinally. For cars having wood floors, locate the two outside bands 15 in. from sides of containers, with other two bands equally spaced. For cars having steel floors, locate bands in center on top of Items "B".
H	4 per each Item "G".	Snubber plates. Locate two at each end of load with Items "G" threaded through. Space one 36 in. from each end container and the other one 48 in. from end of container at each end of load. For wood floor cars, secure to floor and for steel floor cars, secure to Items "B".
J	1 per load.	2 in. x .050 in. high tension girth band, encircling entire load. Locate just above top of car sides.

There must be at least 5 ft. of vacant space between load and end of car at each end.

Corner protectors are to be placed under all bands at top and bottom edges of Items "E".

See General Rules 4, 5, 9, 14 and 15 for further details.

FUSELAGES, WINGS, WING SECTIONS, SURFACES, ETC.—BOXED—FLAT CARS



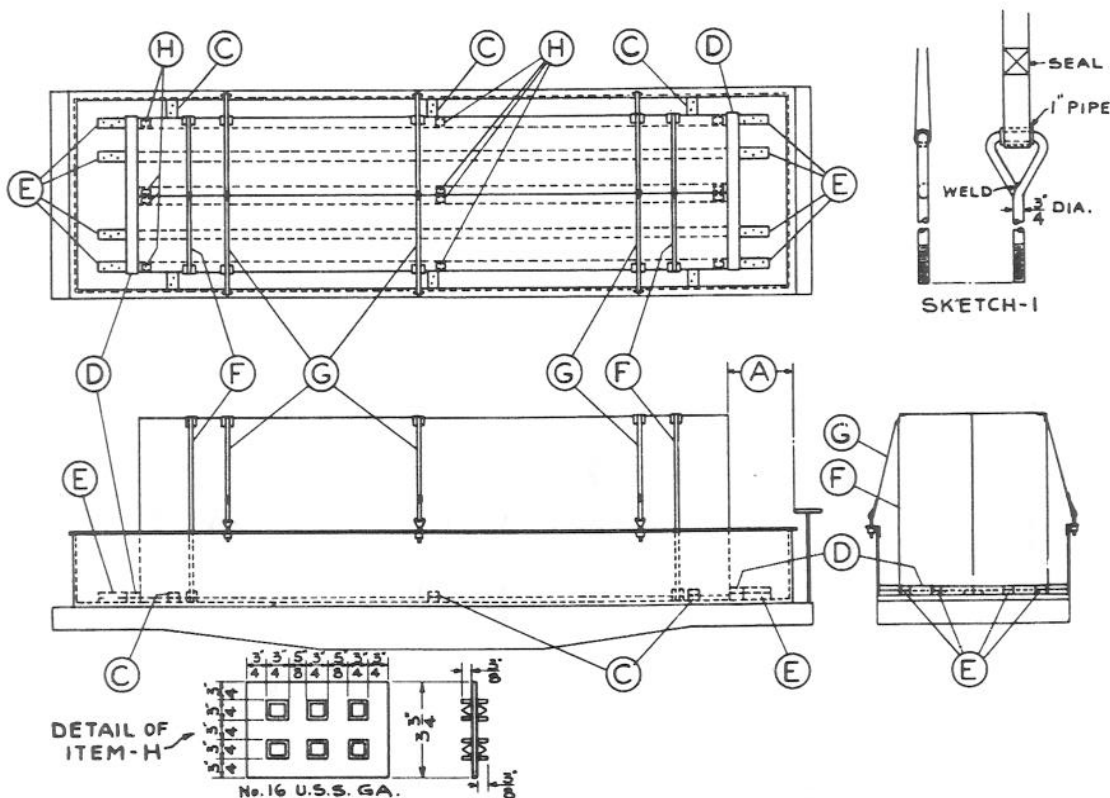
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	3 pr. per pile.	Side stakes, long enough to extend 6 in. above top of car floor. When width of pile will not permit application of side stakes, use one additional Item "F" and "G" for each pile over 20 ft. long.
C	1 ea. Item "B".	Each to consist of two pieces of 2 in. x 4 in., length to suit. Secure lower piece to floor with 20-D nails and top piece to one below in like manner. Not required when load completely fills the distance between Items "B".
D	As required ea. end of load.	Each to consist of two pieces of 2 in. x 4 in., length equal to width of load when the end of one box does not extend beyond the end of adjacent box. When end of one box extends beyond the other, place one, length equal to width of box, against each box. Secure lower piece to floor with six 20-D nails and top piece to one below in like manner.
E	Boxes 5 ft. wide or less; 2 ea. end. Boxes over 5 ft. wide; 4 ea. end.	Each to consist of two pieces of 2 in. x 4 in. x 16 in. Locate against Item "D" and secure lower piece to floor with three 20-D nails and top piece to one below in like manner. When Items "E" cannot be applied Items "D" must be adequately secured with 3/4 in. dia. bolts.
F	2 per pile.	2 in. x .050 in. high tension bands, encircling pile. Required only when two or more boxes are loaded side by side.
G	3 per pile.	2 in. x .050 in. high tension bands.
H	6 per box.	Anti-Skid Plates, pattern 63. Place between box and floor, as shown. Load must be stenciled on both sides in 1 in. letters to read, "Anti-Skid Plates".

When box is more than twice as high as its width at base, add two additional Items "G" tie-down bands, locating same about 1/4 the length of box from each end.

See General Rules 4, 5, 7, 9, 10, 11, 14, and 15 for further details.

Sec. 6—Fig. 38

FUSELAGES, WINGS, WING SECTIONS, SURFACES, ETC.—BOXED—GONDOLA CARS

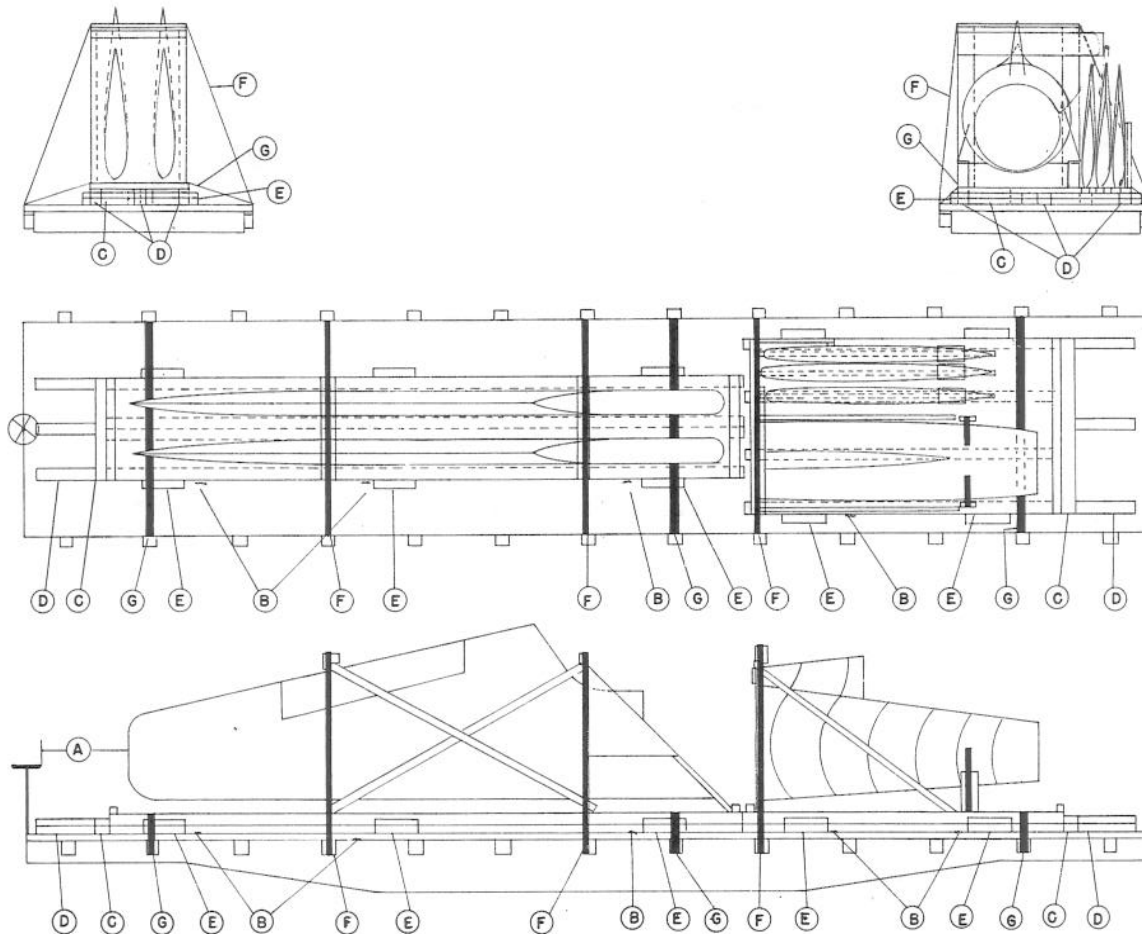


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B		Vacant.
C	3 ea. side of pile.	Each to consist of two pieces of 2 in. x 4 in., length equal to distance between side of car and side of load. Secure lower piece to floor with 20-D nails and top piece to one below in like manner. Secure to steel floors with two 5/8 in. dia. bolts.
D	As required ea. end of load.	Each to consist of two pieces of 2 in. x 4 in., length equal to width of load when the end of one box does not extend beyond the end of the adjacent box. When end of one box extends beyond the other, place one, length equal to width of box, against each box. Secure lower piece to floor with six 20-D nails and top piece to one below in like manner. Secure to steel floors with three 5/8 in. dia. bolts.
E	Boxes 5 ft. wide or less; 2 ea. end. Boxes over 5 ft. wide; 4 ea. end.	Each to consist of two pieces of 2 in. x 4 in. x 16 in. Locate against Item "D" and secure lower piece to floor with three 20-D nails and top piece to one below in like manner. Secure to steel floors with two 5/8 in. dia. bolts. When Items "E" cannot be applied, Items "D" must be adequately secured with 3/4 in. dia. bolts.
F	2 per pile.	2 in. x .050 in. high tension bands, encircling pile. Required only when two or more boxes are loaded side by side.
G	3 per pile.	2 in. x .050 in. high tension bands. Attach to top side angle as per Sketch 1, or by equally effective method.
H	6 per box.	Anti-Skid Plates, pattern 63. Place between box and floor, as shown. Load must be stenciled on both sides in 1 in. letters to read, "Anti-Skid Plates".

When box is more than twice as its width at base, add two clamps, each to consist of one piece 4 in. x 6 in., across top of box with 3/4 in. dia. rods through each end of same and through top chord angle or floor. Locate about 1/4 the length of box from each end. Use suitable plate washer on top of clamping piece to prevent splitting.

See General Rules 4, 5, 7, 9, 11, 14 and 15 for further details.

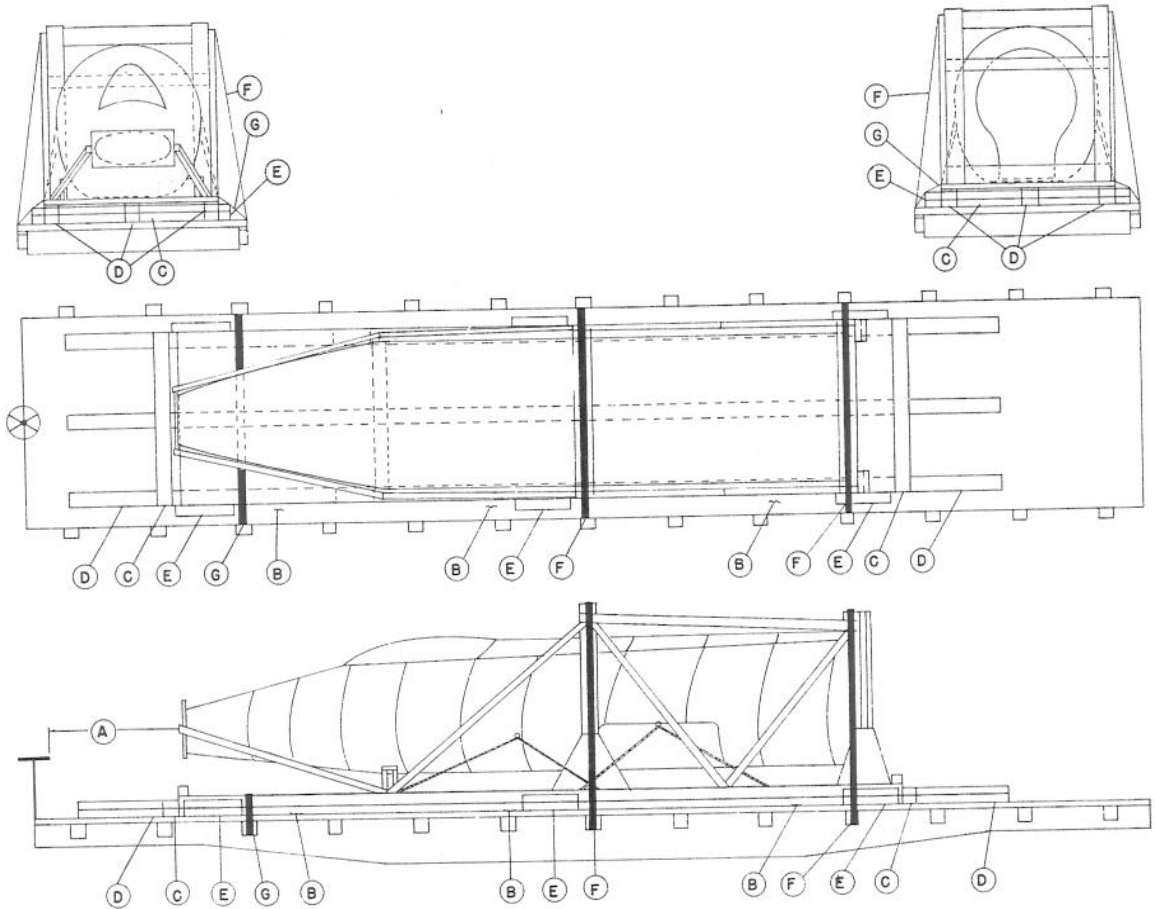
AIRCRAFT WINGS AND AFT SECTION MOUNTED ON WOOD FRAME, UNBOXED ON SKID BASE—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	6 per wing, 4 ea. per AFT Section.	Anti-Skid Plates, pattern 63. Locate between skids of units and floor, as shown. Load must be stenciled on both sides in one inch letters to read, "Anti-Skid Plates".
C	1 ea. end of load.	Each to consist of two pieces 2 in. x 4 in. length equal to width of load. Secure lower piece to floor with six 30-D nails and top piece to one below in like manner.
D	3 ea. Item "C".	Each to consist of two pieces 2 in. x 4 in. x 24 in. Locate suitably spaced, as shown, against Item "C". Secure lower piece to floor with six 30-D nails and top piece to one below in like manner.
E	6 ea. per wing unit; 4 ea. per AFT Section.	Each to consist of two pieces, 2 in. x 4 in. x 24 in. Locate at each side of load as shown. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
F	2 per wing section. 1 per AFT Section.	2 in. x .050 in. high tension bands. Locate as shown, attaching to opposite stake pockets of car. Substitute, if desired, steel cable $\frac{3}{8}$ in. x 6 x 7.
G	2 per wing section. 1 per AFT Section.	2 in. x .050 in. high tension bands. Locate as shown, attaching to opposite stake pockets of car.

See General Rules 4, 5, 7, 9, 10, 11, 14 and 15 for further details.

AIRCRAFT FUSELAGE MOUNTED ON WOOD FRAME UNBOXED ON SKID BASE—FLAT CARS

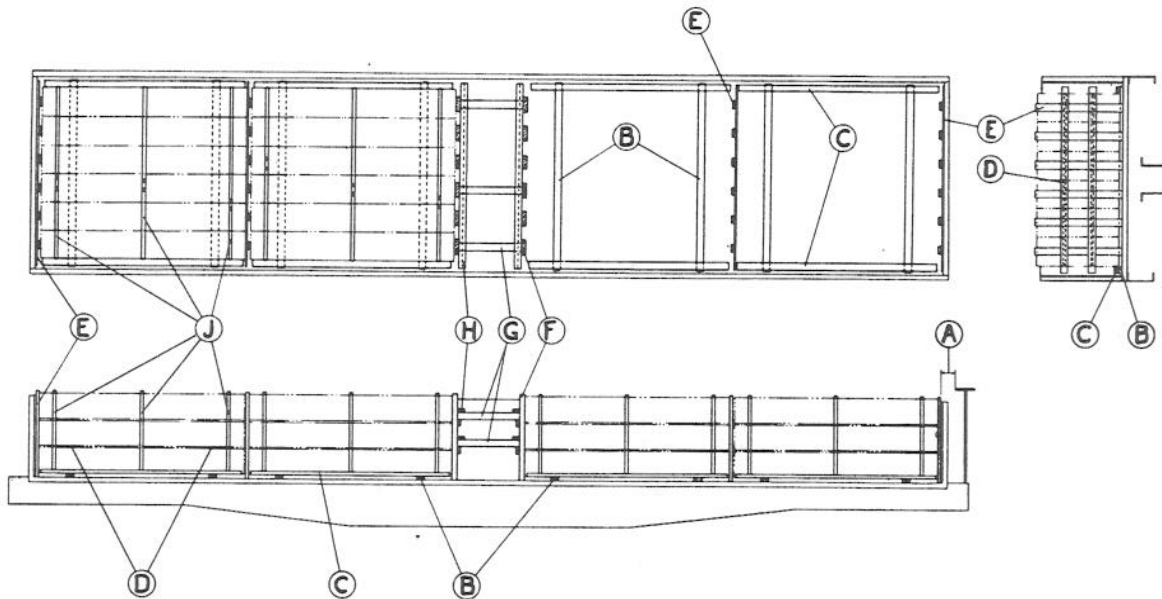


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	6 per unit.	Anti-Skid Plates, pattern 63. Locate between skids and floor as shown. Load must be stenciled on both sides in one inch letters to read, "Anti-Skid Plates".
C	1 ea. end of load.	Each to consist of two pieces 2 in. x 4 in. length to equal to width of load. Secure lower piece to floor with six 30-D nails and top piece to one below in like manner.
D	3 ea. Item "C".	Each to consist of two pieces 2 in. x 4 in. x 24 in. Locate suitably spaced as shown against Item "C". Secure lower piece to floor with six 30-D nails and top piece to one below in like manner.
E	6 per unit.	Each to consist of two pieces 2 in. x 4 in. x 24 in. Locate at each side of load as shown. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
F	2 ea. unit.	2 in. x .050 in. high tension bands. Locate as shown, attaching to opposite stake pockets of car. Substitute, if desired, steel cable 3/8 in. x 6 x 7.
G	1 ea. unit.	2 in. x .050 in. high tension bands. Locate as shown, attaching to opposite stake pockets of car.

See General Rules 4, 5, 7, 9, 10, 11, 14 and 15 for further details.

Sec. 6—Fig. 41

LANDING MATS IN BUNDLES—GONDOLA CARS



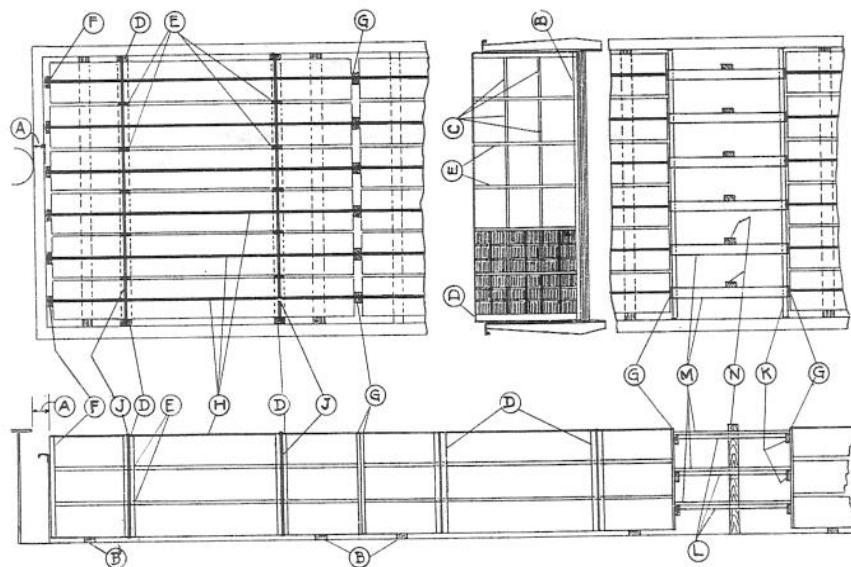
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2 per pile.	2 in. x 4 in., length equal to about 2 in. less than width of car. Locate one about 16 in. from each end of pile and secure each with three 20-D nails.
C	2 per pile.	2 in. x 4 in., length to suit. Locate against each side of pile and secure to each Item "B" with two 30-D nails.
D	As required.	1 in. x 4 in., length equal to width of pile. Locate two, as shown, suitably spaced, between layers.
E	As required.	End and intermediate gates, height and width to suit, built up of six 2 in. x 4 in. uprights and two 1 in. x 4 in. crosspieces. Locate between piles and between piles and ends of car, as shown.
F	2	Center gates, height and width to suit, built up of six 3 in. x 8 in. uprights and two 2 in. x 4 in. crosspieces. Locate against ends of piles at center of load, as shown.
G	6	4 in. x 4 in., length sufficient to fill space between Items "F". Locate suitably spaced, as shown, three above bottom crosspieces, and three above top crosspieces of Items "F". Secure ends to Items "F" with two 30-D nails.
H	4	2 in. x 4 in., length to suit. Locate, as shown, against Items "F" and on top of Items "G". and secure to each Item "G" with two 30-D nails.
J	3 per pile.	2 in. x .050 in. high tension bands. Locate, as shown, suitably spaced encircling pile.

Cars must be loaded from each end leaving vacant space, if any, as near to center of car as practicable.

See General Rules 4, 5, 9, 11, 14 and 15 for further details.

Sec. 6—Fig. 42

LANDING MATS IN BUNDLES—GONDOLA CARS



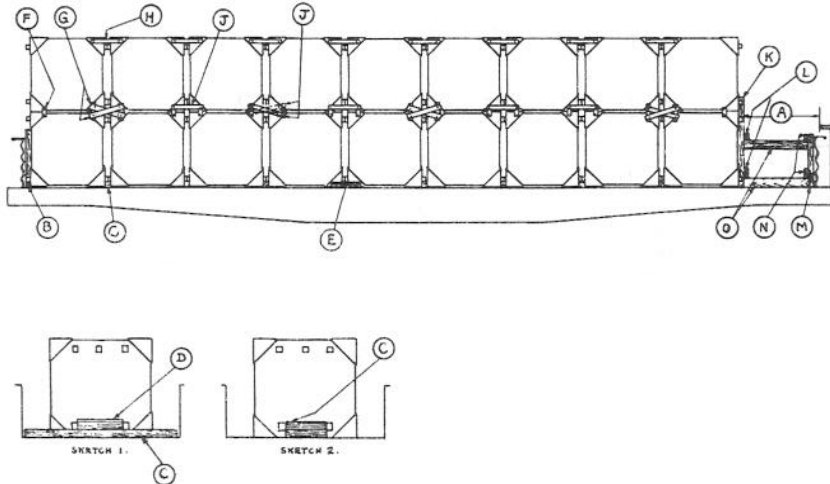
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2 ea. pile.	2 in. x 4 in., length about equal to inside width of car. Locate about 14 in. from each end of pile.
C	2 between successive layers of ea. stack.	1 in. x 4 in., length equal to width of bundle. Locate in line with Items "D" and "E", as shown. Use optional.
D	4 ea. pile.	2 in. x 4 in., length equal to height of pile. Locate about 30 in. from each end of pile, as shown. Drive one 20-D nail through each of these items and between the mats to help prevent their displacement.
E	2 between successive stacks.	1 in. x 4 in., length equal to height of pile. Locate about 30 in. from each end of pile. Drive one 10-D nail through each of these items and between the mats to help prevent their displacement.
F	1 ea. stack.	2 in. x 4 in., length equal to height of pile. Locate at center of and adjacent to outside end or end stacks, as shown. Drive one 20-D nail through each of these items, near top and between mats to help prevent their displacement.
G	1 or 2 ea. stack.	1 in. x 4 in., length equal to height of pile. Locate at center of and against inside ends of stacks, as shown. Drive one 10-D nail through each of these items near top and between mats to help prevent their displacement.
H	1 ea. stack.	1 1/4 in. x .035 in. high tension band. Locate at center of and encircling stack and Items "F" and "G", or Items "F". If desired these items may be applied in chain fashion.
J	2 ea. pile.	1 1/4 in. x .035 in. high tension bands. Locate as shown to encircle pile and Items "D" and "E".
K	2 ea. layer.	2 in. x 4 in., length about equal to width of pile. Locate top edge about 3 in. from top of layer and secure to each Item "G" with two 20-D nails.
L	As required.	2 in. x 4 in. length equal to distance between Items "K". Locate as shown with top of 4 in. side even with top edge of Items "K" and secure each end to these items by toe-nailing with two 20-D nails.
M	As required.	2 in. x 4 in., length equal to distance between inside ends of load. Locate on top of Items "K" and "L" and secure each to these items with six 20-D nails.
N	As required.	2 in. x 4 in., long enough to extend from floor to about 3 in. above top Items "M". Locate about at center of Items "L" and "M" and secure to each with two 20-D nails. Not required when distance between inside ends of load does not exceed 3 ft.

Cars must be loaded from each end leaving vacant space, if any, as near to center of car as practicable.

See General Rules 4, 5, 9, 10, 11, 14 and 15 for further details.

