

SECTION No. 1

Association of American Railroads
OPERATIONS AND
MAINTENANCE DEPARTMENT
MECHANICAL DIVISION

GENERAL RULES GOVERNING THE Loading of Commodities On Open Top Cars

Adopted by the
Former Master Car Builders Association
as Recommended Practice, 1896
Advanced to Standard 1908

EFFECTIVE FEBRUARY 1, 1960

Published by the Association of American Railroads
59 East Van Buren Street, Chicago 5, Illinois

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PREFACE

The Rules Governing The Loading of Commodities on Open Top Cars are covered under the following Sections of this manual:

<u>Section No.</u>	<u>Description</u>
1	General Rules (Applicable to all Sections).
2	Steel Products, Including Pipe.
3	Road Grading, Road Making, and Farm Equipment Machinery.
4	Miscellaneous Commodities, Including Machinery.
5	Forest Products.
6	Department of Defense Materiel.

These rules have been formulated for the purpose of providing uniform, safe and economical methods of loading in open top cars, and the material specified in these rules for securing the loads are minimum requirements, and all of the requirements for blocking and securing of loads as specified under the individual figures are mandatory and must be used unless their omission is so specified in the individual figures.

When the dimensions and kind of materials to be used for securing the load are not specified under the figures, the General Rules, Section No. 1, which are to be carefully observed in connection with all loading, will govern.

In the loading of such cars the hazards connected with high speed, multiple track railroads, tunnels, bridges, overhead structures, electric conductors, and the necessity of protecting human life and property should be borne in mind.

These rules are based on many years of exacting studies and experiments, however, the railroads stand ready at all times to cooperate with the shippers for betterments. Suggestions made to the Secretary, Mechanical Division, Association of American Railroads, 59 E. Van Buren Street, Chicago, Illinois, will be given prompt attention.

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 methods 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.

When steel floored gondola cars are furnished in lieu of wood floored cars, the floor blocking and metal anchor plates must be bolted to the floors. General Rule 9 must be observed in the application of the bolts.

ATTENTION SHIPPERS

Cards bearing advertisements or trademark, or banners, must not be attached to cars, nor to permanent stakes which are a part of the car, nor to temporary stakes supplied by shipper solely for the purpose of carrying such advertisements. They may, however, be applied to the load or to temporary stakes used to secure load provided they are safely secured to such stakes or lading. Paper or cloth banners of size requiring supporting frames, metal or wooden banners with or without supporting frames, must be securely fastened by bolts, wires or bands.

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

Where high tension bands or high tension wires are used to secure loads, they must be sealed or twist tied, respectively, sufficiently to provide 85 per cent of load strength for either bands or wires.

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GENERAL RULES

Rule 1. Inspection.—

(a) Cars must be inspected to see that they are in suitable condition to safely carry loads to destination, that loads are properly and safely secured and that all details in Rules 1 to 21, inclusive, have been complied with before loads are accepted from shippers.

Special Authority.—

(b) Special authority must be procured from the originating carrier for shipments on open top cars not covered in these rules; also for shipments of any commodity in well hole or depressed floor cars.

Instructions—Experimental Loads.—

(c) Shippers desiring to deviate from the AAR Open Top Loading Rules, or desiring approval of a method not now covered by these rules, must submit to the Secretary, Mechanical Division, Association of American Railroads, or the Chairman, Committee on Loading Rules, or the Chairman, Special Committee on Forest Products Loading, twenty (20) drawings, size 17 in. x 22 in., giving plan, end and side views, with all items of securement identified with capital letters similar to drawings as presently shown in the rules, also twenty (20) copies of specifications in similar form to those likewise contained in the Open Top Loading Rules.

On receipt of any submission in the above form the matter will be transmitted to either the Committee on Loading Rules or the Special Committee on Forest Products Loading for their review and comments, after which the issuance of experimental load cards will be dependent on the decisions rendered by either of these Committees.

Shipper, after having received authority for experimental shipments, will be furnished stickers worded as outlined below. He will affix one to bill of lading and attach another to be affixed to waybill by agent. This to insure proper handling of experimental load cards.

ASSOCIATION OF AMERICAN RAILROADS
EXPERIMENTAL LOAD

The Association of American Railroads, through the Committee on Loading Rules, has authorized the application of experimental load cards to Car.

(Initial)

(Number)

Shipper also will be furnished Cards, as per Figure 1, shown below, same to be properly filled in and attached to both sides of car by shipper. Only one car need be so carded in connection with twin or triple loads.

Fig. 1

EXPERIMENTAL LOAD CARD

(Do not remove this Card until Car reaches Destination)

Test No..... Load No.....

Authorized by Association of American Railroads.

Initial and Number..... Contents..... Destination.....

Consignor..... Place..... Date.....

When load is adjusted enroute, fill in questions 1 and 2, and make prompt report per Fig. 1-A, to Secretary, Mechanical Division, Association of American Railroads, 59 E. Van Buren St., Chicago, Illinois, showing exact conditions which made adjustment necessary.

1. Date and place adjusted.....

2. Reason for Adjustment.....

Remove card at destination and answer questions on back, then forward to Secretary.

(BACK OF CARD)

Date Unloaded..... Station Unloaded.....

Distance shifted..... Endwise..... Sidewise.....

DESCRIBE IN DETAIL:

(a) When rods, bands or wires are loose or broken.....

(b) When braces or blocks are loose or broken.....

(c) When stakes are broken, out of place or leaning.....

(d) When lading is damaged.....

(e) State whether disarrangement occurred in road train handling or in yard switching.....

Other conditions causing damage to or displacement of load.

(Name)

(Title)

(Railroad)

Loads disarranged in transit should be replaced as originally loaded, if possible, or in accordance with current rules. Report made to the Secretary, Mechanical Division, Association of American Railroads, per Fig 1-A, showing reasons for adjustment, should contain sufficient information to enable the Committee on Loading Rules to decide as to the cause of failure. In such cases the cards must be left on car.

All cards must be removed from cars at destination and one sent to the Secretary, Mechanical Division, Association of American Railroads, by the railroad last handling the shipment, describing exact conditions of load at destination.

Fig. 1-A

REPORT COVERING CONDITION OF EXPERIMENTAL LOAD ADJUSTED ENROUTE

At..... Date..... Test No..... Load No.....
 Initial..... Number..... Contents.....
 Consignor..... Place..... Date.....
 Consignee..... Place.....
 Height of load above car floor.....
 Height of load above top of car sides.....
 Were rods, high tension bands, high tension wire or common wire loose or broken.....
 Stakes—Number..... Number broken, out of place or leaning..... Condition.....
 Were braces or blocks loose or broken, describe.....
 Distance shifted. Endwise..... Sidewise.....
 Damage to lading, describe, if any.....
 State whether disarrangement occurred in road train handling or yard switching.....
 Approximate cost of making adjustment.....
 Describe other conditions causing damage to or displacement of loads.....

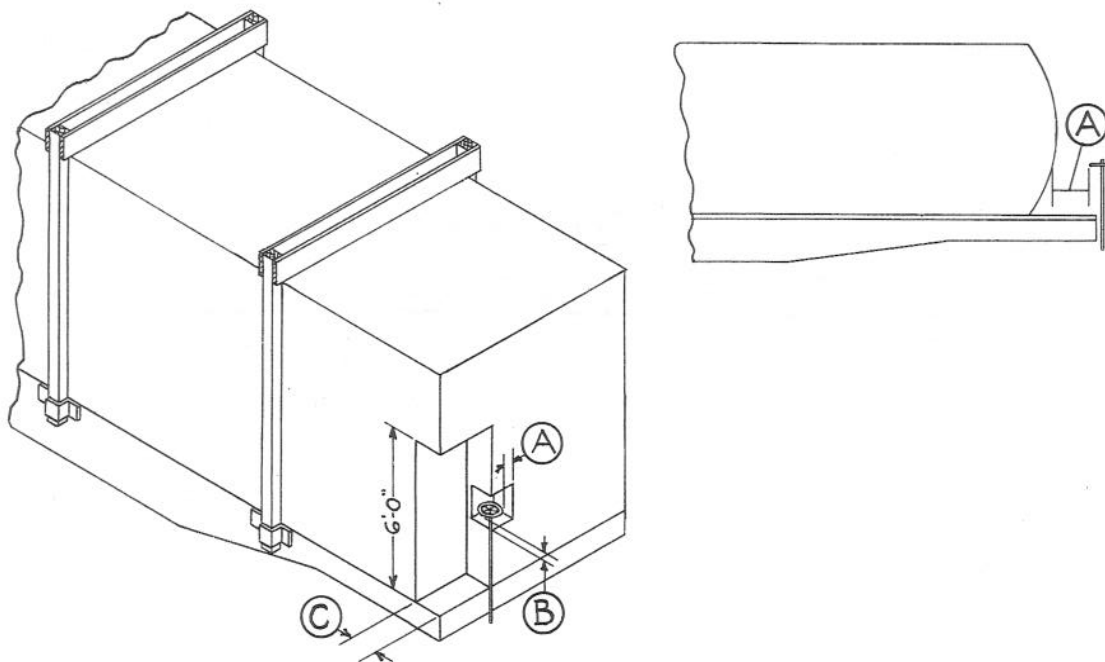
FOR LOADS OF PIPE SHOW FOLLOWING ADDITIONAL INFORMATION

Wrot..... Length.....
 Cast..... Diameter.....
 Corrugated..... Bell ends, plain or with couplings.....
 Concrete..... Kind of coating.....
 Were stakes secured at or near bottom.....
 (Name).....
 (Title)..... (Railroad).....

Rule 2. Brake Wheel Clearance.—The brake wheel clearance must not be less than requirements shown in drawing, Figure 2, below, and should be increased as much as consistent with proper location of load.

Fig. 2

BRAKE WHEEL CLEARANCE



Item	Description
A	6 in. clearance in back, on both sides of, and above brake wheel, except as shown for tanks and similar shapes in one piece.
B	4 in. clearance underneath brake wheel.
C	12 in. minimum clearance from end of car to load, extending from center of brake wheel to side of car and 6 ft. above car floor. On gondola cars this space may be utilized from floor of car to 4 in. below bottom of brake wheel, Item "B."

In the loading and hauling of long commodities requiring more than one car, handbrakes may be omitted on all save one of the cars while they are thus combined for such purpose. (See Supplementary Act No. 133 Approved April 14, 1910, Federal Statute reference 36 Stat. L., 298, of the current edition of the U. S. Safety Appliances.)

Brake wheel clearance should be increased as much as consistent with proper location of load.

Rule 3. Lumber—Where hardwood is specified in the various rules and figures, the following species are acceptable:— Oak (red and white), Ash (white), Birch (yellow and sweet), Beech, Elm (American and slippery), Hickory (True), Maple (hard, sugar and black maple), Sweetgum, and/or Black Cherry.

Rule 4. Single Cars, Maximum Load Weight.—

(a) The weight of load on a car must not exceed the load limit stenciled on car.

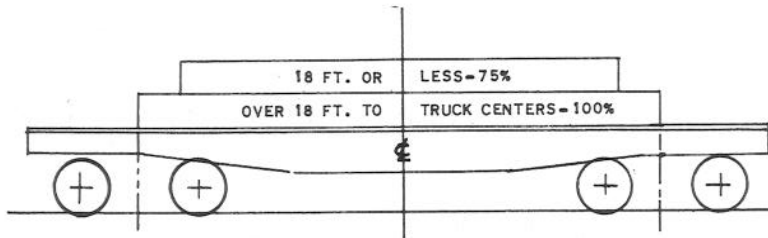
(b) When the load is lapped or staggered between truck centers and covers about the full length of car and the weight of load does not exceed the stenciled nominal capacity of car, the following tables need not apply.

(c) Weight of material loaded between truck centers and ends of car must not exceed 30% of stenciled limit (i.e. 15% each end).

(d) The percentages of stenciled load weight limits, as shown below, must not be exceeded for loads located between truck centers, measured lengthwise of car, unless car owner has otherwise designated, by note, in the Official Equipment Register that these percentages may be changed.

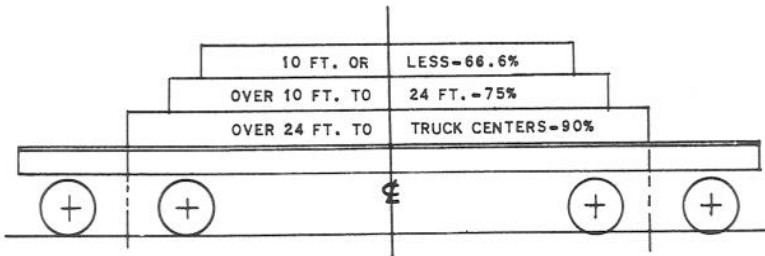
1. Flat cars with both fish belly center and fish belly side sills.

18 ft. or less.....	75 percent
Over 18 ft. to truck centers.....	100 percent



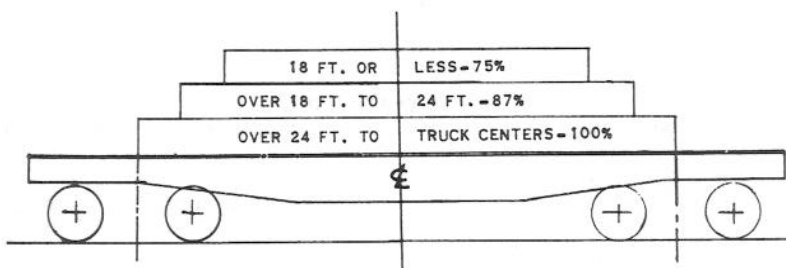
2. Flat cars not equipped with both fish belly center and fish belly side sills.

10 ft. or less.....	66.6 percent
Over 10 ft. to 24 ft.....	75. percent
Over 24 ft. to truck centers.....	90. percent



3. Gondola cars.

18 ft. or less.....	75 percent
Over 18 ft. to 24 ft.....	87 percent
Over 24 ft. to truck centers.....	100 percent



(e) When length of load is less than the distance between truck centers, and load is not located in center of car, the center of load weight must not be nearer to either truck center than shown below:

When load weight is reduced to	66.6%—One-fourth distance between truck centers.
	75%—One-third distance between truck centers.
	87%—Three-sevenths distance between truck centers.
	90%—Nine-Twentieths distance between truck centers.

(f) The distance between crosswise bearing pieces (center to center) under lapped or staggered portion must be placed so as to prevent excessive concentration of weight over specified spaces shown in the above tables.

(g) Bearing pieces, lengthwise of car, of suitable strength and length to provide for extended distribution of weight over the specified spaces, shown in the above tables, may be used.

(h) When crosswise bearing pieces are used, the distance between the outside bearing pieces, (center to center) must not be less than the minimum distances specified in the above tables.

