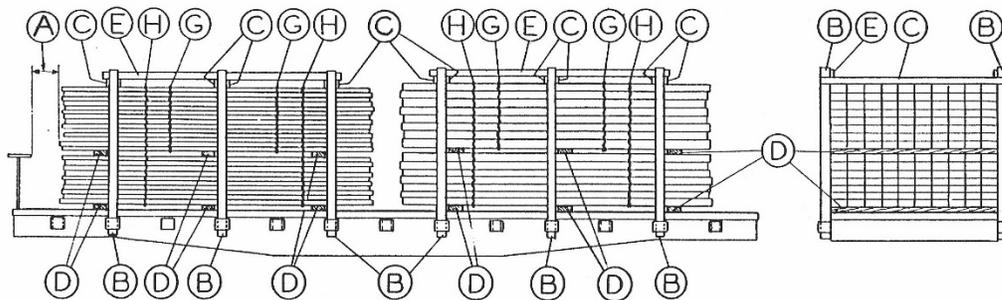


Open Top Cars and Their Loads  
 Handout for 2019 Chicagoland RPM Presentation  
 By Jerry Hamsmith and Ed Rethwisch

\* AAR rules for lumber loads on flat cars

Fig. 7



F-BRACES (NOT SHOWN)

A.A.R. MAY 1, 1953

Fig. 7

LUMBER, INCLUDING TIES, FENCE POSTS, ETC.—FLAT CARS

Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	3 pr. per pile.	Stakes, hardwood, southern pine, long leaf pine, fir, spruce, larch or hemlock, minimum size; for flat cars or gondola cars with sides less than 30 in. high, 4 in. x 5 in. sawed, or green saplings 5 in. dia. measured midway between top and bottom; for gondola cars with sides 30 in. high or over, 4 in. x 4-in. sawed or green saplings 4½ in. dia. measured midway between top and bottom. They must extend 4 in. below bottom edge of stake pockets 7 in. deep or less, and as far as possible below bottom edge of stake pockets more than 7 in. deep. They must be sawed off at the top (not chopped off), only when they exceed Railway Line Clearance, but high enough above Item "C" to permit full width contact of longitudinal ties, Item "E". Space as uniformly as possible on piles consisting of equal lengths and to protect shortest pieces on piles consisting of unequal lengths. Wedge from under side of pocket so as to provide tight fit in stake pocket and securely nail to stake with at least two 8-D nails. Not required for stake pockets 10 in. or more in depth. When wedges are not required or cannot be used, drive a 40-D nail into stake directly below and with head even with outside of stake pocket, or into stake through hole in center of stake pocket. Load tight against stakes. Space between stakes to be filled solid if dimensions of lumber will permit. If not, pack with vertical filler stakes, two or three per pile, suitably located, and secure with "B" block at top of filler, Sketch 1. Thickness of filler to be equal to width of space to be filled, width to be equal to or greater than thickness. Substitute, if desired, vertical blocking as shown in Sketches 5 or 6.
C	As required, ea. pr. of Items "B".	Cross ties, as follows: Two 1 in. x 4 in., in one piece (free from decay and strength impairing knots) long enough to be sawed off (not chopped off) flush with outside face of each Item "B", secured to each Item "B", with three 8-D nails. or Six strands, No. 11 gage black annealed wire, secured to opposite Items "B", twisted taut. or

Fig. 7 (Continued)

LUMBER, INCLUDING TIES, FENCE POSTS, ETC.—FLAT CARS

Item	No. of Pcs.	Description
C	(Concl.)	One strand, ¾ in. x .035 in. high tension band, looped around and sealed near each stake. or One strand, ¾ in. x .035 in. high tension band, encircling opposite stakes and sealed near center of loop. or One strand, No. 8 gage high tension wire, looped around and machine tied near each stake. or One strand, No. 8 gage high tension wire, encircling opposite stakes and machine tied near center of loop. Locate about 1 in. above top of load.
D	Pile 12 ft. to 24 ft. long, inc., 3. Pile over 24 ft. long, 4.	Separators, 1 in. x 3 in., preferably rough, in one piece. Length must be equal to but must not extend beyond inside face of stakes. Thicker pieces, maximum thickness 4 in., may be used, provided they are at least 2 in. wider than their thickness. They may consist of two pieces nailed together with not less than six nails clinched on back. Locate end pieces about 2 ft. 6 in. from ends of piles 15 ft. long or less, about 3 ft. from ends of piles over 15 ft. to 24 ft., and about 4 ft. from ends of piles over 24 ft. long, intermediate pieces to be spaced as equally as possible. Place them in line with stakes, where practical. On loads exceeding 4 ft. high above car floor apply sufficient separators to divide the load in divisions of approximately 4 ft. each, the top separators to be located not less than 3 ft. from top of load. Floor bearing pieces must not exceed size and spacing of Item "D". Separators not required for loads 4 ft. high or less.
E	As required.	Longitudinal ties, 1 in. x 4 in. (free from decay and strength impairing knots), long enough to extend 4 in. beyond Items "B" nearest to each end of pile. Secure to inside face of each Item "B" directly above or below Items "C" with three 8-D nails. Ends of ties must overlap each other not less than two feet, each joint to be secured with five 8-D nails, clinched on back.