Sec. 6—Fig. 43

PONTOONS, STEEL—TWO LAYERS—GONDOLA CARS

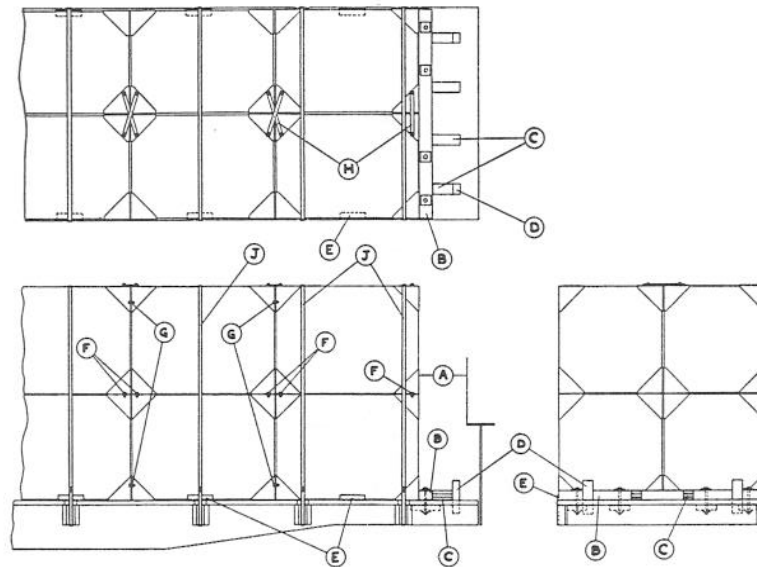


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2 per load.	2 in. x 4 in., long enough to extend from floor to top of car end. Locate about 4 ft. apart and secure with one 1 in. x 3 in. at top, to prevent toppling over.
C	1 ea. bottom pontoon.	2 in. x 4 in., length 1 in. less than width of car, per Sketch 1. Substitute, if desired, on wood floor cars, 2 pieces 2 in. x 4 in., length equal to distance between inside face of lugs. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner, per Sketch 2. Not required when Items "E" are used.
D	1 ea. bottom pontoon.	2 in. x 4 in., length equal to distance between inside face of lugs. Secure on top of Item "C" with four 30-D nails. Not required when Items "C", per Sketch 2, or Items "E", are used.
E	As required.	Each to consist of two pieces of 2 in. x 4 in. x 24 in. Locate and space equally against each side of adjoining pontoon. Secure lower piece to floor with five 30-D nails and top piece to one below in like manner. Not required for steel floor cars or when Items "C" and "D" are used.
F	4 ea. pr. pontoons.	$\frac{1}{4}$ in. x $2\frac{1}{2}$ in. x $5\frac{3}{4}$ in. plates. Secure to top and bottom pontoons with two $\frac{3}{4}$ in. dia. bolts. Use washer or plate under head of bolt.
G	6 pr. per load.	$\frac{1}{4}$ in. x $2\frac{1}{2}$ in. x $25\frac{1}{2}$ in. plates. Locate as shown. Secure to pontoons, on top of Items "F" with one $\frac{3}{4}$ in. dia. bolt at each end.
H	As required.	$\frac{1}{4}$ in. x $2\frac{1}{2}$ in. x $25\frac{1}{2}$ in. plates. Locate, as shown, secure to pontoons with one $\frac{3}{4}$ in. dia. bolt at each end. Use washer or plate under head of bolt.
J	As required.	$\frac{1}{4}$ in. x $2\frac{1}{2}$ in. x $25\frac{1}{2}$ in. plates. Locate as shown either horizontally or diagonally and secure to pontoons on top of Item "F" with one $\frac{3}{4}$ in. dia. bolt at each end.
K	3 per load.	2 in. x 6 in., long enough to extend from floor to top of car end. Locate both end pieces outside of outside lugs and one piece under center lug.
L	2 per load.	2 in. x 4 in., length 1 in. less than width of car. Secure to each Item "K", above Items "O", with three 30-D nails.
M	3 per load.	2 in. x 6 in., long enough to extend from floor to top of car ends, spaced same as Items "K".
N	2 per load.	2 in. x 4 in., length 1 in. less than width of car. Secure to each Item "M" with three 30-D nails.
O	6 per load.	4 in. x 4 in., length equal to distance between Items "K" and "M". Secure to Items "K" and "M", as shown, with six 30-D nails each.

See General Rules 4, 5, 9, 11, 14 and 15 for further details.

Sec. 6—Fig. 44

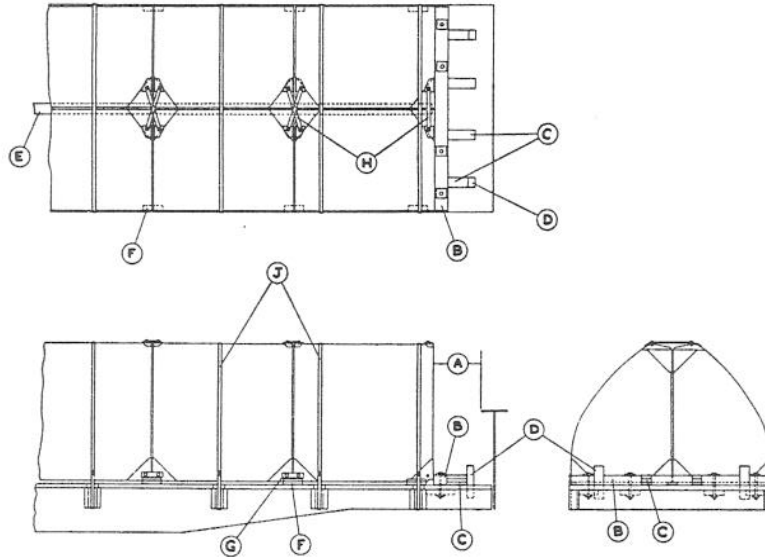
PONTOONS, STEEL, DOUBLE-DECKED—RECTANGULAR SECTIONS—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2 per car.	6 in. x 8 in., length equal to width of load. Locate against ends of load and secure each to floor with four $\frac{5}{8}$ in. dia. bolts and washers, as shown.
C	4 ea. Item "B".	Each to consist of three pieces of 2 in. x 6 in., length to suit. Locate two between Items "B" and "D" and two suitably spaced, as shown. Secure lower pieces to floor with five 30-D nails and top pieces to those below in like manner.
D	4 per car.	End stakes, length sufficient to extend 9 in. above floor. Locate, as shown, in end stake pockets. Where end stake pockets are not available, apply two additional Items "C" at each end of load.
E	As required.	$\frac{3}{8}$ in. x 3 in. x 4 in. x 15 in. angles. Locate as shown, against outside of each unit. Secure each to floor with three $\frac{3}{8}$ in. x 2 in. lag screws or five drive screws prior to loading.
F	As required.	$\frac{5}{8}$ in. dia. bolts. Locate, as shown, between each unit in top and bottom layers.
G	As required.	$\frac{5}{8}$ in. dia. bolts. Locate, as shown, between each side by side unit, at top of top layer, and at bottom of bottom layer.
H	As required.	$\frac{1}{4}$ in. x 2 in., plates, length to suit. Locate two, as shown, crossed between units in top layers and secure at each location with one $\frac{5}{8}$ in. dia. bolt. Only one Item "H" required at outside end of end units.
J	As required.	2 in. x .050 in. high tension bands. Locate two over top of side by side units at ends, and one over top of intermediate side by side units, as shown. Secure to opposite stake pockets.

See General Rules 4, 5, 7, 9, 10, 11, 14 and 15 for further details.

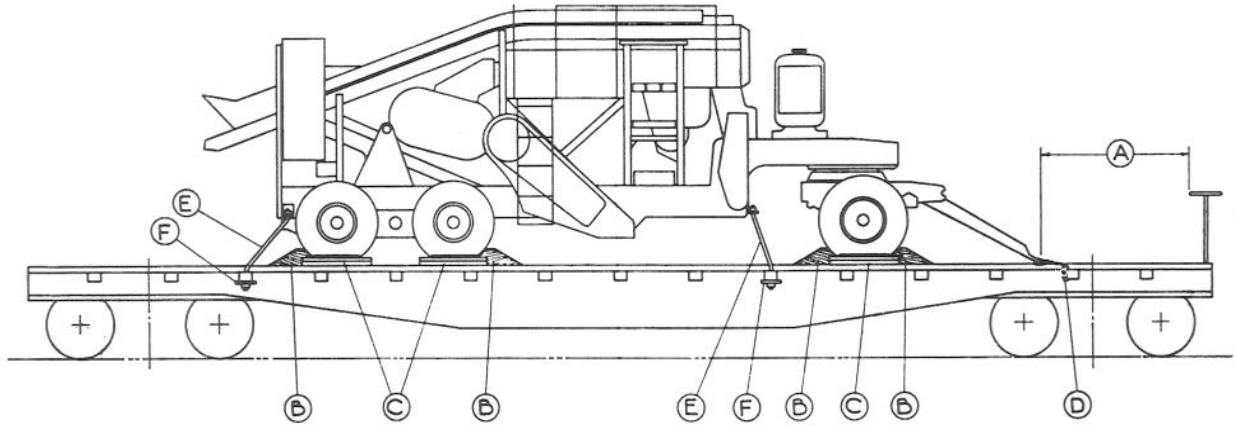
PONTOONS, STEEL—RAKE END SECTIONS—FLAT CARS



No.	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2 per car.	6 in. x 8 in., length equal to width of load. Locate against ends of load and secure each to floor with four $\frac{5}{8}$ in. dia. bolts and washers, as shown.
C	4 ea. Item "B".	Each to consist of three pieces of 2 in. x 6 in., length to suit. Locate two between Items "B" and "D" and two suitably spaced, as shown. Secure lower pieces to floor with five 30-D nails and top pieces to those below in like manner.
D	4 per car.	End stakes, length sufficient to extend 9 in. above floor. Locate, as shown, in end stake pockets. Where end stake pockets are not available, apply two additional Items "C" at each end of load.
E	1 per car.	2 in. x 6 in., full length of car. Locate, as shown, and secure to floor prior to loading with 8-D nails spaced about 12 in. apart.
F	As required.	Each to consist of two pieces of 2 in. x 4 in. x 12 in. Locate lower pieces underneath and against outside lugs of end to end units, and top pieces against sides of end to end units, as shown. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
G	As required.	$\frac{1}{4}$ in. x 3 in., plates, length to suit. Locate, as shown, on outside of each end to end unit and secure at each location with the standard $1\frac{1}{2}$ in. dia. pontoon stud bolt equipped with lock washers.
H	As required.	$\frac{1}{4}$ in. x 2 in., plates, length to suit. Locate two, as shown, crossed between units in top layers and secure at each location with one $\frac{5}{8}$ in. dia. bolt. Only one Item "H" required at outside end of end units.
J	As required.	2 in. x .050 in. high tension bands. Locate two over top of side by side units at ends, and one over top of intermediate side by side units, as shown. Secure to opposite stake pockets.

See General Rules 4, 5, 7, 9, 10, 11, 14 and 15 for further details.

SIX WHEEL CRUSHING AND SCREENING PLANTS, EQUIPPED WITH PNEUMATIC TIRES AND DUAL FRONT WHEELS—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8	Blocks, pattern 16. Locate 45 degree portion of block against front and rear of outside front wheels, in front of intermediate wheels and in back of rear wheels. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire with two 40-D nails.
C	6	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Locate against outside of wheels and secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
D	2	Each to consist of four strands No. 8 gage wire. Attach to lunnette of machine and pass through opposite stake pocket.
E	4	$\frac{3}{8}$ in. diameter rods. Attach to frame of machine, as shown, and pass through stake pockets and Items "F". Substitute, if desired, $\frac{5}{8}$ in. x 6 x 7 steel cable, doubled.
F	As required.	$\frac{1}{2}$ in. x 4 in. x 10 in. plates.

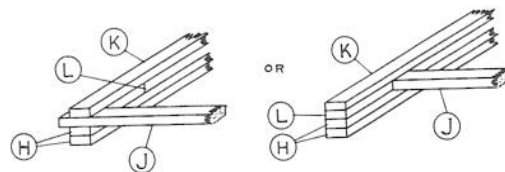
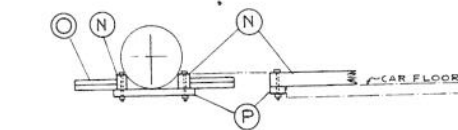
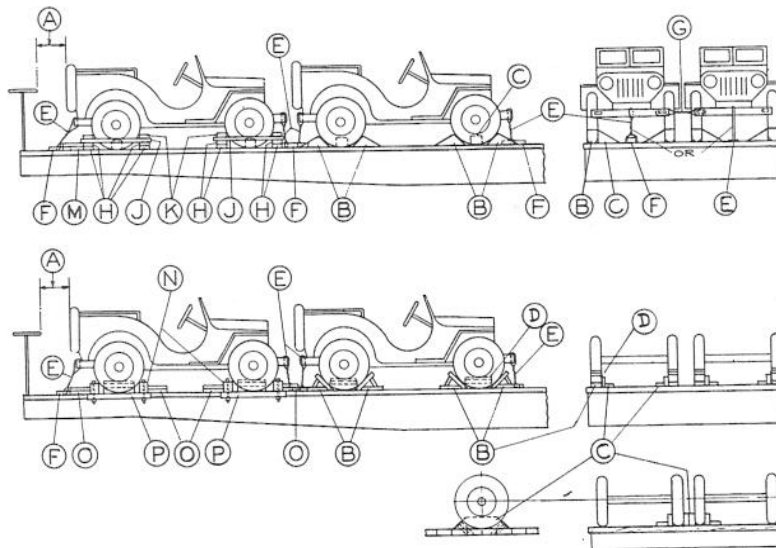
Waterproof paper, burlap or other suitable material must be used between Items "C" and tires.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 7, 9, 11, 14, 15, 19-A and 19-B for further details.

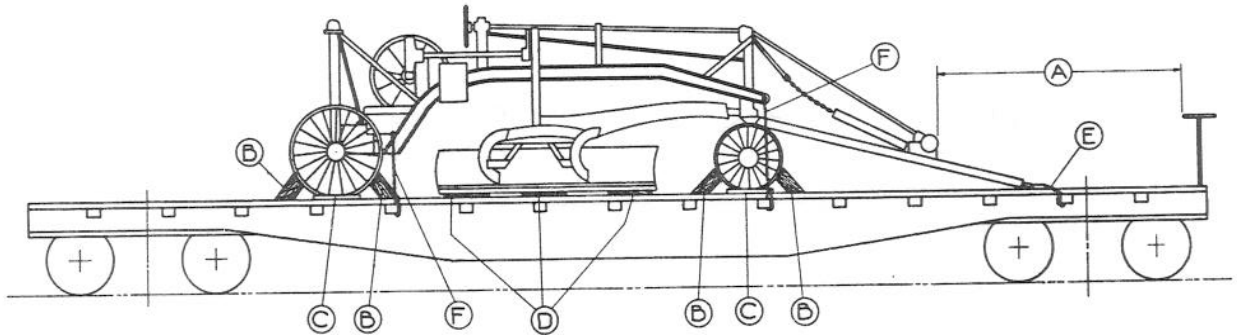
Sec. 6—Fig. 49

¼ TON, 4 X 4 TRUCKS, LENGTHWISE, SINGLE OR DOUBLE ROWS—FLAT CARS—SINGLE ROWS—GONDOLA CARS WITH WOODEN FLOORS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8 per unit.	Blocks, pattern 25. Locate 53 degree portion of block against front and rear of wheels. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire to floor with two 40-D nails. Substitute, if desired, at each location, blocks, pattern 24, or blocks, pattern 18. When units are loaded, side by side on flat cars, Items "B" not required against inside of inside front and rear wheels. Items "B" not required when Items "H", "J", "K" and "L" or "N", "O" and "P" are used
C	1 ea. wheel.	Blocks, pattern 25. Locate 53 degree portion against inside of each wheel and secure heel of block to floor with three 40-D nails and toe-nail other end to floor with one 40-D nail. Substitute, if desired, at each location, blocks, pattern 20. Secure to floor with four 30-D nails at each location. If desired, each block, pattern 25, or pattern 20, located against wheels nearest side of car may be omitted, provided a double 2 in. x 4 in. x 24 in. block is used between inside wheels of side by side units to prevent contacting each other. Secure lower piece to floor with four 20-D nails and top piece to one below with four 30-D nails in each. Not required when Items "H", "J", "K" and "L" are used.

FOUR WHEEL TRACTOR DRAWN ROAD GRADERS (WITH STEEL WHEELS)—FLAT CARS

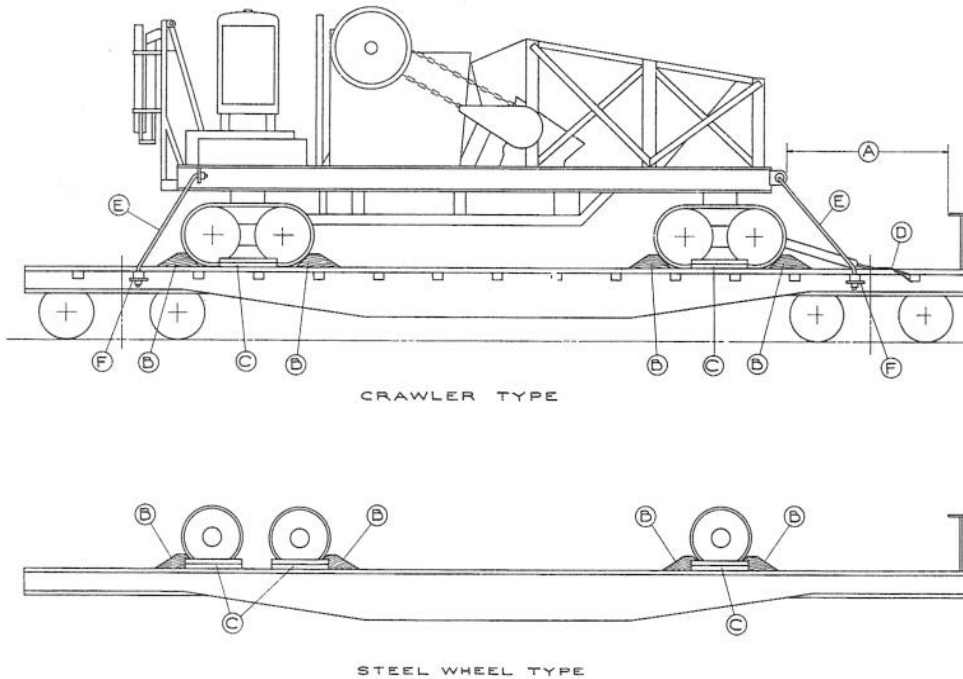


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8	Blocks, pattern 5. Locate in front and back of each wheel. Secure each to floor with two 60-D, three 40-D and one 20-D nails in heel and one 40-D nail in each side of block.
C	4	2 in. x 4 in. x 24 in. Locate against outside of each wheel and secure each to floor with four 30-D nails.
D	3	1 in. x 6 in. x 24 in. Locate under blade of unit, as shown, and secure each to floor with three 10-D nails.
E	2	Each to consist of two strands No. 8 gage wire. Attach to tongue of unit and pass through opposite stake pockets.
F	4	Each to consist of four strands No. 8 gage wire. Attach to frame of unit, as shown, and pass through stake pockets.

See General Rules 4, 5, 9, 11, 14 and 15 for further details.

Sec. 6—Fig. 47

ROCK CRUSHER, TRACTOR DRAWN, EQUIPPED WITH STEEL WHEELS OR CRAWLERS—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8	Blocks, pattern 16. Locate 45 degree portion of block against front and rear of front wheels, in front of intermediate wheels, and in back of rear wheels, or in front and rear of crawlers. Secure heel of block to floor with three 40-D nails and toe-nail that portion under wheel or crawler with two 40-D nails.
C	Steel wheel units; 6	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Locate against outside of wheels and secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
	Crawler units; 4.	Each to consist of two pieces of 2 in. x 4 in. x 48 in. Locate against outside of crawlers and secure lower piece to floor with five 30-D nails, and top piece to one below in like manner.
D	2	Each to consist of four strands No. 8 gage wire. Attach to lunnette of machine as shown, and pass through opposite stake pockets.
E	4	1 1/8 in. diameter rods. Attach to machine, as shown, and pass through stake pockets and Items "F".
F	4	1/2 in. x 4 in. x 10 in. plates.

Where machines are equipped with elevators that extend beyond rear of unit, they must be secured with adequate wooden supports and four strands No. 9 gage wire ties to stake pockets on opposite sides of car.

See General Rules 4, 5, 7, 9, 11, 14 and 15 for further details.

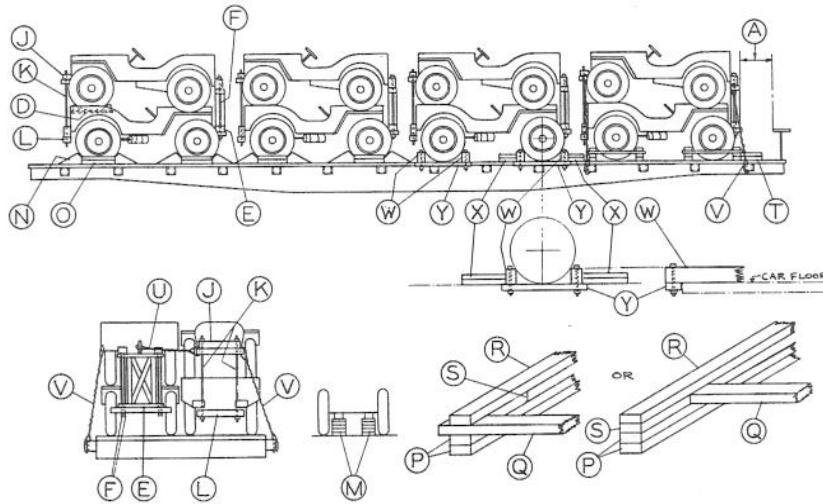
¼ TON, 4 X 4 TRUCKS, LENGTHWISE, SINGLE OR DOUBLE ROWS—FLAT CARS—SINGLE ROWS—GONDOLA CARS WITH WOODEN FLOORS

Item	No. of Pcs.	Description
D	1 ea. wheel.	Suitable material, such as waterproof paper, burlap, etc. Locate bottom portion under Item "C", top portion to extend 2 in. above Item "C". Not required when blocks, pattern 25 or Items "H", "J", "K" and "L" or "N", "O" and "P" are used.
E	2 ea. unit.	1 in. No. 14 B. W. gage hot rolled steel, with anchor plates, pattern 19. Locate over bumper at front end and through pulling hook at rear end and secure each plate to floor with eight 20-D cement-coated nails. Substitute, if desired, at each location, 4 strands, No. 8 gage black annealed wire. Pass over bumper or through pulling hook, underneath and around Item "F". After car springs have been compressed as much as possible, bring both ends together, and twist taut after Item "F" has been nailed in place.
F	1 ea. Item "E".	2 in. x 4 in. x 18 in. Locate one under front bumper at center of unit and one under rear pulling hook. Secure each to floor with four 30-D nails. Not required when steel straps, pattern 19, are used.
G	1 ea. end of ea. unit.	6 strands, 3 wrappings, No. 8 gage black annealed wire. Pass around pintle hook of one unit and around frame of adjacent unit, or around pintle hooks or frames of adjacent units.
H	4 ea. unit.	Each to consist of two pieces of 2 in. x 4 in., long enough to extend to outside face of outside tires of units loaded side by side and long enough to admit of application of Items "J" on units loaded in single row. Locate so that Items "K" will contact tires of wheels. Secure lower piece to floor with ten 30-D nails and top piece to one below in like manner. Not required when Items "B" and "C" or "N", "Q", and "P" are used.
J	1 ea. outside wheel.	2 in. x 4 in., long enough to extend 2 in. beyond outside face of Items "H", or Items "N" when used on units loaded in single row. Locate against wheel and secure to each Item "H" or Item "N" with three 20-D nails. Not required when Items "B" and "C" or "N", "O" and "P" are used.
K	4 ea. unit.	2 in. x 4 in., length equal to length of Items "H". Locate against tires, on top of Items "J" and "L". Secure to Items "J" and "L" with three 20-D nails at each location. Not required when Items "B" and "C" or "N", "O" and "P" are used.
L	2 ea. Item "J".	2 in. x 4 in. x 12 in. Locate between Items "H" and "K" with one end against Item "J". Secure to Item "H" with two 20-D nails in each. Not required when Items "B" and "C" or "N", "O" and "P" are used.
M	2 ea. end of load.	Each to consist of two pieces of 2 in. x 4 in. x 18 in. Locate on floor with one end against Item "H". Secure lower piece to floor with four 30-D nails and top piece to one below with four 20-D nails. Not required when Items "B" and "C" or "N", "O" and "P" are used.
N	4 ea. single or side by side row.	4 in. wide, 6 in. high, long enough to extend to outside face of outside tires of units loaded side by side and long enough to admit of application of Items "J" on units loaded in single row. Locate against front and rear tires. Toe-nail to floor with four 30-D nails. Not required when Items "B" or "H", "J", "K" and "L" are used.
O	4 ea. Item "N".	Each to consist of two pieces of 2 in. x 4 in. x 18 in. Locate one near each end and two near center of Items "N". Secure lower piece to floor, lengthwise of car, with four 30-D nails and top piece to one below in like manner. Not required when Items "B", or "H", "J", "K" and "L" are used.
P	1 ea. Item "N".	2 in. x 4 in., long enough to extend 1 in. beyond outside face of Items "N". Locate 2 in. edge against end of floor, under Items "N". Secure each end to Items "N" with one ½ in. dia. bolt. Multiple length pieces may be used provided they protect two or more complete units and are secured to each Item "N" throughout their length. Not required when Items "B", or "H", "J", "K", and "L" are used.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 11, 14, 15, 19-A and 19-B for further details.

¼ TON, 4 X 4 TRUCKS, DOUBLE DECKED, LENGTHWISE, SINGLE OR DOUBLE ROWS—FLAT CARS—SINGLE ROWS—GONDOLA CARS WITH WOODEN FLOORS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
*B	2 ea. unit.	3 in. x 3 in. x 7 in. Locate between frame and each front spring. Secure in position with No. 14 ga. wire.
*C	2 ea. lower unit.	4 in. x 4 in. x 5 in. Locate between frame and each rear spring. Secure in position with No. 14 ga. wire.
D	2 ea. lower unit.	Blocks, pattern 34. Locate one each on tool and chain box of each lower unit.
E	1 ea. lower unit.	Frame, pattern 35. Locate on top of frame of lower unit, in front of radiator and underneath rear cross members of upper unit. Secure to inside Items "F", in four places, with No. 14 ga. wire.
F	4 ea. Item "E".	¼ in. dia. rods. Pass two through each Item "G" at top and through each Item "H" at bottom
*G	2 ea. upper unit.	Plates, pattern 36. Locate on top of frame of upper unit, behind Item "E".
*H	2 ea. lower unit.	Plates, pattern 37. Locate below frame of lower unit. Secure in position with Items "F".
J	1 ea. upper unit.	Blocks, pattern 38. Locate on top of frame of upper unit, in front of radiator.
K	2 ea. Item "J".	¼ in. dia. rods. Pass through Items "J" and "L". Draw taut to compress springs as much as possible.
L	1 ea. lower unit.	Blocks, pattern 39. Locate under rear cross member of lower unit. Secure in position with Items "K".
M	4 ea. lower unit.	Blocks, pattern 40, height ¼ in. greater than distance between main spring clips and floor. Locate under spring clips and secure lower pieces to floor with two 20-D nails in each end and upper pieces to those below with six 10-D nails in each.
N	8 ea. lower unit.	Blocks, pattern 25. Locate 53 degree portion of block against front and rear of each wheel of lower units. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire to floor with two 40-D nails. Not required when Items "P", "Q", "R" and "S" or "W", "X" and "Y" are used.