Rule 5. Location of Load—All Cars.—The weight of load on one truck must not exceed one-half of the load weight limit stenciled on car. In case of doubt, this must be verified by weighing.

The load must be located so that the weight along both sides of car is about equal for the entire length of the load.

When the load is of such a character that it cannot be placed so as to obtain equal distribution of weight, crosswise of car, suitable ballast must be used to equalize the weight.

All cars.—All items described under the figures for securing loads must be applied as specified, except when otherwise indicated under each figure.

Gondola cars.—Loads not covered by individual figures and where the vacant space across car between the piles and between the load and car sides exceeds a total of 18 inches, must be secured so as to prevent moving or tipping towards sides of car.

All cars.—Regardless of the vacant space across car, the load must be secured so as to prevent it from falling off car.

Lading equipped with doors or other appurtenances, liable to become loose and extend into line of clearances, must be adequately secured.

Loads of dimensions and weight which make it necessary to handle them under restricted speeds must be reported by the originating carrier to the carriers over whose lines they are to be transported.

Large and heavy material such as ingots, moulds, etc., not covered by individual figures, must be loaded with the largest dimension on floor to prevent tipping.

Machines and other items, having high center of gravity or narrow base, must be secured to prevent them from tipping over in transit.

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

Rule 6. Weight of Load (Rule 4) on Bearing Pieces With or Without Sliding Pieces.—Weight carried on one bearing piece of car should not exceed the percentage of stenciled load weight limit, as shown in columns 7 and 8 of tables Nos. 3 to 35, inclusive, depending on the class of car as shown in the tables.

Rule 7. Clearance Limits.—The height and width of load on one car, without overhang, must be within the clearance limits of the railroads over which it is to be moved. Rules 16 and 18 must govern loads requiring the use of more than one car. Shipper and originating carrier must verify clearance limits over entire route prior to movement.

Rule 8. Idler Cars.—To be used as follows:

(a) When load projects beyond end sill of carrying car, or cars, or when necessary to space two carrying cars, used for handling long load.

(b) Sufficient clearance must be provided, when loading, to maintain 4 inch clearance below overhanging portion of load and any part of idler car which load may contact.

(c) Space on idler cars may be utilized for loading, provided, the ends of such material are located not less than 2 ft. from ends of overhanging portions.

(d) When gondola car is used for an idler, the width of overhang, as shown in Tables 1 and 2, must be reduced by an amount equal to the difference between 12 ft. and the minimum inside width of gondola car, as per following example:

60'-0" Length of load. (Table No. 1)

46'-0" Length of car used. (Table No. 1)

8'-9" Assumed width of idler car used.

12'-0" Arbitrary figure for all loads. Rule 8, Sec. (d).

12'-0" - 8'-9" = 3'-3". Amount of reduction, Rule 8, Sec. (d).

7'-0" Allowable width of load. (Table No. 1) Flat car as idler.

7'-0" - 3'-3" = 3'-9". Allowable width of load. Rule 8, Sec. (d). Gondola car as idler.

Rule 9. Bearing Pieces, Sliding Pieces, Separators, Clamping Pieces, Braces, Cleats, Wedges, Blocks. Quality of—Such items must be of hardwood, or fir, spruce or hemlock (when specified as hardwood under the figures), straight grained, free from decay and strength impairing knots. Substitute, if desired, suitable metal sections of equal strength;

except where metal substitutes are definitely specified. For loads not covered in these detailed rules or figures, they must be of hardwood, fir, spruce or hemlock.

When rods, etc. used to secure loads, not covered in detailed figures, are passed through car floor, a 4 in. x 4 in. x 18 in. hardwood cleat, or $\frac{1}{2}$ in. x 4 in. x 18 in. steel plate must be placed lengthwise of car under floor. When rods, etc. pass through stake pocket, a $\frac{1}{2}$ in. x 4 in. x 10 in. steel plate must be placed lengthwise of car under stake pocket.

When sloping wedges are used for end blocking against vertical surfaces, the flat side of wedge should be placed on floor.

Nails or spikes in the blocking should, when practicable, be driven vertically.

Note.—It is the intent that bearing pieces and separators, where specified, must be one piece. (Not applicable to Forest Products Loading Section No. 5.)

Rule 10. Stakes, Quality, Dimensions, Tying, Application Of.

(a) Unless otherwise specified, they must be of sound hardwood, long leaf yellow pine, southern pine, spruce, fir, larch or hemlock, straight grain and free from decay and strength impairing knots. Green saplings consisting of these and other kinds of wood may be substituted for stakes, only when specified under the figures.

The dimensions of sawed stakes must be as follows: For cars having sides less than 30 in. high, 4 in. x 5 in. For cars having sides 30 in. high or over, 4 in. x 4 in. The diameter of green saplings used instead of 4 in. x 5 in. stakes must be 5 in., and when used instead of 4 in. x 4 in., they must be $4\frac{1}{2}$ in., measured midway between top and bottom.

(b) Unless otherwise specified, use at least 3 pairs per pile 20 ft. long or less, and 4 pairs per pile more than 20 ft. in length.

(c) Stakes, 4 in. x 5 in. must be tapered to fully fit into and, where possible, extend at least 4 in. below stake pockets. Smaller stakes must be tightly secured in the stake pockets, with wedges driven downward into stake pockets and secured to stakes with nails. When no other than the top ties, or none, are used on stakes, the stakes must extend 4 inches below stake pockets, with one 40-D nail driven into stake directly below and with head even with outside of stake pocket. When metal stakes do not accurately fit the stake pockets, they must be wedged or built up to fill the pockets; also, secured so they cannot slip through the pocket. Stakes may be placed either in or out of stake pockets on inside of gondola cars with sides 30 in. high or over, provided they rest on floor and are securely wedged to car sides by lading.

(d) Unless otherwise specified, each pair of side stakes must be tied together across top of load with either of the following items:

PILE 12 IN. OR LESS ABOVE GONDOLA CAR SIDES, OR FLAT CAR FLOOR.

Boards—One 1 in. x 5 in., nailed to ea. stake with five 10-D nails.

No. 7, 8 or 9 gage annealed wire—Two strands.

No. 11 gage annealed wire—Four strands.

High tension band—One—Load strength 2,000 lbs.

High tension wire—One—Load strength 2,000 lbs.

PILE MORE THAN 12 IN. ABOVE GONDOLA CAR SIDES, OR FLAT CAR FLOOR.

Boards—Two—1 in. x 5 in., nailed to ea. stake with five 10-D nails.

No. 7 gage annealed wire—Two strands.

No. 8 gage annealed wire—Three strands.

No. 9 gage annealed wire—Four strands.

No. 11 gage annealed wire—Six strands.

High tension band—One—Load strength 2,000 lbs.

High tension wire—One—Load strength 2,000 lbs.

*High tension wire—One—Load strength 1,275 lbs.

***Note.**—Applies only to Section No. 5.

EXAMPLES FOR TYING

1 strand wrapped around a pair of opposite stakes, with both ends tied together, forming a complete loop, constitutes 2 strands. In other words, each complete loop formed doubles the number of strands. Any number of complete loops may be formed with a single strand, provided each end of the continuous strand forming such loops is tied together.

The number of strands specified, when not forming a complete loop with both ends tied together, must be used in cases where each end of such wires is attached to stake pocket or other point of attachment.

The above items must be located about 2 in. above top of load, unless otherwise specified, and wires must be twisted taut.

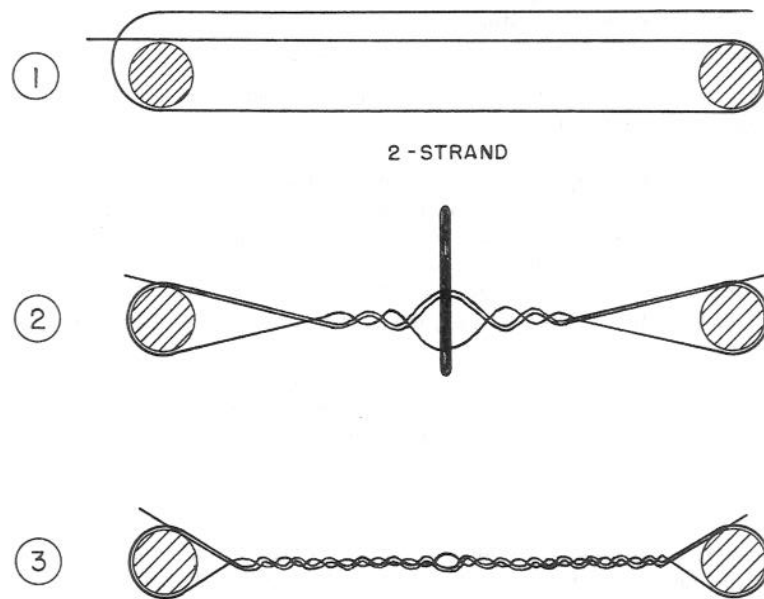
Use staples or nails bent over to prevent bands or wires from working off stakes or binders.

Boards, used to retain stakes in vertical position, applied lengthwise of car, must be nailed to inside face of stakes.

Side stakes used for loads in gondola cars not covered in the figures must be secured so as to remain in sufficiently vertical position to protect the load.

GENERAL RULE 10- SECTION (D)

EXAMPLE FOR TYING WIRE TO STAKES



PLACE A LOOP OF WIRE AROUND TWO OPPOSITE STAKES IN SUCH A MANNER THAT ONE END OF WIRE IS TERMINATED UNDER THE LOOP AT ONE STAKE AND THE OTHER END IS TERMINATED UNDER THE LOOP AT THE OTHER STAKE, SO THAT WHEN THE STRANDS, THUS FORMED, ARE TWISTED THE LOOSE ENDS BECOME SECURED UNDER EACH LOOP.

(e) Such fastenings need not be used when top tier of "H" and "I" beams with flanges 6 in. wide or more are loaded flatwise, and lower edges of flanges extends at least 2 in. below top of car sides and confined inside the flanges of beams underneath.

Rule 11. Lumber—Where lumber dimensions are specified in the rules and detailed figures, except for stakes referred to in Rule 10, commercial (dressed) sizes will be acceptable.

Rule 12. Bearing Pieces—If over 5 in. high, they may be built up of lumber of suitable strength. The width of base must not be less than its height. The length must not be less than the width of car. When necessary to increase height, suitable hardwood blocks may be secured to car floor underneath of, and at right angles to, 12 in. x 12 in. bearing pieces, or over, projecting 18 in. beyond each side, with 1 at each end and 1 at center. Unless otherwise specified, they must not be placed between bolster and end of car. Bearing pieces under loads requiring the use of more than one car must be secured so as to prevent displacement.

Rule 13. Sliding Pieces—Length must be equal to width of car and width of base not less than its height. Placing them directly over bolsters is preferred but they may be placed between bolsters. To provide specified clearance of flexible material, they may be located not more than 18 in. from center of bolster toward end of car.

Steel sliding plates. $\frac{1}{4}$ in. x 6 in., length equal to width of car. Must be secured with two $\frac{3}{4}$ in. dia. countersunk head bolts, etc., heads to be flush with or below top of plate. They must be greased so as to provide free movement of load to destination.

Rule 14. Nails.

Size of Common Nails

8-D	2½ inch	20-D	4 inch
9-D	2¾ inch	30-D	4½ inch
10-D	3 inch	40-D	5 inch
12-D	3¼ inch	50-D	5½ inch
16-D	3½ inch	60-D	6 inch

Rule 15. Bolts, Nuts, Rods, Bands, Wires and Cables.—

(a) Rods or bolts, having rolled threads of same diameter as that of U. S. Standard cut threads, may be used. Bending of threaded portion of rods or bolts, is prohibited.

When rods are used for tie-downs passing through large diameter holes in lading, a plate or plates of sufficient strength to prevent bending, must be placed between the lading and the nut of the rod.

The use of rods with open hook ends on load or car is prohibited.

(b) The substitution of high tension bands or high tension wires for rods, bolts or bands with threaded ends is permitted only when specified. When used, they must have a percentage elongation in 6 in. from 5 to 16 percent, inclusive.

Unless otherwise specified, when either high tension bands or high tension wires are specified in the detailed figures, they may be substituted for each other, if of equal load strength, provided all other items used to secure load are equal in number and strength. Where both high tension bands and high tension wires are specified in the detailed figures, the sizes, as shown, are minimum, except where either high tension band or high tension wire of lesser size is of equal or greater load strength to the size specified. Where high tension bands or high tension wires are specified in the detailed figures, bands or wires of lesser thickness and diameter may be substituted, provided they are of equal load strength.

Where common wire is specified in the detailed figures, wires of other gage, as listed, may be substituted, provided total load strength is equivalent. Twist wire taut with rod, bolt or pipe.

Where cable is specified under the detailed figures, the ends must be overlapped at least 12 in. and must be secured with two "U"-bolt cable clips. Cable must be protected at all sharp corners, and where thimbles are used to prevent sharp turns, they must be secured with a "U"-bolt cable clip. Twist cable taut with rod, bolt, or pipe, secured to prevent working loose, or tighten with turnbuckles.

Where split bolts are specified for clamping pieces, they may be substituted with $1\frac{1}{4}$ in. high tension band, with one double crimp or two single crimp seals.

Metal fillers sufficient to provide a suitable radius must be used to protect bands and wires at stake pockets, slotted holes in car sides and at all points having sharp edges. Apply so as to prevent dislodgment. High tension bands, when used, must be secured to tie bands by sealing.

High tension bands or wires encircling pile must be machine tensioned, sealed or twist tied, respectively, on top of load, when possible, and located as far away from end of load as practical. Where high tension bands or wires are attached to stake pockets, lading strap anchors or other means of attachments, they must be machine tensioned, sealed or twist tied no closer than 18 in. from point of anchorage.

When a long free span exists between points of attachment of high tension bands, a dampening arrangement to prevent excessive vibration of bands must be applied midway between points of contact, by tying bands to sides of box, crate, lading, etc., with common annealed wire.

Note.—The use of secondhand or reclaimed high tension bands, high tension wires, or common wires for such items specified in the rules and detailed figures is prohibited.

(c) To retain nuts in original position the threads on rods or bolts must be nicked immediately behind single or double nuts. When only one or two threads extend beyond nuts, the ends of rods or bolts must be riveted over. Not required when nut locks or lock nuts are used.

Note.—Lock washers are not acceptable substitutes.

(d) Holes not to exceed $1\frac{1}{2}$ in. in diameter may be made in car bodies (excluding stakes, braces and sills) for the application of wires, bolts or rods, and not to exceed 1 in. diameter in top chord angles. To prevent making holes larger than necessary, the drilling, instead of cutting, of round holes is preferred.