Fig. 7 (Continued)

LUMBER, INCLUDING TIES, FENCE POSTS, ETC.—FLAT CARS

Item	No. of Pcs.	Description
F	As required.	For piles 24 ft. long, or less, use one brace (Sketches 2 or 4). Locate at about center of pile.  For piles over 24 ft. in length, use two braces (Sketches 3 or 4). Locate about one-fourth length of pile from each end of pile. Reverse ends of braces if Sketch 3 is used.
G	2 per pile.	All incomplete top layers must be braced regardless of dimensions of lading.  3 strands, No. 11 gage black annealed wire, cable twisted before application, encircling top half or top third of pile, depending on number of separators used, twisted taut. Locate one tie about one-third length of pile from each end. Substitute, if desired, at each location, one 1 1/4 in. x .035 in. high tension band, or one No. 8 gage high tension wire. Wires or bands must be placed as far away from stakes and separators as practicable.  Where lumber comprising the top one-half or one-third of pile is tied into two or three side by side units, individually tied with ties as specified under Item "G" and completely fills all space between Items "B", additional Items "G" tying the two or three side by side units into one unit, are not required.
H	2 per pile	3 strands, No. 11 gage black annealed wire, cable twisted before application, encircling entire pile twisted taut, one tie located about one-fourth length of pile from each end. Substitute, if desired, at each location, one 1 1/4 in. x .035 in. high tension band, or one No. 8 gage high tension wire. Wires or bands must be placed as far away from stakes and separators as practicable.
J	Pile 12 ft. to 24 ft. long, incl. 3. Pile over 24 ft. long to 40 ft. long, 4. Pile over 40 ft. long, 5.	Unit separators, 2 in. x 4 in. preferably rough in one piece. Length must be equal to but must not extend beyond side of unit, pile or package. Locate at approximate vertical center of unit, pile or package in line with Items "D". Use optional.

Two or more end for end piles must be as close together as possible to prevent shifting.  
  
When lumber of unequal lengths is loaded in the same unit, pile or package, longer lengths must not overhang the shortest lengths in any tier by more than the following:

Fig. 7 (Concluded)

LUMBER, INCLUDING TIES, FENCE POSTS, ETC.—FLAT CARS

Thickness	Length	Total Amount of Overhang
Any	Under 10 ft.	None
Any	10 ft. to 12 ft.	2 ft.
Under 3 in.	Over 12 ft. to 24 ft., inc.	4 ft.
Under 3 in.	Over 24 ft.	6 ft.
3 in. and over	Over 12 ft.	8 ft.

Load lumber less than 12 ft. as follows:

- (1) No lengths less than 12 ft. to be loaded on outside of end piles.
- (2) Lumber of 6, 8 and 10 ft. lengths may be loaded in the same pile in center of car between end piles if banded with two 1 1/4" bands or two number 8 gage high tension wires and protected with two stakes on each side and located as close as possible to adjacent piles.
- (3) Lengths ranging downward to 8 ft. minimum except as provided in Section (2) may be loaded on inside of end piles, provided:
  - a. Lumber in piles of uniform lengths less than 12 ft. must not be loaded within 24 in. of the top of pile.
  - b. Random length lumber under 4 in. in thickness, lapped and interwoven, including 6 ft., 8 ft. and 10 ft. lengths must have at least six layers on the top with no lengths less than 12 ft. in these layers.
  - c. Random length lumber 4 in. and over in thickness, lapped and interwoven, including 6 ft., 8 ft. and 10 ft. lengths, must not be loaded within 24 in. of the top of pile.

Stickers — Number and location optional. When used, they must conform to the following:

- (1) Must be of uniform thickness throughout in one piece. Length must be equal to but must not extend beyond side of unit, pile or package.
- (2) Must not be less than 1/4 in. or more than 1 in. in thickness.
- (3) Must be not less than one inch in width on 1/2-inch material; over 1/2-inch and not over 3/8-inch in thickness, width must not be less than 1 1/2 inches. On thicker material, width must be at least twice the thickness.
- (4) Placed in pile so as to be located as near as practicable over separators or bearing pieces when unit, pile or package is loaded on car.

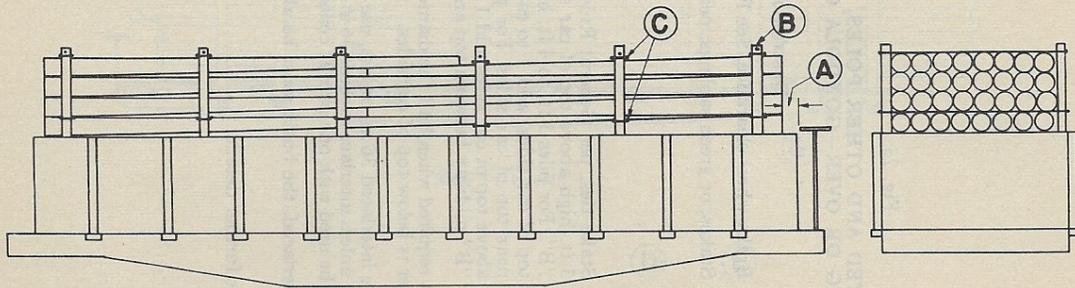
Lumber used on top of loads to protect it from the elements must be secured in a complete unit so as to prevent it from becoming disarranged or dislodged. It must be secured by Items "G" when they are used, or by two similar ties encircling all lumber above the top separators when Items "G" are not used.

