

Association of American Railroads

**OPERATIONS AND
MAINTENANCE DEPARTMENT**

MECHANICAL DIVISION

RULES GOVERNING THE Loading of Commodities On Open Tops Cars

(For Loading Closed Cars, See Code of Rules Published by
Operating-Transportation Division, Freight Loading and
Container Section.)

Adopted by the
Former Master Car Builders' Association
as Recommended Practice, 1896

Advanced to Standard 1908

**1947 RULES
REVISED 1949**

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Fig. 171

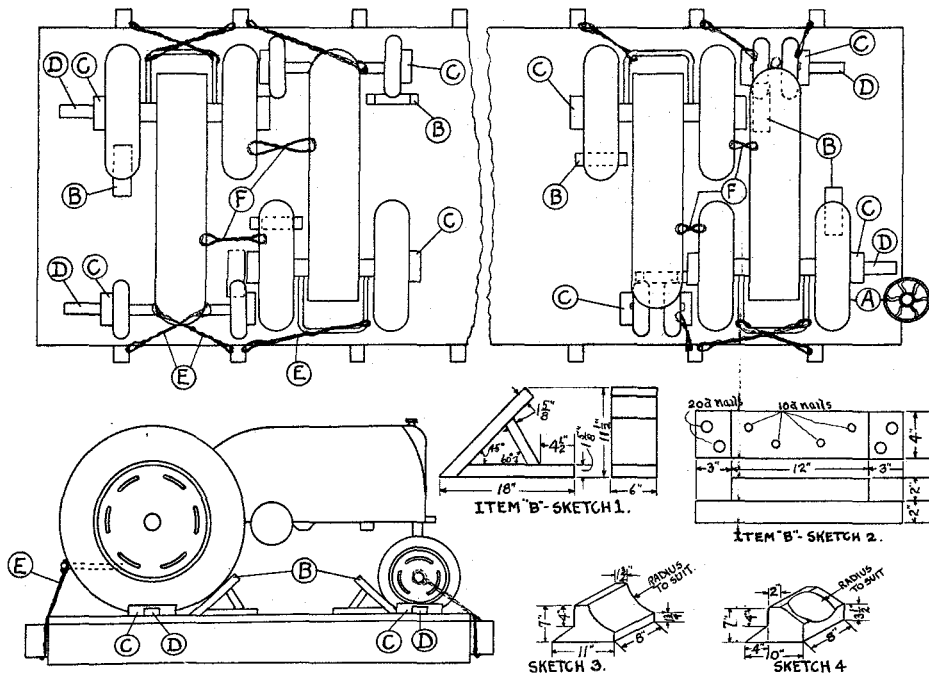


Fig. 171

TRACTORS (WITH OR WITHOUT PNEUMATIC TIRES), CROSSWISE—FLAT CARS

Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2 ea. machine.	Blocks, per Sketches 1, 3 or 4. Center on tread, both either inside or outside of wheels at diagonal corners and nail each to floor with seven 30-D nails. Substitute, if desired, at each location, blocks, per Sketch 2, nailed to floor with four 20-D nails in each, or hardwood blocks, 4 in. x 4 in. x 12 in., nailed to floor with four 50-D nails in each. Bevel top edge when used against pneumatic tires. Vertical holes, slightly smaller than the diameter of nails, must be drilled through the 4 in. blocks, when used.
C	1 ea. wheel.	Blocks, 3 in. x 3 in. x 12 in. Locate against outside of each wheel and nail to floor with four 50-D nails. Bevel top edge when used against pneumatic tires.
D	2 ea. end machine	Blocks, 2 in. x 4 in. x 12 in. Locate against Items "C", lengthwise of car, and nail to floor with three 30-D nails in each.
E	4 ea. end machine; 2 ea. intermediate machine.	Each to consist of six strands, No. 9 ga. black annealed wire. Pass three wires over front axle and three wires through machine at rear and through stake pocket or pockets. Overlap ends of wires and twist taut.
F	2 ea. side by side machine.	Each to consist of six strands, No. 9 ga. black annealed wire. Pass three wires around frame, spokes, or through holes in plate of wheels, or through a suitable bracket attached to each side by side machine with at least one $\frac{1}{2}$ in. dia. bolt, so as to tie machines together at front and rear in the most effective manner. Overlap ends of wires and twist taut.