¼ TON, 4 X 4 TRUCKS, DOUBLE DECKED, LENGTHWISE, SINGLE OR DOUBLE ROWS—FLAT CARS—SINGLE ROWS—GONDOLA CARS WITH WOODEN FLOORS

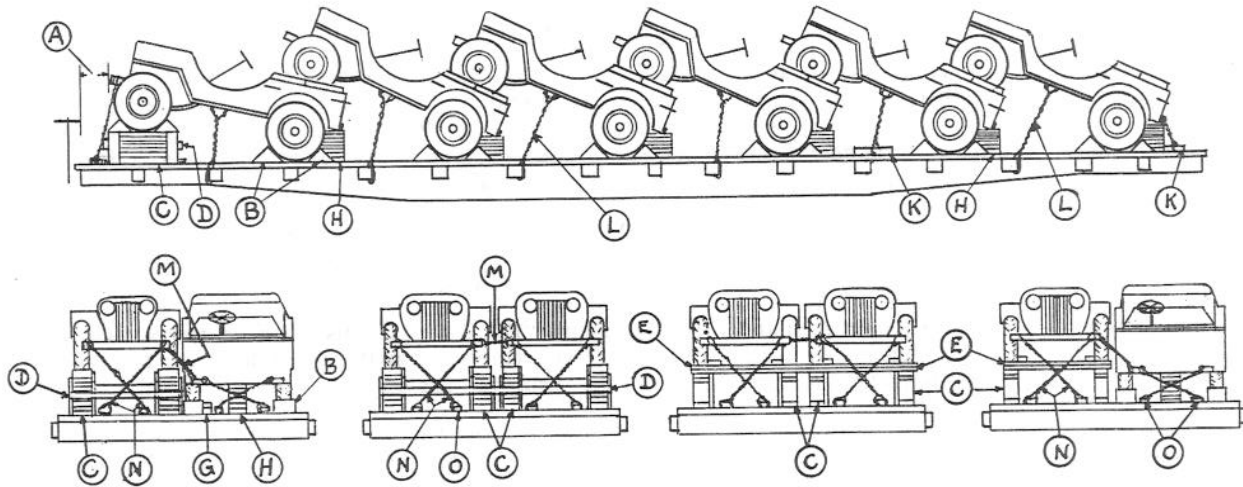
Item	No. of Pcs.	Description
O	4 ea. lower unit.	Each to consist of two pieces of 2 in. x 4 in. x 24 in. Locate both either inside or outside of front and rear wheels. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner. Not required when Items "P", "Q", "R" and "S" are used.
P	4 ea. lower unit.	Each to consist of two pieces of 2 in. x 4 in., long enough to extend to outside face of outside tires of units loaded side by side and long enough to admit of application of Items "Q" on units loaded in single row. Locate so that Items "R" will contact tires of wheels. Secure lower piece to floor with ten 30-D nails and top piece to one below in like manner. Not required when Items "N" and "O" or "W", "X" and "Y" are used.
Q	1 ea. outside wheel of lower unit.	2 in. x 4 in., long enough to extend 2 in. beyond outside face of Items "P". Locate against wheel and secure to each Item "P" or Items "W" with three 20-D nails. Not required when Items "N" and "O" or "W", "X" and "Y" are used.
R	4 ea. lower unit.	2 in. x 4 in., length equal to length of Items "P". Locate against tires, on top of Items "Q" and "S". Secure to Items "Q" and "S" with three 20-D nails at each location. Not required when Items "N" and "O" or "W", "X" and "Y" are used.
S	2 ea. Item "Q".	2 in. x 4 in. x 12 in. Locate between Items "P" and "R", with one end against Item "Q". Secure to Item "P" with two 20-D nails in each. Not required when Items "N" and "O" or "W", "X" and "Y" are used.
T	2 ea. end of load.	Each to consist of two pieces of 2 in. x 4 in. x 18 in. Locate on floor with one end against Item "P" and secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
U	1 ea. end of ea. upper unit.	6 strands, 3 wrappings, No. 8 ga. black annealed wire. Pass around pintle hook of one unit and around frame of adjacent unit, or around pintle hooks or frames of adjacent units.
V	4	8 strands, 4 wrappings, No. 8 ga. black annealed wire. Pass around frame at each corner of each upper unit loaded in single row, and around frame at outside corners of each upper unit loaded in double row, and through stake pockets, or car sides between top and second side plank. Substitute, if desired, at each location, 2 strands, No. 8 ga. high tension wire, or one 2 in. x .050 in. high tension band.
W	4 ea. single or side by side row.	4 in. wide, 6 in. high, long enough to extend to outside face of outside tires of units loaded side by side and long enough to admit of application of Items "Q" on units loaded in single row. Locate against front and rear tires of lower unit. Toe-nail to floor with four 30-D nails. Not required when Items "N" or "P", "Q", "R" and "S" are used.
X	4 ea. Item "W".	Each to consist of two pieces of 2 in. x 4 in. x 18 in. Locate one near each end and two near center of Items "W". Secure lower piece to floor, lengthwise of car, with four 30-D nails and top piece to one below in like manner. Not required when Items "N" or "P", "Q", "R" and "S" are used.
Y	1 ea. Item "W".	2 in. x 4 in., long enough to extend 1 in. beyond outside face of Items "W". Locate 2 in. edge against end of floor, under Items "W". Secure each end to Items "W" with one ½ in. dia. bolt. Multiple length pieces may be used provided they protect two or more complete units and are secured to each Item "W" throughout their length. Not required when Items "N" or "P", "Q", "R" and "S" are used.

*Application of these items do not appear on drawing.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 11, 14, 15, 19-A and 19-B for further details.

¼ TON, 4 X 4 TRUCKS, LENGTHWISE, INCLINED, SINGLE OR DOUBLE ROWS—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2 ea. rear wheel, all units and 2 ea. front wheel of first unit in ea. row.	Blocks, pattern 25. Locate 53 degree portion of block against front and rear of front wheels of first unit in each row, against front and rear of outside rear wheels and against rear of inside rear wheels of all units. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire to floor with two 40-D nails. Blocks on top of Items "C", pattern 41, to be nailed in same manner to Items "C". Substitute, if desired, blocks, patterns 17 or 18, at each location.
C	4	Front wheel supports, pattern 41. Locate under front wheels of first unit in each row. Secure to floor with three 30-D nails in each end and toe-nail bottom pieces to floor with two 30-D nails on each side. Substitute, if desired, supports, pattern 42. Secure each to floor with six 30-D nails.
D	4	2 in. x 4 in., long enough to extend to outside face of adjacent Items "C", pattern 41. Not required when Item "C", pattern 42, is used.
E	As required.	Each to consist of two pieces of 2 in. x 4 in., long enough to extend to outside face of Items "C", pattern 42. Locate in front and rear of front wheels of first unit, or units, in each row. Secure lower piece to Items "C" with two 30-D nails at each location and top piece to one below with three 30-D nails near each end. Not required when Items "C", pattern 41, are used.
F	2 ea. unit.	Blocks, pattern 43. Locate one on seat box of all units except rear unit in each row.
G	1 ea. inside rear wheel.	Each to consist of two pieces of 2 in. x 4 in. x 18 in. Locate against inside face of rear wheel. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner. Not required when frame, Item "J", is used.
H	1 ea. unit.	Fill space between floor and rear of each unit with 2 in. x 8 in. x 12 in. pieces. Secure pieces to each other with three 10-D nails in each and toe-nail to floor with four 30-D nails.
J	1 ea. unit.	Frame, pattern 44. Locate on floor, under rear wheels. Secure each horizontal piece to floor with sixteen 30-D nails. Use optional on cars 9 ft. 4 in. wide or over.
K	1 ea. unit.	2 in. x 4 in. x 18 in. Secure to floor, lengthwise of car, with four 30-D nails in each. Not required when Items "L" are attached to stake pockets.
L	1 ea. unit.	8 strands, No. 8 ga. black annealed wire. Pass over top of and around frame tie and through stake pockets, or underneath and around Items "K".
M	1 ea. side by side unit.	4 strands, No. 8 ga. black annealed wire. Pass through bumpers of adjacent units.
N	2 ea. end unit.	6 strands, No. 8 ga. black annealed wire. Pass around front and rear bumpers and underneath and around Items "O".
O	2 ea. end unit.	2 in. x 4 in. x 18 in. Secure each to floor lengthwise of car, on top of Items "N", with four 30-D nails.

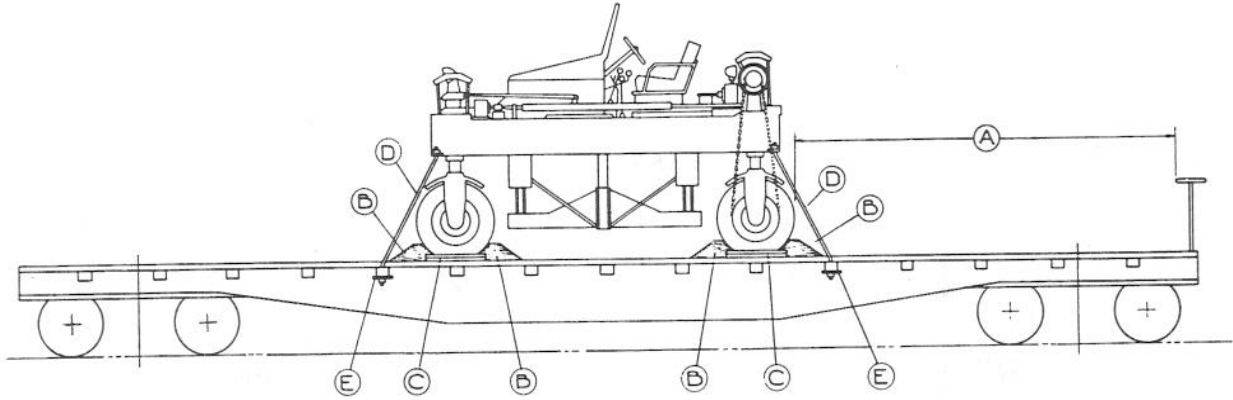
Load should be started at brake shaft end of car.

Units in both rows may face in same direction when width of car will permit, or when Items "J" are used.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 11, 14, 15, 19-A and 19-B for further details.

STRADDLE TRUCKS—FLAT OR GONDOLA CARS



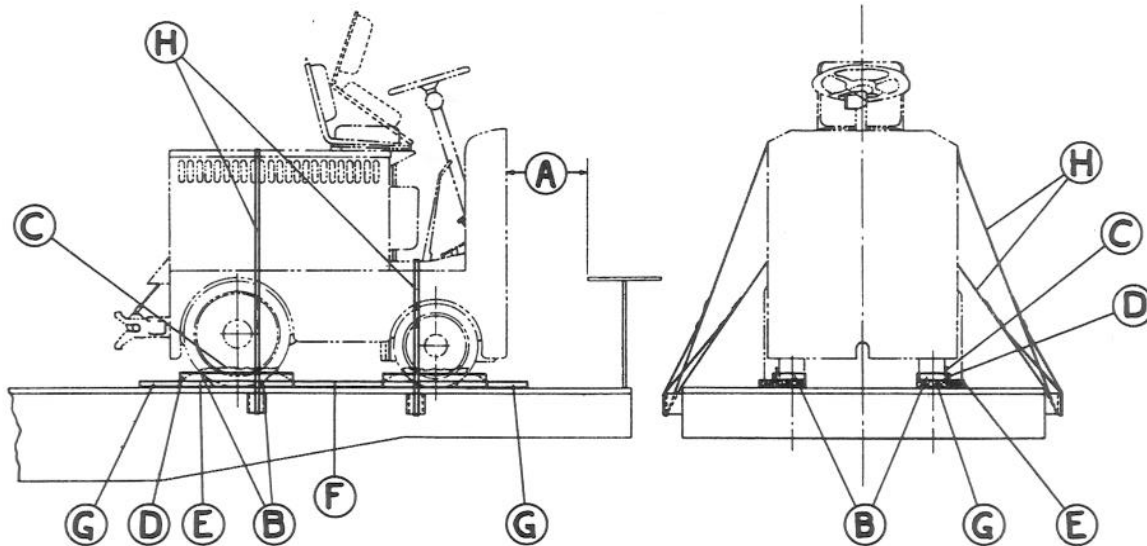
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8 per unit.	Blocks, pattern 16. Locate 45 degree portion of block against front and rear of each wheels. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire to floor with two 40-D nails. Substitute, if desired, at each location, blocks, pattern 17 or 18.
C	4 per unit.	Each to consist of two pieces of 2 in. x 4 in. x 30 in. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
D	4 per unit.	$\frac{3}{8}$ in. dia. rods. Attach one to frame at each corner of unit and pass through stake pocket and Item "E", or through floor. Substitute, if desired, at each location $\frac{5}{8}$ in. x 6 x 7 steel cable, doubled.
E	As required.	$\frac{1}{2}$ in. x 4 in. x 10 in. plates.

Units must have elevators placed in fully lowered position.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 11, 14, 15, 19-A and 19-B for further details.

WAREHOUSE TRACTORS, 15,000 LBS. AND UNDER—FLAT OR GONDOLA CARS



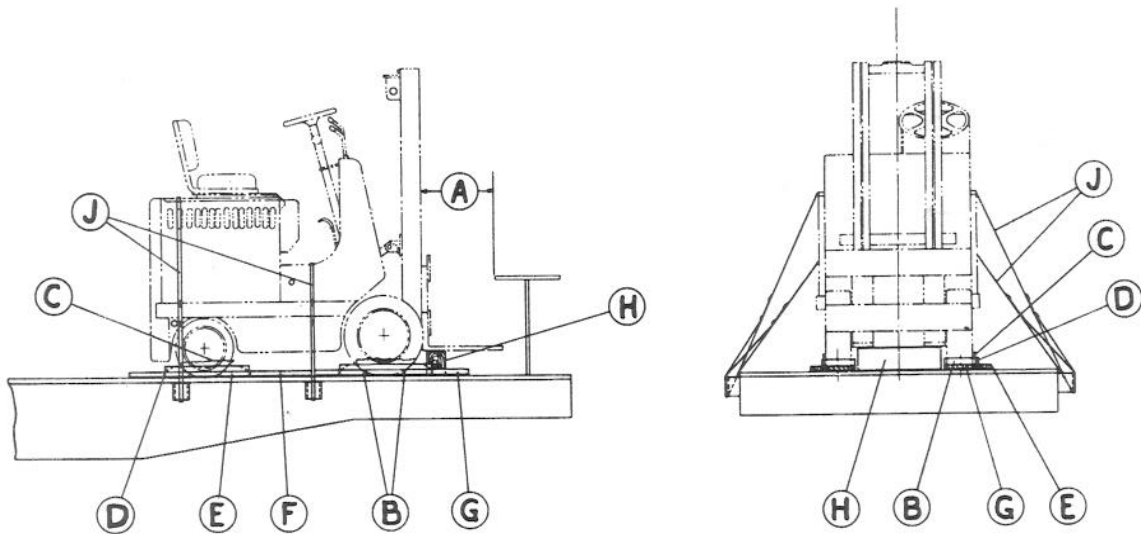
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8 per unit.	Blocks, pattern 82. Locate 45 degree portion of block against front and rear of wheels. Secure each to floor with three 40-D nails.
C	As required.	Suitable material, such as waterproof paper, burlap, etc. Locate between Items "D" and tires.
D	4 per unit.	1 in. x 4 in., length to suit. Locate against Items "B", as shown, and secure to each Item "B" with two 20-D nails.
E	4 per unit.	2 in. x 4 in., length to suit. Locate against Items "D", as shown, and secure each to floor with five 30-D nails.
F	2 per unit.	2 in. thick, width and length to suit. Locate, as shown, between inside Items "B" and ends of Items "D". Secure each to floor with four 30-D nails.
G	4 per unit.	2 in. thick, 12 in. in length, width to suit. Locate, as shown, against outside Items "B" and ends of Items "D", and secure each to floor with four 30-D nails.
H	2 per unit.	1¼ in. x .050 in., high tension bands. Locate, as shown, suitably spaced over top of unit, and secure to opposite stake pockets. Where two units are loaded side by side, pass Items "H" over top of both units and secure to opposite stake pockets. On units loaded in gondola cars attach Items "H" to floor with anchor plates, pattern 84, each secured with eight 20-D cement-coated nails.

On units equipped with a single rear wheel, and, or where wheel blocking, Items "B", cannot be used, adequate blocking must be applied at both ends and sides of unit.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 11, 14, 15, 19-A and 19-B for further details.

FORK LIFT TRUCKS—FLAT OR GONDOLA CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8 per unit.	Blocks, pattern 82, for units weighing under 15,000 lbs.; and blocks, pattern 16, chamfered at rear for application of Items "F" and "G", for units 15,000 lbs. and over. Locate 45 degree portion of block against front and rear of wheels. Secure each to floor with three 40-D nails.
C	As required.	Suitable material, such as waterproof paper, burlap, etc. Locate between Items "D" and tires.
D	4 per unit.	1 in. x 4 in., length to suit. Locate against Items "B", as shown, and secure to each Item "B" with two 20-D nails.
E	4 per unit.	2 in. x 4 in., length to suit. Locate against Items "D", as shown, and secure each to floor with five 30-D nails.
F	2 per unit.	2 in. thick, width and length to suit. Locate, as shown, between inside Items "B" and ends of Items "D". Secure each to floor with four 30-D nails.
G	4 per unit.	2 in. thick, 15 in. in length, width to suit. Locate, as shown, against outside Items "B" and ends of Items "D", and secure each to floor with four 30-D nails.
H	1 ea. unit.	Thickness, width and length to suit. Locate under lifting fork at front and toe-nail to floor with four 40-D nails.
J	2 per unit.	1¼ in. x .050 in., high tension bands. Locate, as shown, suitably spaced over top of unit and secure to opposite stake pockets. Where two units are loaded side by side, pass Items "J" over top of both units and secure to opposite stake pockets. On units loaded in gondola cars, attach Items "J" to floor with anchor plates, pattern 84, each secured with eight 20-D cement-coated nails.

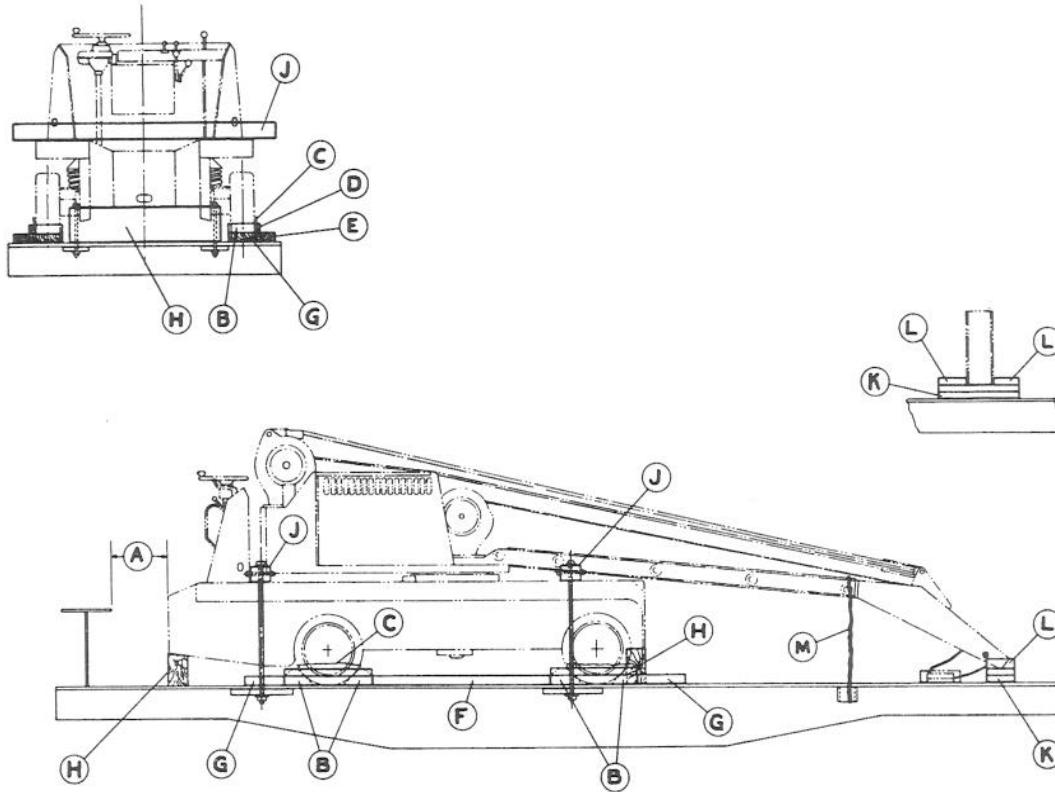
On units equipped with a single rear wheel, and, or where wheel blocking, Items "B", cannot be used, adequate blocking must be applied at both ends and sides of unit.

Hand brakes must be set and levers wired or blocked.

Lifting forks must be placed and secured in lowered position.

See General Rules 4, 5, 9, 11, 14, 15, 19-A and 19-B for further details.

TRUCK MOUNTED CRANE, 15,000 LBS. AND UNDER—FLAT OR GONDOLA CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8 per unit.	Blocks, pattern 82. Locate 45 degree portion of block against front and rear of wheels. Secure each to floor with three 40-D nails.
C	As required.	Suitable material, such as waterproof paper, burlap, etc. Locate between Items "D" and tires.
D	4 per unit.	1 in. x 4 in., length to suit. Locate against Items "B", as shown, and secure to each Item "B" with two 20-D nails.
E	4 per unit.	2 in. x 4 in., length to suit. Locate against Items "D", as shown, and secure each to floor with five 30-D nails.
F	2 per unit.	2 in. thick, width and length to suit. Locate, as shown, between inside Items "B" and ends of Items "D", and secure each to floor with five 30-D nails.
G	4 ea. unit.	2 in. thick, 15 in. in length, width to suit. Locate, as shown, against outside Items "B" and ends of Items "D", and secure each to floor with four 30-D nails.
H	2 per unit.	6 in. wide, height sufficient to fill space between floor and frame of unit, length to suit. Locate, as shown, under frame of unit at each end, and secure each to floor with two $\frac{5}{8}$ in. dia. bolts, or toe-nail with 40-D nails.
J	2 per unit.	4 in. x 6 in., length to suit. Use one bolt $\frac{1}{2}$ in. dia. at each end to prevent splitting. Locate, as shown, over frame of unit. Secure each with two $\frac{3}{4}$ in. dia. rods passed through Item "J", floor and 4 in. x 4 in. x 18 in. cleat or $\frac{1}{2}$ in. x 4 in. x 18 in. plate underneath floor, or through stake pockets.
K	1 ea. unit.	Each to consist of two pieces of 2 in. x 8 in., length to suit. Locate, as shown, under boom of crane. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
L	2 per unit.	2 in. x 8 in., length to suit. Locate against each side of boom on top of Item "K", as shown. Secure each to Item "K" with three 20-D nails.
M	1 ea. unit.	Six strands, No. 8 gage wire. Locate around boom, as shown, and secure to opposite stake pockets, or to 2 in. x 4 in. x 18 in. cleats secured to floor with five 30-D nails.

In event Item "J" does not fill space between counterweight of rotating portion and frame of unit, suitable filler must be applied and secured to prevent displacement.

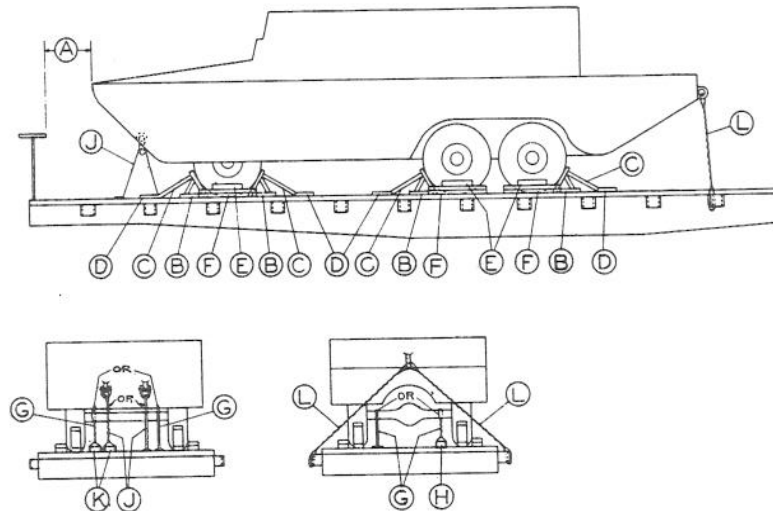
Lifting sheave and hook must be secured to prevent displacement.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 11, 14, 15, 19, 19-A and 19-B for further details.