(e) Slots $\frac{1}{2}$ in. x $2\frac{1}{2}$ in. may be made in car bodies (excluding top chord angles, stakes, braces and sills), except when equipped with lading strap anchors the length of slot must not exceed $1\frac{1}{2}$ in., for the application of wires or bands.

Note.—To prevent mutilation of cars, exacting efforts must be made to refrain from cutting unnecessary holes or slots, or to confine them to the minimum number and dimensions, required to secure the load.

(f) Points of attachment must be at least as strong as securement used.

"U" bolts, closed "I" bolts, $\frac{3}{4}$ in. diameter, or similar approved devices may be used for securing bands to car bodies, except as otherwise specified.

Cylindrical objects subject to rotating and having protruding appurtenances which may become involved in clearances, must be properly secured.

(g) Attaching rods, bands or wires, to stake pockets, inside of gondola cars, is not permitted unless they are so constructed and so attached to car to approximately equal the strength of each rod, band or wire tie.

The welding of items such as rods, flat bars and straps directly to load or car for the purpose of securing the load, is prohibited. However, slotted angles, eye bolts, and similar devices may be welded to the load or car body for the application of the afore-mentioned items, provided the strength of such devices and the portion of load or car to which they are attached is equal to the load strength of ties.

The welding of high tension bands is prohibited.

(h) The following are the dimensions and load strength of HIGH TENSION BANDS, HIGH TENSION WIRE, COMMON ANNEALED WIRE, RODS, BOLTS, FLAT BARS AND PLATES.

Load strength of flat bars or bands, must be based on sectional area of material, measured through bolt hole.

HIGH TENSION BANDS

Width & Thickness Inches	Load Strength— Pounds
$\frac{3}{8}$ x .050	2000
$\frac{3}{4}$ x .028	2000
$\frac{3}{4}$ x .030	2000
$\frac{3}{4}$ x .031	2500
$\frac{3}{4}$ x .035	2500
$\frac{3}{4}$ x .037	2500
$\frac{3}{4}$ x .050	3500
$1\frac{1}{4}$ x .031	4000
$1\frac{1}{4}$ x .035	4000
$1\frac{1}{4}$ x .037	4000
$1\frac{1}{4}$ x .044	6000
$1\frac{1}{4}$ x .050	6000
2 x .050	9500

HIGH TENSION WIRE

Gage	Inches	Load Strength— Pounds
No. 8	.1875	2000
No. 10	.135	2000
*No. 11 $\frac{1}{2}$	.114	1275

*Note.—Applies only to Section No. 5.

COMMON ANNEALED WIRE

Gage	Inches	Load Strength— Pounds
7	$\frac{3}{16}$	1100
8	$\frac{11}{64}$	950
9	$\frac{5}{32}$	800
11	$\frac{1}{8}$	500

RODS AND BOLTS

Size	Load Strength— Pounds*
$\frac{1}{2}$	5,200
$\frac{5}{8}$	8,100
$\frac{3}{4}$	11,700
$\frac{7}{8}$	16,200
1	21,100
$1\frac{1}{8}$	25,800
$1\frac{1}{4}$	32,800
$1\frac{5}{8}$	38,600
$1\frac{1}{2}$	46,900

*At root of thread.

FLAT BARS AND PLATES

Size	Load Strength— Pounds	Size	Load Strength— Pounds	Size	Load Strength— Pounds
$\frac{1}{16}$ x 2	5,800	$\frac{1}{4}$ x 10	102,500	$\frac{1}{2}$ x 3	57,000
$\frac{1}{16}$ x $3\frac{1}{2}$	10,300	$\frac{1}{4}$ x 12	123,000	$\frac{1}{2}$ x 4	76,000
$\frac{1}{8}$ x 1	5,500	$\frac{3}{8}$ x $\frac{7}{8}$	12,800	$\frac{1}{2}$ x 5	95,000
$\frac{1}{8}$ x $1\frac{3}{4}$	9,600	$\frac{3}{8}$ x $1\frac{1}{8}$	16,500	$\frac{1}{2}$ x 6	114,000
$\frac{1}{8}$ x $2\frac{1}{2}$	13,800	$\frac{3}{8}$ x $1\frac{1}{2}$	22,000	$\frac{1}{2}$ x 12	228,000
$\frac{1}{8}$ x $3\frac{1}{2}$	19,300	$\frac{3}{8}$ x $1\frac{7}{8}$	27,400	$\frac{5}{8}$ x 1	23,100
$\frac{1}{8}$ x $4\frac{1}{2}$	24,800	$\frac{3}{8}$ x 2	29,250	$\frac{5}{8}$ x $1\frac{1}{8}$	26,000
$\frac{3}{16}$ x 2	16,100	$\frac{3}{8}$ x $2\frac{3}{8}$	34,700	$\frac{5}{8}$ x $1\frac{1}{2}$	34,700
$\frac{3}{16}$ x 5	40,350	$\frac{3}{8}$ x $2\frac{7}{8}$	42,000	$\frac{5}{8}$ x $1\frac{3}{4}$	40,500
$\frac{1}{4}$ x $\frac{1}{2}$	5,100	$\frac{3}{8}$ x 3	43,900	$\frac{5}{8}$ x 2	46,300
$\frac{1}{4}$ x $\frac{7}{8}$	9,000	$\frac{3}{8}$ x $3\frac{1}{2}$	51,200	$\frac{5}{8}$ x 3	69,400
$\frac{1}{4}$ x $1\frac{1}{4}$	12,800	$\frac{3}{8}$ x 4	58,500	$\frac{3}{4}$ x $\frac{3}{4}$	20,300
$\frac{1}{4}$ x $1\frac{3}{4}$	18,000	$\frac{3}{8}$ x 5	73,100	$\frac{3}{4}$ x 1	27,000
$\frac{1}{4}$ x $2\frac{1}{4}$	23,100	$\frac{3}{8}$ x 6	87,750	$\frac{3}{4}$ x $1\frac{1}{4}$	33,800
$\frac{1}{4}$ x $2\frac{3}{4}$	28,200	$\frac{3}{8}$ x 12	175,500	$\frac{3}{4}$ x $1\frac{1}{2}$	40,500
$\frac{1}{4}$ x 3	30,750	$\frac{1}{2}$ x $\frac{7}{8}$	16,600	$\frac{3}{4}$ x $1\frac{3}{4}$	46,300
$\frac{1}{4}$ x $3\frac{3}{4}$	38,500	$\frac{1}{2}$ x $1\frac{1}{8}$	21,400	$\frac{3}{4}$ x 2	54,000
$\frac{1}{4}$ x 4	41,000	$\frac{1}{2}$ x $1\frac{3}{8}$	26,100	$\frac{3}{4}$ x $2\frac{1}{2}$	67,500
$\frac{1}{4}$ x $4\frac{1}{4}$	43,600	$\frac{1}{2}$ x $1\frac{3}{4}$	33,300	$\frac{3}{4}$ x 3	81,000
$\frac{1}{4}$ x 6	61,500	$\frac{1}{2}$ x 2	38,000	$\frac{3}{4}$ x 6	162,000
$\frac{1}{4}$ x 7	71,750	$\frac{1}{2}$ x $2\frac{1}{8}$	40,400	1 x 6	210,000
$\frac{1}{4}$ x 9	92,250	$\frac{1}{2}$ x $2\frac{5}{8}$	50,000	$1\frac{1}{8}$ x 6	229,500

Rule 16. Loads on One Car Overhanging One End or Both Ends of Car.—

(a) The length of load, or width of overhanging portion of load, as shown in Tables 1 and 2, must not be exceeded.

Weight of load on one car, overhanging one end of car, must not exceed the percentage of load limit of carrying car as shown in Table 1. Allowable weight of load must be obtained by multiplying the stenciled load limit of car by the percentage shown in the table for the respective length of overhang and car.

(b) Length of car as shown in tables means length over end sills. Length of overhang is the distance from center of truck to the extreme end of overhanging portion of load.

For intermediate lengths of cars not shown in table, use next shortest length car shown.

For intermediate lengths of load not shown in table, use next longest length of load shown.

(c) Authority must be procured from carriers for handling loads which measure more than 8 ft. from top of rail to center of load (including bearing pieces) or those exceeding width and length as shown in Tables Nos. 1 and 2.

Note.—Figures 5-A and 5-B governs methods of narrowing loads of poles and lumber to keep within clearance width limits as shown in Tables 1 and 2.

(d) Long steel, liable to take a permanent set by bending, must be supported to prevent sagging.

(e) When the material in the overhang is of various lengths, the allowable width shall be based on the total width of the overhang at the extreme ends.

When material is of unequal lengths and overhanging one end, the weight of load shall be based on the average lengths of pieces in the overhang.

(f) Table 1 is based on the end of load opposite the overhanging end being located 18 in. from the face of end sill of car. In cases where the type of brake and load permits utilizing part or all of this space, thereby making the overhang less than specified in the tables, the width of load and the percentage of load weight may be increased in accordance with the shorter overhang.

Note.—The following tables are based on 10 ft. 6 in. clearance width limits, 15 degree curvature and 3 inches tolerance on each side of load.

TABLE No. 1

LOAD ON ONE CAR OVERHANGING ONE END OF CAR (SEE RULE 8 FOR FURTHER DETAILS)
TABLE BELOW SHOWS PERMISSIBLE LENGTH OF OVERHANG, PERMISSIBLE WIDTH OF OVERHANG FOR VARIOUS LENGTHS OF OVERHANG AND THE PERCENTAGE OF STENCILED LOAD LIMIT OF CAR WHICH MUST NOT BE EXCEEDED

Table with columns for Length of Car (34 ft to 70 ft) and Length of Overhang (0 ft to 30 ft). Rows include Length of Material, Width of Overhang, and Allowable Weight. Values are percentages of the stenciled load limit.

TABLE No. 2

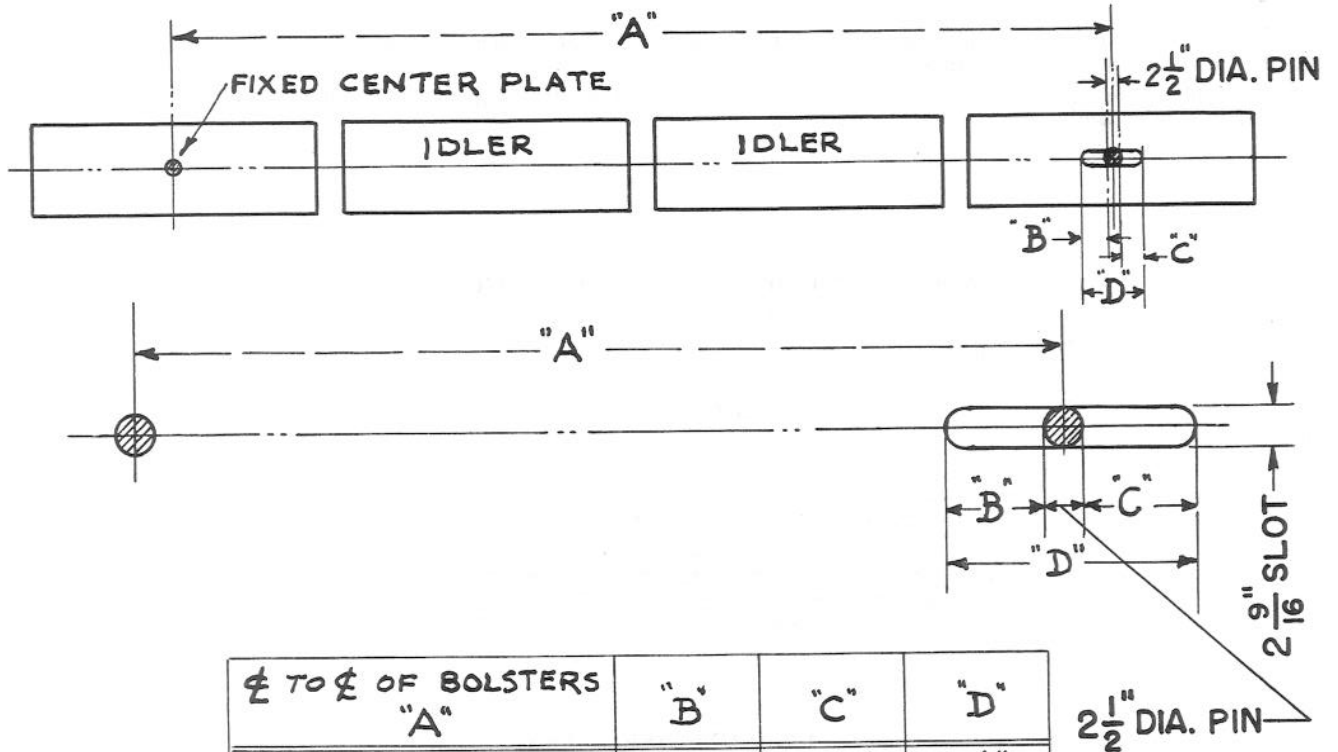
UNIFORMLY DISTRIBUTED LOAD ON ONE CAR OVERHANGING BOTH ENDS OF CAR
 (SEE RULE 8 FOR FURTHER DETAILS)
 TABLE BELOW SHOWS PERMISSIBLE LENGTH OF OVERHANG, PERMISSIBLE WIDTH OF
 OVERHANG FOR VARIOUS LENGTHS OF OVERHANG WHICH MUST NOT BE EXCEEDED