Detached parts, boxed material, etc., must be loaded as far from car sides and ends as practicable and secured to prevent displacement.

Brakes must be tightly set.

See General Rules 1, 5, 9, 10, 15 and 19-A for further details.

Fig. 172-A

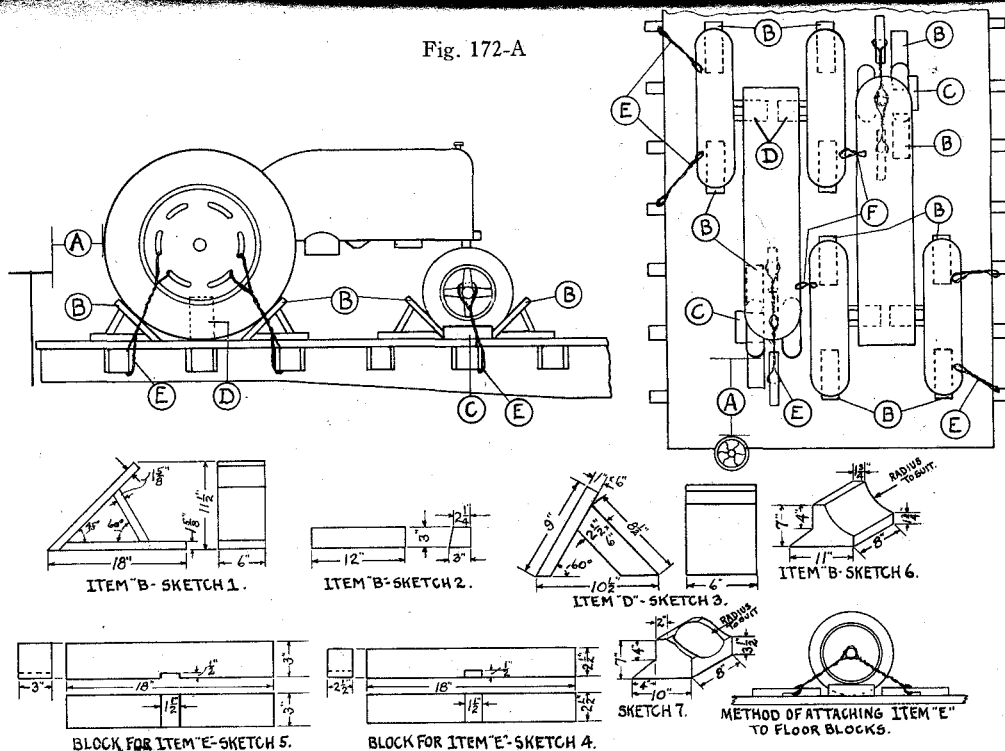


Fig. 172-A

TRACTORS (WITH OR WITHOUT PNEUMATIC TIRES), LENGTHWISE OR DIAGONALLY—FLAT CARS

Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	Four wheel tractors, 8; Row-Crop tractors, 6.	Blocks, per Sketches 1, 6 or 7. Locate one against front and rear of each wheel of four wheel tractors; one against front and rear of each rear wheel and against front and rear of one front wheel of row-crop tractors. Nail each to floor with seven 30-D nails. Substitute, if desired, hardwood blocks, similar to Sketch 1, constructed of 1 in. x 5 in. lumber with strut $1\frac{5}{8}$ in. thick, for machines weighing 4,000 lbs. or less, and at front wheels only, for machines weighing over 4,000 lbs. Nail each to floor with five 30-D nails.
C	1 ea. front wheel.	Blocks, 3 in. x 3 in. x 12 in., Sketch 2. Locate against outside of wheels and nail each to floor with four 50-D nails.
D	1 ea. rear wheel.	Blocks, per Sketch 3. Locate against wheel and nail each to floor with three 30-D nails.
E	1 ea. front wheel, or ea. pr. of dual wheels and two ea. outside rear wheel.	Six strands, No. 9 ga. black annealed wire. Pass three wires through spokes or holes in plates of outside front wheels, or frame, and through stake pockets. When wires cannot be effectively applied to stake pockets, and for units with solid disc wheels, pass wires over axle, or through frame of machine, and underneath notched $2\frac{1}{2}$ in. x $2\frac{1}{2}$ in. x 18 in. hardwood blocks, Sketch 4, nailed to floor with five 40-D nails in each. Size of notch must not exceed $\frac{1}{2}$ in. deep, nor $1\frac{1}{2}$ in. long. Pass three wires through spokes or holes in plate of outside rear wheels and through two stake pockets, or pass wires over axle and underneath notched 3 in. x 3 in. x 18 in. blocks, Sketch 5, nailed to floor with five 50-D nails in each. Overlap ends of wires and twist taut.