Sec. 6—Fig. 56

2½ TON, 6 X 6 AMPHIBIAN TRUCKS— FLAT OR GONDOLA CARS WITH WOODEN FLOORS

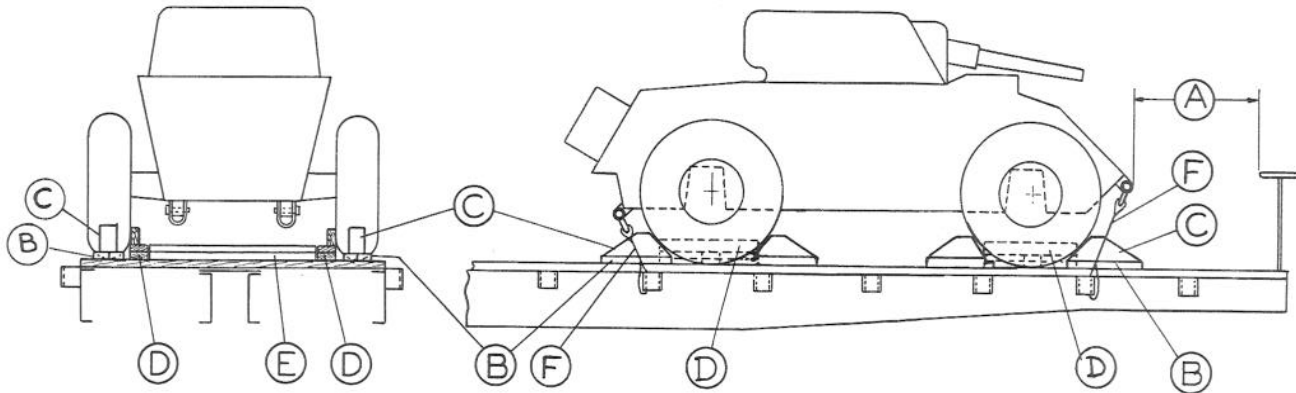


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8	Blocks, pattern 24. Locate in front and rear of front wheels, in front of intermediate wheels and in back of rear wheels, and secure to floor with five 30-D nails in each.
C	8	2 in. x 4 in. x 20 in. Secure upper end to Item "B" and lower end to floor with two 30-D nails at each location.
D	8	2 in. x 4 in. x 12 in. Locate against bottom of Item "C" and secure each to floor with three 30-D nails.
E	6	Suitable material, such as waterproof paper, burlap, etc. Locate bottom portion under Items "F", top portion to extend 2 in. above Items "F".
F	6	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
G	2 ea. axle.	1 in. No. 14 B. W. gage hot rolled steel, with anchor plates, pattern 19. Locate over axle, springs, or spring shackles and secure each plate to floor with eight 20-D cement coated nails. Substitute, if desired, at each location, 4 strands, No. 8 gage black annealed wire. Pass over axle, springs, spring shackles, underneath and around Item "H" and twist taut after Item "H" has been nailed in place.
H	1 ea. Item "G".	2 in. x 4 in. x 18 in. Secure to floor, lengthwise of car, with four 30-D nails. Not required when steel straps are used, pattern 19.
J	2	1 in. No. 14 B. W. gage hot rolled steel, with anchor plates, pattern 19. Pass through towing clevises and secure each plate to floor with eight 20-D cement coated nails. Substitute, if desired, at each location, four strands, No. 8 gage black annealed wire. Pass through towing clevises, underneath and around Item "K" and twist taut after Item "K" has been nailed in place. Not required when steel straps are used, pattern 19.
K	1 ea. Item "J".	2 in. x 4 in. x 18 in. Secure to floor, lengthwise of car, with four 30-D nails. Not required when steel straps are used, pattern 19.
L	1	4 strands, No. 8 gage black annealed wire. Loop around towing hook and through opposite stake pockets. Not required for units loaded in gondola cars.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 11, 14, 15, 19-A and 19-B for further details.

ARMORED CARS, FOUR WHEEL—FLAT CARS



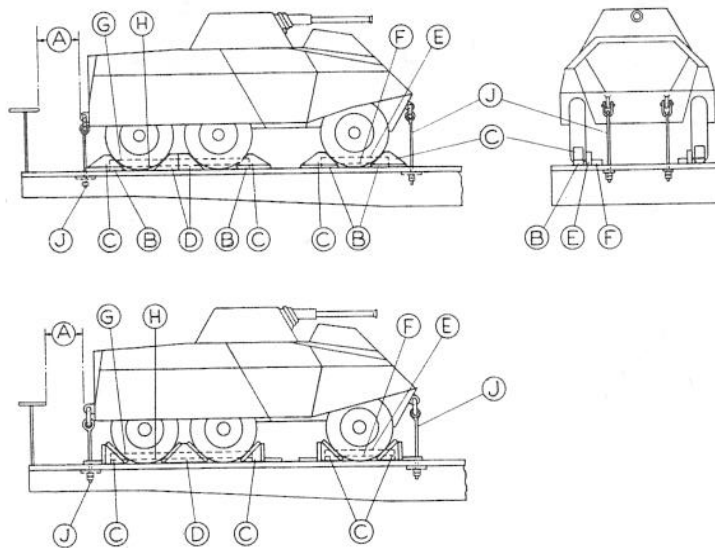
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8	Each to consist of two pieces of 2 in. x 4 in. x 24 in. Secure both pieces, side by side, to the base of Items "C" with four 40-D nails in each.
C	8	Blocks, pattern 16. Locate 45 degree portion of blocks against front and rear of wheels. Secure heel of block to Items "B" and floor with three 60-D nails and toe-nail that portion under tire to Item "B" and floor with two 60-D nails.
D	4	Each to consist of three pieces of 2 in. x 4 in. x 36 in. Secure one wide surface of the intermediate piece to one of the edges of the top piece with five 20-D nails. Secure the bottom piece to the other wide surface of the intermediate piece with five 20-D nails. One side of the three pieces to be flush. Locate against inside of each tire and secure to floor with four 60-D nails.
E	2	Each to consist of two pieces of 2 in. x 4 in., length equal to distance between Items "D". Secure lower piece to floor with four 40-D nails and top piece to one below in like manner.
F	4	8 strands, No. 8 ga. black annealed wire. Pass through towing rings at each corner and through stake pocket.

Hand brakes must be set and levers wired or blocked.

.See General Rules 4, 5, 9, 11, 14, 15, 19-A and 19-B for further details.

Sec. 6—Fig. 58

ARMORED CARS, SIX-WHEEL—FLAT OR GONDOLA CARS WITH WOODEN FLOORS



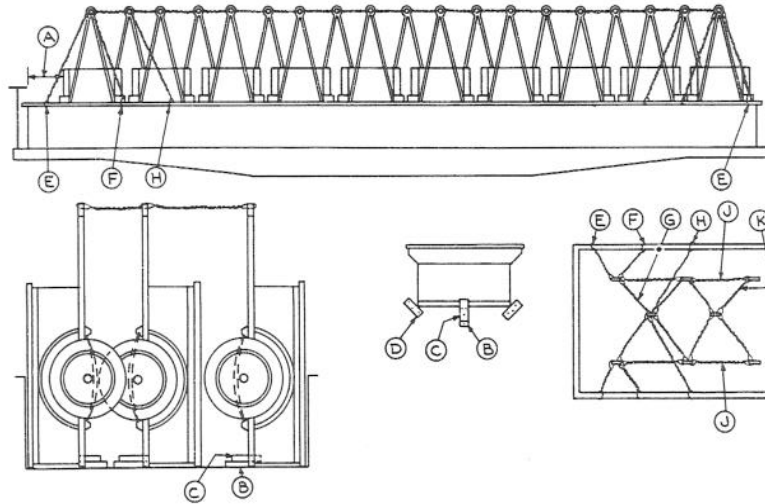
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8	Each to consist of two pieces of 2 in. x 4 in. x 24 in. Secure both pieces, side by side, to the base of each Item "C" with four 40-D nails in each. Not required when Items "C", pattern 26 are used.
C	8	Blocks, pattern 16. Locate 45 degree portion of blocks against front and rear of front wheels, in front of intermediate wheels and in back of rear wheels. Secure heel of block to Item "B" and floor with five 60-D nails and toe-nail that portion under tire to floor with two 60-D nails. Substitute, if desired, at each location, block, pattern 26.
D	2	Each to consist of two blocks, pattern 27. Locate 45 degree portion of blocks against rear of intermediate wheels and in front of rear wheels. Toe-nail each block to floor with three 40-D nails. Substitute, if desired, at each location, blocks, pattern 28, toe-nailed to floor with six 30-D nails.
E	2	2 in. x 6 in. x 48 in. Secure face of each Item "E" to edge of Item "F" with six 20-D nails.
F	2	2 in. x 4 in. x 48 in. Locate face of Item "E" against inside of front wheels and secure each Item "F" to floor with six 30-D nails.
G	4	2 in. x 6 in. x 48 in. Secure face of each Item "G" to edge of Item "H" with six 20-D nails. One piece 96 in. in length may be substituted for each two 48 in. pieces.
H	4	2 in. x 4 in. x 48 in. Locate face of each Item "G" against inside face of intermediate and rear wheels and secure each Item "H" to floor with six 30-D nails. One piece 96 in. in length, secured with twelve 30-D nails may be substituted for each two 48 in. pieces.
J	4	$\frac{3}{4}$ in. dia. rods, pattern 29. Attach to each towing clevis and pass through floor. For flat car loading, substitute, if desired, at each location, 12 strands, No. 8 gage black annealed wire. Attach to each towing clevis and to stake pocket.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 11, 14, 15, 19-A and 19-B for further details.

Sec. 6—Fig. 59

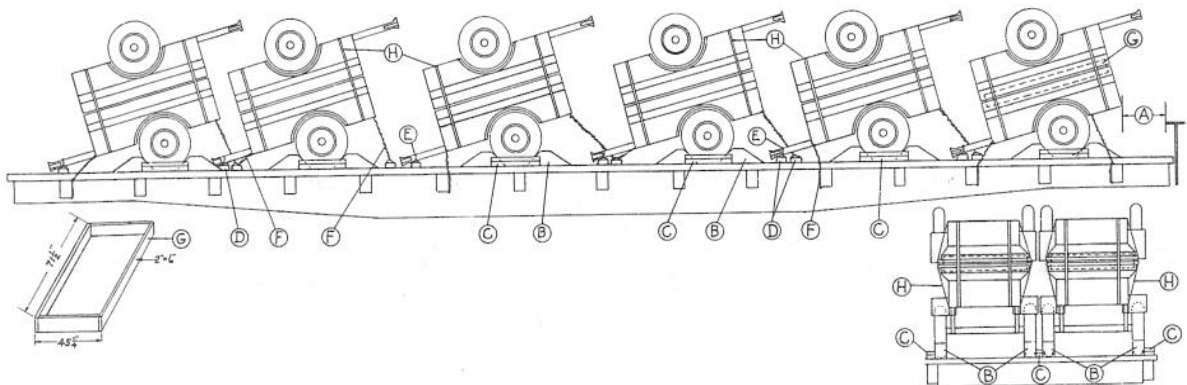
¼ TON TRAILERS—GONDOLA CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	1 ea. unit.	2 in. x 4 in. x 12 in. Locate on floor, with one end against trailer. Secure to floor with three 20-D nails.
C	1 ea. Item "B".	2 in. x 4 in. x 12 in. Locate on top of Item "B", with one end against bottom of trailer, and secure to Item "B" with three 20-D nails.
D	2 ea. unit.	2 in. x 4 in. x 12 in. Locate on floor, at opposite corners of trailer and secure each to floor with three 20-D nails.
E	1 ea. end unit.	Six strands No. 8 ga. black annealed wire. Pass upper end through lunette and lower end through top chord angle or car side.
F	1 ea. end unit.	Six strands No. 8 ga. black annealed wire. Pass upper end through lunette and lower end through top chord angle or car side.
G	As required.	Six strands No. 8 ga. black annealed wire. Pass through lunette of outside trailer, through lunette of trailer in center row and through lunette of opposite trailer in outside row.
H	As required.	Six strands No. 8 ga. black annealed wire. Attach to lunette of end trailer in center row and to car sides.
J	As required.	Six strands No. 8 ga. black annealed wire. Pass through and around lunettes of adjacent trailers.
K	As required.	Six strands No. 8 ga. black annealed wire. Pass through and around lunettes of outside and center trailers.

See General Rules 4, 5, 9, 11, 14 and 15 for further details.

¼ TON TRAILER, LENGTHWISE SIDE BY SIDE, DOUBLE DECKED—FLAT CARS



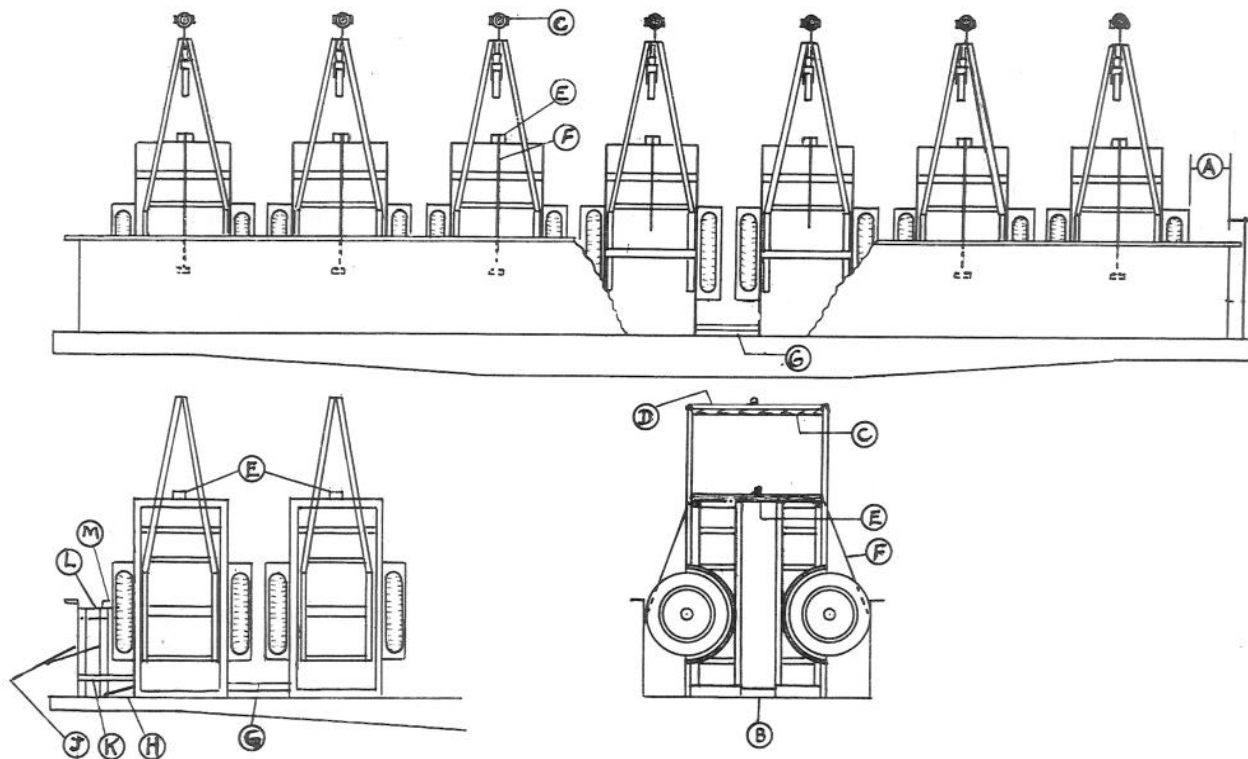
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	4 ea. bottom unit.	Blocks, pattern 16. Locate 45 degree portion of block against front and rear of wheels. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire with two 40-D nails.
C	As required.	Each to consist of two pieces of 2 in. x 4 in. x 24 in. Locate one against tires of outside wheels of units and one between tires of wheels on side by side units. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
D	As required.	2 in. x 4 in. x 24 in. Locate one under tongue and one between units, as shown. Secure each to floor with five 30-D nails.
E	2 ea. bottom unit.	Each to consist of four strands No. 8 gage wire. Attach to tongue of unit on each side, as shown, and around Item "D".
F	4 ea. bottom unit.	Each to consist of four strands No. 8 gage wire. Attach to each corner of unit and through stake pockets, or underneath Items "D".
G	As required.	Frame, built up of two lengthwise and two crosswise 2 in. x 6 in., length and width to fully equal inside dimensions of body of unit. Locate inside of truck bodies between each top and bottom unit.
H	As required.	1¼ in. x .035 in. high tension bands. Locate two crosswise and one lengthwise, or one crosswise and two lengthwise, around bodies of each top and bottom unit.

Items "G" must be of sufficient height to extend at least two inches inside truck body of top unit.

Suitable cushioning material must be used between Items "C" and tires to prevent chafing.

See General Rules 4, 5, 9, 11, 14, 15 and 19-B for further details.

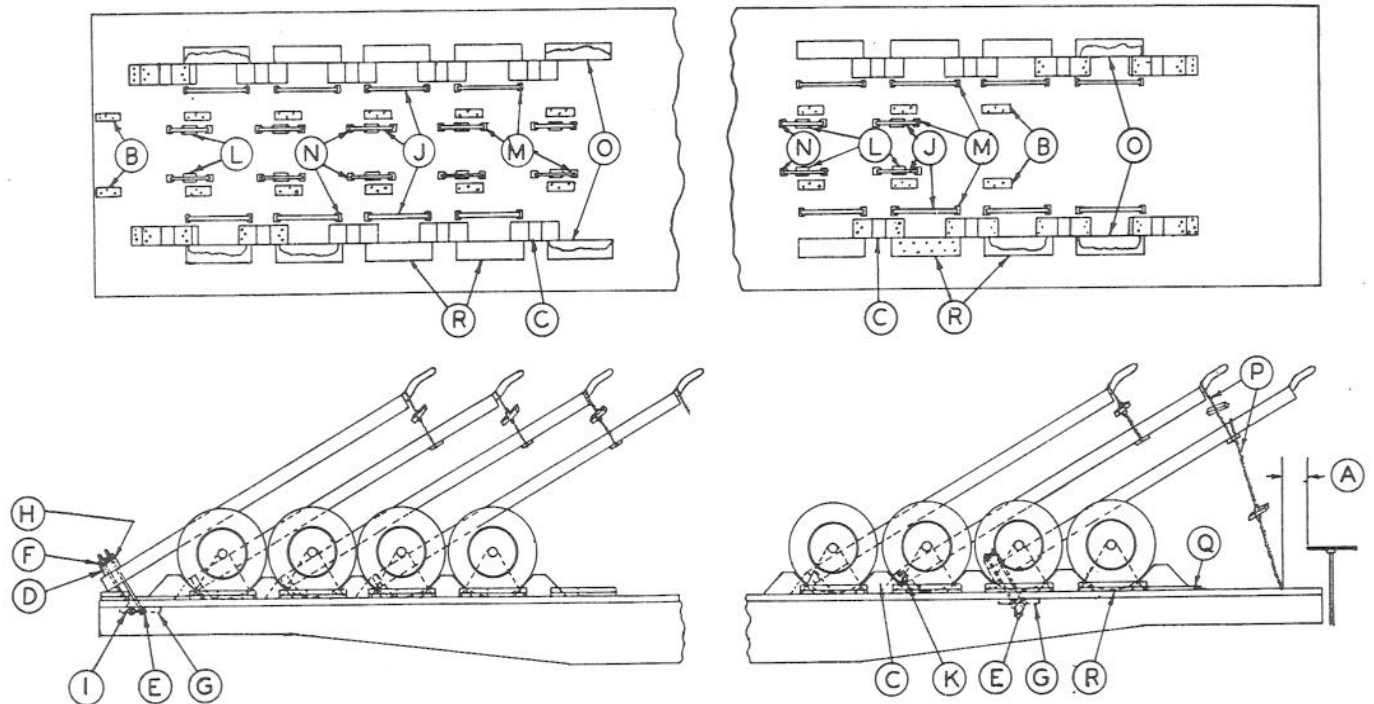
¾ AND 1-TON TRAILERS—GONDOLA CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	1 ea. pr. trailers.	2 in. x 4 in., length to suit. Locate between opposite trailers and secure to floor with three 20-D nails.
C	1 ea. pr. trailers.	Blocks, pattern 45. Insert ends in lunettes of opposite trailers.
D	1 ea. Item "C".	¾ in. x .035 in. high tension band. Pass through and around lunettes of opposite trailers.
E	1 ea. pr. trailers.	Blocks, pattern 46. Locate on top of and across opposite trailers.
F	2 ea. Item "E".	1¼ in. x .035 in. high tension bands. Attach one to each car side and pass each over ends and Items "E".
G	As required.	Each to consist of two pieces of 2 in. x 4 in., length to suit. Locate between trailers and secure lower piece to floor, lengthwise of car, with three 20-D nails, and top piece to one below in like manner.
H	1 ea. end trailer.	Blocks, pattern 33. Locate against side of trailers and secure to floor with three 20-D nails.
J	4 ea. end of car.	2 in. x 4 in., length about equal to height of car side. Locate vertically, on opposite sides of car. Secure lower ends to Items "K" and upper ends to Item "L" with three 20-D nails at each location.
K	2 ea. end of car.	2 in. x 4 in., long enough to extend from trailer to end of car.
L	2 ea. end of car.	2 in. x 4 in., long enough to extend from wheel of trailer to end of car.
M	1 ea. end of car.	1 in. x 4 in., length equal to width of car. Locate on top of and secure to Items "L" with two 20-D nails at each location.

See General Rules 4, 5, 9, 11, 14 and 15 for further details.

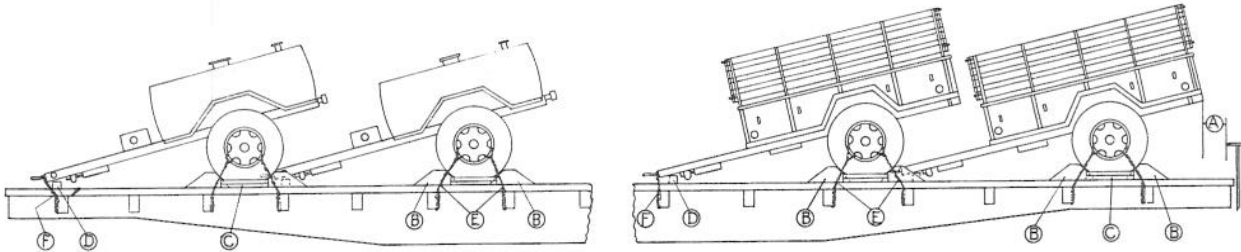
Sec. 6—Fig. 62
TRAILERS, 1½ TON TWO-WHEEL CARGO CHASSIS—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2 ea. unit.	Each to consist of two pieces 2 in. x 4 in. x 12 in. Bottom piece nailed to car floor with three 40-D nails; top piece nailed to bottom piece in like manner. Locate under rear cross frame member.
C	4 for first unit, 2 for ea. additional unit.	Block: 8 in. x 9½ in. x 24 in. Locate front and back of wheels. Toenail with 40-D nails in heel, three nails in each side.
D	1 ea. on first and last units.	Tie down block: 4 in. x 6 in., hardwood, length to suit. Locate across top of frame as shown. Use ½ in. dia. bolt, crosswise, with washers, at each end to prevent splitting.
E	2 ea. end Item "D".	⅜ in. dia. rods. Length to suit. Pass through Item "D" and floor.
F	2 ea. Item "E".	⅜ in. dia. nut, hexagon head.
G	2 ea. for first and last units.	Block: 2 in. x 4 in., length to cover not less than three floor boards.
H	2 ea. for first and last units.	Steel Plate: ¼ in. x 6 in. x length to suit. Each with two holes for Item "E".
I	1 ea. Item "E".	Nom. ⅞ in. dia. washer.
J	2 ea. unit; first and last; 4 ea. intermediate unit.	1¼ in. x .050 high tension band. Locate with item "L" over rear cross member on all intermediate units; without Item "L" over axles of all units.
K	2 ea. intermediate unit.	Block: 2 in. x 4 in. x 12 in. Locate as shown.
L	2 ea. intermediate unit.	Stake pocket protector, radius to suit.
M	4 ea. unit; first and last; 8 ea. intermediate unit.	1¼ in. anchor plates, used with Item "J".
N	4 ea. Item "M".	Anchor plate nails.
O	2 ea. unit.	Burlap; locate under bottom block of Item "R"; to extend two in. above top block of Item "R".
P	2 ea. unit.	Wire, No. 8 gage, black annealed; six single strands, twist wire taut with bolt, pipe or wood, twister to be securely fastened to prevent losing out. Encircle forward portion of first unit and either lading band anchor or stake pocket, also encircle successive units to each other as shown.
Q	2 ea. unit, first and last.	Back up block: 2 in. x 8 in. x 30 in., nailed to car floor with twelve 20-D common nails before adding Item "C".
R	2 ea. unit.	Side block: 2 in. x 8 in. x 30 in. Double; bottom piece nailed to car floor with six 20-D common nails, top piece nailed to bottom piece in like manner. Butt against and center between Items "C".

See General Rules 4, 5, 7, 9, 11, 14, 15 and 19-B for further details.

TRAILERS, 1½ TON CARGO, WATER TANK AND SIMILAR TYPES—FLAT CARS

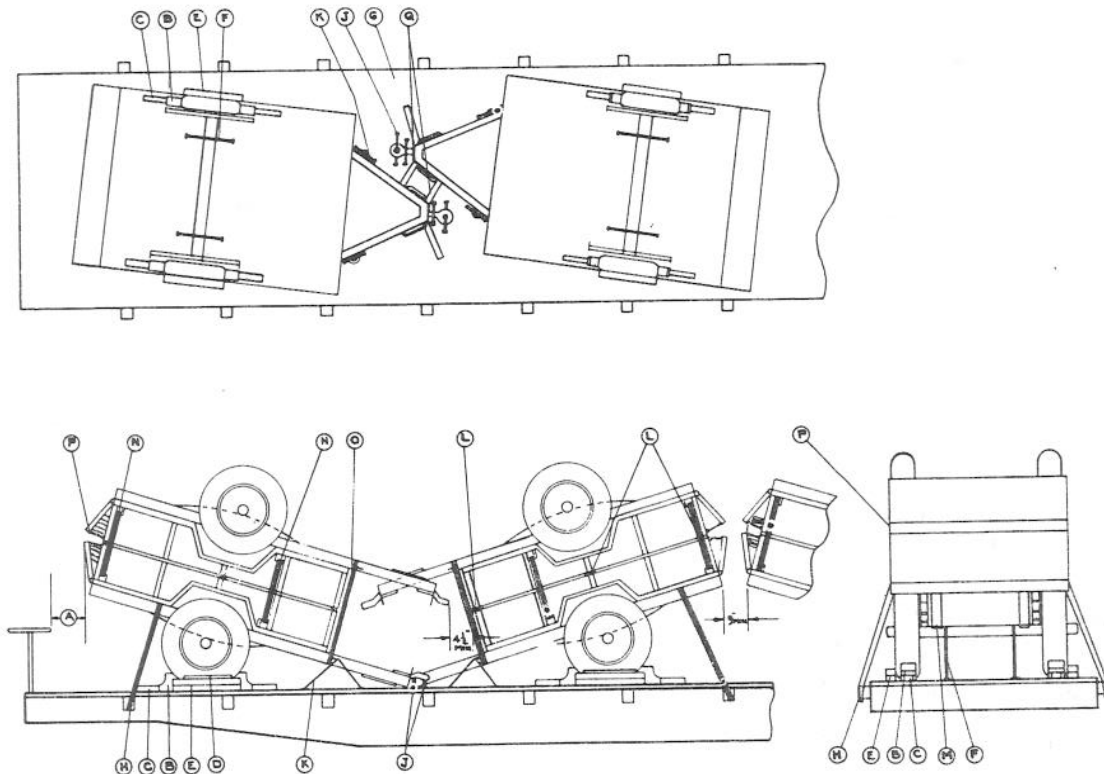


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	4 ea. unit.	Blocks, pattern 16. Locate 45 degree portion of block against front and rear of wheels. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire with two 40-D nails.
C	2 ea. unit.	Each to consist of two pieces of 2 in. x 4 in. x 24 in. Locate against outside of tires and secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
D	1 ea. unit.	4 in. x 4 in. x 18 in. Locate under tow bar of unit, as shown, and toe-nail to floor with four 40-D nails.
E	4 ea. unit.	Each to consist of four strands No. 8 gage wire or one ¾ in. x 6 x 7 steel cable, doubled. Pass through holes in disc wheels and through stake pockets.
F	2 ea. unit.	Each to consist of four strands No. 8 gage wire or one ¾ in. x 6 x 7 steel cable, doubled. Pass through tow bar of unit and through opposite stake pockets.