Length of Car	LENGTH OF OVERHANG	Length of Overhang																											
		6 ft.	7 ft.	8 ft.	9 ft.	10 ft.	11 ft.	12 ft.	13 ft.	14 ft.	15 ft.	16 ft.	17 ft.	18 ft.	19 ft.	20 ft.	21 ft.	22 ft.	23 ft.	24 ft.	25 ft.	26 ft.	27 ft.	28 ft.	29 ft.	30 ft.			
34 ft.	Length of Material	35	37	39	41	43	45	47	49	51	53	55	57	59	61	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	9'4"	9'3"	9'3"	9'3"	9'0"	8'11"	8'10"	8'9"	8'7"	8'6"	8'4"	8'3"	8'1"	8'0"	...	...	...	...	...	...	...	...	...	...	...	...
35 ft.	Length of Material	36	38	40	42	44	46	48	50	52	54	56	58	60	62	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	9'3"	9'2"	9'2"	9'0"	8'11"	8'10"	8'8"	8'6"	8'5"	8'3"	8'1"	8'0"	...	...	...	...	...	...	...	...	...	...	...	...	...	...
36 ft.	Length of Material	37	39	41	43	45	47	49	51	53	55	57	59	61	63	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	9'3"	9'2"	9'2"	9'0"	8'11"	8'10"	8'8"	8'6"	8'5"	8'3"	8'1"	8'0"	...	...	...	...	...	...	...	...	...	...	...	...	...	...
37 ft.	Length of Material	38	40	42	44	46	48	50	52	54	56	58	60	62	64	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	9'3"	9'2"	9'2"	9'0"	8'10"	8'9"	8'7"	8'5"	8'4"	8'2"	8'0"	7'11"	7'9"	7'8"	...	...	...	...	...	...	...	...	...	...	...	...
38 ft.	Length of Material	39	41	43	45	47	49	51	53	55	57	59	61	63	65	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	9'3"	9'2"	9'2"	9'0"	8'10"	8'9"	8'7"	8'5"	8'4"	8'2"	8'0"	7'11"	7'9"	7'8"	7'6"	7'5"	7'3"	7'2"	7'0"	...	...	...	...	...	...	...
39 ft.	Length of Material	40	42	44	46	48	50	52	54	56	58	60	62	64	66	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	9'2"	9'1"	9'1"	8'11"	8'9"	8'8"	8'6"	8'4"	8'3"	8'1"	7'11"	7'10"	7'8"	7'6"	7'5"	7'3"	7'2"	7'0"	...	...	...	...	...	...	...	...
40 ft.	Length of Material	41	43	45	47	49	51	53	55	57	59	61	63	65	67	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	9'2"	9'1"	9'1"	8'11"	8'9"	8'8"	8'6"	8'4"	8'3"	8'1"	7'11"	7'10"	7'8"	7'6"	7'5"	7'3"	7'2"	7'0"	...	...	...	...	...	...	...	...
41 ft.	Length of Material	42	44	46	48	50	52	54	56	58	60	62	64	66	68	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	9'2"	9'1"	9'1"	8'11"	8'9"	8'8"	8'6"	8'4"	8'3"	8'1"	7'11"	7'9"	7'7"	7'5"	7'3"	7'1"	7'0"	...	...	...	...	...	...	...	...	...
42 ft.	Length of Material	43	45	47	49	51	53	55	57	59	61	63	65	67	69	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	9'2"	9'1"	9'1"	8'11"	8'9"	8'8"	8'6"	8'4"	8'3"	8'1"	7'10"	7'9"	7'7"	7'5"	7'3"	7'1"	7'0"	...	...	...	...	...	...	...	...	...
43 ft.	Length of Material	44	46	48	50	52	54	56	58	60	62	64	66	68	70	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	9'1"	9'0"	9'0"	8'10"	8'8"	8'7"	8'5"	8'3"	8'2"	8'0"	7'10"	7'8"	7'7"	7'5"	7'3"	7'1"	7'0"	...	...	...	...	...	...	...	...	...
44 ft.	Length of Material	45	47	49	51	53	55	57	59	61	63	65	67	69	71	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	9'1"	9'0"	9'0"	8'10"	8'8"	8'7"	8'5"	8'3"	8'2"	8'0"	7'11"	7'9"	7'7"	7'5"	7'3"	7'1"	7'0"	...	...	...	...	...	...	...	...	...
45 ft.	Length of Material	46	48	50	52	54	56	58	60	62	64	66	68	70	72	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	9'1"	9'0"	9'0"	8'10"	8'8"	8'7"	8'5"	8'3"	8'1"	7'10"	7'8"	7'6"	7'4"	7'2"	7'0"	...	...	...	...	...	...	...	...	...	...	...
46 ft.	Length of Material	47	49	51	53	55	57	59	61	63	65	67	69	71	73	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	9'1"	9'0"	9'0"	8'10"	8'8"	8'7"	8'5"	8'3"	8'1"	7'10"	7'8"	7'6"	7'4"	7'2"	7'0"	...	...	...	...	...	...	...	...	...	...	...
47 ft.	Length of Material	48	50	52	54	56	58	60	62	64	66	68	70	72	74	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	9'1"	8'11"	8'11"	8'10"	8'8"	8'7"	8'5"	8'4"	8'2"	8'0"	7'9"	7'7"	7'5"	7'3"	7'1"	7'0"	...	...	...	...	...	...	...	...	...	...
48 ft.	Length of Material	49	51	53	55	57	59	61	63	65	67	69	71	73	75	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	9'0"	8'11"	8'11"	8'10"	8'8"	8'7"	8'6"	8'4"	8'2"	8'0"	7'9"	7'7"	7'5"	7'3"	7'1"	7'0"	...	...	...	...	...	...	...	...	...	...
49 ft.	Length of Material	50	52	54	56	58	60	62	64	66	68	70	72	74	76	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	9'0"	8'11"	8'11"	8'10"	8'9"	8'7"	8'6"	8'3"	8'1"	7'11"	7'8"	7'6"	7'4"	7'1"	7'0"	...	...	...	...	...	...	...	...	...	...	...
50 ft.	Length of Material	51	53	55	57	59	61	63	65	67	69	71	73	75	77	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	9'0"	8'11"	8'11"	8'10"	8'9"	8'7"	8'5"	8'3"	8'1"	7'11"	7'8"	7'6"	7'4"	7'1"	7'0"	...	...	...	...	...	...	...	...	...	...	...
51 ft.	Length of Material	52	54	56	58	60	62	64	66	68	70	72	74	76	78	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	8'11"	8'10"	8'10"	8'10"	8'8"	8'6"	8'4"	8'2"	8'0"	7'10"	7'7"	7'5"	7'3"	7'0"	...	...	...	...	...	...	...	...	...	...	...	...
52 ft.	Length of Material	53	55	57	59	61	63	65	67	69	71	73	75	77	79	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	8'11"	8'10"	8'10"	8'10"	8'8"	8'6"	8'4"	8'2"	8'0"	7'10"	7'7"	7'5"	7'3"	7'0"	...	...	...	...	...	...	...	...	...	...	...	...
53 ft.	Length of Material	54	56	58	60	62	64	66	68	70	72	74	76	78	80	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	8'11"	8'10"	8'10"	8'10"	8'8"	8'6"	8'4"	8'1"	7'11"	7'9"	7'6"	7'4"	7'2"	7'0"	...	...	...	...	...	...	...	...	...	...	...	...
54 ft.	Length of Material	55	57	59	61	63	65	67	69	71	73	75	77	79	81	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	8'11"	8'10"	8'10"	8'10"	8'8"	8'6"	8'4"	8'1"	7'11"	7'9"	7'6"	7'4"	7'2"	7'0"	...	...	...	...	...	...	...	...	...	...	...	...
55 ft.	Length of Material	56	58	60	62	64	66	68	70	72	74	76	78	80	82	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	8'10"	8'9"	8'9"	8'9"	8'7"	8'5"	8'3"	8'0"	7'10"	7'8"	7'5"	7'3"	7'1"	7'0"	...	...	...	...	...	...	...	...	...	...	...	...
56 ft.	Length of Material	57	59	61	63	65	67	69	71	73	75	77	79	81	83	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	8'10"	8'9"	8'9"	8'9"	8'7"	8'5"	8'3"	8'0"	7'10"	7'8"	7'5"	7'3"	7'1"	7'0"	...	...	...	...	...	...	...	...	...	...	...	...
57 ft.	Length of Material	58	60	62	64	66	68	70	72	74	76	78	80	82	84	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	8'9"	8'8"	8'8"	8'8"	8'6"	8'4"	8'2"	7'11"	7'9"	7'7"	7'4"	7'2"	7'0"	...	...	...	...	...	...	...	...	...	...	...	...	...
58 ft.	Length of Material	59	61	63	65	67	69	71	73	75	77	79	81	83	85	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	8'8"	8'8"	8'8"	8'8"	8'6"	8'4"	8'2"	7'11"	7'9"	7'7"	7'4"	7'2"	7'0"	...	...	...	...	...	...	...	...	...	...	...	...	...
59 ft.	Length of Material	60	62	64	66	68	70	72	74	76	78	80	82	84	86	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	8'8"	8'7"	8'7"	8'7"	8'5"	8'3"	8'1"	7'10"	7'8"	7'6"	7'3"	7'1"	7'0"	...	...	...	...	...	...	...	...	...	...	...	...	...
60 ft.	Length of Material	61	63	65	67	69	71	73	75	77	79	81	83	85	87	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	8'8"	8'7"	8'7"	8'7"	8'5"	8'3"	8'1"	7'10"	7'8"	7'6"	7'3"	7'1"	7'0"	...	...	...	...	...	...	...	...	...	...	...	...	...
61 ft.	Length of Material	62	64	66	68	70	72	74	76	78	80	82	84	86	88	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	8'8"	8'7"	8'7"	8'7"	8'5"	8'3"	8'1"	7'10"	7'8"	7'6"	7'3"	7'1"	7'0"	...	...	...	...	...	...	...	...	...	...	...	...	...
62 ft.	Length of Material	63	65	67	69	71	73	75	77	79	81	83	85	87	89	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	8'8"	8'7"	8'7"	8'7"	8'5"	8'3"	8'1"	7'10"	7'8"	7'6"	7'3"	7'1"	7'0"	...	...	...	...	...	...	...	...	...	...	...	...	...
63 ft.	Length of Material	64	66	68	70	72	74	76	78	80	82	84	86	88	90	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	8'7"	8'6"	8'6"	8'6"	8'4"	8'2"	8'0"	7'9"	7'7"	7'5"	7'2"	7'0"	...	...	...	...	...	...	...	...	...	...	...	...	...	...
64 ft.	Length of Material	65	67	69	71	73	75	77	79	81	83	85	87	89	91	...	...	...	...	...	...	...	...	...	...	...	...
	Width of Overhang	8'7"	8'6"	8'6"	8'6"	8'4"	8'2"	8'0"	7'9"	7'7"	7'5"	7'2"	7'0"	...	...	...	...	...	...	...	...	...	...	...	...	...	...
65 ft.	Length of Material	66	68	70	72	74	76	78	80	8																			

Rule 17. Preparation of Car Floor and Blocking Under Center Plate for Center Pin Used in Connection with Pivoted Bolster.

Fig. 5

DIMENSIONS OF SLOT IN BLOCKING UNDER CENTER PLATE FOR CENTER PIN USED IN CONNECTION WITH PIVOTED BOLSTER



☒ TO ☒ OF BOLSTERS "A"	"B"	"C"	"D"
UNDER 70 FT.	3"	2 ³ / ₄ "	8 ¹ / ₂ "
80 FT.	6"	4 ³ / ₄ "	13 ¹ / ₄ "
90 FT.	6"	5 ¹ / ₂ "	14"
100 FT.	6"	6 ¹ / ₂ "	15"
110 FT.	9"	9 ¹ / ₄ "	20 ³ / ₄ "
OVER 120 FT.	9"	10 ¹ / ₂ "	22"

Prepare cars as per Rule 21. Before locating center plate blocking (backing) on carrying cars, push cars together to eliminate all coupler slack between cars. Center pins to be located in hole as shown.

Dimensions of center plate blocking (backing) must be not less than 3 in. x 12¹/₄ in. x 5 ft. and wide enough to provide 2 in. of material beyond each end of slotted hole. May be made of two or more pieces, securely bolted together.

Rule 18. Load on Two or Three Cars—Width, Height, Overhang.—Tables 3 to 35, inclusive.

(a) The width of load, distance between bearing pieces, and length of overhang must not exceed dimensions shown in Tables No. 3 to 35, inclusive. For loads of uniform width throughout length of load, the minimum width "W" is to apply. Authority must be procured from carriers for handling loads which measure more than 8 ft. from top of rail to center of load (including bearing pieces).

(b) When cars of different length are used for the same load, the maximum width of load shall be as shown in the tables for longest carrying car used.

(c) For cars of intermediate lengths not shown in the tables, the maximum width of loads on carrying cars must be governed by the next longer car shown in the tables. Determine length of cars by measuring to outside face of end sills.

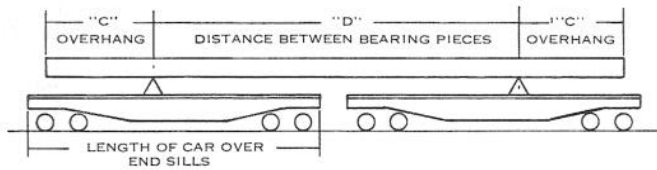
(d) When load contains material of various lengths, the longest material should preferably be placed in lower portion of load.

Note.—Figures 5-A and 5-B governs methods of narrowing loads of poles and lumber to keep within clearance width limits as shown in Tables 3 to 35, inclusive.

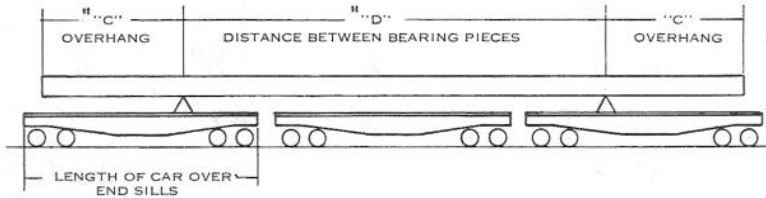
Note.—The following tables are based on 10 ft. 6 in. clearance width limits, 15 degree curvature, and 3 inches tolerance on each side of load.

**ARRANGEMENT OF LOAD ON TWO OR THREE CARS
PER TABLES 3 TO 35, INC.**

LOAD ON TWO CARS



LOAD ON THREE CARS



Note.—For loads of uniform width throughout length of load, use minimum width "W" as shown in tables.

TABLE No. 3
LENGTH OF CAR 30 FT.
BEARING PIECES SPACED SIX-TENTHS (6/10) LENGTH OF LOAD

1 Kind of Load	2 Length of Load	3 Distance Between Bearing Pieces	4 Maximum Width of Load Between Bearing Pieces on Flat Cars	5 Length of Overhang of Load	6 Maximum Width of Overhang of Load on Flat Cars	7 Distance From Center Line of Bearing Piece to Center Line of Nearest Truck	8 Maximum Per Cent of Ld. Wt. Limit Allowed on Bearing Piece Per Rule 6		9 Clearance Required on Each Side of Load When Using Drop End Gondola Cars	
							Fish Belly Type S.U.F.	Other Types S.U.F. Cars	At Center of Load	At Ends of Load
		D	W	C	W					
Twin	50'-0"	30'-0"	9'-1 1/2"	10'-0"	9'-2 1/2"	8'-6"	75.0	66.6	9 1/2"	8 1/2"
"	52'-6"	31'-6"	9'-0 1/2"	10'-6"	9'-1"	9'-3"	75.0	66.6	10"	9"
"	55'-0"	33'-0"	9'-0"	11'-0"	9'-0"	10'-0"	75.0	66.6	10 1/2"	9"
"	57'-6"	34'-6"	8'-11"	11'-6"	8'-11"	9'-3"	75.0	66.6	11"	9 1/2"
-----	60'-0"									
-----	62'-6"									
-----	65'-0"									
-----	67'-6"									
-----	70'-0"									
-----	72'-6"									
-----	75'-0"									
-----	77'-6"									
Triple	80'-0"	48'-0"	8'-5"	16'-0"	7'-5"	1'-0"	52.6	52.6		
"	82'-6"	49'-6"	8'-3 1/2"	16'-6"	7'-3"	1'-9"	54.7	54.7		
"	85'-0"	51'-0"	8'-2"	17'-0"	7'-1 1/2"	2'-6"	57.1	57.1		
"	87'-6"	52'-6"	8'-0 1/2"	17'-6"	6'-11 1/2"	3'-3"	59.7	59.7		
"	90'-0"	54'-0"	7'-11"	18'-0"	6'-10"	4'-0"	62.5	62.5		
-----	92'-6"									
-----	95'-0"									
-----	97'-6"									
-----	100'-0"									
-----	102'-6"									
-----	105'-0"									
-----	107'-6"									
-----	110'-0"									
-----	112'-6"									
-----	115'-0"									
-----	117'-6"									
-----	120'-0"									

NEITHER TWIN NOR TRIPLE LOADINGS WILL ACCOMMODATE THESE EIGHT LENGTHS OF LOADS ON THIS TABLE.