Fig. 172-A (Concl.)

TRACTORS (WITH OR WITHOUT PNEUMATIC TIRES), LENGTHWISE OR DIAGONALLY—FLAT CARS

Item	No. of Pcs.	Description
F	2 ea. pr. machines.	Each to consist of six strands, No. 9 ga. black annealed wire. Pass three wires around frame, spokes, or through holes in plate of wheels, or through a suitable bracket attached to each side by side machine with at least one $\frac{1}{2}$ in. dia. bolt, so as to tie machines together at front and rear in the most effective manner. Overlap ends of wires and twist taut.

Vertical holes, slightly smaller than the diameter of nails, must be drilled through blocks, Items "B", "C" and "D".

Detached parts, boxed material, etc., must be loaded as far from car sides and ends as practicable, and must be secured to prevent displacement.

Brakes must be tightly set.

See General Rules 1, 5, 9, 10, 15 and 19-A for further details.

Fig. 172-B

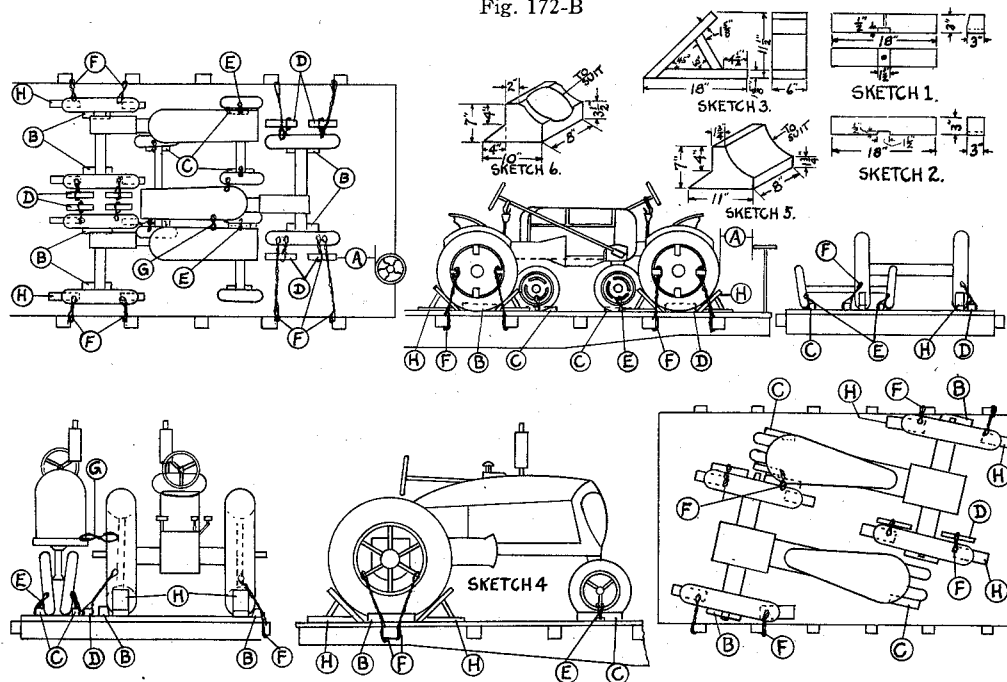


Fig. 172-B

TRACTORS (WITH OR WITHOUT PNEUMATIC TIRES), LENGTHWISE OR DIAGONALLY—WEIGHING OVER 3,000 LBS.—FLAT CARS

Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	1 ea. rear wheel	Blocks, 3 in. x 3 in. x 12 in., hardwood, beveled at top to prevent chafing. Locate both either inside or outside of each rear wheel and nail each to floor with four 50-D nails.
C	1 ea. front wheel.	Blocks, 3 in. x 3 in. x 18 in., hardwood, notched at bottom, Sketch 1, beveled at top to prevent chafing. Locate both blocks either outside or inside of each front wheel and nail each to floor with six 50-D nails. On machines having dual front wheels, nail blocks to floor against outside of wheels. Size of notch not to exceed $\frac{1}{2}$ in. deep nor $1\frac{1}{2}$ in. long. When Item "E" is attached to front end of machine and to stake pocket, block, 3 in. x 3 in. x 12 in., without notch, secured to floor with four 50-D nails, may be substituted for Item "C".
D	2 ea. inside rear wheel.	Blocks, 3 in. x 3 in. x 18 in., hardwood, notched at bottom, Sketch 2. Nail each to floor with six 50-D nails. Size of notch not to exceed $\frac{1}{2}$ in. deep nor $1\frac{1}{2}$ in. long.