When load contains lumber 3 in. or over in thickness of various lengths, the longest lengths should preferably be placed in the lower portion of the load.

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

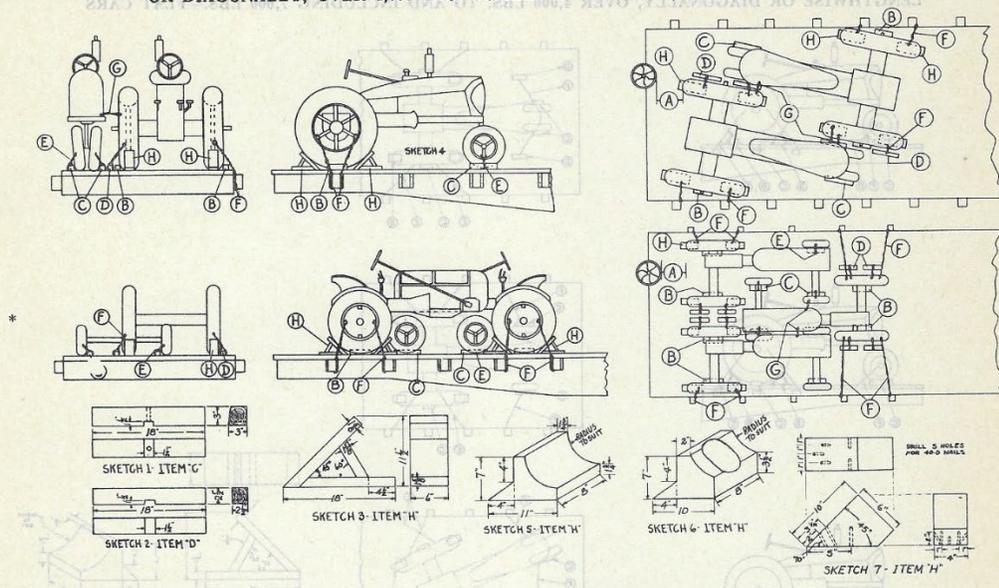
\* AAR rules for pole loads on gondolas

Fig. 23





TRACTORS (WITH OR WITHOUT PNEUMATIC TIRES), BOTH ROW-CROP AND CONVENTIONAL, LENGTHWISE OR DIAGONALLY, OVER 4,000 LBS. TO AND INCLUDING 7,000 LBS.—FLAT CARS



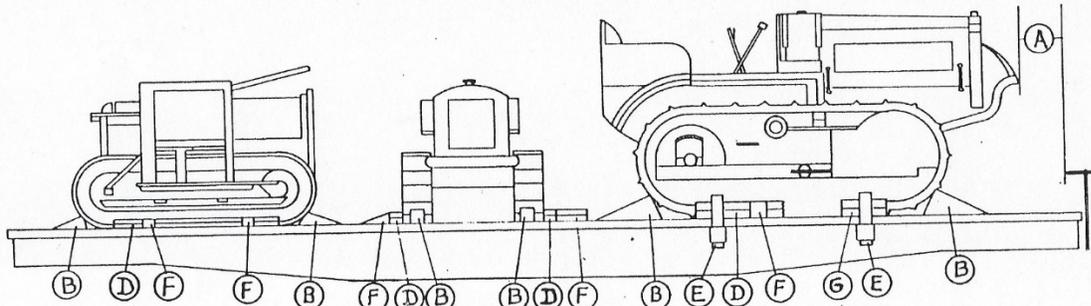
Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2, Sec. 1.
B	1 ea. rear wheel	Blocks, 3 in. x 3 in. x 12 in., hardwood, beveled at top to prevent chafing. Locate both either inside or outside of each rear wheel and nail each to floor with four 50-D nails.
C	1 ea. front wheel.	Blocks, per 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 1/2 in. deep nor 1 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, per Sketch 2 or tie-down plates Pattern 32. Size of notch not to exceed 1/2 in. deep nor 1 1/2 in. long. Secure Sketch 2 blocks to floor with six 50-D nails and Pattern 32 plates with ten 10-D nails.
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.
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 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, 6 or 7. Locate against tread and nail each to floor with five 40-D or seven 30-D nails. When more than two tractors are loaded side by side, across car, apply blocks only to wheels of tractors 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.  
Tractor tires must be inflated as uniformly as possible to a minimum of 18 lbs. for two-ply and 27 lbs. for tires of four-ply or more.  
Brakes must be tightly set.  
See General Rules 4, 5, 9, 14, 15, 19-A and 19-B for further details.