NEITHER TWIN NOR TRIPLE LOADINGS WILL ACCOMMODATE THESE TWELVE LENGTHS OF LOADS ON THIS TABLE.

Gondola Cars Cannot Be Used For These Five Loads.

TABLE No. 4
BEARING PIECES SPACED SEVEN-TENTHS (7/10) LENGTH OF LOAD

Twin	50'-0"	35'-0"	8'-11"	7'-6"	9'-5"	9'-0"	75.0	66.6	11"	7"
"	52'-6"	36'-9"	8'-10"	7'-10 1/2"	9'-4"	8'-1 1/2"	75.0	66.6	11 1/2"	7 1/2"
"	55'-0"	38'-6"	8'-9 1/2"	8'-3"	9'-3"	7'-3"	75.0	66.6	12"	7 1/2"
"	57'-6"	40'-3"	8'-9"	8'-7 1/2"	9'-2"	6'-4 1/2"	75.3	66.6	12 1/2"	8"
-----	60'-0"									
-----	62'-6"									
-----	65'-0"									
-----	67'-6"									
Triple	70'-0"	49'-0"	8'-4"	10'-6"	8'-5 1/2"	1'-6"	54.0	54.0		
"	72'-6"	50'-9"	8'-2"	10'-10 1/2"	8'-4 1/2"	2'-4 1/2"	56.7	56.7		
"	75'-0"	52'-6"	8'-0 1/2"	11'-3"	8'-3 1/2"	3'-3"	59.7	59.7		
"	77'-6"	54'-3"	7'-10 1/2"	11'-7 1/2"	8'-2 1/2"	4'-1 1/2"	62.9	62.9		
"	80'-0"	56'-0"	7'-9"	12'-0"	8'-1 1/2"	5'-0"	66.6	66.6		
"	82'-6"	57'-9"	7'-7"	12'-4 1/2"	8'-0"	5'-10 1/2"	70.7	66.6		
"	85'-0"	59'-6"	7'-5 1/2"	12'-9"	7'-10 1/2"	6'-9"	75.0	66.6		
"	87'-6"	61'-3"	7'-3 1/2"	13'-1 1/2"	7'-9"	7'-7 1/2"	75.0	66.6		
"	90'-0"	63'-0"	7'-1 1/2"	13'-6"	7'-7 1/2"	8'-6"	75.0	66.6		
-----	92'-6"									
-----	95'-0"									
-----	97'-6"									
-----	100'-0"									
-----	102'-6"									
-----	105'-0"									
-----	107'-6"									
-----	110'-0"									
-----	112'-6"									
-----	115'-0"									
-----	117'-6"									
-----	120'-0"									

NEITHER TWIN NOR TRIPLE LOADINGS WILL ACCOMMODATE THESE FOUR LENGTHS OF LOADS ON THIS TABLE.

NEITHER TWIN NOR TRIPLE LOADINGS WILL ACCOMMODATE THESE TWELVE LENGTHS OF LOADS ON THIS TABLE.

Gondola Cars Cannot Be Used For These Nine Loads.

TABLE No. 5
BEARING PIECES SPACED EIGHT-TENTHS (8/10) LENGTH OF LOAD

Twin	50'-0"	40'-0"	8'-8 1/2"	5'-0"	9'-7 1/2"	6'-6"	74.0	66.6	12 1/2"	6"
"	52'-6"	42'-0"	8'-7 1/2"	5'-3"	9'-6 1/2"	5'-6"	68.9	66.6	13"	6"
"	55'-0"	44'-0"	8'-6 1/2"	5'-6"	9'-5 1/2"	4'-6"	64.5	64.5	13 1/2"	6"
"	57'-6"	46'-0"	8'-5 1/2"	5'-9"	9'-4"	3'-6"	60.6	60.6	14"	6"
Triple	60'-0"	48'-0"	8'-5"	6'-0"	9'-2 1/2"	1'-0"	52.6	52.6		
"	62'-6"	50'-0"	8'-3"	6'-3"	9'-2"	2'-0"	55.5	55.5		
"	65'-0"	52'-0"	8'-1"	6'-6"	9'-2"	3'-0"	58.8	58.8		
"	67'-6"	54'-0"	7'-11"	6'-9"	9'-1 1/2"	4'-0"	62.5	62.5		
"	70'-0"	56'-0"	7'-9"	7'-0"	9'-1"	5'-0"	66.6	66.6		
"	72'-6"	58'-0"	7'-6 1/2"	7'-3"	9'-0"	6'-0"	71.4	66.6		
"	75'-0"	60'-0"	7'-4 1/2"	7'-6"	8'-11 1/2"	7'-0"	75.0	66.6		
"	77'-6"	62'-0"	7'-2 1/2"	7'-9"	8'-10 1/2"	8'-0"	75.0	66.6		
"	80'-0"	64'-0"	7'-0 1/2"	8'-0"	8'-9 1/2"	9'-0"	75.0	66.6		
"	82'-6"	66'-0"	6'-10 1/2"	8'-3"	8'-8 1/2"	10'-0"	75.0	66.6		
"	85'-0"	68'-0"	6'-8 1/2"	8'-6"	8'-7 1/2"	9'-0"	75.0	66.6		
"	87'-6"	70'-0"	6'-6 1/2"	8'-9"	8'-6"	8'-0"	75.0	66.6		
"	90'-0"	72'-0"	6'-4 1/2"	9'-0"	8'-4 1/2"	7'-0"	75.0	66.6		
-----	92'-6"									
-----	95'-0"									
-----	97'-6"									
-----	100'-0"									
-----	102'-6"									
-----	105'-0"									
-----	107'-6"									
-----	110'-0"									
-----	112'-6"									
-----	115'-0"									
-----	117'-6"									
-----	120'-0"									

NEITHER TWIN NOR TRIPLE LOADINGS WILL ACCOMMODATE THESE TWELVE LENGTHS OF LOADS ON THIS TABLE.

Gondola Cars Cannot be Used For These Thirteen Loads.

TABLE No. 9
 LENGTH OF CAR 38 FT.
 BEARING PIECES SPACED SIX-TENTHS (6/10) LENGTH OF LOAD

1 Kind of Load	2 Length of Load	3 Distance Between Bearing Pieces	4 Maximum Width of Load Between Bearing Pieces on Flat Cars	5 Length of Overhang of Load	6 Maximum Width of Overhang of Load on Flat Cars	7 Distance From Center Line of Bearing Piece to Center Line of Nearest Truck	8 Maximum Per Cent of Ld. Wt. Limit Allowed on Bearing Piece Per Rule 6		9 Clearance Required on Each Side of Load When Using Drop End Gondola Cars	
							Fish Belly Type S.U.F.	Other Types S.U.F. Cars	At Center of Load	At Ends of Load
		D	W	C	W					
Twin	50'-0"	30'-0"	9'-0"	10'-0"	9'-4"	8'-0"	71.0	66.6	11 1/2"	9 1/2"
	52'-6"	31'-6"	8'-11"	10'-6"	9'-3"	8'-9"	73.9	66.6	12"	10"
	55'-0"	33'-0"	8'-10"	11'-0"	9'-2"	9'-6"	75.0	66.6	12 1/2"	10 1/2"
	57'-6"	34'-6"	8'-9"	11'-6"	9'-0 1/2"	10'-3"	75.0	66.6	13"	11"
	60'-0"	36'-0"	8'-8"	12'-0"	8'-11 1/2"	11'-0"	75.0	66.6	13 1/2"	11 1/2"
	62'-6"	37'-6"	8'-7"	12'-6"	8'-10"	11'-9"	75.0	66.6	14"	11 1/4"
	65'-0"	39'-0"	8'-6"	13'-0"	8'-9"	12'-6"	75.0	66.6	14 1/2"	11 1/2"
	67'-6"	40'-6"	8'-5"	13'-6"	8'-7"	13'-3"	75.0	66.6	15"	12"
	70'-0"	42'-0"	8'-4"	14'-0"	8'-5 1/2"	13'-0"	75.0	66.6	15 1/2"	12 1/2"
	72'-6"	43'-6"	8'-3"	14'-6"	8'-3 1/2"	12'-3"	75.0	66.6	16"	13"
	75'-0"	45'-0"	8'-2 1/2"	15'-0"	8'-2"	11'-6"	75.0	66.6	16 1/2"	13"
	77'-6"									
	80'-0"									
	82'-6"									
85'-0"										
87'-6"										
90'-0"										
92'-6"										
Triple	95'-0"	57'-0"	7'-0 1/2"	19'-0"	6'-4 1/2"	1'-0"	51.9	51.9		
	97'-6"	58'-6"	7'-7 1/2"	19'-6"	6'-2 1/2"	1'-9"	53.4	53.4		
	100'-0"	60'-0"	7'-5 1/2"	20'-0"	6'-0 1/2"	2'-6"	55.1	55.1		
	102'-6"	61'-6"	7'-3 1/2"	20'-6"	5'-10 1/2"	3'-3"	56.8	56.8		
	105'-0"	63'-0"	7'-2"	21'-0"	5'-8 1/2"	4'-0"	58.6	58.6		
	107'-6"	64'-6"	7'-0"	21'-6"	5'-6"	4'-9"	60.6	60.6		
	110'-0"	66'-0"	6'-10"	22'-0"	5'-4"	5'-6"	62.7	62.7		
	112'-6"	67'-6"	6'-8"	22'-6"	5'-1"	6'-3"	65.0	65.0		
	115'-0"	69'-0"	6'-6"	23'-0"	4'-10 1/2"	7'-0"	67.5	66.6		
	120'-0"									

NEITHER TWIN NOR TRIPLE LOADINGS WILL ACCOMMODATE THESE SEVEN LENGTHS OF LOADS ON THIS TABLE.

Gondola Cars Cannot Be Used For These Nine Loads.

NEITHER TWIN NOR TRIPLE LOADINGS WILL ACCOMMODATE THESE TWO LENGTHS OF LOADS ON THIS TABLE.

TABLE No. 10
 BEARING PIECES SPACED SEVEN-TENTHS (7/10) LENGTH OF LOAD

Twin	50'-0"	35'-0"	8'-8 1/2"	7'-6"	9'-6 1/2"	10'-6"	75.0	66.6	13"	8"
	52'-6"	36'-6"	8'-7 1/2"	7'-10 1/2"	9'-6"	11'-4 1/2"	75.0	66.6	14"	8 1/2"
	55'-0"	38'-0"	8'-6 1/2"	8'-3"	9'-6"	12'-3"	75.0	66.6	14 1/2"	8 1/2"
	57'-6"	40'-3"	8'-5"	8'-7 1/2"	9'-4 1/2"	13'-1 1/2"	75.0	66.6	15"	9"
	60'-0"	42'-0"	8'-4"	9'-0"	9'-3 1/2"	13'-0"	75.0	66.6	15 1/2"	9 1/2"
	62'-6"	43'-9"	8'-3"	9'-4 1/2"	9'-2"	12'-1 1/2"	75.0	66.6	16"	9 1/2"
	65'-0"	45'-6"	8'-2"	9'-9"	9'-1"	11'-3"	75.0	66.6	16 1/2"	9 1/2"
	67'-6"	47'-3"	8'-1"	10'-1 1/2"	8'-11 1/2"	10'-4 1/2"	75.0	66.6	17"	10"
	70'-0"	49'-0"	8'-0"	10'-6"	8'-10"	9'-6"	75.0	66.6	17 1/2"	10"
	72'-6"	50'-9"	7'-11"	10'-10 1/2"	8'-8 1/2"	8'-7 1/2"	73.4	66.6	18"	10 1/2"
	75'-0"	52'-6"	7'-10"	11'-3"	8'-7"	7'-9"	70.1	66.6	18 1/2"	10 1/2"
	77'-6"									
	80'-0"									
	82'-6"									
85'-0"										
87'-6"										
90'-0"										
92'-6"										
95'-0"										
97'-6"										
100'-0"										
102'-6"										
105'-0"										
107'-6"										
110'-0"										
112'-6"										
115'-0"										
120'-0"										

NEITHER TWIN NOR TRIPLE LOADINGS WILL ACCOMMODATE THESE TWO LENGTHS OF LOADS ON THIS TABLE.

Gondola Cars Cannot Be Used For These Fourteen Loads.

NEITHER TWIN NOR TRIPLE LOADINGS WILL ACCOMMODATE THESE TWO LENGTHS OF LOADS ON THIS TABLE.