E	Four wheel tractors, 2; Row-Crop tractors, 1.	Each to consist of six strands, No. 9 ga. black annealed wire. Pass three wires through holes in plates or spokes of wheels, or through holes in frame near front of machine, and through stake pocket or Item "C". Overlap ends of wires and twist taut.

Fig. 172-B (Concl.)

TRACTORS (WITH OR WITHOUT PNEUMATIC TIRES), LENGTHWISE OR DIAGONALLY—WEIGHING OVER 3,000 LBS.—FLAT CARS

Item	No. of Pcs.	Description
F	2 ea. rear wheel.	Each to consist of six strands, No. 9 ga. black annealed wire. Pass three wires through holes in plate, or around spokes, of outside wheels and preferably through two stake pockets. When two stake pockets are not available, attach wires to one stake pocket, per Sketch 4, or to blocks, Items "D". When space between rear wheels of side by side machines will not permit application of both Items "D" side by side, one Item "D" may be used provided three wires, Items "F", are passed through side by side wheels and around Items "D". Overlap ends of wires and twist taut.
G	2 ea. pr. of machines.	Each to consist of six strands, No. 9 ga. black annealed wire. Pass three wires around frame, spokes, or through holes in plate of wheels, or through a suitable bracket attached to each side by side machine with at least one $\frac{1}{2}$ in. dia. bolt, so as to tie machines together at front and rear in the most effective manner. Overlap ends of wires and twist taut.
H	2 ea. rear wheel.	Blocks, per Sketches 3, 5 or 6. Locate against tread and nail each to floor with seven 30-D nails. When more than two machines are loaded side by side, across car, apply blocks only to wheels of machines nearest sides of car.

Vertical holes, slightly smaller than the diameter of nails, must be drilled through blocks, Items "B", "C" and "D".

Detached parts, boxed material, etc., must be loaded as far from car sides and ends as practicable and secured to prevent displacement.

Brakes must be tightly set.

See General Rules 1, 5, 9, 10, 15 and 19-A for further details.