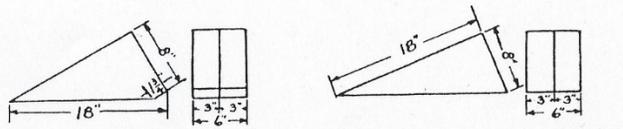
Diagram and description from 1966 book

**\* AAR rules for crawler tractors loading on flat cars**

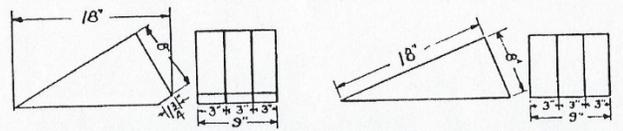
Fig. 51



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ITEM "B" FOR MACHINES WEIGHING 5000 TO 25000 LB. INC.



ITEM "B" FOR MACHINES WEIGHING OVER 25000 LB.

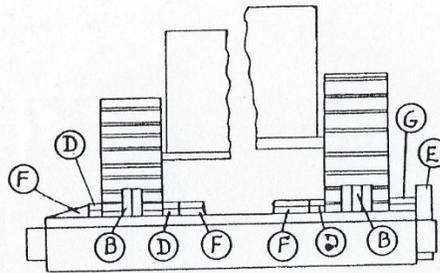


Fig. 51

**TRACTORS, CRAWLER TYPE (WITH OR WITHOUT GROUSERS), OVER 5,000 LBS. — FLAT OR GONDOLA CARS**

Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	4 ea. unit.	Each to consist of two wedge shaped blocks, 3 in. x 8 in. x 18 in., or equivalent, for machines weighing 5,000 lbs. to 25,000 lbs., inclusive, and three blocks for machines weighing over 25,000 lbs. Blocks must be nailed together with five 10-D nails. Locate blocks against each end of crawler treads and nail each to floor with one 20-D, three 40-D and two 60-D nails.
C	2 ea. unit.	VACANT.
D	2 ea. unit.	Each to consist of two pieces 2 in. x 4 in. x 6 ft. Locate both against either outside or inside face of crawler treads. Nail lower pieces to floor with 30-D nails spaced about 10 in. apart and top pieces to those below in similar manner. The use of three pieces in either top or bottom section, to obtain full length, is permissible, provided three Items "P", equally spaced, are used. Substitute, if desired, at each location, one piece 3 in. x 4 in. x 6 ft. Nail to floor with 40-D nails spaced about 10 in. apart. When Items "D" are used against inside face of crawlers, use two fillers, each to consist of two 2 in. x 4 in. pieces long enough to fill space between Items "D". Locate about 12 in. from ends of Items "D". Nail lower pieces to floor with six 20-D nails, equally spaced, and top pieces to those below with six 30-D nails in each. Not required when Items "G" are used on machines loaded lengthwise.
E	4 ea. unit.	4 in. x 5 in., hardwood, long enough to extend 8 in. above floor. Drive a 40-D nail into stake directly below and with head even with outside of stake pocket, or into stake through hole in center of stake pocket. Use three stakes on each side of each machine when Items "D" and "F" are not used. Not required for machines weighing 25,000 lbs. or less, nor for machines weighing over 25,000 lbs. when loaded in gondola cars.

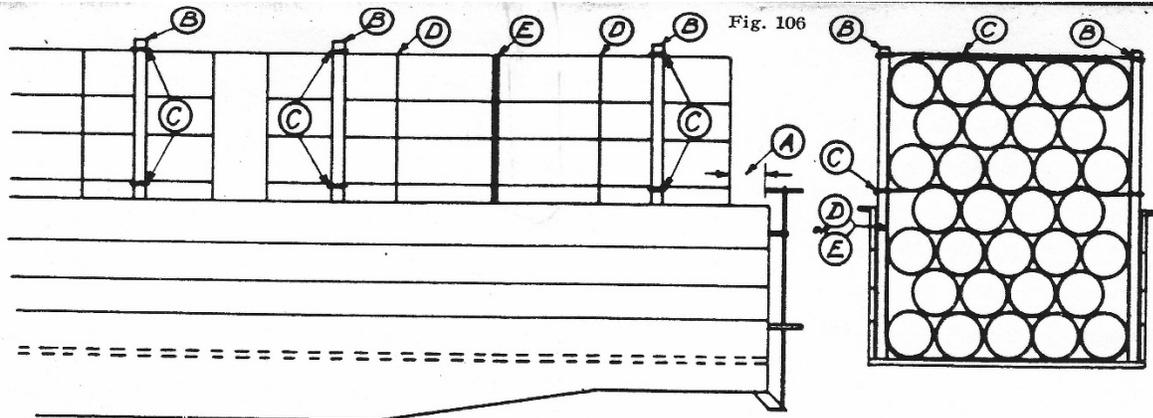
Fig. 51 (Concluded)