TABLE No. 11
 BEARING PIECES SPACED EIGHT-TENTHS (8/10) LENGTH OF LOAD

Twin	50'-0"	40'-0"	8'-5 1/2"	5'-0"	9'-6"	13'-0"	75.0	66.6	14 1/2"	6 1/2"
	52'-6"	42'-0"	8'-4"	5'-3"	9'-6 1/2"	13'-0"	75.0	66.6	15 1/2"	7"
	55'-0"	44'-0"	8'-3"	5'-6"	9'-6 1/2"	12'-0"	75.0	66.6	16"	7"
	57'-6"	46'-0"	8'-1 1/2"	5'-9"	9'-6 1/2"	11'-0"	75.0	66.6	17"	7"
	60'-0"	48'-0"	8'-0 1/2"	6'-0"	9'-6 1/2"	10'-0"	75.0	66.6	17 1/2"	7 1/2"
	62'-6"	50'-0"	7'-11"	6'-3"	9'-6"	9'-0"	75.0	66.6	18"	7 1/2"
	65'-0"	52'-0"	7'-9 1/2"	6'-6"	9'-5 1/2"	8'-0"	71.0	66.6	18 1/2"	7 1/2"
	67'-6"	54'-0"	7'-8 1/2"	6'-9"	9'-4"	7'-0"	67.5	66.6	19 1/2"	7 1/2"
	70'-0"	56'-0"	7'-7 1/2"	7'-0"	9'-2 1/2"	6'-0"	64.2	66.6	20"	7 1/2"
	72'-6"	58'-0"	7'-6"	7'-3"	9'-1"	5'-0"	61.3	61.3	20 1/2"	8"
	75'-0"	60'-0"	7'-4 1/2"	7'-6"	8'-11 1/2"	4'-0"	58.6	58.6	21"	8"
	77'-6"	62'-6"	7'-3"	7'-9"	8'-10 1/2"	3'-6"	57.4	57.4		
	80'-0"	64'-0"	7'-0 1/2"	8'-0"	8'-10"	4'-6"	60.0	60.0		
	82'-6"	66'-0"	6'-10"	8'-3"	8'-9"	5'-6"	62.7	62.7		
85'-0"	68'-0"	6'-7 1/2"	8'-6"	8'-8 1/2"	6'-6"	65.8	65.8			
87'-6"	70'-0"	6'-4 1/2"	8'-9"	8'-7 1/2"	7'-6"	69.2	66.6			
90'-0"	72'-0"	6'-2"	9'-0"	8'-7"	8'-6"	72.9	66.6			
92'-6"	74'-0"	5'-11 1/2"	9'-3"	8'-6"	9'-6"	75.0	66.6			
95'-0"	76'-0"	5'-9"	9'-6"	8'-5"	10'-6"	75.0	66.6			
97'-6"	78'-0"	5'-6 1/2"	9'-9"	8'-3 1/2"	11'-6"	75.0	66.6			
100'-0"	80'-0"	5'-4"	10'-0"	8'-2"	12'-6"	75.0	66.6			
102'-6"	82'-0"	5'-1 1/2"	10'-3"	8'-0 1/2"	13'-6"	75.0	66.6			
105'-0"	84'-0"	4'-11"	10'-6"	7'-11 1/2"	12'-6"	75.0	66.6			
107'-6"	86'-0"	4'-8"	10'-9"	7'-9 1/2"	11'-6"	75.0	66.6			
110'-0"	88'-0"	4'-5 1/2"	11'-0"	7'-8"	10'-6"	75.0	66.6			
112'-6"	90'-0"	4'-3"	11'-3"	7'-6"	9'-6"	75.0	66.6			
115'-0"	92'-0"	4'-0 1/2"	11'-6"	7'-4 1/2"	8'-6"	72.9	66.6			
120'-0"										

NEITHER TWIN NOR TRIPLE LOADINGS WILL ACCOMMODATE THESE TWO LENGTHS OF LOADS ON THIS TABLE.

Gondola Cars Cannot Be Used For These Sixteen Loads.

TABLE No. 12

LENGTH OF CAR 42 FT.
BEARING PIECES SPACED SIX-TENTHS (6/10) LENGTH OF LOAD

1 Kind of Load	2 Length of Load	3 Distance Between Bearing Pieces	4 Maximum Width of Load Between Bearing Pieces on Flat Cars	5 Length of Overhang of Load	6 Maximum Width of Overhang of Load on Flat Cars	7 Distance From Center Line of Bearing Piece to Center Line of Nearest Truck	8 Maximum Per Cent of Ld. Wt. Limit Allowed on Bearing Piece Per Rule 6		9 Clearance Required on Each Side of Load When Using Drop End Gondola Cars	
							Fish Belly type S.U.F.	Other Types S.U.F. Cars	At Center of Load	At Ends of Load
		D	W	C	W					
Twin	50'-0"	30'-0"	8'-11"	10'-0"	9'-5"	8'-0"	67.3	66.6	12 1/2"	10"
"	52'-6"	31'-6"	8'-10"	10'-6"	9'-4"	8'-9"	69.6	66.6	13"	10 1/2"
"	55'-0"	33'-0"	8'-9"	11'-0"	9'-3 1/2"	9'-6"	72.0	66.6	13 1/2"	11"
"	57'-6"	34'-6"	8'-8"	11'-6"	9'-2"	10'-3"	74.6	66.6	14"	11 1/2"
"	60'-0"	36'-0"	8'-7"	12'-0"	9'-1"	11'-0"	75.0	66.6	14 1/2"	11 3/4"
"	62'-6"	37'-6"	8'-5 1/2"	12'-6"	8'-11 1/2"	11'-9"	75.0	66.6	15"	12"
"	65'-0"	39'-0"	8'-4 1/2"	13'-0"	8'-10 1/2"	12'-6"	75.0	66.6	15 1/2"	12 1/4"
"	67'-6"	40'-6"	8'-3 1/2"	13'-6"	8'-9"	13'-3"	75.0	66.6	16"	12 1/2"
"	70'-0"	42'-0"	8'-2 1/2"	14'-0"	8'-7 1/2"	14'-0"	75.0	66.6	16 1/2"	13"
"	72'-6"	43'-6"	8'-1 1/2"	14'-6"	8'-5 1/2"	14'-9"	75.0	66.6	17"	13 1/4"
"	75'-0"	45'-0"	8'-0 1/2"	15'-0"	8'-3 1/2"	15'-6"	75.0	66.6	17 1/2"	13 1/2"
"	77'-6"	46'-6"	7'-11 1/2"	15'-6"	8'-1 1/2"	14'-9"	75.0	66.6	18"	14"
"	80'-0"	48'-0"	7'-10 1/2"	16'-0"	8'-0"	14'-0"	75.0	66.6	18 1/2"	14 1/2"
"	82'-6"	49'-6"	7'-9"	16'-6"	7'-10"	13'-3"	75.0	66.6	19"	15"
"	85'-0"									
"	87'-6"									
"	90'-0"									
"	92'-6"									
"	95'-0"									
"	97'-6"									
"	100'-0"									
NEITHER TWIN NOT TRIPLE LOADINGS WILL ACCOMMODATE THESE SEVEN LENGTHS OF LOADS ON THIS TABLE.										
Triple	102'-6"	61'-6"	7'-5"	20'-6"	5'-9"	1'-3"	52.1	52.1		
"	105'-0"	63'-0"	7'-3"	21'-0"	5'-7"	2'-0"	53.4	53.4		
"	107'-6"	64'-6"	7'-0 1/2"	21'-6"	5'-5"	2'-9"	54.8	54.8		
"	110'-0"	66'-0"	6'-10 1/2"	22'-0"	5'-3"	3'-6"	56.3	56.3		
"	112'-6"	67'-6"	6'-8 1/2"	22'-6"	5'-0 1/2"	4'-3"	57.9	57.9		
"	115'-0"	69'-0"	6'-6 1/2"	23'-0"	4'-10 1/2"	5'-0"	59.6	59.6		
"	117'-6"	70'-6"	6'-4 1/2"	23'-6"	4'-8"	5'-9"	61.3	61.3		
"	120'-0"	72'-0"	6'-2"	24'-0"	4'-5 1/2"	6'-6"	63.2	63.2		

Gondola Cars Cannot Be Used For These Eight Loads

TABLE No. 13

BEARING PIECES SPACED SEVEN-TENTHS (7/10) LENGTH OF LOAD

Twin	50'-0"	35'-0"	8'-7 1/2"	7'-6"	9'-5"	10'-6"	75.0	66.6	14"	8 1/2"
"	52'-6"	36'-6"	8'-6"	7'-10 1/2"	9'-5"	11'-4 1/2"	75.0	66.6	14 1/2"	9"
"	55'-0"	38'-0"	8'-5"	8'-3"	9'-5"	12'-3"	75.0	66.6	15"	9 1/2"
"	57'-6"	40'-3"	8'-3 1/2"	8'-7 1/2"	9'-4 1/2"	13'-1 1/2"	75.0	66.6	16"	9 3/4"
"	60'-0"	42'-0"	8'-2 1/2"	9'-0"	9'-4 1/2"	14'-0"	75.0	66.6	16 1/2"	10"
"	62'-6"	43'-6"	8'-1"	9'-4 1/2"	9'-3 1/2"	14'-10 1/2"	75.0	66.6	17 1/2"	10 1/2"
"	65'-0"	45'-6"	8'-0"	9'-9"	9'-3"	15'-3"	75.0	66.6	18"	10 3/4"
"	67'-6"	47'-3"	7'-10 1/2"	10'-1 1/2"	9'-1 1/2"	14'-4 1/2"	75.0	66.6	18 1/2"	10 1/2"
"	70'-0"	49'-0"	7'-9 1/2"	10'-6"	9'-0"	13'-6"	75.0	66.6	19"	10 3/4"
"	72'-6"	50'-6"	7'-8"	10'-10 1/2"	8'-10 1/2"	12'-7 1/2"	75.0	66.6	19 1/2"	11"
"	75'-0"	52'-6"	7'-7"	11'-3"	8'-9"	11'-9"	75.0	66.6	20"	11 1/4"
"	77'-6"	54'-3"	7'-6"	11'-7 1/2"	8'-7"	10'-10 1/2"	75.0	66.6	21"	11 1/2"
"	80'-0"	56'-0"	7'-5"	12'-0"	8'-5 1/2"	10'-0"	73.8	66.6	21 1/2"	11 3/4"
"	82'-6"	57'-6"	7'-4"	12'-4 1/2"	8'-4"	9'-1 1/2"	70.8	66.6	22 1/2"	12"
"	85'-0"									
NEITHER TWIN NOR TRIPLE LOADINGS WILL ACCOMMODATE THIS LENGTH OF LOAD ON THIS TABLE.										
Triple	87'-6"	61'-3"	7'-5"	13'-1 1/2"	7'-7"	1'-1 1/2"	51.8	51.8		
"	90'-0"	63'-0"	7'-3"	13'-6"	7'-6"	2'-0"	53.4	53.4		
"	92'-6"	64'-6"	7'-0 1/2"	13'-10 1/2"	7'-5"	2'-10 1/2"	55.1	55.1		
"	95'-0"	66'-0"	6'-10"	14'-3"	7'-4"	3'-9"	56.8	56.8		
"	97'-6"	68'-3"	6'-7 1/2"	14'-7 1/2"	7'-2 1/2"	4'-7 1/2"	58.7	58.7		
"	100'-0"	70'-0"	6'-5"	15'-0"	7'-1"	5'-6"	60.7	60.7		
"	102'-6"	71'-6"	6'-2 1/2"	15'-4 1/2"	6'-11 1/2"	6'-4 1/2"	62.9	62.9		
"	105'-0"	73'-6"	6'-0 1/2"	15'-9"	6'-10"	7'-3"	65.2	65.2		
"	107'-6"	75'-3"	5'-10"	16'-1 1/2"	6'-8"	8'-1 1/2"	67.7	66.6		
"	110'-0"	77'-0"	5'-7 1/2"	16'-6"	6'-6 1/2"	9'-0"	70.4	66.6		
"	112'-6"	78'-9"	5'-5"	16'-10 1/2"	6'-4 1/2"	9'-10 1/2"	73.3	66.6		
"	115'-0"	80'-6"	5'-2 1/2"	17'-3"	6'-2 1/2"	10'-9"	75.0	66.6		
"	117'-6"	82'-3"	5'-0"	17'-7 1/2"	6'-0 1/2"	11'-7 1/2"	75.0	66.6		
"	120'-0"	84'-0"	4'-9 1/2"	18'-0"	5'-10 1/2"	12'-6"	75.0	66.6		

Gondola Cars Cannot Be Used For These Fourteen Loads.

TABLE No. 14

BEARING PIECES SPACED EIGHT-TENTHS (8/10) LENGTH OF LOAD

Twin	50'-0"	40'-0"	8'-4"	5'-0"	9'-4 1/2"	13'-0"	75.0	66.6	15 1/2"	6 1/2"
"	52'-6"	42'-0"	8'-2 1/2"	5'-3"	9'-4 1/2"	14'-0"	75.0	66.6	16 1/2"	7"
"	55'-0"	44'-0"	8'-1"	5'-6"	9'-4 1/2"	15'-0"	75.0	66.6	17"	7 1/2"
"	57'-6"	46'-0"	7'-11 1/2"	5'-9"	9'-4 1/2"	15'-0"	75.0	66.6	18"	7 3/4"
"	60'-0"	48'-0"	7'-10 1/2"	6'-0"	9'-4 1/2"	14'-0"	75.0	66.6	18 1/2"	7 1/2"
"	62'-6"	50'-0"	7'-9"	6'-3"	9'-4 1/2"	13'-0"	75.0	66.6	19 1/2"	7 1/4"
"	65'-0"	52'-0"	7'-7 1/2"	6'-6"	9'-5"	12'-0"	75.0	66.6	20"	7 1/2"
"	67'-6"	54'-0"	7'-6"	6'-9"	9'-5"	11'-0"	75.0	66.6	21"	8"
"	70'-0"	56'-0"	7'-5"	7'-0"	9'-5"	10'-0"	73.8	66.6	21 1/2"	8 1/2"
"	72'-6"	58'-0"	7'-3 1/2"	7'-3"	9'-3 1/2"	9'-0"	70.4	66.6	22 1/2"	8 1/4"
"	75'-0"	60'-0"	7'-2"	7'-6"	9'-2 1/2"	8'-0"	67.3	66.6	23"	8 1/2"
"	77'-6"	62'-0"	7'-0 1/2"	7'-9"	9'-0 1/2"	7'-0"	64.5	64.5	23 1/2"	8 1/4"
"	80'-0"	64'-0"	6'-11 1/2"	8'-0"	8'-11 1/2"	6'-0"	62.0	62.0	24"	8 1/2"
"	82'-6"	66'-0"	6'-9 1/2"	8'-3"	8'-9 1/2"	5'-0"	59.6	59.6	24 1/2"	9"
"	85'-0"	68'-0"	6'-8"	8'-6"	8'-8"	4'-6"	58.4	58.4		
Triple	87'-6"	70'-0"	6'-5"	8'-9"	8'-7 1/2"	5'-6"	60.7	60.7		
"	90'-0"	72'-0"	6'-2"	9'-0"	8'-7"	6'-6"	63.2	63.2		
"	92'-6"	74'-0"	5'-11"	9'-3"	8'-6"	7'-6"	65.9	65.9		
"	95'-0"	76'-0"	5'-8 1/2"	9'-6"	8'-5 1/2"	8'-6"	68.8	66.6		
"	97'-6"	78'-0"	5'-5 1/2"	9'-9"	8'-4"	9'-6"	72.0	66.6		
"	100'-0"	80'-0"	5'-3"	10'-0"	8'-3"	10'-6"	75.0	66.6		
"	102'-6"	82'-0"	5'-0"	10'-3"	8'-2"	11'-6"	75.0	66.6		
"	105'-0"	84'-0"	4'-9 1/2"	10'-6"	8'-1"	12'-6"	75.0	66.6		
"	107'-6"	86'-0"	4'-6 1/2"	10'-9"	7'-11 1/2"	13'-6"	75.0	66.6		
"	110'-0"	88'-0"	4'-3 1/2"	11'-0"	7'-10"	14'-6"	75.0	66.6		
"	112'-6"	90'-0"	4'-0 1/2"	11'-3"	7'-8 1/2"	15'-6"	75.0	66.6		
"	115'-0"	92'-0"	3'-10"	11'-6"	7'-7"	14'-6"	75.0	66.6		
"	117'-6"	94'-0"	3'-7"	11'-9"	7'-5"	13'-6"	75.0	66.6		
"	120'-0"	96'-0"	3'-4 1/2"	12'-0"	7'-3 1/2"	12'-6"	75.0	66.6		