See General Rules 4, 5, 9, 11, 14, 15 and 19-B for further details.

Sec. 6—Fig. 64

TRAILERS, 1½ TON CARGO, DOUBLE DECKED—FLAT CARS



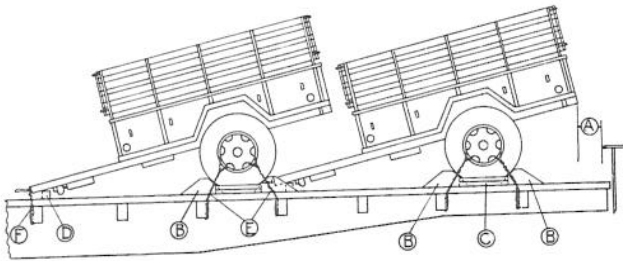
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	4 per unit.	Blocks, pattern 18. Locate against front and rear of wheels and secure each to floor with three 40-D nails. Substitute, if desired, at each location blocks, patterns 16 or 17.
C	4 per unit.	2 in. x 4 in. x 12 in. Locate against block, pattern 18, lengthwise of car, and secure to floor with four 30-D nails. Not required when blocks, patterns 16 or 17 are used.
D	As required.	Suitable material, such as waterproof paper, burlap, etc. Locate bottom portion underneath Items "E", top portion to extend 2 in. above Items "E".
E	2 per unit.	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
F	2 per unit.	1¼ in. x .050 in. high tension bands with anchor plates, pattern 84. Locate over axle at each side of unit and secure each plate to floor with eight 20-D cement-coated nails.
G	1 per unit.	Each to consist of two pieces of 2 in. x 4 in. x 18 in. Locate, as shown, against draw bar, and secure lower piece to floor with three 30-D nails and top piece to one below in like manner.
H	2 per unit.	1¼ in. x .050 in. high tension bands. Attach one at each side to frame of machine and to stake pockets, as shown.
J	2 per unit.	1¼ in. x .050 in. high tension bands with anchor plates, pattern 84. Locate one over lunette and one through lunette eye, as shown, and secure each plate to floor with eight 20-D cement-coated nails.
K	2 per unit.	1¼ in. x .050 in. high tension bands with anchor plates, pattern 84. Locate, as shown, through front lifting lug on each side, and secure each plate to floor with eight 20-D cement-coated nails.
L	6 per unit.	1¾ in. x 1½ in. x 7¾ in., hardwood. Locate in stake pockets of upper and lower units, as shown, and secure to prevent displacement.
M	2 per unit.	4 in. x 4 in. x 8¾ in., contoured at bottom to fit over axle. Locate, as shown, between body of lower unit and axle at each side, before top unit is loaded, and secure in position with No. 8 gage wire.
N	4 per unit.	1¼ in. x .050 in. high tension bands. Locate, as shown, through outside stake pockets of upper and lower units.
O	2 per unit.	1¼ in. x .050 in. high tension bands. Locate one on each side, as shown, and pass through lifting lugs of units.
P	As required.	Two strands, No. 8 gage wire. Attach one at each side of tail gate and to body of unit.
Q	1 per unit.	Each to consist of two pieces of 2 in. x 4 in., length sufficient to provide 8 in. clearance between tow bars of units. Locate, as shown, and secure lower piece to floor with three 30-D nails and top piece to one below in like manner.

See General Rules 4, 5, 9, 11, 14, 15 and 19-B for further details.

-Fig. 63

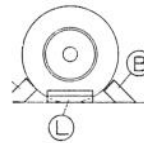
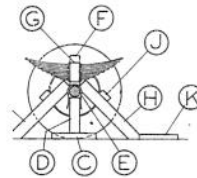
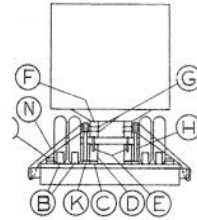
ANK AND SIMILAR TYPES—FLAT CARS

TAP



Description

3. 2.
 degree portion of block against front and rear of wheels. Secure
 three 40-D nails and toe-nail that portion under tire with two
 of 2 in. x 4 in. x 24 in. Locate against outside of tires and secure
 or 30-D nails and top piece to one below in like manner.
 er tow bar of unit, as shown, and toe-nail to floor with four 40-D
 is No. 8 gage wire or one $\frac{3}{8}$ in. x 6 x 7 steel cable, doubled. Pass
 els and through stake pockets.
 ds No. 8 gage wire or one $\frac{3}{8}$ in. x 6 x 7 steel cable, doubled. Pass
 id through opposite stake pockets.
 ner details.



rear of each wheel. Secure heel of block
 face to floor with one 60-D nail.

Item "D" with three 30-D nails and to
 r axle.

p of axle and secure each end to side of
 le and under sill of unit.

spring housing and secure each to floor

"", about $\frac{1}{3}$ the distance from top and

and secure each to floor with six 20-D

locate against outside of wheel. Secure
 to one below in like manner.

vent displacement.

shackle and stake pocket on each side.

SEMI-TRAILERS—FLAT CARS

Item	No. of Pcs.	Description
O	4	Protection angles, 20 gage, 4 in. wide applied so as to prevent displacement.
P	2	2 in. x .050 in. high tension bands. Secure to frame and stake pocket at each side. Substitute, if desired, $\frac{1}{2}$ in. steel cable, doubled.
Q	3	2 in. x 6 in. x 24 in. longitudinal floor blocks. Secure each to floor with eight 20-D nails.
R	3	6 in. x 6 in. x 32 in. vertical body blocks. Center on and toe-nail to each Item "Q" with eight 30-D nails.
S	1	6 in. x 6 in. x 8 ft. horizontal block. Locate at least 6 in. from king pin and on top of Items "R". Toe-nail to each Item "R" with four 30-D nails.
T	2	1 in. x 6 in. x 30 in. horizontal block filler. Locate on top of and secure each to Item "S" with two 8-D nails.
U	3	2 in. x 4 in. x $42\frac{1}{2}$ in. diagonal braces. Secure top portion of each to face of Items "R" with three 30-D nails and toe-nail bottom portion to floor with two 30-D nails.
V	2	2 in. x 4 in. x $42\frac{1}{2}$ in. diagonal braces. Secure top portion of each to inside face of outer Items "R" with three 30-D nails and toe-nail bottom portion to floor with two 30-D nails.
W	2	4 in. x 4 in. x 53 in. diagonal braces. Toe-nail top portion of each to face of Item "S" with four 30-D nails and bottom portion to floor with two 30-D nails.
X	2	2 in. x 6 in. x 62 in. Locate top portion against frame and secure each to face of Item "S" and center Item "R" with three 30-D nails at each location.
Y	2	4 in. x 4 in. x 53 in. diagonal brace. Locate top portion against body of machine and secure bottom portion of each to floor with three 30-D nails and toe-nail to Item "W" with two 30-D nails.
Z	1	2 in. x 4 in. x 33 in. cross tie. Locate on top of Items "Y" about $\frac{1}{3}$ the distance from top and secure each end to Items "Y" with two 30-D nails.
AA	2	4 in. x 4 in. x 31 in. block for application of Items "DD".
BB	As required. 2 locations.	No. 8 gage wire. Encircle "AA" and attach to unit.
CC	2	Protection angles, 20 gage, 4 in. wide, applied so as to prevent displacement.
DD	2	2 in. x .050 high tension bands. Secure to Items "AA" and stake pocket at each side. Substitute, if desired, $\frac{1}{2}$ in. steel cable, doubled.
EE	9	2 in. x 4 in. x 16 in. Locate one against each Items "U", "V", "W" and "Y", and secure to floor with six 20-D nails.

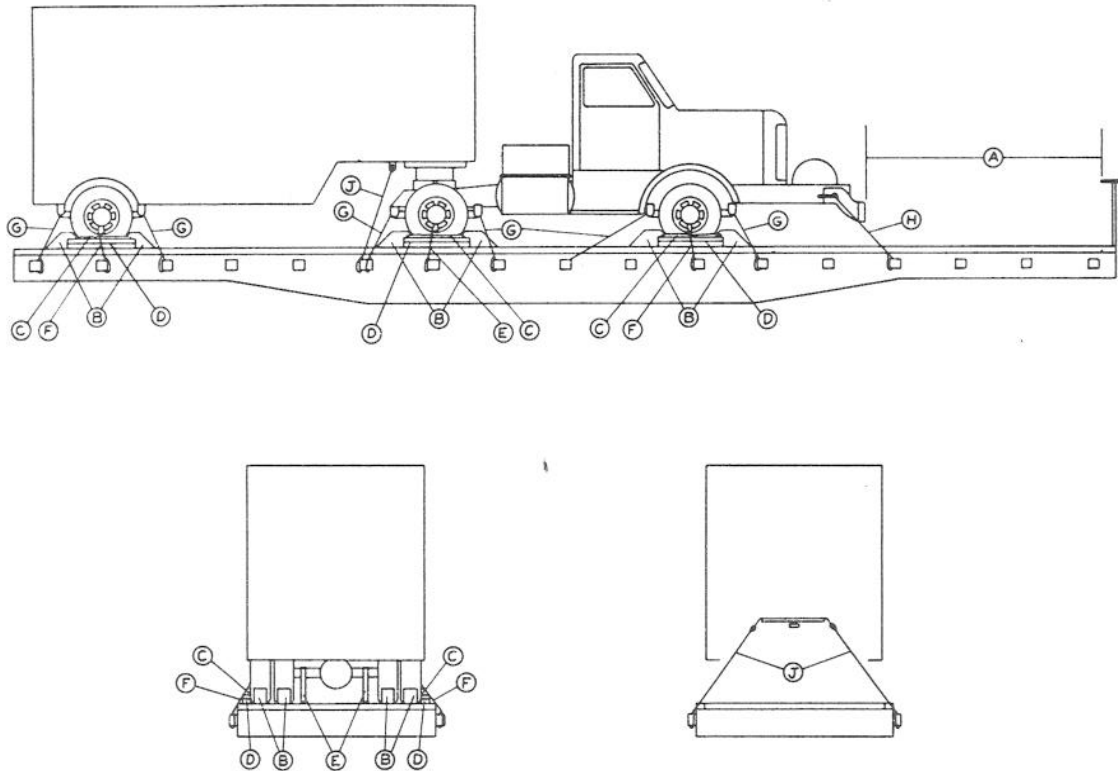
Items "C", "D", "H", "J" and "K" not required when built-up blocking, 6 in. wide, 18 in. long, height sufficient to fill space between axle and floor, is used under each side of unit secured to floor with two $\frac{5}{8}$ in. dia. bolts.

Items "AA", "BB" and "CC" not required when Items "DD" are attached to frame of unit.

Units must be jacked for application of Items "B", "D" and "F".

See General Rules 4, 5, 7, 9, 11, 14, 15, 19-A and 19-B for further details.

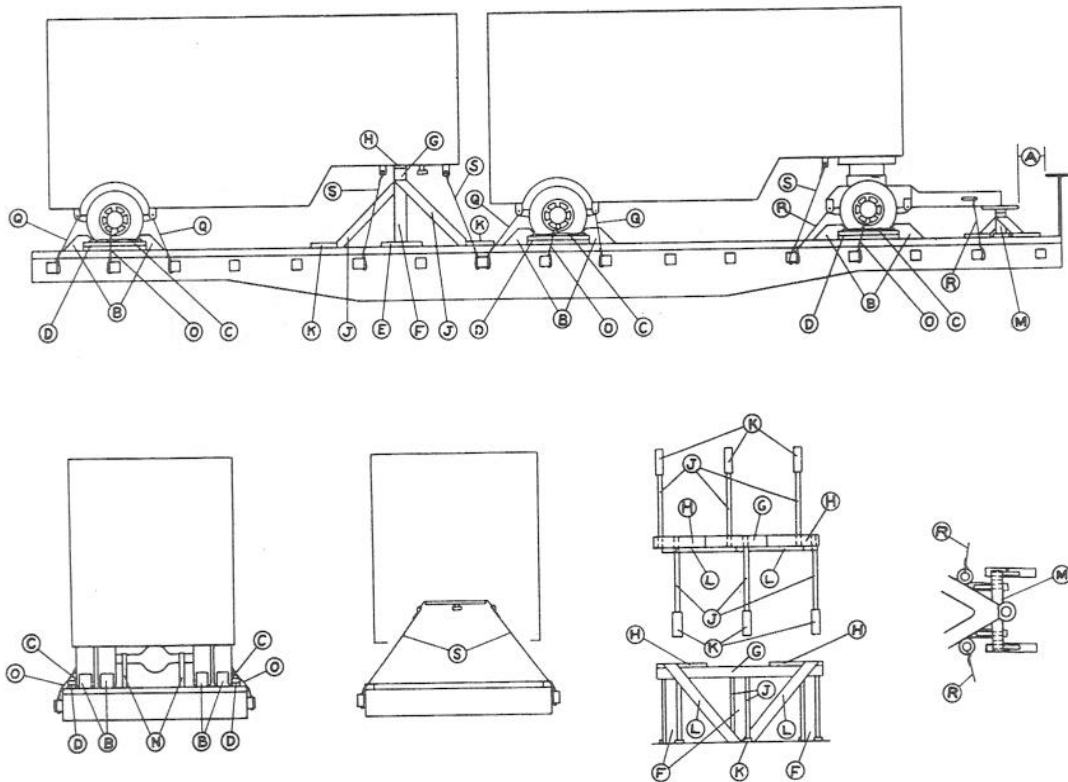
MOBILE, LIGHT WEIGHT SEMI-TRAILER, WITH TRACTOR—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2 ea. wheel.	Blocks, pattern 16. Locate 45 degree portion of block against front and rear of wheels. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire to floor with two 40-D nails before Items "C" and "D" are applied.
C	1 ea. outside wheel.	Suitable material, such as waterproof paper, burlap, etc. against tire before applying Item "D".
D	1 ea. outside wheel.	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Locate against outside of wheels, as shown, and secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
E	2 ea. axle.	1 in. No. 14 BW gage hot rolled steel, with anchor plates, pattern 19. Locate over axle, springs, or spring shackles and secure each plate to floor with eight 20-D cement coated nails.
F	1 ea. outside wheel.	Four strands No. 8 gage wire. Pass through spokes, or holes in disc wheels and through stake pockets. Tighten only enough to remove slack.
G	4 ea. pair wheels.	Eight strands No. 8 gage wire. Attach to front and rear spring shackles and stake pockets on each side of units.
H	2 ea. unit.	Eight strands No. 8 gage wire. Locate, as shown, attached to pulling hook on each side of frame near front of tractor and to stake pocket.
J	2 ea. unit.	Eight strands No. 8 gage wire. Secure to formed $\frac{1}{2}$ in. bar with eye at ends passed over top of fifth wheel plate, and to stake pockets.

See General Rules 4, 5, 7, 9, 11, 14, 15, 19-A and 19-B for further details.

Sec. 6—Fig. 67
MOBILE, LIGHT WEIGHT SEMI-TRAILERS, WITH OR WITHOUT DOLLY—FLAT CARS

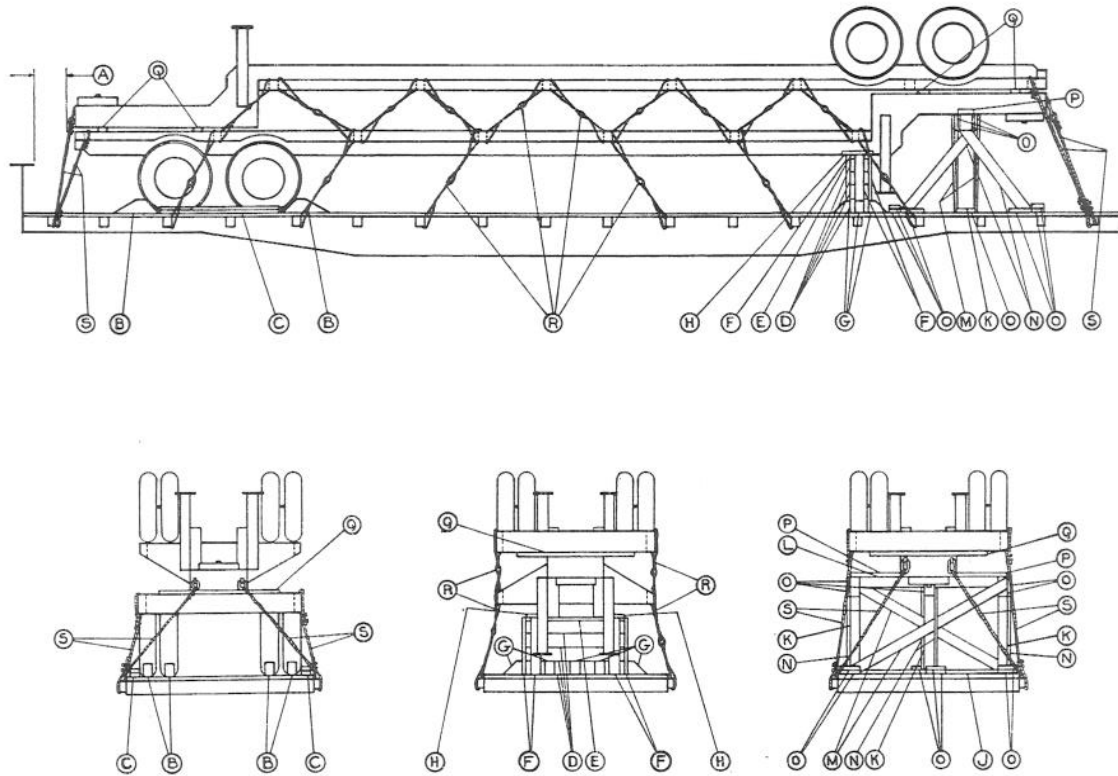


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2 ea. wheel.	Blocks, pattern 16. Locate 45 degree portion of block against front and rear of wheels. Secure heel of block to floor with three 40-D nails, and toe-nail that portion under tire to floor with two 40-D nails before Items "C" and "D" are applied.
C	1 ea. outside wheel.	Suitable material, such as waterproof paper, burlap, etc. against tire before applying Item "D".
D	1 ea. outside wheel.	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Locate against outside of wheels, as shown, and secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
E	3 ea. unit.	2 in. x 6 in. x 24 in. longitudinal floor blocks. Secure each to floor with eight 20-D nails.
F	3 ea. unit.	6 in. x 6 in., length to suit. Center on and toe-nail to each Item "E" with eight 30-D nails.
G	1 ea. unit.	6 in. x 6 in. x 8 ft. Locate at least 6 in. from king pin of unit and on top of Items "F". Toe-nail to each Item "F" with four 30-D nails.
H	2 ea. unit.	1 in. x 6 in., length to suit. Locate on top of Item "G" against center plate of unit on each side and secure each to Item "G" with three 10-D nails.
J	6 ea. unit.	2 in. x 4 in., length and cut to suit. Locate, as shown, and secure to top portion of Item "F" with three 30-D nails, and bottom portion to floor with two 30-D nails.
K	1 ea. Item "J".	2 in. x 4 in. x 16 in. Locate, as shown, lengthwise against Item "J" and secure to floor with five 20-D nails.
L	2 ea. unit.	2 in. x 6 in., length to suit. Locate, as shown, and secure top portion to Item "G" and outside Item "F" with four 30-D nails, and bottom portion to center Item "F" with four 30-D nails.
M	1 ea. unit.	Dolly lunette support built up of two double 2 in. x 6 in. uprights and crosspieces, 2 in. x 6 in. diagonal braces, and 2 in. x 4 in. floor cleats. Locate, as shown, suitably spaced under lunette of dolly.
N	2 ea. axle.	1 in. No. 14 BW gage hot rolled steel, with anchor plates, pattern 19. Locate over axle springs, or spring shackles and secure each plate to floor with eight 20-D cement coated nails.
O	1 ea. outside rear wheel.	Four strands No. 8 gage wire. Pass through spokes, or holes in disc wheels and through stake pockets. Tighten only enough to remove slack.
P	As required, 1 ea. outside dolly wheel.	Four strands No. 8 gage wire. Pass through spokes, or holes in disc wheels and through stake pockets. Tighten only enough to remove slack.
Q	4 ea. unit.	Eight strands No. 8 gage wire. Attach to front and rear spring shackles and stake pockets on each side of unit.
R	As required, 4 ea. dolly unit.	Eight strands No. 8 gage wire. Attach to rear spring shackle and stake pocket, and to safety chain eye or frame and stake pocket, on each side of unit.
S	4 ea. unit without dolly; 2 ea. unit with dolly.	Eight strands No. 8 gage wire. Secure to formed 1/2 in. bars with eyes at ends passed over top of fifth wheel plates, and to stake pockets.

Items "E", "F", "G", "H", "J", "K" and "L" not required when a dolly is applied under front of unit.
Item "M" required only on units equipped with dolly.
See General Rules 4, 5, 7, 9, 11, 14, 15 and 19-B for further details.

Sec. 6—Fig. 68

SEMI-TRAILERS, FLATBED WITH RIGID GOOSE NECK AND DUAL WHEELS—DOUBLE DECKED—FLAT CARS

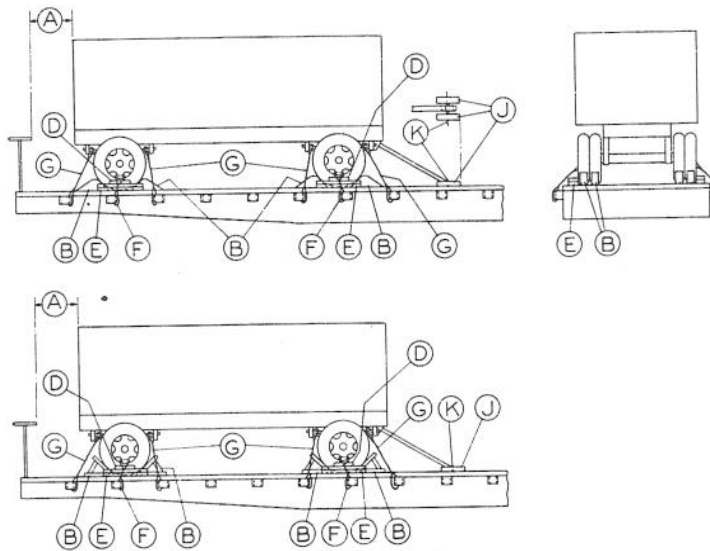


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8	Blocks, Pattern 16. Locate the 45 degree portion of block against wheels as shown. Secure heel of block to floor with three 40-D nails, and toenail that portion under tire to floor with two 40-D nails.
C	2	Each to consist of two pieces of 2 in. x 4 in. x 72 in. Locate against the outside of wheels. Secure lower piece to floor with eight 30-D nails and top piece to one below in like manner.
D	4	6 in. x 8 in. x 60 in., held together by Item "F" and fixed in a vertical position by Item "G".
E	1	2 in. x 6 in. x 60 in., position on top of Item "D" and secure with six 30-D nails.
F	6	2 in. x 6 in. x 34 in. Locate at sides and ends of Item "D" with 30-D nails.
G	8	Blocks, Pattern 67. Position against Items "D" and "F", as shown. Secure to floor with 40-D nails.
H	2	2 in. x 6 in. x 12 in. Locate on top of Item "E" and against trailer frame. Secure with 30-D nails.
J	1	2 in. x 6 in. x 96 in. Secure to floor with 30-D nails. Locate 30 in. from king pin of trailer.
K	3	6 in. x 6 in. x 51 in. Center on and toenail to Item "J" with 30-D nails.
L	1	6 in. x 6 in. x 96 in. Locate on top of Items "K". Toenail to each Item "K" with 30-D nails.
M	2	2 in. x 6 in. x 112 in. Locate as shown, and secure to Items "K" and "L" with 30-D nails.
N	6	2 in. x 6 in. x 60 in. Locate as shown, and secure top portion to Item "K" and bottom portion Item "O" at floor with 30-D nails.
O	28	2 in. x 6 in. x 12 in. Locate as shown and secure with 30-D nails.
P	2	2 in. x 6 in. x 30 in. Locate on top of Item "L" and against trailer frame. Secure with 30-D nails.
Q	4	2 in. x 6 in. x 72 in. Hardwood. Locate as shown.
R	32	Each to consist of eight strands No. 8 ga. black annealed wire. Twist taut.
S	8	$\frac{5}{8}$ in. x 6 x 7 steel cable, doubled. Attach at each corner of units, as shown, and pass through stake pockets.

Suitable cushioning material must be used between Items "C" and tires to prevent chafing.

See General Rules 4, 5, 9, 11, 14, 15 and 19-B for further details.

TRAILER VANS—FLAT OR GONDOLA CARS WITH WOODEN FLOORS



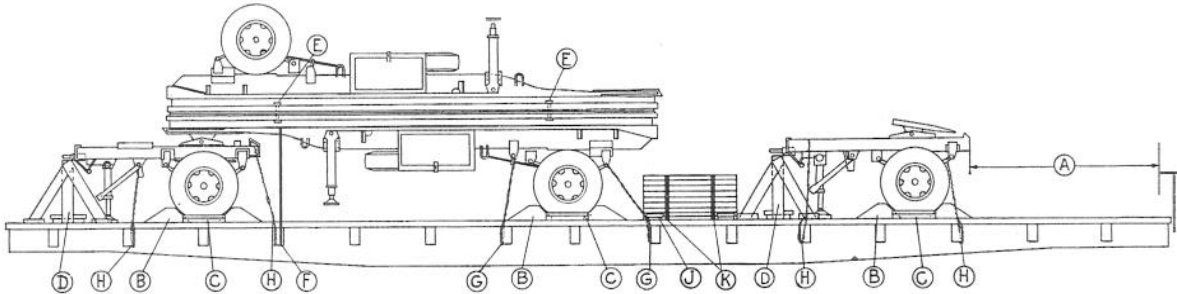
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2 ea. wheel.	Blocks, pattern 16. Locate 45 degree portion of block against front and rear of wheels. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire to floor with two 40-D nails before Items "C" and "D" are applied. Substitute, if desired, at each location, blocks, pattern 17, or blocks, pattern 18.
C	2 ea. wheel.	2 in. x 4 in. x 12 in. Locate against block, pattern 18, lengthwise of car, and secure to floor with four 30-D nails. Not required when blocks, patterns 16 or 17, are used.
D	1 ea. outside wheel.	Suitable material, such as waterproof paper, burlap, etc. Locate bottom portion under Items "E", top portion to extend 2 in. above Items "E".
E	1 ea. outside wheel.	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
F	1 ea. outside wheel.	Four strands No. 8 gage wire. Pass through spokes, or holes in disc wheels and through stake pockets. Substitute, if desired, 1/2 in. steel cable, doubled. Not required for units loaded in gondola cars.
G	2 ea. outside wheel.	Eight strands No. 8 gage wire. Attach to spring shackles and to stake pockets on flat cars, and underneath and around Items "H" in gondola cars after Item "H" has been secured. Substitute, if desired, on flat cars, 1/2 in. steel cable, doubled.
H	1 ea. Item "G".	2 in. x 4 in. x 18 in. Secure to floor, lengthwise of car, with four 30-D nails. Not required when units are loaded on flat cars.
J	2	2 in. x 4 in. x 12 in. Locate one each on each side of lunette and secure each to floor on top of Item "K" with four 30-D nails.
K	1	1 in. No. 14 B. W. gage hot rolled steel. Pass under Item "J" and through lunette. Secure each end to floor with two 30-D nails.