**TRACTORS, CRAWLER TYPE (WITH OR WITHOUT GROUSERS), OVER 5,000 LBS. — FLAT OR GONDOLA CARS**

Item	No. of Pcs.	Description
F	4 ea. unit.	Wedge shaped blocks 4 in. wide, 12 in. long, height equal to height of Item "D". Locate about 12 in. from ends of Item "D", and nail each to floor with five 30-D nails. Substitute, if desired, two 2 in. x 4 in. x 12 in. pieces at each location. Nail lower pieces to floor with five 20-D nails and top pieces to those below with five 30-D nails in each. When three Items "P" are used, locate one about 12 in. from each end of Item "D" and one at center. Not required when Items "G" are used on machines loaded lengthwise, nor when machines are loaded in gondola cars.
G	4 ea. unit.	Each to consist of two pieces, 2 in. thick, 16 in. long, wide enough to completely fill space between Items "E" and crawler treads. Locate one near each end of crawler bearing on floor. Nail lower piece to floor with six 30-D nails and top pieces to those below with six 30-D nails in each. Not required when Items "D" and "F" are used on machines loaded lengthwise, nor on machines loaded crosswise. Where length of machine and spacing of stake pockets will permit, use three Items "E" and three Items "G" on each side of each machine loaded lengthwise. Detached parts, boxed material, etc., must be located as far from car sides and ends as practicable and secured to prevent displacement. Brakes must be tightly set and wired. See General Rules 4, 5, 9, 10, 14, 15 and 19-A for further details.

Diagram and description from 1953 booklet

**\* AAR rules for corrugated pipe loading on gons and flats**

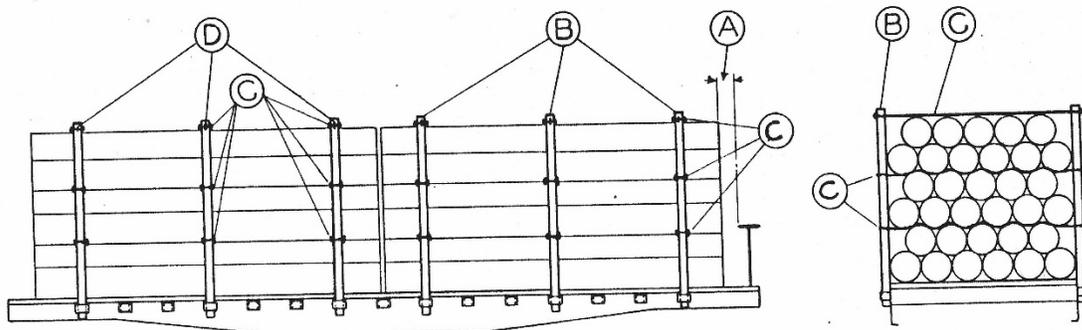


**MINIMUM REQUIREMENTS FOR SECURING GALVANIZED CORRUGATED PIPE GONDOLA CARS**

Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	2 pairs per pile	4 in. x 4 in., hardwood, or green saplings 4½ in. dia. at center.
C	2 ea. pair stakes	½ in. dia. wire, 4 strands, 2 wrappings, at top of load and above first row of pipe extending wholly or partially above car side.
D	2 per pile 30 ft. long or less 4 per pile over 30 ft. long	½ in. dia. wire, 4 strands, 4 wrappings, around entire pile, about 4 ft. from each end of pipe.
E	1 per pile 30 ft. long or less 2 per pile over 30 ft. long	Not required when item "E" is used. 2 in. x .050 High tension band, strength 10,600 lbs. each, around entire pile at center, not required when items "D" are used.

See General Rules for further details.

**FIGURE 108**



**MINIMUM REQUIREMENTS FOR SECURING GALVANIZED CORRUGATED CULVERT PIPE—FLAT CARS**

Item	No. of Pcs.	Description
A		Brake Wheel Clearance. See Fig. 2.
B	3pr. per pile 32 ft. long or less; 4 pr. per pile over 32 ft. long	4 in. x 5 in., hardwood, extending above load to permit application of Item "C" as shown, or green saplings, 5½ in. dia. at center.
C	Ea. pr. stakes, according to height of load	6 strands, 3 wrappings, ½ in. dia. wire, not more than 30 in. apart, and across top of load, twisted taut.
D	As Required	Staple, or nails bent over to prevent wire from working off Item "B."

Smaller pipe may be placed inside of larger pipe.

See General Rules for further details.