Gondola Cars Cannot Be Used For These Fifteen Loads

LENGTH OF CAR 46 FT.
BEARING PIECES SPACED SIX-TENTHS (6/10) LENGTH OF LOAD

1 Kind of Load	2 Length of Load	3 Distance Between Bearing Pieces	4 Maximum Width of Load Between Bearing Pieces on Flat Cars	5 Length of Overhang of Load	6 Maximum Width of Overhang of Load on Flat Cars	7 Distance From Center Line of Bearing Piece to Center Line of Nearest Truck	8 Maximum Per Cent of Ld. Wt. Limit Allowed on Bearing Piece Per Rule 6		9 Clearance Required on Each Side of Load When Using Drop End Gondola Cars	
							Fish Belly Type S.U.F.	Other Types S.U.F. Cars	At Center of Load	At Ends of Load
		D	W	C	W					
Twin	50'-0"	30'-0"	8'-10"	10'-0"	9'-5"	8'-0"	64.8	64.8	13 1/2"	10 1/2"
"	52'-6"	31'-6"	8'-6 1/2"	10'-6"	9'-4 1/2"	8'-9"	66.6	66.6	14"	11"
"	55'-0"	33'-0"	8'-3 1/2"	11'-0"	9'-4 1/2"	9'-6"	68.6	68.6	14 1/2"	11 1/2"
"	57'-6"	34'-6"	8'-4 1/2"	11'-6"	9'-3 1/2"	10'-3"	70.7	68.6	15"	12"
"	60'-0"	36'-0"	8'-5 1/2"	12'-0"	9'-2 1/2"	11'-0"	72.9	68.6	15 1/2"	12 1/2"
"	62'-6"	37'-6"	8'-4"	12'-6"	9'-1"	11'-9"	75.0	68.6	16 1/2"	12 1/2"
"	65'-0"	39'-0"	8'-3"	13'-0"	9'-0"	12'-6"	75.0	68.6	17"	13"
"	67'-6"	40'-6"	8'-1 1/2"	13'-6"	8'-10 1/2"	13'-3"	75.0	68.6	17 1/2"	13 1/2"
"	70'-0"	42'-0"	8'-0 1/2"	14'-0"	8'-9"	14'-0"	75.0	68.6	18"	14"
"	72'-6"	43'-6"	7'-11 1/2"	14'-6"	8'-7"	14'-9"	75.0	68.6	18 1/2"	14 1/2"
"	75'-0"	45'-0"	7'-10 1/2"	15'-0"	8'-5 1/2"	15'-6"	75.0	68.6	19"	14 1/2"
"	77'-6"	46'-6"	7'-9"	15'-6"	8'-3 1/2"	16'-3"	75.0	68.6	19 1/2"	15"
"	80'-0"	48'-0"	7'-8"	16'-0"	8'-2"	17'-0"	75.0	68.6	20"	15 1/2"
"	82'-6"	49'-6"	7'-7"	16'-6"	8'-0"	17'-3"	75.0	68.6	21"	16"
"	85'-0"	51'-0"	7'-6"	17'-0"	7'-10"	17'-6"	75.0	68.6	21 1/2"	16 1/2"
"	87'-6"	52'-6"	7'-5 1/2"	17'-6"	7'-6 1/2"	15'-9"	75.0	68.6	22"	16 1/2"
"	90'-0"	54'-0"	7'-5 1/2"	18'-0"	7'-3"	15'-0"	75.0	68.6	22 1/2"	17"
"	92'-6"									
"	95'-0"									
"	97'-6"									
"	100'-0"									
"	102'-6"									
"	105'-0"									
"	107'-6"									
Triple	110'-0"	66'-0"	7'-0"	22'-0"	5'-1"	1'-6"	52.2	52.2		
"	112'-6"	67'-6"	6'-9 1/2"	23'-6"	4'-11"	2'-3"	53.4	53.4		
"	115'-0"	69'-0"	6'-7 1/2"	25'-0"	4'-9 1/2"	3'-0"	54.6	54.6		
"	117'-6"	70'-6"	6'-5"	23'-6"	4'-7"	3'-9"	56.0	56.0		
"	120'-0"	72'-0"	6'-3"	24'-0"	4'-5"	4'-6"	57.3	57.3		

NEITHER TWIN NOR TRIPLE LOADINGS WILL ACCOMMODATE THESE SEVEN LENGTHS OF LOADS ON THIS TABLE.

TABLE No. 16

BEARING PIECES SPACED SEVEN-TENTHS (7/10) LENGTH OF LOAD

1 Kind of Load	2 Length of Load	3 Distance Between Bearing Pieces	4 Maximum Width of Load Between Bearing Pieces on Flat Cars	5 Length of Overhang of Load	6 Maximum Width of Overhang of Load on Flat Cars	7 Distance From Center Line of Bearing Piece to Center Line of Nearest Truck	8 Maximum Per Cent of Ld. Wt. Limit Allowed on Bearing Piece Per Rule 6	9 Maximum Per Cent of Ld. Wt. Limit Allowed on Bearing Piece Per Rule 6	10 Clearance Required on Each Side of Load When Using Drop End Gondola Cars	11 Clearance Required on Each Side of Load When Using Drop End Gondola Cars
Twin	50'-0"	35'-0"	8'-6"	7'-8"	9'-4"	10'-6"	71.4	66.6	15"	8 1/2"
"	52'-6"	36'-9"	8'-4 1/2"	7'-10 1/2"	9'-3 1/2"	11'-4 1/2"	74.0	66.6	16"	9 1/2"
"	55'-0"	38'-6"	8'-3 1/2"	8'-3"	9'-3"	12'-3"	75.0	66.6	16 1/2"	9 1/2"
"	57'-6"	40'-3"	8'-2 1/2"	8'-7 1/2"	9'-3"	13'-1 1/2"	75.0	66.6	17"	10"
"	60'-0"	42'-0"	8'-0 1/2"	9'-0"	9'-3"	14'-0"	75.0	66.6	17 1/2"	10 1/2"
"	62'-6"	43'-9"	7'-11"	9'-4 1/2"	9'-2 1/2"	14'-10 1/2"	75.0	66.6	18 1/2"	10 1/2"
"	65'-0"	45'-6"	7'-10"	9'-9"	9'-2 1/2"	15'-9"	75.0	66.6	19"	10 1/2"
"	67'-6"	47'-3"	7'-8 1/2"	10'-1 1/2"	9'-2"	16'-7 1/2"	75.0	66.6	20"	11"
"	70'-0"	49'-0"	7'-7 1/2"	10'-6 1/2"	9'-1 1/2"	17'-6"	75.0	66.6	20 1/2"	11 1/2"
"	72'-6"	50'-9"	7'-6"	10'-10 1/2"	9'-0 1/2"	16'-7 1/2"	75.0	66.6	21"	11 1/2"
"	75'-0"	52'-6"	7'-4 1/2"	11'-3"	8'-11 1/2"	15'-9"	75.0	66.6	21 1/2"	11 1/2"
"	77'-6"	54'-3"	7'-3 1/2"	11'-7 1/2"	8'-8 1/2"	14'-10 1/2"	75.0	66.6	22 1/2"	12"
"	80'-0"	56'-0"	7'-2"	12'-0"	8'-6"	14'-0"	75.0	66.6	23"	12 1/2"
"	82'-6"	57'-9"	7'-0 1/2"	12'-4 1/2"	8'-4"	13'-1 1/2"	75.0	66.6	24"	13"
"	85'-0"	59'-6"	6'-11 1/2"	12'-9"	8'-2 1/2"	12'-3"	75.0	66.6	24 1/2"	13 1/2"
"	87'-6"	61'-3"	6'-10"	13'-1 1/2"	8'-1 1/2"	11'-4 1/2"	74.0	66.6	25 1/2"	13 1/2"
"	90'-0"	63'-0"	6'-8 1/2"	13'-6"	8'-0 1/2"	10'-6"	71.4	66.6	26"	13 1/2"
Triple	95'-0"	66'-6"	6'-11 1/2"	14'-3"	7'-0 1/2"	1'-9"	52.6	52.6		
"	97'-6"	68'-3"	6'-8 1/2"	14'-7 1/2"	6'-11"	2'-7 1/2"	54.0	54.0		
"	100'-0"	70'-0"	6'-6"	15'-0"	6'-10"	3'-6"	55.5	55.5		
"	102'-6"	71'-9"	6'-3"	15'-4 1/2"	6'-9 1/2"	4'-4 1/2"	57.1	57.1		
"	105'-0"	73'-6"	6'-0 1/2"	15'-9"	6'-9 1/2"	5'-3"	58.8	58.8		
"	107'-6"	75'-3"	5'-10"	16'-1 1/2"	6'-7 1/2"	6'-1 1/2"	60.6	60.6		
"	110'-0"	77'-0"	5'-7 1/2"	16'-6 1/2"	6'-4 1/2"	7'-0"	62.5	62.5		
"	112'-6"	78'-9"	5'-4 1/2"	16'-10 1/2"	6'-2 1/2"	7'-10 1/2"	64.5	64.5		
"	115'-0"	80'-6"	5'-2"	17'-3"	6'-1"	8'-9"	66.6	66.6		
"	117'-6"	82'-3"	4'-11"	17'-7 1/2"	6'-0"	9'-7 1/2"	68.9	66.6		
"	120'-0"	84'-0"	4'-8 1/2"	18'-0"	5'-11 1/2"	10'-6"	71.4	66.6		

NEITHER TWIN NOR TRIPLE LOADINGS WILL ACCOMMODATE THIS LENGTH OF LOAD ON THIS TABLE.

TABLE No. 17

BEARING PIECES SPACED EIGHT-TENTHS (8/10) LENGTH OF LOAD

1 Kind of Load	2 Length of Load	3 Distance Between Bearing Pieces	4 Maximum Width of Load Between Bearing Pieces on Flat Cars	5 Length of Overhang of Load	6 Maximum Width of Overhang of Load on Flat Cars	7 Distance From Center Line of Bearing Piece to Center Line of Nearest Truck	8 Maximum Per Cent of Ld. Wt. Limit Allowed on Bearing Piece Per Rule 6	9 Maximum Per Cent of Ld. Wt. Limit Allowed on Bearing Piece Per Rule 6	10 Clearance Required on Each Side of Load When Using Drop End Gondola Cars	11 Clearance Required on Each Side of Load When Using Drop End Gondola Cars
Twin	50'-0"	40'-0"	8'-2 1/2"	5'-0"	9'-3"	13'-0"	75.0	66.6	17"	6"
"	52'-6"	42'-0"	8'-1"	5'-3"	9'-2 1/2"	14'-0"	75.0	66.6	18"	6 1/2"
"	55'-0"	44'-0"	7'-11 1/2"	5'-6"	9'-2 1/2"	15'-0"	75.0	66.6	18 1/2"	7 1/2"
"	57'-6"	46'-0"	7'-10 1/2"	5'-9"	9'-2 1/2"	16'-0"	75.0	66.6	19 1/2"	7 1/2"
"	60'-0"	48'-0"	7'-10"	6'-0"	9'-2 1/2"	17'-0"	75.0	66.6	20"	8"
"	62'-6"	50'-0"	7'-7 1/2"	6'-3"	9'-2 1/2"	17'-0"	75.0	66.6	21 1/2"	8 1/2"
"	65'-0"	52'-0"	7'-5"	6'-6"	9'-2 1/2"	16'-0"	75.0	66.6	22 1/2"	8 1/2"
"	67'-6"	54'-0"	7'-4 1/2"	6'-9"	9'-2 1/2"	15'-0"	75.0	66.6	23"	8 1/2"
"	70'-0"	56'-0"	7'-4"	7'-0"	9'-3"	14'-0"	75.0	66.6	24"	9"
"	72'-6"	58'-0"	7'-1 1/2"	7'-3"	9'-3"	13'-0"	75.0	66.6	25"	9 1/2"
"	75'-0"	60'-0"	6'-11"	7'-6"	9'-3 1/2"	12'-0"	75.0	66.6	26 1/2"	9 1/2"
"	77'-6"	62'-0"	6'-9 1/2"	7'-9"	9'-3"	11'-0"	72.0	66.6	27 1/2"	10"
"	80'-0"	64'-0"	6'-8"	8'-0"	9'-2 1/2"	10'-0"	70.0	66.6	28"	10"
"	82'-6"	66'-0"	6'-6 1/2"	8'-3"	9'-0 1/2"	9'-0"	67.3	66.6	27 1/2"	10 1/2"
"	85'-0"	68'-0"	6'-5"	8'-6"	8'-11 1/2"	8'-0"	64.8	64.8	28"	10"
"	87'-6"	70'-0"	6'-3"	8'-9"	8'-9"	7'-0"	62.5	62.5	29"	10"
"	90'-0"	72'-0"	6'-1 1/2"	9'-0"	8'-7 1/2"	6'-0"	60.3	60.3	29 1/2"	10"
Triple	92'-6"	74'-0"	5'-11 1/2"	9'-3"	8'-6"	5'-6"	59.3	59.3		
"	95'-0"	76'-0"	5'-8 1/2"	9'-6"	8'-5"	6'-6"	61.4	61.4		
"	97'-6"	78'-0"	5'-5 1/2"	9'-9"	8'-4"	7'-6"	63.6	63.6		
"	100'-0"	80'-0"	5'-2 1/2"	10'-0"	8'-3 1/2"	8'-6"	66.0	66.0		
"	102'-6"	82'-0"	4'-11 1/2"	10'-3"	8'-2"	9'-6"	68.6	66.6		
"	105'-0"	84'-0"	4'-8 1/2"	10'-6"	8'-1"	10'-6"	71.4	66.6		
"	107'-6"	86'-0"	4'-5 1/2"	10'-9"	8'-0"	11'-6"	74.4	66.6		
"	110'-0"	88'-0"	4'-2 1/2"	11'-0"	7'-11 1/2"	12'-6"	75.0	66.6		
"	112'-6"	90'-0"	3'-11"	11'-3"	7'-10"	13'-6"	75.0	66.6		
"	115'-0"	92'-0"	3'-8"	11'-6"	7'-9"	14'-6"	75.0	66.6		
"	117'-6"	94'-0"	3'-5"	11'-9"	7'-7 1/2"	15'-6"	75.0	66.6		
"	120'-0"	96'-0"	3'-2"	12'-0"	7'-6"	16'-6"	75.0	66.6		

Gondola Cars Cannot Be Used For These Twelve Loads.