On units equipped with intermediate wheels, blocks, Items "B", not required at front of rear wheels and in back of intermediate wheels.

On units equipped with coil springs loaded on flat cars attach Items "G" to frame and secure one to stake pocket on same side of unit and one to stake pocket on opposite side of unit.

See General Rules 4, 5, 9, 11, 14, 15, 19-A and 19-B for further details.

SEMI-TRAILERS, DOUBLE DECKED, WITH TWO WHEEL DOLLYS—FLAT CARS



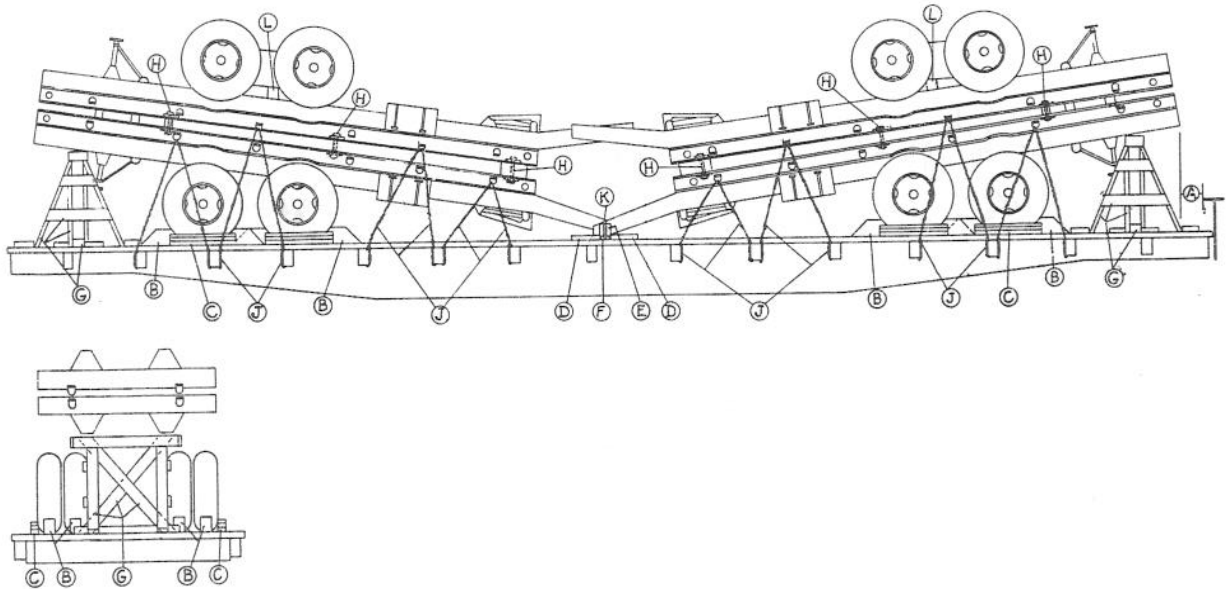
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	24	Blocks, pattern 16. Locate 45 degree portion of block in front and rear of each wheel. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire with two 40-D nails.
C	6	Each to consist of two pieces of 2 in. x 4 in. x 24 in. Locate against outside of wheels and secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
D	2	Supports, built up of two double 2 in. x 6 in. uprights and cross pieces, 2 in. x 6 in. braces, and 2 in. x 4 in. floor cleats. Locate suitably spaced, as shown, under towing bar of dollies.
E	4	$\frac{3}{4}$ in. dia. bolts. Locate two on each side of units, as shown. Pass through $\frac{1}{4}$ in. x 3 in. x 5 in. plate, stake pockets of top and bottom units, and plate underneath.
F	1	2 in. x .050 in. high tension band. Pass over frame of front end of semi-trailer, as shown, and through opposite stake pockets.
G	4	Each to consist of six strands No. 8 gage wire. Attach to frame or spring shackles at rear end of semi-trailer, as shown, and through stake pockets.
H	8	Each to consist of six strands No. 8 gage wire. Attach four to frame or spring shackles of each dolly, as shown, and through stake pockets.
J	4	Each to consist of two pieces of 2 in. x 4 in. x 18 in. Locate, as shown, at each side of panels and secure lower piece to floor with three 30-D nails and top piece to one below in like manner.
K	4	$1\frac{1}{4}$ in. x .035 in. high tension bands. Locate two lengthwise encircling panels, and two cross-wise, as shown.

Suitable cushioning material must be used between Items "C" and tires to prevent chafing.

See General Rules 4, 5, 9, 11, 14, 15 and 19-B for further details.

Sec. 6—Fig. 71

SEMI-TRAILER, 10 TON, WITH FOUR CENTER DUAL WHEELS, DOUBLE DECKED—FLAT CARS



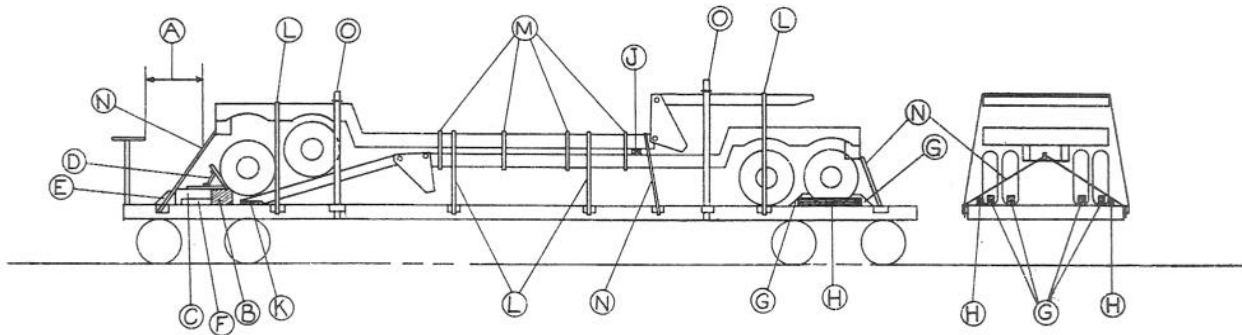
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	24	Blocks, pattern 16. Locate 45 degree portion of block against front of each front dual wheel and at rear of each inside dual front wheel, and at rear of each rear dual wheel and at front of each outside dual rear wheel. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire with two 40-D nails.
C	8	Each to consist of three pieces of 2 in. x 4 in. x 36 in. Locate against outside of each wheel and secure lower piece to floor with five 30-D nails and top pieces to those below in like manner.
D	2	2 in. x 6 in. x 36 in. Locate under tow bars of units, as shown, and secure to floor with three 30-D nails.
E	2	Blocks, pattern 68. Locate against outside of tow bars of units, as shown, and toe-nail each to floor with four 40-D nails.
F	2	2 in. x 6 in. x 12 in. Locate against Item "E", as shown, and secure each to floor with three 30-D nails.
G	2	Supports, built up of 6 in. x 6 in. uprights, and 4 in. x 6 in. cross pieces, 2 in. x 6 in. diagonals and braces, and 2 in. x 6 in. floor cleats. Locate under end of units at least 6 in. from king pin or landing gear.
H	12	$\frac{3}{4}$ in. dia. bolts. Locate three on each side of each unit. Pass through $\frac{1}{4}$ in. x 3 in. x 6 in. plate, stake pockets of top and bottom units, suitable filler blocks between units, and plate underneath.
J	8 ea. unit.	Each to consist of six strands No. 8 gage wire. Attach four to frame on each side of unit and through stake pockets. Substitute, if desired, $\frac{5}{8}$ in. x 6 x 7 steel cable, doubled.
K	1	2 in. x .050 in. high tension band. Pass over tow bars of units and secure underneath Items "F", or to opposite stake pockets.
L	As required.	Blocks, width, thickness and length to suit. Locate between frame of top unit and springs on each side. Secure in position with two $1\frac{1}{4}$ in. x .035 in. high tension bands encircling both blocks at ends.

Suitable cushioning material must be used between Items "C" and tires to prevent chafing.

See General Rules 4, 5, 7, 9, 11, 14, 15 and 19-B for further details.

Sec. 6—Fig. 72

SEMI-TRAILERS, 30,000 LBS. AND OVER, DOUBLE DECKED—FLAT CARS

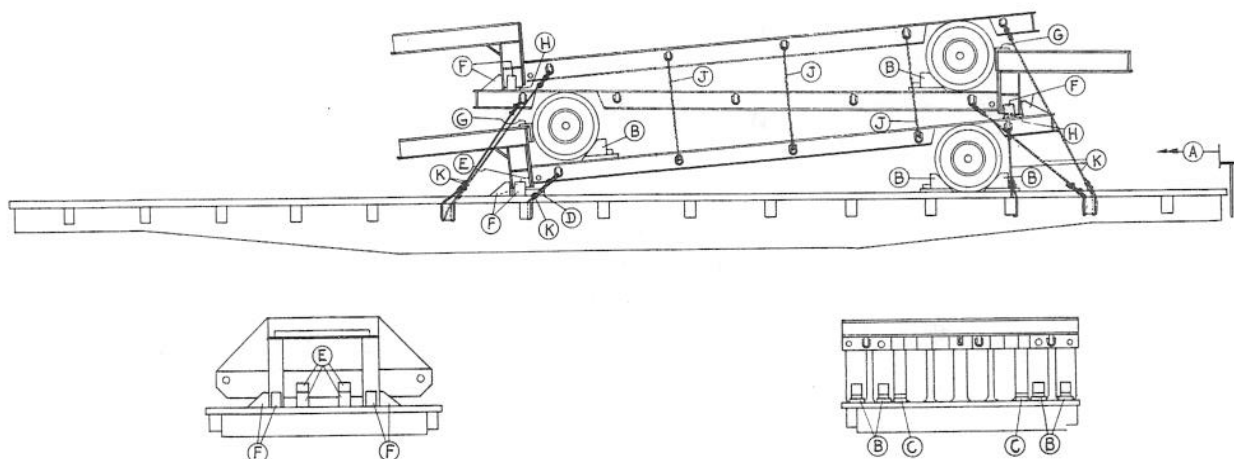


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	1	12 in. x 12 in. x 10 ft., cut to fit contour of wheels. Locate against wheels and secure with two $\frac{3}{4}$ in. dia. bolts.
C	4	12 in. x 12 in. x 27 in. Locate suitably spaced against Item "B" and secure each with three 40-D nails and three 60-D nails.
D	4	Blocks, pattern 61. Locate against wheels on top of Items "B" and "C" and secure each with six 40-D nails.
E	10	Blocks, Pattern 27. Locate two against each Item "C" and two against Item "B", suitably spaced, and secure each with three 40-D and three 60-D nails.
F	8	4 in. x 4 in. x 24 in. Locate against each side of Items "C" and secure each with three 60-D nails.
G	8	Blocks, pattern 21. Locate 45 degree portion of block against front and rear of wheels, and secure each with three 40-D and three 60-D nails.
H	2	Each to consist of three pieces of 2 in. x 4 in. x 48 in. Locate against outside of wheels with suitable cushioning material between Items "H" and tires to prevent chafing. Secure lower piece to floor with five 30-D nails and top pieces to those below in like manner.
J	1	4 in. x 6 in., hardwood, length to equal width of trailer. Locate, as shown, and secure to lower unit with six 40-D nails.
K	1	2 in. x 12 in., length equal to width of ramp. Locate under loading ramp, as shown, and secure to floor with six 30-D nails.
L	4	2 in. x .050 in. high tension bands, suitably spaced. Pass over top of trailers and through stake pockets.
M	4	2 in. x .050 in. high tension bands, encircling both trailers, suitably spaced.
N	3	$\frac{5}{8}$ in. x 6 x 7 steel cable, doubled. Attach one to rear towing hitch of each trailer, and one behind front loading ramp of top trailer, as shown, and pass through stake pockets on each side of car. Substitute, if desired, at each location, one $\frac{3}{4}$ in. dia. rod.
O	4	Side stakes. Locate two on each side of car. Stakes to extend approximately 12 in. beyond height of top trailer and tied together above units with one $1\frac{1}{4}$ in. x .035 in. high tension band or 6 strands No. 8 gage wire.

See General Rules 4, 5, 9, 10, 11, 14, 15 and 19-B for further details.

Sec. 6—Fig. 73

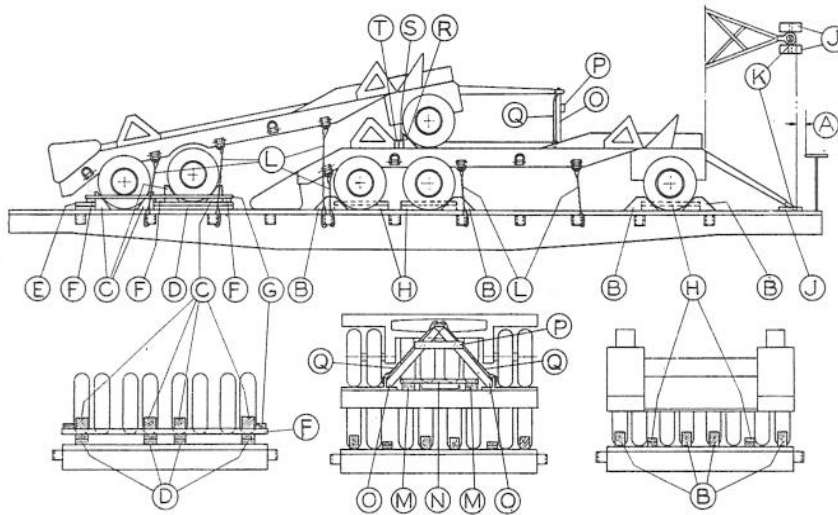
SEMI-TRAILERS, 20 TON, TRIPLE DECKED—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8 ea. bottom unit.	Blocks, pattern 65. Locate in front and rear of each outside pair of dual wheels. Secure each to floor with six 30-D nails.
	2 ea. top unit.	Blocks, pattern 65. Locate in front of each outside wheel. Secure each to unit below with six 30-D nails.
C	2 ea. unit.	Each to consist of two pieces of 2 in. x 4 in., length to suit. Locate between each inside pair of dual wheels. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
D	2 ea. bottom unit.	4 in. x 4 in. x 18 in. Locate suitably spaced, as shown, under front end of unit. Toe-nail each to floor with four 40-D nails.
E	2 ea. Item "D".	Blocks, pattern 66. Locate one on top of each Item "D" against end of trailer, and one against Item "D", as shown. Secure each with four 40-D nails.
F	4 ea. unit.	Blocks, pattern 67. Locate two against ends and two against sides of front end of units, as shown. Secure each with four 40-D nails.
G	As required.	Each to consist of one piece 1½ in. x 10 in. and one piece 1½ in. x 6 in., length to suit. L-shaped, suitably nailed to each other. Locate between units, as shown, and secure each with four 20-D nails.
H	As required.	2 in. x 6 in., length to suit. Locate between units, as shown, and secure with four 30-D nails.
J	6	Each to consist of eight strands No. 8 gage black annealed wire. Attach three on each side to side links of top and bottom units. Substitute, if desired, 7/8 in. dia. rods or 5/8 in. x 6 x 7 steel cable, doubled.
K	4 ea. unit.	5/8 in. x 6 x 7 steel cable, doubled. Attach at each corner of units, as shown, and pass through stake pockets.

See General Rules 4, 5, 7, 9, 11, 14, 15 and 19-B for further details.

Sec. 6—Fig. 74
TRAILER, TRUCK, 45 TON TANK TRANSPORTER—FLAT CARS

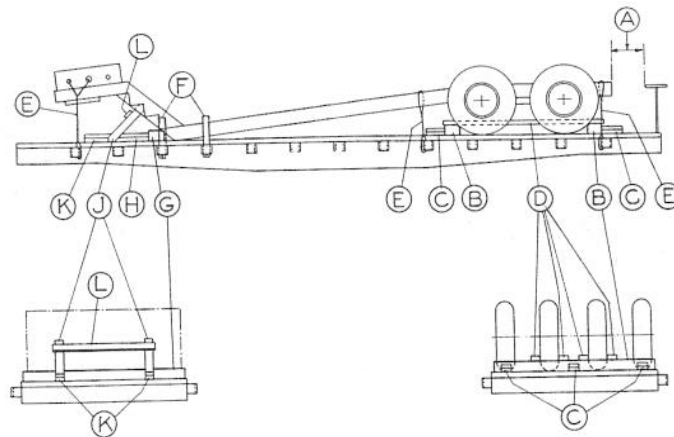


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	16	Blocks, pattern 16. Locate 45 degree portion of block against front and rear of front wheels, front of intermediate and in back of rear wheels of front unit, as shown. Secure heel of block to floor with three 40-D nails, and toe-nail that portion under tire to floor with two 40-D nails.
C	12	Blocks, pattern 25. Locate on top of Item "D", or on floor, with 53 degree portion of block against front and rear of outside intermediate and rear wheels, against front of two intermediate wheels and against rear of two rear wheels nearest center of unit. Secure heel of block to Items "D", or floor, with three 40-D nails and toe-nail that portion under tire to Items "D", or floor, with two 40-D nails.
D	4	Each to consist of two pieces of 2 in. x 6 in. x 48 in. Locate under both outside and two center intermediate wheels, with one end against Item "C" located in front of rear wheels. Secure lower piece to floor, lengthwise of car, with six 30-D nails and top piece to one below in like manner.
E	4	Each to consist of two pieces of 2 in. x 4 in. x 12 in. Locate against Items "C" in back of rear wheels. Secure lower piece to floor with three 30-D nails and top piece to one below in like manner.
F	3	2 in. x 4 in., long enough to permit application of Items "G". Locate against Item "C" on top of Items "D" at front and back of intermediate wheels and against Items "C" on top of Items "E" at back of rear wheels. Secure to Items "D" and "E" with three 30-D nails at each location.
G	2	2 in. x 4 in., long enough to extend to outside face of outside Items "F". Locate on top of Items "F", against outside wheels and secure to each Item "F" with three 30-D nails.
H	6	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Locate against inside of outside pair of front, intermediate and rear wheels on front unit. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
J	2	2 in. x 4 in. x 12 in. Locate one on each side of lunette eye, on top of Item "K", and secure each to floor with three 30-D nails, one nail in each piece to pass through Item "K".
K	1	1 in. No. 14 B. W. gage hot rolled steel. Locate under Items "J" and pass through lunette eye. Secure to floor with one 30-D nail in each end.
L	6	Each to consist of six strands No. 8 gage black annealed wire. Pass through lifting lugs and stake pockets, near front, rear and at center of unit. Substitute, if desired, four 2 in. x .050 in. high tension bands. Locate one each, near front, on each side of each unit and one each, near rear, on each side of each unit. Bands must be applied vertically, when possible.
M	2	4 in. x 6 in. x 48 in. Locate under outside intermediate front wheels of rear unit.
N	2	2 in. x 6 in., long enough to extend to outside face of Items "M". Locate against front and back of wheels and secure to Items "M" with three 30-D nails in each end.
O	1	Draw bar support "A" frame. To consist of two pieces of 2 in. x 4 in. x 43 in. and one piece 2 in. x 4 in. x 20 in., Item "P". Locate frame in vertical position, under draw bar, with bottom ends resting inside of angles on frame of lower unit.
P	1	2 in. x 4 in. x 20 in. Locate against upper face of Items "O" and secure to each Item "O" with three 30-D nails clinched on back.
Q	1	2 strands, No. 8 gage black annealed wire. Pass through and around lunette eye and attach ends to frame of lower unit.
R	4	Blocks, pattern 25. Locate one against each rear portion of both outside front wheels of rear unit.
S	As required.	2 in. x 4 in. x 16 in., to fill space between Items "R" and "T". Secure to vertical surface of adjoining Items "R" and to each other with two 30-D nails at each location.
T	1	2 in. x 4 in. x 8 ft. Locate against steel choke frame and secure to Items "S" with three 30-D nails at each location.
U	1 ea. Item "B".	2 in. x 4 in. x 12 in. Locate against Item "B" and secure to floor with four 30-D nails. Not required when blocks, pattern 16, are used.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 11, 14, 15, 19-A and 19-B for further details.

TRAILER PORTION, TANK RECOVERY UNIT—FLAT CARS



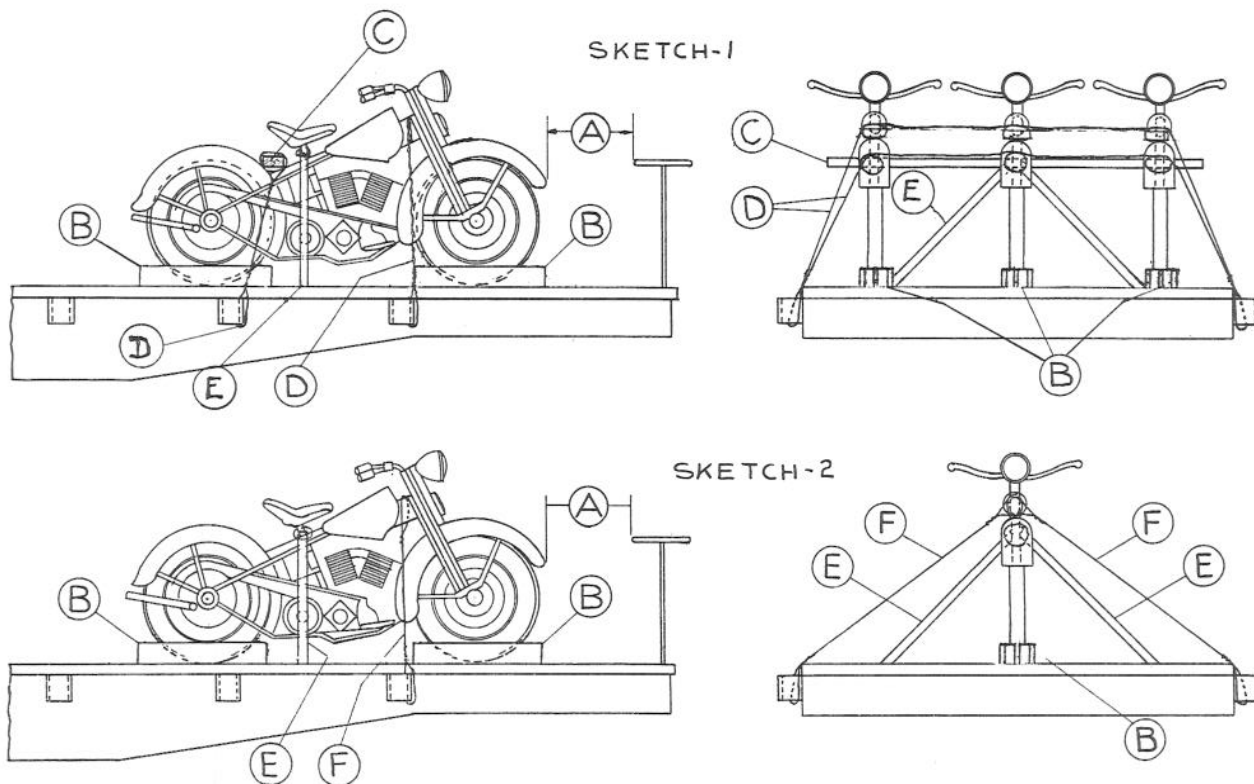
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2	6 in. x 8 in., length about equal to width of floor. Chamfer 2 in. at point of contact with tires. Locate against front of front tires and against back of rear tires and toe-nail each to floor with six 40-D nails.
C	3 ea. Item "B".	Each to consist of two pieces of 2 in. x 4 in. x 12 in. Locate against Items "B", lengthwise of car, one near each end and one in center. Secure lower piece to floor with three 30-D nails and top piece to one below in like manner.
D	4	2 in. x 4 in., long enough to extend to outside face of Items "B". Locate one against inside and outside of each intermediate wheel, on top of Items "B", and secure to each Item "B" with four 30-D nails at each end.
E	3 ea. side.	6 strands, No. 8 gage black annealed wire. Attach to frame and stake pocket. Substitute, if desired, one 1/2 in. x 6 x 7 steel cable, doubled, or one 2 in. x .050 in. high tension band.
F	2 ea. side.	Stakes or green saplings.
G	1	6 in. x 8 in. timber, length about equal to width of floor. Locate against front of forward part of unit and toenail to floor with six 40-D nails.
H	2	Each to consist of two pieces of 2 in. x 4 in., length to suit. Bevel one end to 45 degree and locate one near each side of unit against Item "G", lengthwise of car. Secure lower piece to floor with three 30-D nails and top piece to one below in like manner.
J	2	4 in. x 4 in. diagonal braces, length to suit. Cut ends to fit and locate against the beveled end of Items "H" on a 45 degree angle between unit and floor. Secure to Items "H" and floor with three 30-D nails at each location.
K	2	Each to consist of two pieces of 2 in. x 4 in. x 12 in. Bevel one end of top pieces to 45 degree. Locate against Items "J". Secure lower piece to floor with three 30-D nails and top piece to one below in like manner.
L	1	2 in. x 4 in., long enough to extend to outside face of Items "J". Locate near top ends of, and secure to Items "J" with three 30-D nails in each end.

Suitable fillers nailed to floor of car must be applied between sides of unit and side stakes, Items "F".

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 10, 11, 14, 15, 19-A and 19-B for further details.