\* AAR rules for small transformer loading on flat cars

FIGURE 127

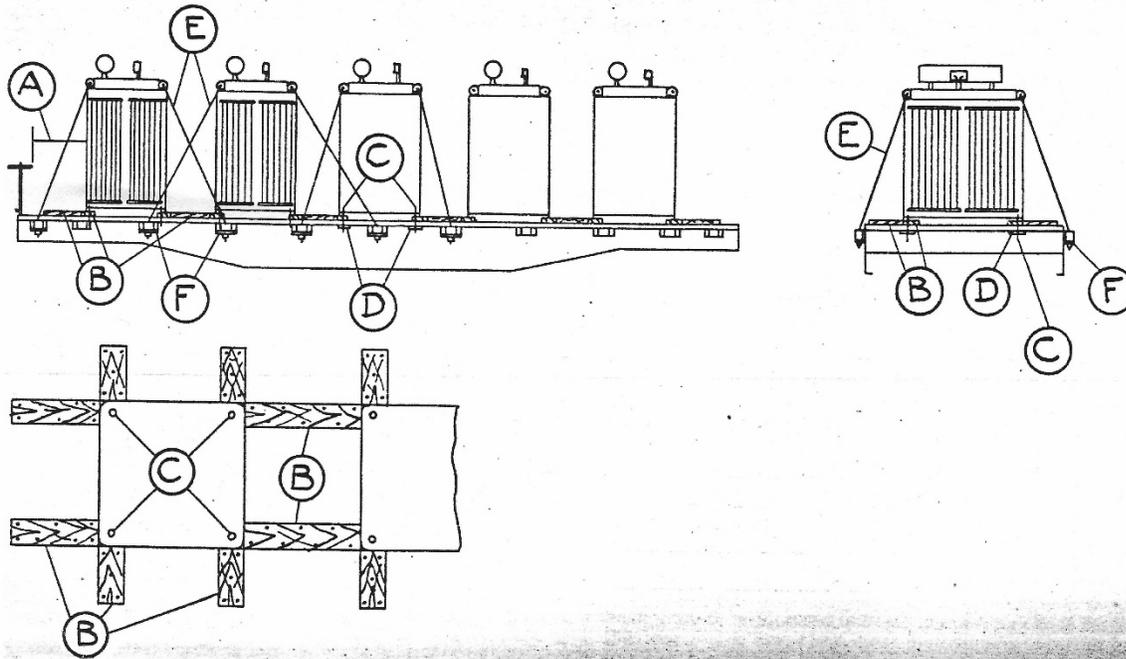


Fig. 127

MINIMUM REQUIREMENTS FOR SECURING TRANSFORMERS WEIGHING 8,000 LBS. OR LESS—FLAT CARS

Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	8 ea. unit.	2 in. x 4 in. x 18 in. side blocks; end blocks, length to suit. Secure each to floor with bolts or 60-D nails.
C	4 ea. unit.	$\frac{3}{4}$ in. dia. rods, extending through bolting lugs and car floor.
D	4 ea. unit.	2 in. x 4 in. x 18 in. cleats, or $\frac{3}{8}$ in. x 4 in. x 6 in. plates.
E	4 ea. unit.	$\frac{3}{4}$ in. dia. rods, or $\frac{5}{8}$ in. steel cable, secured to stake pocket and lifting hook by two 2-bolt cable clamps. Use thimbles to protect both ends of cable.
F	4 ea. Item "E."	$\frac{1}{2}$ in. x 4 in. x 10 in. plate. Not required when $\frac{5}{8}$ in. steel cable is used.

Above applies to transformers not exceeding 5 ft. high, nor 8,000 lbs. in weight, with base 36 in. x 48 in. For sizes and weights exceeding these dimensions and weights, method of securing should be in proportion.

See General Rules for further details.

Diagram and description from the 1953 booklet

**\* AAR rules for loading combines on flat cars**

Fig. 32

**HARVESTER-THRESHERS (COMBINES), 4,000 LBS. OR LESS —  
FLAT CARS**

Item	No. of Pcs.	Description
A		Brake wheel clearance. See Fig. 2.
B	4 ea. machine.	Blocks, per Patterns 2, 19 or 22. Locate in front and back of each wheel. Nail each to floor with four 40-D, or five 30-D, nails.
C	2 ea. machine.	Blocks, per Pattern 4. Locate both against either inside or outside of wheels. Nail each to floor with four 40-D nails.
D	2 ea. machine.	6 strands, No. 9 ga. wire. Pass around hub cap or axle and through stake pockets, or underneath block, per Pattern 6, nailed to floor with six 40-D nails. Twist taut.
E	2 ea. machine.	Blocks, per Pattern 5. Locate on each side of machine, as shown. Nail each to floor with four 30-D nails.
F	1 ea. machine.	Support, per Pattern 25. Locate under frame at rear of machine, as shown. Secure at top with two 30-D nails through bracket holes, and to each Item "G" with three 20-D nails.
G	2 ea. machine.	Blocks, per Pattern 5. Locate against each side of Item "F". Nail each to floor with four 30-D nails.
H	1 ea. machine.	6 strands No. 9 ga. wire. Attach to frame and pass through stake pocket. Twist taut.