Fig. 172-C

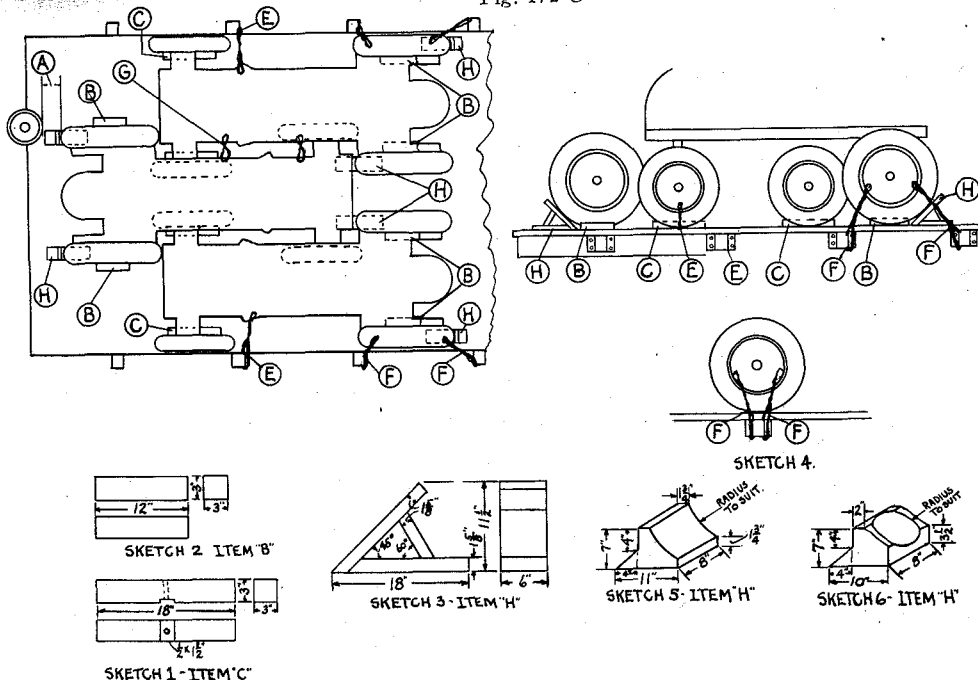


Fig. 172-C

TRACTORS (WITH OR WITHOUT PNEUMATIC TIRES), LENGTHWISE OR DIAGONALLY—WEIGHING 4,000 LBS. OR LESS—FLAT CARS.

Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	1 ea. rear wheel.	Blocks, 3 in. x 3 in. x 12., hardwood, beveled at top to prevent chafing. Locate both either inside or outside of each rear wheel and nail each to floor with four 50-D nails.
C	1 ea. front wheel.	Blocks, 3 in. x 3 in. x 18 in., hardwood, notched at bottom, Sketch 1, beveled at top to prevent chafing. Locate both blocks either outside or inside of each front wheel and nail each to floor with six 50-D nails. On machines having dual front wheels, nail blocks to floor against outside of wheels. Size of notch not to exceed $\frac{1}{2}$ in. deep nor $1\frac{1}{2}$ in. long. When more than two machines are loaded side by side, across car, apply blocks only to wheels of machines nearest sides of car. When Item "E" is attached to front end of machine and to stake pocket, block, 3 in. x 3 in. x 12 in., without notch, secured to floor with four 50-D nails, may be substituted for Item "C".
D		VACANT.
E	Four wheel tractors, 2; Row-Crop tractors, 1.	Each to consist of four strands, No. 9 ga. black annealed wire. Pass two wires through holes in plates or spokes of wheels, or through holes in frame near front of machine, and through stake pocket or Item "C". Overlap ends of wires and twist taut.
F	2 ea. outside rear wheel.	Each to consist of six strands, No. 9 ga. black annealed wire. Pass three wires through holes in plate, or around spokes, of outside wheels and preferably through two stake pockets. When two stake pockets are not available, attach wires to one stake pocket, per Sketch 4, or to blocks, Items "C". Overlap ends of wires and twist taut.

Fig. 172-C (Concl.)

TRACTORS (WITH OR WITHOUT PNEUMATIC TIRES), LENGTHWISE OR DIAGONALLY—WEIGHING 4,000 LBS. OR LESS—FLAT CARS.

Item	No. of Pcs.	Description
G	2 ea. pr. of machines.	Each to consist of six strands, No. 9 ga. black annealed wire. Pass three wires around frame, spokes, or through holes in plate of wheels, or through a suitable bracket attached to each side by side machine with at least one $\frac{1}{2}$ in. dia. bolt, so as to tie machines together at front and rear in the most effective manner. Overlap ends of wires and twist taut.
H	2 ea. machine.	Blocks, per Sketches 3, 5 or 6. Locate one ahead of inside rear wheel and one behind outside rear wheel. Nail each to floor with seven 30-D nails. When more than two machines are loaded side by side, across car, apply blocks only to wheels of machines nearest sides of car. Substitute, if desired, hardwood blocks, similar to Sketch 3, constructed of 1 in. x 5 in. lumber with strut $1\frac{5}{8}$ in. thick. Nail each to floor with five 30-D nails.

Vertical holes, slightly smaller than the diameter of nails, must be drilled through blocks, Items "B" and "C".

Detached parts, boxed material, etc., must be loaded as far from car sides and ends as practicable and secured to prevent displacement.

Brakes must be tightly set.

See General Rules 1, 5, 9, 10, 15 and 19-A for further details.