TWO-WHEEL MOTORCYCLES—FLAT OR DROP END GONDOLA CARS



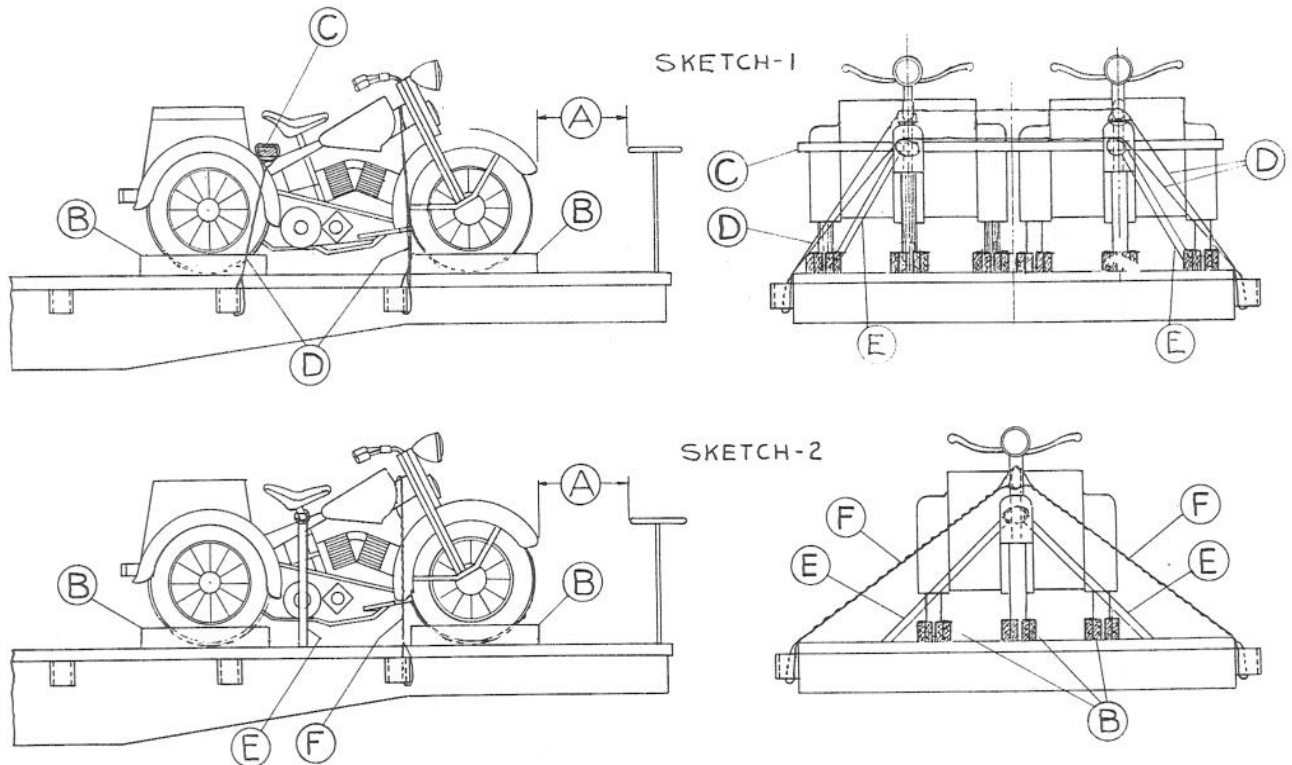
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2 each wheel.	Blocks, pattern 48. Secure to floor with 20-D nails.
C	1	When two or more machines are loaded side by side, per Sketch 1, 2 in. x 4 in., long enough to extend 8 in. beyond the two outside vehicle frames. Secure to frames of each machine, between seat and rear fender, with sufficient wire to prevent displacement. Wires used for this purpose must be secured to Item "C" with sufficient 20-D nails to prevent displacement.
D	2	When two or more machines are loaded side by side, per Sketch 1, 2 strands, No. 8 ga. black annealed wire. Loop front wire around web of each frame just in rear of handle bars, loop rear wire under and over Item "C" at each vehicle and attach to nearest stake pocket at each side of car.
E	1 each side of machine, loaded per Sketch 2; 1 each side of center machine loaded per Sketch 1.	2 in. x 4 in., length to suit. Secure one end to car floor with three 20-D nails and securely wire the top end to machine frame in rear of seat post.
F	1 each machine.	When machines are loaded singly, per Sketch 2, 4 strands, No. 8 ga. black annealed wire. Loop around web of frame just in rear of handle bars and attach to nearest stake pocket at each side of car.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 11, 14, 15, 19-A and 19-B for further details.

Sec. 6—Fig. 77

THREE WHEEL MOTORCYCLES—FLAT OR DROP END GONDOLA CARS

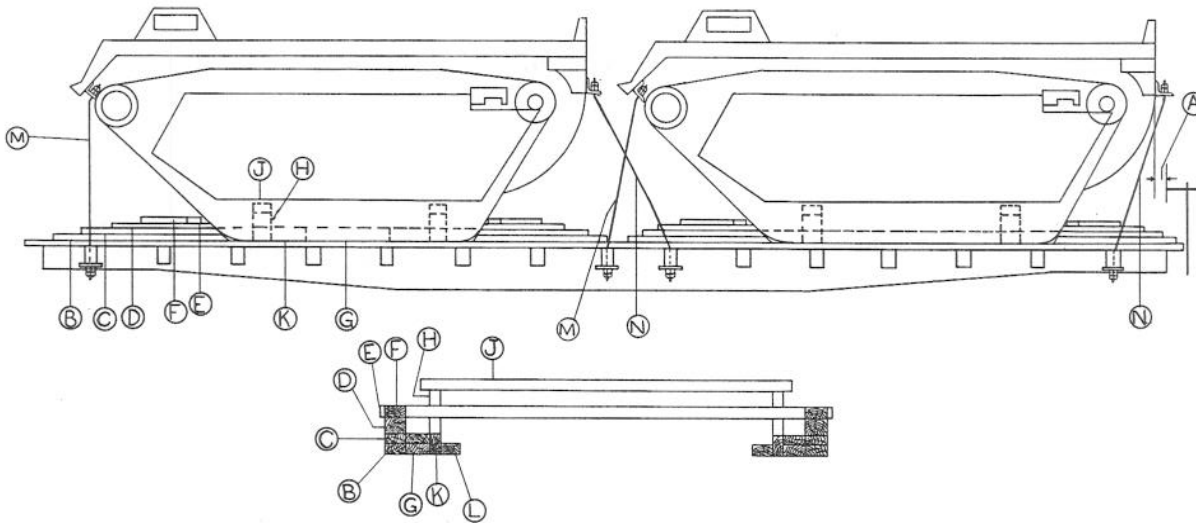


Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2 each wheel.	Blocks, pattern 48. Secure to floor with 20-D nails.
C	1	When two or more machines are loaded side by side, per Sketch 1, 2 in. x 4 in., long enough to extend 8 in. beyond the outside of vehicle frames. Secure to frame of each machine between seat and rear fender, with sufficient wire to prevent displacement. Wires used for this purpose must be secured to Item "C" with sufficient 20-D nails to prevent displacement.
D	2	When two or more machines are loaded side by side, per Sketch 1, 4 strands, No. 8 ga. black annealed wire. Loop front wire around web of each frame just in rear of handle bars, loop rear wire under and over Item "C" at each vehicle and attach to nearest stake pocket at each side of car.
E	1 each side of machine, loaded per Sketch 2; 1 each machine, loaded per Sketch 1.	2 in. x 4 in., length to suit. Secure one end to car floor with three 20-D nails and securely wire the top end to machine frame in rear of seat post. When loaded per Sketch 1, these items to be applied to side of machines nearest the side of car.
F	1 each machine.	When machines are loaded singly, per Sketch 2, 4 strands, No. 8 ga. black annealed wire. Loop around web of frame just in rear of handle bars and attach to nearest stake pocket at each side of car.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 11, 14, 15, 19-A and 19-B for further details.

LANDING VEHICLES, AMPHIBIAN, 60,000 LBS. AND UNDER, TRACKED—FLAT OR GONDOLA CARS



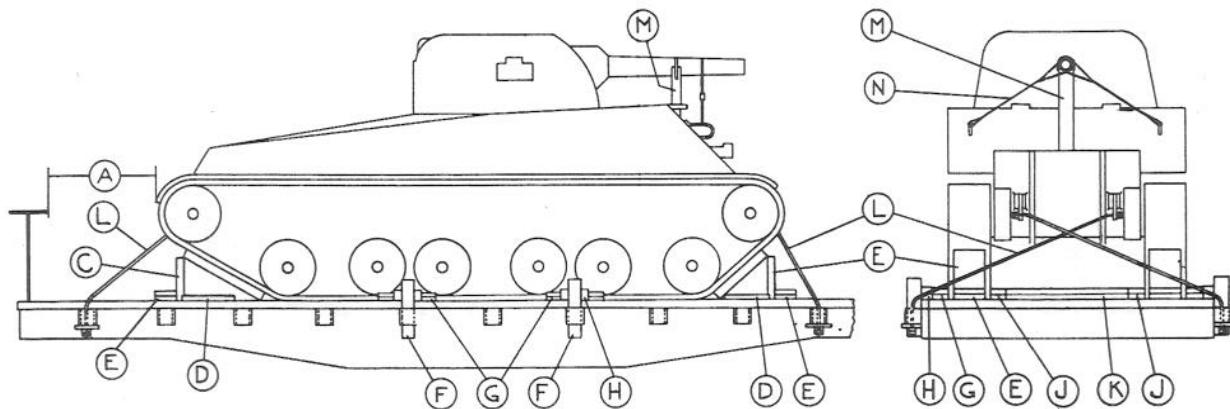
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	4 ea. unit.	Blocks, pattern 49. Locate one on floor against each crawler tread and secure to floor with six 40-D nails.
C	4 ea. unit.	Blocks, pattern 50. Locate one on top of and secure to each Item "B" with five 40-D nails.
D	4 ea. unit.	Blocks, pattern 51. Locate one on top of and secure to each Item "C" with four 40-D nails.
E	2 ea. unit.	3 in. x 6 in. x 10 ft. 5 in. Locate one against crawler treads on top of Items "D" and secure to Items "D" with three 40-D nails at each end.
F	4 ea. unit.	3 in. x 6 in. x 16 in. Locate on top of Item "D" with one end against Item "E" and secure to Item "D" with three 40-D nails.
G	2 ea. unit.	Each to consist of two pieces of 3 in. x 6 in. x 20 ft. Locate against crawler tread and secure lower piece to floor with 40-D nails spaced about 18 in. apart and top pieces to one below in like manner. May be made up of two or more pieces, 6 ft. minimum.
H	4 ea. unit.	3 in. x 6 in. x 16 in. Locate one against Items "G" at each side of unit about 30 in. from Item "E" and secure to Items "G" with two 40-D nails. Not required for units under 10,000 lbs.
J	2 ea. unit.	3 in. x 6 in. x 90 in. Locate on top of opposite Items "H" and secure to same with two 40-D nails in each. Not required for units under 10,000 lbs.
K	8 ea. unit.	3 in. x 6 in. x 16 in. Locate one on each side of Item "H" and secure each to floor with three 40-D nails. Not required for units under 10,000 lbs.
L	4 ea. unit.	3 in. x 6 in. x 18 in. Locate on floor against Items "H" and "K" and secure to floor with three 40-D nails. Not required for units under 10,000 lbs.
M	2 ea. unit.	1½ in. dia. rods. Attach to unit at bow and pass through floor, or through stake pockets and ½ in. x 4 in. x 10 in. plates underneath stake pockets. Substitute, if desired, ⅝ in. x 6 x 7 steel cable, doubled. ¾ in. dia. rods may be used on units under 10,000 lbs.
N	2 ea. unit.	1½ in. dia. rods. Attach to unit at stern and pass through floor, or through stake pockets and ½ in. x 4 in. x 10 in. plates underneath stake pockets. Substitute, if desired, ⅝ in. x 6 x 7 steel cable, doubled. ¾ in. dia. rods may be used on units under 10,000 lbs.

When necessary to extend floor for the application of Items "G" to units loaded on car floor, use method shown in Figure 1-B, Sec. 1.

For loads superimposed above car floor, use method illustrated in Figure 81.

See General Rules 4, 5, 7, 9, 11, 14, 15 and 19-A for further details.

TANKS AND SIMILAR UNITS, 60,000 LBS. AND UNDER—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2	Blocks, pattern 30. Locate one against each front crawler tread.
C	2	Blocks, pattern 31. Locate one against each rear crawler tread.
D	2 ea. Item "B" and "C".	2 in. x 4 in. x 20 in. Locate one on each side of Items "B" and "C" and secure each to floor with six 30-D nails.
E	1 ea. Item "B" and "C".	Each to consist of two pieces of 2 in. x 4 in. x 12 in. Locate against ends of Items "B" and "C". Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
F	2 ea. side of unit.	Side stakes. Must extend 2 in. below stake pocket and 8 in. above car floor. Locate one each in first stake pocket to the right of and to left of stake pocket nearest center of tank. Not required when Items "J" and "K" are used.
G	2 ea. side of unit.	Each to consist of two pieces of 2 in. x 4 in. x 24 in. Locate against crawler treads, with centers opposite Items "F". Secure lower piece to floor with six 30-D nails and top piece to one below in like manner. Not required when Items "J" and "K" are used.
H	As required.	2 in. x 6 in. x 12 in. Center on Items "F" and toe-nail each to floor with one 30-D nail in each end. Use sufficient pieces to completely fill space between Items "F" and "G". Not required when Items "J" and "K" are used.
J	2 ea. unit.	Each to consist of two pieces of 2 in. x 4 in. x 14 ft. Locate on floor against inside of each crawler tread and secure lower piece to floor with twelve 30-D nails and top piece to one below in like manner. Not required when Items "F", "G" and "H" are used.
K	3 ea. unit.	Each to consist of two pieces of 2 in. x 4 in., long enough to fill space between Items "J". Locate one near center and one near each end of Items "J". Secure lower piece to floor with four 30-D nails and top piece to one below in like manner. Not required when Items "F", "G" and "H" are used.
L	4 ea. unit.	1¼ in. dia. rods. Attach to lifting lugs and pass through stake pockets and ½ in. x 4 in. x 10 in. plates underneath stake pockets on opposite sides of car. Substitute, if desired, ⅝ in. x 6 x 7 steel cable, doubled.
M	1 ea. unit.	2 in. x 6 in., length to suit. Apply to top of tank, under turret gun barrel, and secure with one piece of ¾ in. high tension band over gun barrel and secured to each side of brace with two 6-D nails. Not required when gun is secured with built-in gun brace.
N	2 ea. unit.	¾ in. high tension bands. Apply one to each side of gun barrel. Not required when gun is secured with built-in gun brace.

When necessary to extend floor for the application of Items "G" on units loaded on car floor, use method shown in Figure 1-B, Sec. 1.

For loads superimposed above the car floor follow method illustrated in Figure 81.

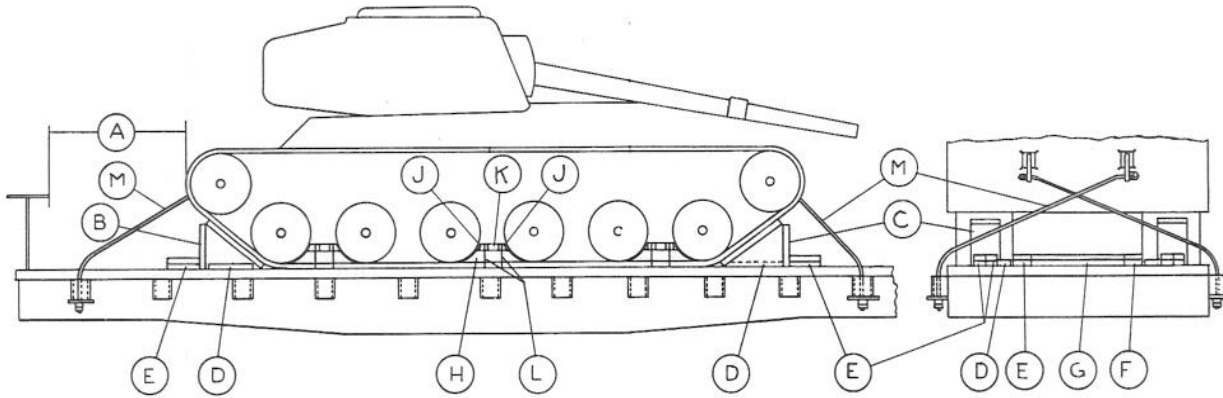
Turret gun should be in straightforward position, and turret lock handwheel and elevating mechanism handwheel must be wired to prevent rotating.

When tie-down rods are found slightly loose in transit, they need not be tightened.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 10, 11, 14, 15 and 19-A for further details.

TANKS AND SIMILAR UNITS, OVER 60,000 TO 100,000 LBS., INCLUSIVE—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2	Blocks, pattern 31. Locate one against each rear crawler tread.
C	2	Blocks, pattern 30. Locate one against each front crawler tread.
D	1 ea. Item "B" and "C".	2 in. x 4 in. x 20 in. Locate one on inside of each Item "B" and "C", and secure each to floor with six 20-D nails.
E	2 ea. Item "B" and "C".	Each to consist of two pieces of 2 in. x 4 in. x 12 in. Locate against ends of Items "B" and "C". Secure lower piece to floor with four 20-D nails and top piece to one below in like manner.
F	2 ea. unit.	Each to consist of two pieces of 2 in. x 4 in. x 14 ft. Locate on floor against inside of each crawler tread and secure lower piece to floor with twelve 30-D nails and top piece to one below in like manner.
G	3 ea. unit.	Each to consist of two pieces of 2 in. x 4 in., long enough to fill space between Items "F". Locate one near center and one near each end of Items "F". Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
H	6	Each to consist of two pieces of 6 in. x 6 in., length to suit, cut to fit contour of bogie wheels. Locate one piece between inside and outside wheels of each bogie assembly.
J	6	Each to consist of two pieces of 4 in. x 4 in., length to suit. Locate against bogie wheels on top of Items "H".
K	6	Each to consist of two pieces of 4 in. x 4 in., long enough to fill space between Items "H". Toe-nail each to Items "H" with two 20-D nails.
L	12	Each to consist of two strands No. 8 gage black annealed wire. Pass under crawler tread and around Items "H" and "J". Substitute, if desired, at each location, one $\frac{3}{4}$ in. x .035 in. high tension band. Use staples or nails bent over to retain bands or wires in position.
M	4	$1\frac{1}{4}$ in. dia. rods. Attach to lifting lugs and pass through stake pockets and $\frac{1}{2}$ in. x 4 in. x 10 in. plates on opposite sides of car. Substitute, if desired, $\frac{5}{8}$ in. steel cable, doubled.

When necessary to extend floor for the application of Items "G" to units loaded on car floor, use method shown in Figure 1-B, Sec. 1.

For loads superimposed above car floor, use method illustrated in Figure 81.

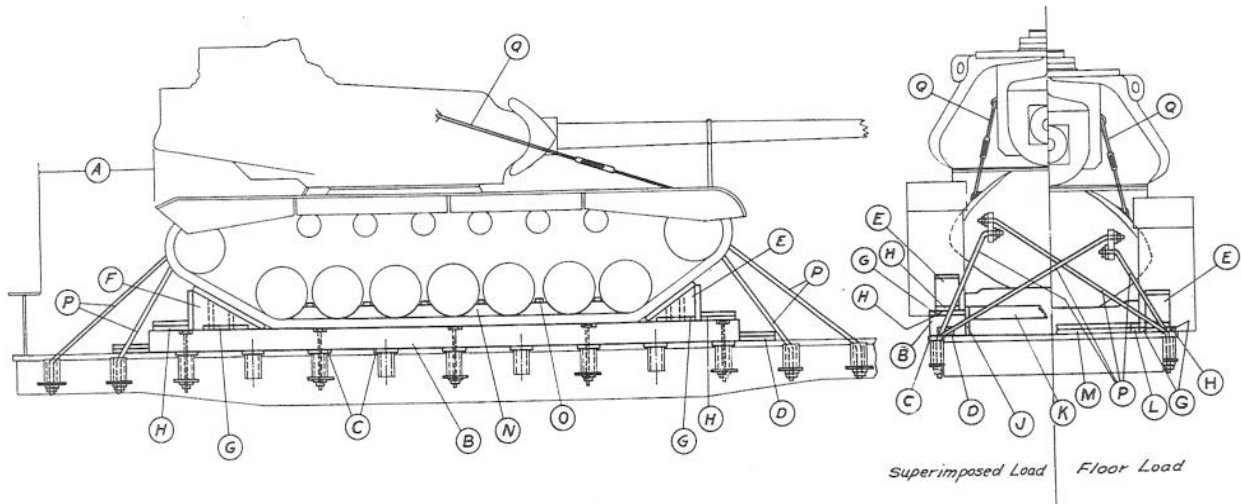
Turret gun should be in straightforward position, and turret lock handwheel and elevating mechanism handwheel must be wired to prevent rotating.

When unit is not equipped with built-in gun brace, apply two $\frac{3}{4}$ in. high tension bands, securing gun barrel to unit at each side.

When tie-down rods are found slightly loose in transit, they need not be tightened.

See General Rules 4, 5, 7, 9, 11, 14, 15 and 19-A for further details.

Sec. 6—Fig. 81
TANKS AND SIMILAR UNITS OVER 100,000 LBS.—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2	10 in. x 18 in. x 24 ft. Locate, as shown, along each side of car. Secure each to car with at least five 1 in. dia. bolts passed through Items "B" and "C", wood filler in stake pocket, and 1/2 in. x 4 in. x 10 in. plate underneath stake pocket. Not required for units loaded on floor of car.
C	As required.	Metal fillers, length, width and thickness to suit. Locate between Items "B" and top of stake pockets. Not required when units are loaded on floor of car.
D	4	Each to consist of two pieces of 2 in. x 6 in. x 18 in. Locate against Item "B" as shown. Secure lower piece to floor with four 30-D nails, and top piece to one below in like manner. Not required for units loaded on floor of car.
E	2	Blocks, pattern 30. Locate one against each front crawler tread.
F	2	Blocks, pattern 31. Locate one against each rear crawler tread.
G	2 ea. Item "E" and "F".	2 in. x 3 in. x 20 in. Locate, as shown, against each side of Items "E" and "F" and secure to floor or Item "B" with four 20-D nails in each.
H	4	Each to consist of two pieces of 2 in. x 12 in. x 18 in. Locate one against each Item "E" and "F". Secure lower piece to floor or Item "B" with five 30-D nails and top piece to one below in like manner. Substitute, if desired, patterns 81.
J	6	2 in. x 8 in. x 13 in. Locate, as shown, against Items "B" and crawler, one near each end of unit and one at center. Secure each to Item "B" with four 30-D nails, and to Item "K" with three 30-D nails. Not required for units loaded on floor of car, or when patterns 80 are used.
K	3	4 in. x 6 in., length equal to distance between Items "J". Not required for units loaded on floor of car. Substitute, if desired, patterns 80.
L	2	Each to consist of two pieces of 2 in. x 4 in. x 14 ft. Locate against inside of crawler treads. Secure lower piece to floor with 30-D nails spaced about 12 in. apart and top piece to one below in like manner. Required only when units are loaded on floor of car.
M	3	Each to consist of two pieces of 2 in. x 4 in., length to suit, suitably spaced between Items "L". Secure lower piece to floor with 30-D nails spaced about 12 in. apart and top piece to one below in like manner. Required only when units are loaded on floor of car.
N	As required.	Each to consist of two pieces of 6 in. x 6 in., length to suit, cut to fit contour of bogie wheels. Locate one piece between inside and outside wheels of each bogie assembly.
O	1 ea. Item "N".	2 in. x 4 in., length to suit. Locate on top of Item "N", as shown, and secure with four 20-D nails.
P	8	1 1/4 in. dia. rods. Attach to lifting lugs and pass through stake pockets and 1/2 in. x 4 in. x 10 in. plates underneath stake pockets, as shown. Substitute, if desired, 5/8 in. x 6 x 7 steel cable, doubled.
Q	2	3/8 in. steel cable, doubled. Locate, as shown, between gun turret and crawler structure.

When necessary to extend floor for the application of Items "G" on units loaded on floor of car, use method shown in Figure 1-B, Sec. 1.

Turret gun should be in straightforward position, and turret lock handwheel and elevating mechanism handwheel must be wired to prevent rotation.

When unit is not equipped with built-in gun brace, apply two 3/4 in. high tension bands, securing gun barrel to unit at each side.

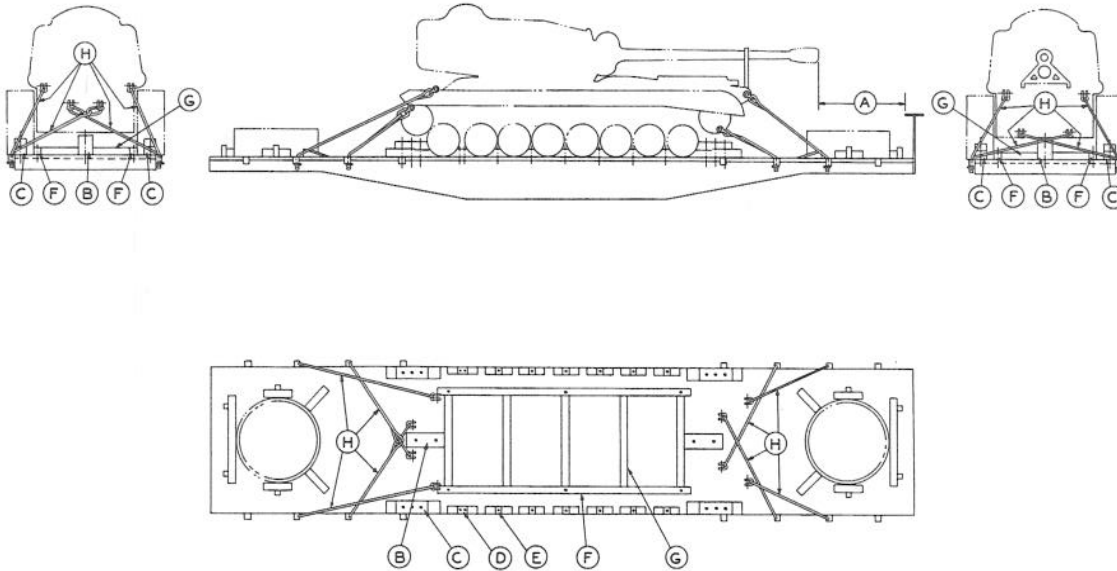
When tie-down rods are found slightly loose in transit, they need not be tightened.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 7, 9, 11, 14, 15 and 19-A for further details.