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

Fig. 32-A

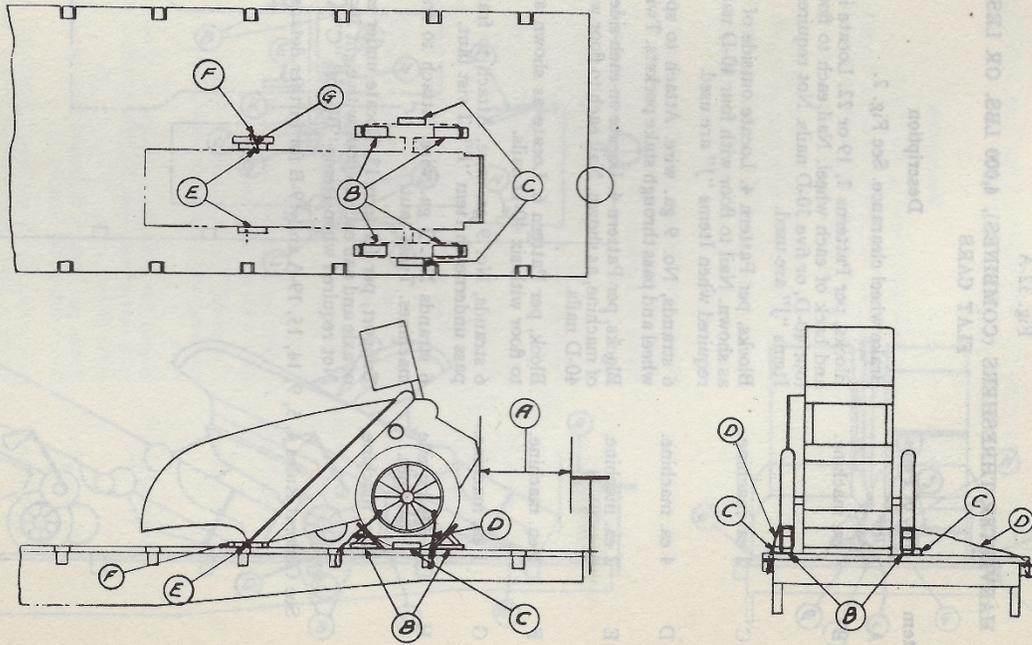


Diagram and description from the 1953 booklet

### 53' 6" GSC COMMONWEALTH CAST FLAT CAR

1950 – 1960 Built Cars

The General Steel Castings flat car underframe was designed prior to WW II but the "standard" 53' 6" length and style was adopted for underframes built after 1950. The list below, adapted from the one appearing in the December 1992 issue of *Railmodel Journal* in an article by James Eager, includes all cars built to this standard design from 1950 to 1960 and given the AAR designation FM.

Various kits and brass imports have modeled this car over the years. In HO scale, Walthers currently produces a model that closely matches the GSC standard car. American Model Builders produces a *Laserkit* for the wood deck of the car or the plastic wooden deck supplied in the Walthers kit can be used. The Walthers kit also provides bulkheads and TOFC mounts for variations of the car. The kits built for WAB used the Walthers basic kit parts and the *Laserkit* deck. Grabs and stirrups were removed from the kit and replaced with brass parts.

Railroad	# series	Date Built	Class
ATSF	90200-90257	1955	Ft-5
	90312-90351	1955	Ft-5
	93300-93499	1952	Ft-W
	93500-93799	1954	Ft-3
	93800-93949	1955	Ft-5
GM&O	72000-72149	3-51	
MKT	13501-13525	1952	
PRR	469000-469999*	1955-56	F41, F41e, F41f
	480000-480299	12-59	F41b, F41f
	*some 106 of these cars had bulkheads		
RDG	9300-9356*	10-54	
		*some of these cars had deck risers	
SLSF	2000-2189	1956	
SOU	51750-51803	1-54	
UP	59000-59249	1956	F-70-1
WAB	100-249*	1954,55-56	
	*further research on these cars produced the following information:		

All cars were 50-ton capacity. As of April, 1955, only 50 cars had been built. #100-129 (30 cars) were classed FM – standard flats. #130-149 (20 cars) were classed FC and equipped for handling Highway Trailer loading. As of April, 1956, 150 cars had been built. #100-109 were listed as FM (10 cars) and #110-149 were listed as FC (40 cars) and it was noted that some of the cars in the series were equipped for Highway Trailer loading. #150-209 were listed as all FM class. #210-239 were all listed as FC class and noted as equipped for Highway Trailer loading. #240-249 were listed as FMS class and noted as equipped with bulkheads. The car decks measured 48' 9" between bulkheads.

**53' 6" A. A. R. 70 TON FLAT CAR**  
PM / C&O Cars

The C&O lines purchased cars from Greenville, built beginning in December 1942 and continuing through 1944. These cars were 53' 6" in length, 10' 6" in width, and 3' 5" high. This very low deck height was designed for tall, heavy loads. The notched deck style accommodated 14 stake pockets per side and an additional two on each end, submerged below the deck. The cars had shallow fishbelly sides and four crossbearers. The C&O's Pere Marquette division acquired 350 cars, numbered 16500-16849. Beginning in 1952, some of the cars were given C&O numbers and identification by removing Pere Marquette, replacing it with Chesapeake & Ohio, and by adding a "2" in front of the PM number.

The car can be modeled by using the Sunshine kit 30.13 in its PM livery. The chart below gives the status of the cars for certain dates throughout the 1950s.

<u>Date</u>	<u>PM # series</u>	<u># of cars in series</u>	<u>C&amp;O # series</u>	<u># of cars in series</u>
1943	16500-16749	250		
1944	16500-16849	350		
Oct. 1950	16500-16849	348		
Jan. 1953	16500-16849	344	216500-216849	3
Apr. 1955	16500-16849	302	216500-216849	45
Oct. 1957	16500-16849	231	216500-216849*	109

\* of the 109 cars in the series, 91 were unmodified, 17 were modified for handling autoframes, and 1 (car 216667) was equipped with an experimental skid for steel loading.