Sec. 6—Fig. 82

TANKS AND SIMILAR UNITS OVER 100,000 LBS.—CRAWLERS REMOVED—FLAT CARS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2	12¼ in. x 16½ in. x 33 in. Locate longitudinally at each end and under center of tank. Secure each to floor with two ¾ in. dia. bolts.
C	4	Blocks, pattern 70. Locate at each corner of tank against outside bogie wheel. Secure each to floor with three ¾ in. dia. bolts.
D	2	Blocks, pattern 71. Locate between the two front bogie wheels on each side. Secure each to floor with two ⅝ in. dia. bolts.
E	12	Blocks, pattern 72. Locate between all remaining bogie wheels on each side. Secure each to floor with one ⅝ in. dia. bolt.
F	2	6 in. x 6 in. guide rails, located against inside of bogie wheels, of sufficient length to contact all wheels, secured to floor with three ⅝ in. dia. bolts.
G	5	6 in. x 6 in. cross braces between guide rails equally spaced, securely nailed to floor.
H	2	1½ in. dia. rods. Locate on each side of rear of tank at upper eye and pass forward to stake pocket on same side of car. Secure at upper eye with clevis and pin, and at bottom of stake pocket through a ½ in. x 4 in. x 10 in. plate.
	2	1½ in. dia. rods. Locate on each side of rear of tank at lower eye, cross to nearest stake pocket on opposite side of car. Secure at lower eye with clevis and pin, and at bottom of stake pocket through a ½ in. x 4 in. x 10 in. plate.
	2	1½ in. dia. rods. Locate on each side of front of tank at lifting lug and pass forward to stake pocket on same side of car. Secure to lifting lug with clevis and pin, and at bottom of stake pocket through a ½ in. x 4 in. x 10 in. plate.
	2	1½ in. dia. rods. Locate on each side of front of tank at cable hook, cross to nearest stake pocket on opposite side of car. Secure at cable hook with ring permanently attached to tie rod, and at bottom of stake pocket through a ½ in. x 4 in. x 10 in. plate.

When necessary to elevate tanks to comply with "Railway Line Clearances" or to permit the application of Items "B", "C", "D" and "E", longitudinal timbers of suitable length, width and thickness may be applied underneath units secured as shown in Figure 81.

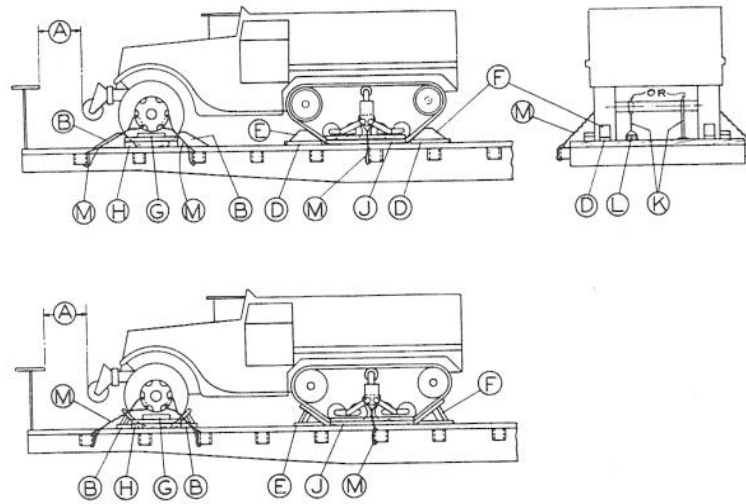
Longitudinal center line of tank must be directly over longitudinal center line of car.

Tank must be jacked 2 in. for application of Items "B".

Turret gun should be in straight forward position securely clamped, and turret lock handwheel and elevating mechanism handwheel must be wired to prevent rotating.

Detached parts, (including crawlers), must be secured in such a manner as to prevent their movement on car in transit. See General Rules 4, 5, 7, 9, 11, 14, 15 and 19-A for further details.

Sec. 6—Fig. 83
HALF TRACKS AND SIMILAR VEHICLES—FLAT OR GONDOLA CARS WITH WOODEN FLOORS



Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	4	Blocks, pattern 16. Locate 45 degree portion of block against the front and back of wheels. Secure heel of block to floor with three 40-D nails and toe-nail that portion under tire to floor with two 40-D nails before Items "G" and "H" are applied. Substitute, if desired, at each location, blocks, pattern 17, or blocks, pattern 18.
C	4	2 in. x 4 in. x 12 in. Locate against block, pattern 18, lengthwise of car, and secure to floor with four 30-D nails. Not required when blocks, patterns 16 or 17, are used.
D	2 ea. Items "E" and "F".	2 in. x 4 in. x 24 in. Secure the two pieces, side by side, to the base of each Items "E" and "F" with four 30-D nails in each.
E	2 ea. unit.	Blocks, pattern 16. Locate 33 degree portion of block against front of crawler tread. Secure heel of block to Item "D" and floor with three 60-D nails and toe-nail that portion under crawler tread to floor with two 60-D nails before Items "J" are applied. Substitute, if desired, at each location, block, pattern 22.
F	2 ea. unit.	Blocks, pattern 21. Locate 38 degree portion of block against rear of crawler tread. Secure heel of block to Item "D" and floor with three 60-D nails and toe-nail that portion under crawler tread to floor with two 60-D nails before Items "J" are applied. Substitute, if desired, at each location, block, pattern 23.
G	1 ea. front wheel.	Suitable material, such as waterproof paper, burlap, etc. Locate bottom portion under Items "H", top portion to extend 2 in. above Items "H".
H	1 ea. front wheel.	Each to consist of two pieces of 2 in. x 4 in. x 36 in. Secure lower piece to floor with four 30-D nails and top piece to one below in like manner.
J	2 ea. unit.	2 in. x 4 in. x 48 in. Locate against outside of crawler tread and secure each to floor with six 30-D nails.
K	2 ea. axle.	1 in. No. 14 B. W. Gage hot rolled steel, with anchor plates, pattern 19. Locate over axles, springs, or spring shackles and secure each plate to floor with eight 20-D cement coated nails. Substitute, if desired, at each location, 4 strands No. 8 gage black annealed wire. Pass over axle, springs, spring shackles, underneath and around Item "L" and twist taut after Item "L" has been nailed in place.
L	1 ea. Item "K".	2 in. x 4 in. x 18 in. Secure to floor, lengthwise of car, with four 30-D nails. Not required when steel straps are used, per pattern 19.
M	4 ea. unit.	4 strands, No. 8 gage black annealed wire. Pass through spokes, or holes in disc wheels, at front end, and through stake pockets. Pass through bogie assembly at rear end and through stake pockets. Tighten only enough to remove slack. Not required for units loaded in gondola cars.

Hand brakes must be set and levers wired or blocked.

See General Rules 4, 5, 9, 11, 14, 15, 19-A and 19-B for further details.

MAJOR CALIBRE GUN BARRELS

GENERAL INSTRUCTIONS

Cars used for transporting gun barrels must conform to the requirements of General Rule 21.

As shipments will in most cases require a minimum of two cars, the cars should be equipped as follows:

Each car should be fitted with a pivoted bolster in the center of the car. The bolster on one car should have a Fixed Center Plate, while the bolster on the other car should have a Movable Center Plate, see Fig. 5. The bolsters, if the property of a railroad, must accompany the cars in both the loaded and empty movement of the cars. Each end of each bolster should be equipped with permanent turnbuckle.

When cars move empty the bolsters should be securely fastened with the turnbuckle hooked to side stake pocket and made taut—on both sides of car. When cars are loaded, these turnbuckles must be unhooked and slid into the ends of the bolsters.

The shippers must provide themselves with blocks, securements and fastenings as shown in Figs. 84, 85 and 86 for shipments of 16 in. gun barrels.

For the shipment of other size gun barrels the same method of securement must be used and the details of same submitted to the originating carrier for approval before shipments are made.

Unless other arrangements are made locally, detail blocks securements and fastenings furnished by shipper, which are not a part of the equipment attached to the car or cars, should be returned to the point of origin, under revenue billing, after the gun barrel has been unloaded; on cars if they are to return to the point of origin, and in other equipment if the cars do not return to the point of origin. Method of securing gun barrel equipment after gun barrel has been unloaded is shown in Figure 86.

METHOD OF LOADING

Remove both turnbuckle hooks from each side of bolsters and slide them into ends of bolsters.

Place the "Movable Center Plate" flush with the edge of the bolster so that center plate is in the dead center of the bolster. (This is important to provide for necessary slack action in the cars.)

The breech end of the gun barrel must be placed on the bolster with the "Fixed Center Plate" and must always lead in the direction the car is moving.

The gun barrel must be so placed on both bolsters that the center of gravity of the barrel is directly over the center line of car coupling, so that each car will carry approximately one-half the weight of the gun barrel.

Clamping blocks over gun barrel at each bolster must be placed through rods and drawn down tight to firmly secure barrel.

Center Clamp, Item "M", must be placed around gun barrel in position indicated on print over burlap and nuts on front and back rods drawn up tight.

Breech end of gun barrel must be covered with canvas and held in place by band, Item "N", and breech block, Item "O".

Nuts on rods through breech block, Item "O", and breech block plate, Item "P", must be tightened simultaneously so that the bolster is square with car when the rods are securely tightened.

Muzzle end of gun barrel must be covered with canvas held in place by band, Item "Q", and muzzle block, Item "R".

Tighten the nuts on the rods at muzzle block sufficient to take up slack, then move the cars forward and backward, measuring the distance the "Movable Center Plate" moves past the bolster edge on each side, add them together—divide by two, then set the bolster in this center of the "Movable Center Plate" and tighten up the muzzle rod nuts simultaneously so that the bolster is square with the car when the rods are securely tightened.

All rods must be double nutted.

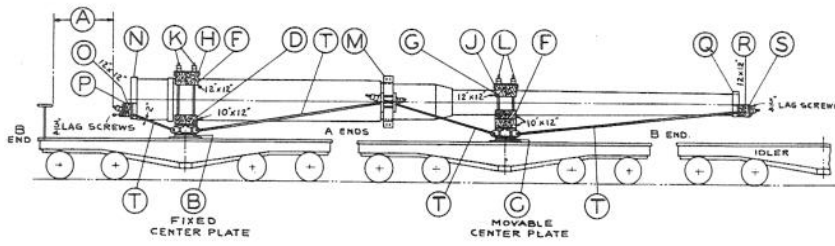
If necessary on account of length, to protect muzzle end of gun barrel, a flat car of the required length should be used as an idler.

Cars carrying major calibre gun barrels should be placed on the head end of a train to avoid slack action and should move at a speed not to exceed 30 miles per hour with the breech end of the barrel always leading in the direction the train is moving while in road movement.

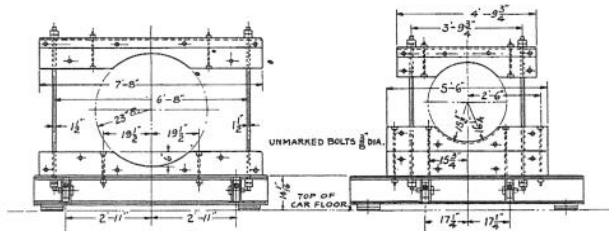
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Sec. 6—Fig. 84

GUN BARRELS, 16 IN. 45 CALIBRE—FLAT CARS

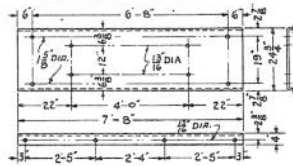


DETAILS

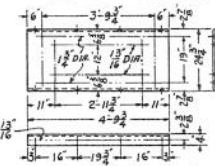


SKETCH-1
ITEMS-B-D-F-H-K

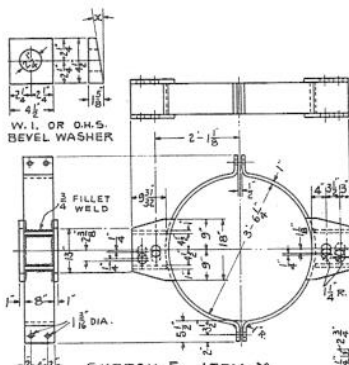
SKETCH-2
ITEMS C-E-G-J-L



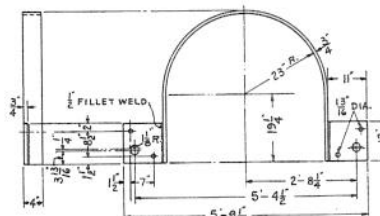
SKETCH-3 ITEM-H
BREECH YOKE CAP
C.B.S. OR O.H.S.



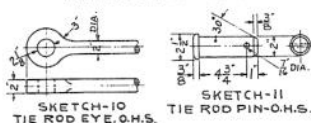
SKETCH-4 ITEM-J
BARREL YOKE CAP
C.B.S. OR O.H.S.



SKETCH-5 ITEM-M
BARREL CLAMP
C.B.S. OR O.H.S.

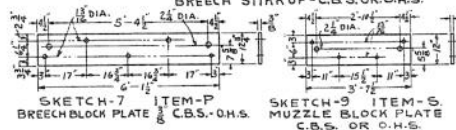


SKETCH-6 ITEM-N
BREECH STIRRUP-C.B.S. OR O.H.S.



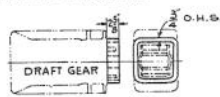
SKETCH-10
TIE ROD EYE O.H.S.

SKETCH-11
TIE ROD PIN O.H.S.

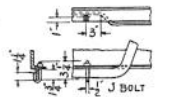


SKETCH-7 ITEM-P
BREECH BLOCK PLATE
C.B.S. O.H.S.

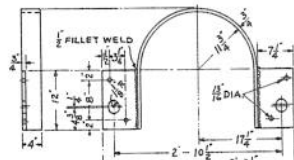
SKETCH-9 ITEM-S
MUZZLE BLOCK PLATE
C.B.S. OR O.H.S.



SKETCH-12
METHOD OF BLOCKING
DRAFT GEAR



SKETCH-13
METHOD OF FASTENING
UNCOUPLING LEVERS



SKETCH-8 ITEM-G
MUZZLE STIRRUP C.B.S. OR O.H.S.

Sec. 6—Fig. 84

GUN BARRELS, 16 IN. 45 CALIBRE—FLAT CARS

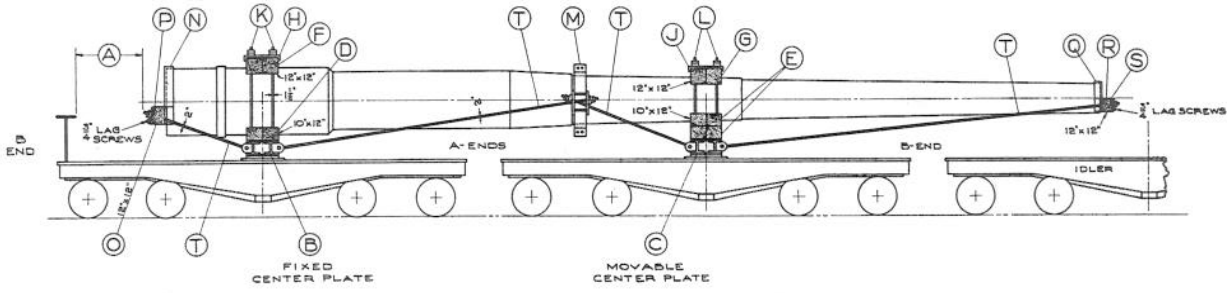
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2 .
B	1	Fixed center plate and bolster. See Sketch 1.
C	1	Movable center plate and bolster. See Sketch 2.
D	2	Cradle, breech end. See Sketch 1.
E	4	Cradle, barrel end. See Sketch 2.
F	2	Timber clamp, breech end. See Sketch 1.
G	2	Timber clamp, barrel end. See Sketch 2.
H	1	Yoke cap, breech end. See Sketches 1 and 3.
J	1	Yoke cap, barrel end. See Sketches 2 and 4.
K	4	Timber clamp bolts, breech end. See Sketch 1.
L	4	Timber clamp, bolts, barrel end. See Sketch 2.
M	1	Clamp, barrel. See Sketch 5.
N	1	Stirrup, breech end. See Sketch 6.
O	1	Stirrup block, breech end.
P	1	Block plate, breech end. See Sketch 7.
Q	1	Stirrup, muzzle end. See Sketch 8.
R	1	Stirrup block, muzzle end.
S	1	Block plate, muzzle end. See Sketch 9.
T	8	Tie rods. See Sketches 10 and 11.

At A ends of cars, draft gears must be blocked and made inoperative, see Sketch 12 or Fig. 3. Uncoupling levers must be securely fastened to prevent operation of same in transit, see Sketch 13 or Fig. 4.

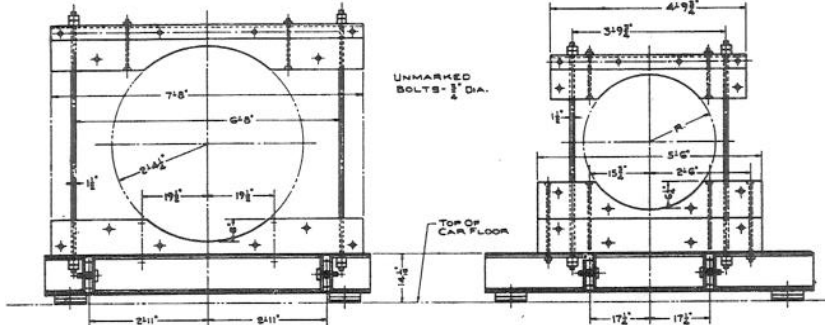
See General Rules 4, 5, 6, 7, 8, 9, 12, 15, 16 and 21 for further details.

Sec. 6—Fig. 85

GUN BARRELS, 16 IN. 50 CALIBRE—FLAT CARS

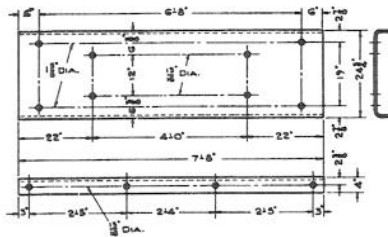


DETAILS

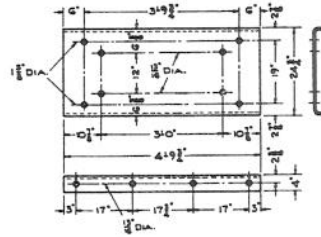


SKETCH-1 ITEMS B-D-H-F-K

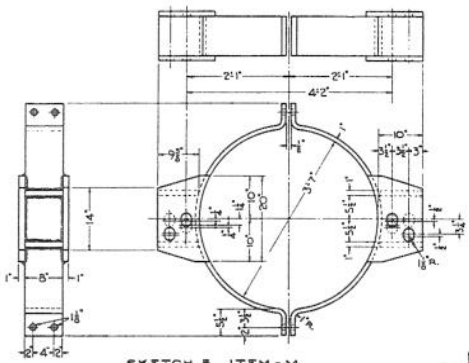
SKETCH-2 ITEMS C-E-G-J-L



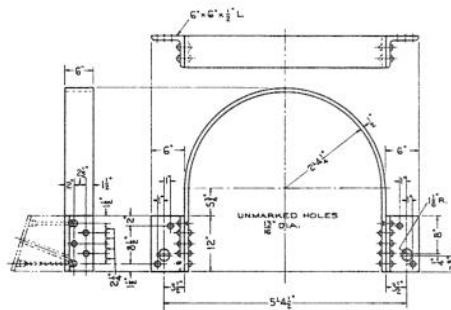
SKETCH-3 ITEM-H
BREECH YOKE CAP
3/8" C.B.S. OR O.H.S.



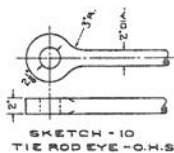
SKETCH-4 ITEM-J
BARREL YOKE CAP
1/2" C.B.S. OR O.H.S.



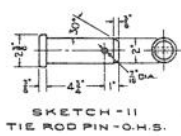
SKETCH-5 ITEM-M
BARREL CLAMP—C.B.S. OR O.H.S.



SKETCH-6 ITEM-N
BREECH STIRRUP—C.B.S. OR O.H.S.



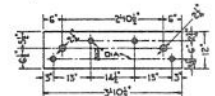
SKETCH-10
TIE ROD EYE—O.H.S.



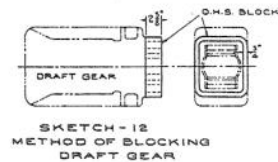
SKETCH-11
TIE ROD PIN—O.H.S.



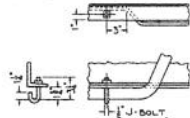
SKETCH-7 ITEM-P
BREECH BLOCK PLATE
1/2" C.B.S. OR O.H.S.



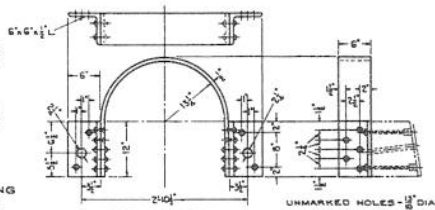
SKETCH-9 ITEM-S
MUZZLE BLOCK PLATE
3/8" C.B.S. OR O.H.S.



SKETCH-12
METHOD OF BLOCKING
DRAFT GEAR



SKETCH-13
METHOD OF FASTENING
UNCOUPLING LEVERS



SKETCH-8 ITEM-Q
MUZZLE STIRRUP—C.B.S. OR O.H.S.

Sec. 6—Fig. 85

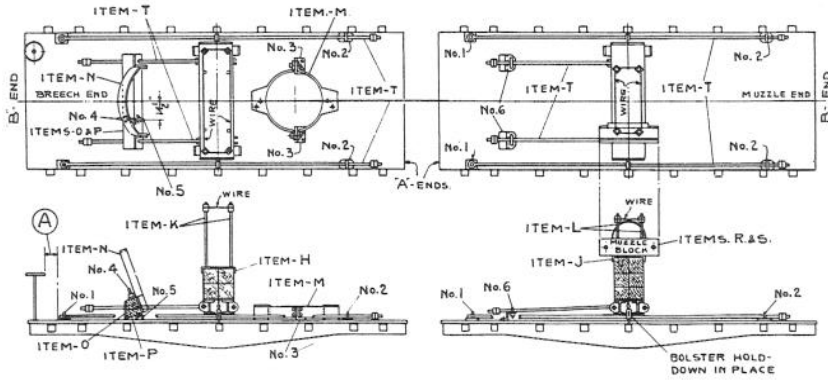
GUN BARRELS, 16 IN. 50 CALIBRE—FLAT CARS

Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	1	Fixed center plate and bolster. See Sketch 1.
C	1	Movable center plate and bolster. See Sketch 2.
D	2	Cradle, breech end. See Sketch 1.
E	4	Cradle, barrel end. See Sketch 2.
F	2	Timber clamp, breech end. See Sketch 1.
G	2	Timber clamp, barrel end. See Sketch 2.
H	1	Yoke cap, breech end. See Sketches 1 and 3.
J	1	Yoke cap, barrel end. See Sketches 2 and 4.
K	4	Timber clamp bolts, breech end. See Sketch 1.
L	4	Timber clamp bolts, barrel end. See Sketch 2.
M	1	Clamp, barrel. See Sketch 5.
N	1	Stirrup, breech end. See Sketch 6.
O	1	Stirrup block, breech end.
P	1	Block plate, breech end. See Sketch 7.
Q	1	Stirrup, muzzle end. See Sketch 8.
R	1	Stirrup block, muzzle end.
S	1	Block plate muzzle end. See Sketch 9.
T	8	Tie rods. See Sketches 10 and 11.

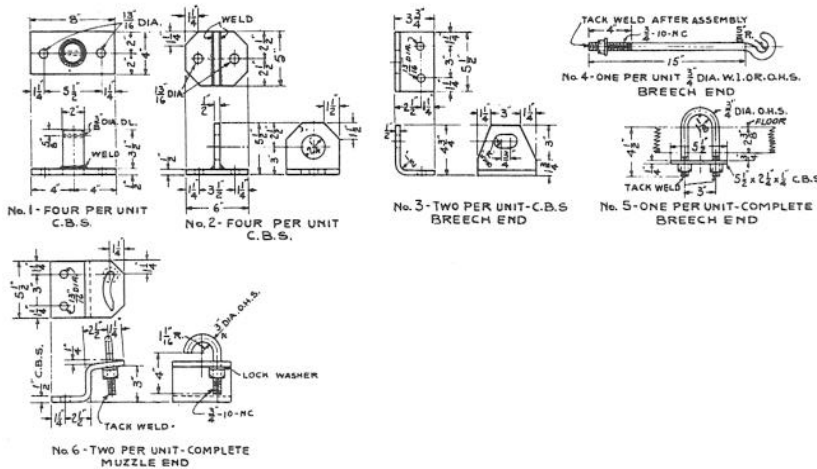
At A ends of cars, draft gears must be blocked and made inoperative, see Sketch 12 or Fig. 3. Uncoupling levers must be securely fastened to prevent operation of same in transit, see Sketch 13 or Fig. 4.

See General Rules 4, 5, 6, 7, 8, 9, 12, 15, 16 and 21 for further details.

Sec. 6—Fig. 86
 METHOD OF SECURING GUN BARREL EQUIPMENT AFTER GUN BARREL HAS BEEN UNLOADED



DETAILS



The two carrying cars equipped with steel bolsters must remain coupled together. The steel bolster must always remain with its assigned car.

The bolsters must be securely fastened with turnbuckles, hooked to side stake pockets and made taut on both sides of car.

Unless otherwise provided for by special instructions, the shipper's securement and fastenings removed from the gun barrel should be returned with the cars to the shipper, secured to the cars as shown in Figure 86.

Place the breech block and plate, Items "O" and "P", and the band, Item "N" on floor, so that hook, No. 4 may be engaged with U-bolt No. 5 in floor and tighten nut on No. 4, clamping breech block, plate and band to floor.

Place the center clamp, Item "M", on the floor of the fixed center plate bolster car, using clamping bolts in clamp, for securing clamp to anchors No. 3 on floor of car.

Place the fixed center plate bolster to center clamp rods, Item "T", and the movable center plate bolster to muzzle rods, Item "T", on floor each side of cars. The threaded end through hole in No. 2, and the eye over No. 1 secured with 3/8 in. x 3 in cotter pins in No. 1. The nuts then to be jammed together.

Place the rods from the center clamp to movable center plate bolster, Items "T", in J-bolt clamp, No. 6 on floor and tighten nuts on J-bolts, clamping the rods, and jam the nuts on rods together.

Top bolster blocks to be placed on bottom blocks, and muzzle end blocks, plate and band, Items "Q", "R" and "S", to be placed on top of top bolster block on movable center plate bolster over the clamp rods, Items "L", on left side of car, and wire clamp rods, Items "K" and "L", (both bolsters) with sufficient tension to hold them taut. The nuts on clamp rods to be jammed with the wire between them.