**PRR G29 46' STEEL GONDOLA**  
Wood and Steel Floor Cars

With the standard length of gondolas recently moving from 40' to 46', the Pennsylvania Railroad added 2000 cars of this longer length beginning in 1939. The cars were rated at 70-tons and had all steel construction with welded underframes, a solid bottom, and Dreadnaught ends. These cars initially had wood floors. These railroad-built cars were classified G29 and numbered 357854-359853. They had National Type B-1 trucks. The cars were very long-lived any many made it to the Conrail merger.

After World War II, certain cars were given nailable steel floors when repaired and, in the late 1950s, a few cars were given racks for hauling automobile underframes. Per ORERs, the nailable steel floors were removed from a number of the cars during the 1950s. It is not known why.

In addition to the Sunshine kit (discontinued), F&C produces a model of this class of car. The chart below, prepared from information in the ORERs, summarizes the status of the cars for certain dates in the 1950s and 1960s.

<u>Date</u>	<u># of cars in service</u>	<u># of cars with nailable steel floors</u>	<u># of cars with racks</u>
July 1942	2000	0	0
January 1954	1992	400	0
October 1955	1991	311	0
January 1958	1986	310	0
July 1961	1978	188	6*
April 1962	1977	187	6*

\* The six cars with racks for hauling automobile unframes were: 357960, 358319, 359297, 359337, 359683, 359832

**53' 6" CB&Q 50 TON FLAT CAR**  
**FM-14 and FM-14A**

The CB&Q built 1,590 of these cars in the company shops at Galesburg, Illinois (GT) and Havelock, Nebraska (HV) in seven different lots between 1940 and 1957. These cars were 53' 6" in length, 10' 6" in width, and 3' 11" from the top of the rail to the top of the deck. The notched deck style accommodated 14 stake pockets per side. The car sides were very narrow, and the center sill was of a fish belly design. During their lives, some of the cars were modified to include bulkheads. The as built variation was that the FM-14A cars had the brake rods thru the bolsters, all cars built in the 1950s had this modification.

The chart below gives the status of the cars for certain dates from built date thru 1969.

\* 16 cars were fitted for bulkheads

\*\* 6 cars were fitted for bulkheads

+ cars with bulkheads: 89-139, 140, 153, 154, 159, 172, 186,200,203,227, 318, 344, 370,391,441

<b>Built Date</b>	<b># series</b>	<b># of cars</b>	<b>8/50</b>	<b>11/52</b>	<b>2/55</b>	<b>8/57</b>	<b>2/62</b>	<b>1/69</b>
1940 (GT)	89100-89199	100	{148	{428	{416	{397	{339*	37+
1942 (GT)	89200-89249	50						44+
1950 (HV)	89300-89599	300	300					249+
1942 (GT)	92000-92074	75	{350	{349	{748	{745	{743**	{304#
1942 (HV)	92075-92349	275						382#
1952 (HV)	92400-92799	400	---	400	---	{389	{389	186
1956 (HV)	93000-93189	190	---	---				198
1957 (HV)	93200-93399	200	---	---				

**45' CB&Q 50 Ton Flat Car**  
FM-11 and -11A

The FM-11 class flat car was built at the company shops in Galesburg, Illinois (GT) in 1928 and 1929. These first cars were assigned numbers 91000-91249 and had arch bar freight trucks applied as original equipment. These trucks were replaced with Andrews trucks shortly after initial construction. The FM-11A class was built by the railroad at Galesburg in 1930. These cars were assigned numbers 91250-91849 and had Andrews cast steel freight trucks applied. In all, 850 cars were built. These cars were 45 feet in length over the end sill flanges and 8 foot 10 inches in width over the side sills. The car length over the striker plates was 45 feet 9 inches. The car deck did not extend over the stake pockets. The car height was 4 foot 2 inches from the top of the rail to the top of the floor.

In 1939, 100 of the FM-11A class cars were lengthened to 53' 6" and had their decks extended over the stake pockets. These cars were renumbered into the 89900-89999 series and classed FM-13. Many of the remaining cars were converted to trailer service beginning in 1953. By mid-1957, 170 of the cars had been converted to TOFC service. During 1963 and 1964 certain cars were permanently coupled into pairs to make longer flat cars. 164 such cars became 82 flat cars of 91' length. These cars were renumbered to 88000-88082 and classed FM-11B.

Many cars were converted to company service beginning in the 1950s as well.

The chart below gives the number of cars in service as of specific ORER dates. No mention is made in the ORERs that any of the cars were converted to TOFC service. Company records, however, note conversions beginning in 1953.

<u>ORER DATE</u>	<u># of FM-11 in service</u>	<u># of FM-13 in service</u>
July 1936	848	---
July 1942	748	100
October 1946	747	100
October 1950	650	85
January 1954	606	79
January 1958	551	73
July 1961	507	69