TABLE No. 18

LENGTH OF CAR 50 FT.
BEARING PIECES SPACED SIX-TENTHS (6/10) LENGTH OF LOAD

1 Kind of Load	2 Length of Load	3 Distance Between Bearing Pieces	4 Maximum Width of Load Between Bearing Pieces on Flat Cars	5 Length of Overhang of Load	6 Maximum Width of Overhang of Load on Flat Cars	7 Distance From Center Line of Bearing Piece to Center Line of Nearest Truck	8 Maximum Per Cent of Ld. Wt. Limit Allowed on Bearing Piece Per Rule 6		9 Clearance Required on Each Side of Load When Using Drop End Gondola Cars	
							Fish Belly Type S.U.F.	Other Types S.U.F. Cars	At Center of Load	At Ends of Load
		D	W	C	W					
Twin	50'-0"	30'-0"	8'-9"	10'-0"	9'-4"	8'-0"	62.9	62.9	14"	11 1/2"
"	52'-6"	31'-6"	8'-7 1/2"	10'-6"	9'-3 1/2"	8'-9"	64.4	64.4	15"	12"
"	55'-0"	33'-0"	8'-6 1/2"	11'-0"	9'-3"	9'-6"	66.1	66.1	15 1/2"	12 1/2"
"	57'-6"	34'-6"	8'-5 1/2"	11'-6"	9'-2 1/2"	10'-3"	67.8	66.6	16"	13"
"	60'-0"	36'-0"	8'-4"	12'-0"	9'-2 1/2"	11'-0"	69.6	66.6	16 1/2"	13 1/2"
"	62'-6"	37'-6"	8'-2 1/2"	12'-6"	9'-2"	11'-9"	71.5	66.6	17 1/2"	13 1/2"
"	65'-0"	39'-0"	8'-1 1/2"	13'-0"	9'-1 1/2"	12'-6"	73.5	66.6	18"	14"
"	67'-6"	40'-6"	8'-0"	13'-6"	9'-0"	13'-3"	75.0	66.6	18 1/2"	14 1/2"
"	70'-0"	42'-0"	7'-11"	14'-0"	8'-11"	14'-0"	75.0	66.6	19"	14 1/2"
"	72'-6"	43'-6"	7'-9 1/2"	14'-6"	8'-9"	14'-9"	75.0	66.6	20"	15"
"	75'-0"	45'-0"	7'-8 1/2"	15'-0"	8'-7 1/2"	15'-6"	75.0	66.6	20 1/2"	15 1/2"
"	77'-6"	46'-6"	7'-7"	15'-6"	8'-5 1/2"	16'-3"	75.0	66.6	21"	16"
"	80'-0"	48'-0"	7'-6"	16'-0"	8'-4"	17'-0"	75.0	66.6	21 1/2"	16 1/2"
"	82'-6"	49'-6"	7'-4 1/2"	16'-6"	8'-2"	17'-9"	75.0	66.6	22 1/2"	17"
"	85'-0"	51'-0"	7'-3 1/2"	17'-0"	8'-0"	18'-6"	75.0	66.6	23"	17 1/2"
"	87'-6"	52'-6"	7'-2"	17'-6"	7'-10"	19'-3"	75.0	66.6	23 1/2"	18"
"	90'-0"	54'-0"	7'-1"	18'-0"	7'-8"	19'-0"	75.0	66.6	24"	18 1/2"
"	92'-6"	55'-6"	6'-11 1/2"	18'-6"	7'-5 1/2"	18'-3"	75.0	66.6	25"	18 1/2"
"	95'-0"	57'-0"	6'-10 1/2"	19'-0"	7'-3 1/2"	17'-6"	75.0	66.6	25 1/2"	19"
"	97'-6"	58'-6"	6'-9"	19'-6"	7'-1"	16'-9"	75.0	66.6	26"	19 1/2"
-----	100'-0"									
-----	102'-6"									
-----	105'-0"									
-----	107'-6"									
-----	110'-0"									
-----	112'-6"									
Triple	115'-0"	69'-0"	6'-9 1/2"	23'-0"	4'-7 1/2"	1'-0"	51.3	51.3	Gondola Cars Cannot Be Used For These Three Loads.	
"	117'-6"	70'-6"	6'-7"	23'-6"	4'-5 1/2"	1'-9"	52.3	52.3		
"	120'-0"	72'-0"	6'-4 1/2"	24'-0"	4'-3 1/2"	2'-6"	53.4	53.4		

NEITHER TWIN NOR TRIPLE LOADINGS WILL ACCOMMODATE THESE SIX LENGTHS OF LOADS ON THIS TABLE.

TABLE No. 19

BEARING PIECES SPACED SEVEN-TENTHS (7/10) LENGTH OF LOAD

Twin	50'-0"	35'-0"	8'-5"	7'-6"	9'-2 1/2"	10'-6"	68.4	66.6	16"	9 1/2"
"	52'-6"	36'-6"	8'-3 1/2"	7'-10 1/2"	9'-2"	11'-4 1/2"	70.5	66.6	17"	10"
"	55'-0"	38'-6"	8'-2"	8'-3"	9'-1 1/2"	12'-3"	72.8	66.6	17 1/2"	10 1/2"
"	57'-6"	40'-3"	8'-0 1/2"	8'-7 1/2"	9'-1"	13'-1 1/2"	75.0	66.6	18 1/2"	10 1/2"
"	60'-0"	42'-0"	7'-11"	9'-0"	9'-0"	14'-0"	75.0	66.6	19"	10 1/2"
"	62'-6"	43'-6"	7'-9 1/2"	9'-4 1/2"	9'-0 1/2"	14'-10 1/2"	75.0	66.6	20"	11"
"	65'-0"	45'-6"	7'-8"	9'-9"	9'-0 1/2"	15'-9"	75.0	66.6	20 1/2"	11 1/2"
"	67'-6"	47'-3"	7'-6 1/2"	10'-1 1/2"	9'-0 1/2"	16'-7 1/2"	75.0	66.6	21 1/2"	12"
"	70'-0"	49'-0"	7'-5 1/2"	10'-6"	9'-0 1/2"	17'-6"	75.0	66.6	22"	12"
"	72'-6"	50'-9"	7'-4"	10'-10 1/2"	9'-0"	18'-4 1/2"	75.0	66.6	23 1/2"	12 1/2"
"	75'-0"	52'-6"	7'-2 1/2"	11'-3"	9'-0"	19'-3"	75.0	66.6	23 1/2"	12 1/2"
"	77'-6"	54'-3"	7'-1 1/2"	11'-7 1/2"	8'-11 1/2"	18'-10 1/2"	75.0	66.6	24 1/2"	13"
"	80'-0"	56'-0"	6'-11 1/2"	12'-0"	8'-11"	18'-0"	75.0	66.6	25"	13"
"	82'-6"	57'-6"	6'-10"	12'-4 1/2"	8'-9"	17'-1 1/2"	75.0	66.6	26"	13 1/2"
"	85'-0"	59'-6"	6'-8 1/2"	12'-9"	8'-7"	16'-3"	75.0	66.6	26 1/2"	13 1/2"
"	87'-6"	61'-3"	6'-7"	13'-1 1/2"	8'-5"	15'-4 1/2"	75.0	66.6	27 1/2"	14"
"	90'-0"	63'-0"	6'-5 1/2"	13'-6"	8'-3 1/2"	14'-6"	75.0	66.6	28"	14 1/2"
"	92'-6"	64'-9"	6'-4"	13'-10 1/2"	8'-0"	13'-7 1/2"	75.0	66.6	28 1/2"	15"
"	95'-0"	66'-6"	6'-3"	14'-3"	7'-9"	12'-9"	74.2	66.6	29"	15"
"	97'-6"	68'-3"	6'-2"	14'-7 1/2"	7'-6"	11'-10 1/2"	71.8	66.6	29 1/2"	15 1/2"
Triple	100'-0"	70'-0"	6'-7 1/2"	15'-0"	6'-10 1/2"	1'-6"	52.0	52.0	Gondola Cars Cannot Be Used For These Nine Loads.	
"	102'-6"	71'-9"	6'-4 1/2"	15'-4 1/2"	6'-9"	2'-4 1/2"	53.2	53.2		
"	105'-0"	73'-3"	6'-2"	15'-9"	6'-8"	3'-3"	54.5	54.5		
"	107'-6"	75'-3"	5'-11"	16'-1 1/2"	6'-6 1/2"	4'-1 1/2"	55.9	55.9		
"	110'-0"	77'-0"	5'-8"	16'-6"	6'-5 1/2"	5'-0"	57.3	57.3		
"	112'-6"	78'-9"	5'-5"	16'-10 1/2"	6'-4"	5'-10 1/2"	58.8	58.8		
"	115'-0"	80'-6"	5'-2 1/2"	17'-3"	6'-2 1/2"	6'-9"	60.4	60.4		
"	117'-6"	82'-3"	4'-11 1/2"	17'-7 1/2"	6'-1"	7'-7 1/2"	62.1	62.1		
"	120'-0"	84'-0"	4'-8 1/2"	18'-0"	5'-11 1/2"	8'-6"	63.9	63.9		

TABLE No. 20

BEARING PIECES SPACED EIGHT-TENTHS (8/10) LENGTH OF LOAD

Twin	50'-0"	40'-0"	8'-1"	5'-0"	9'-1 1/2"	13'-0"	75.0	66.6	18"	7 1/2"
"	52'-6"	42'-0"	7'-11"	5'-3"	9'-1"	14'-0"	75.0	66.6	19"	7 1/2"
"	55'-0"	44'-0"	7'-9 1/2"	5'-6"	9'-1"	15'-0"	75.0	66.6	20"	7 1/2"
"	57'-6"	46'-0"	7'-7 1/2"	5'-9"	9'-0 1/2"	16'-0"	75.0	66.6	21"	8"
"	60'-0"	48'-0"	7'-6"	6'-0"	9'-0 1/2"	17'-0"	75.0	66.6	22"	8"
"	62'-6"	50'-0"	7'-4 1/2"	6'-3"	9'-0 1/2"	18'-0"	75.0	66.6	22 1/2"	8 1/2"
"	65'-0"	52'-0"	7'-3"	6'-6"	9'-0 1/2"	19'-0"	75.0	66.6	23"	8 1/2"
"	67'-6"	54'-0"	7'-1"	6'-9"	9'-0 1/2"	19'-0"	75.0	66.6	24"	9"
"	70'-0"	56'-0"	6'-11 1/2"	7'-0"	9'-0 1/2"	18'-0"	75.0	66.6	25"	9"
"	72'-6"	58'-0"	6'-9 1/2"	7'-3"	9'-0 1/2"	17'-0"	75.0	66.6	26"	9 1/2"
"	75'-0"	60'-0"	6'-8"	7'-6"	9'-0 1/2"	16'-0"	75.0	66.6	26 1/2"	9 1/2"
"	77'-6"	62'-0"	6'-6 1/2"	7'-9"	9'-1"	15'-0"	75.0	66.6	27 1/2"	10"
"	80'-0"	64'-0"	6'-5"	8'-0"	9'-1 1/2"	14'-0"	75.0	66.6	28"	10"
"	82'-6"	66'-0"	6'-3"	8'-3"	9'-2"	13'-0"	75.0	66.6	29"	10"
"	85'-0"	68'-0"	6'-1 1/2"	8'-6"	9'-2"	12'-0"	72.2	66.6	30"	10"
"	87'-6"	70'-0"	5'-11 1/2"	8'-9"	9'-0 1/2"	11'-0"	69.6	66.6	31"	10 1/2"
"	90'-0"	72'-0"	5'-10"	9'-0"	8'-11"	10'-0"	67.2	66.6	31 1/2"	10 1/2"
"	92'-6"	74'-0"	5'-8 1/2"	9'-3"	8'-9"	9'-0"	65.0	65.0	32 1/2"	11"
"	95'-0"	76'-0"	5'-7"	9'-6"	8'-7"	8'-0"	62.9	62.9	33"	11"
"	97'-6"	78'-0"	5'-5 1/2"	9'-9"	8'-5"	7'-0"	60.9	60.9	34"	11"
Triple	100'-0"	80'-0"	5'-3"	10'-0"	8'-3"	6'-6"	60.0	60.0	Gondola Cars Cannot Be Used For These Nine Loads.	
"	102'-6"	82'-0"	4'-11 1/2"	10'-3"	8'-2"	7'-6"	61.9	61.9		
"	105'-0"	84'-0"	4'-8 1/2"	10'-6"	8'-1 1/2"	8'-6"	63.9	63.9		
"	107'-6"	86'-0"	4'-5"	10'-9"	8'-0 1/2"	9'-6"	66.1	66.1		
"	110'-0"	88'-0"	4'-2"	11'-0"	8'-0"	10'-6"	68.4	66.6		
"	112'-6"	90'-0"	3'-10 1/2"	11'-3"	7'-11"	11'-6"	70.9	66.6		
"	115'-0"	92'-0"	3'-7"	11'-6"	7'-10"	12'-6"	73.5	66.6		
"	117'-6"	94'-0"	3'-3 1/2"	11'-9"	7'-8 1/2"	13'-6"	75.0	66.6		
"	120'-0"	96'-0"	3'-0 1/2"	12'-0"	7'-7 1/2"	14'-6"	75.0	66.6		

TABLE No. 21

LENGTH OF CAR 54 FT.
BEARING PIECES SPACED SIX-TENTHS (6/10) LENGTH OF LOAD

1 Kind of Load	2 Length of Load	3 Distance Between Bearing Pieces	4 Maximum Width of Load Between Bearing Pieces on Flat Cars	5 Length of Overhang of Load	6 Maximum Width of Overhang of Load on Flat Cars	7 Distance From Center Line of Bearing Piece to Center Line of Nearest Truck	8 Maximum Per Cent of Ld. Wt. Limit Allowed on Bearing Piece Per Rule 6		9 Clearance Required on Each Side of Load When Using Drop End Gondola Cars	
							Fish Belly Type S.U.F.	Other Types S.U.F. Cars	At Center of Load	At Ends of Load
		D	W	C	W					
Twin	52'-6"	31'-6"	8'-7"	10'-6"	9'-2 1/2"	8'-9"	62.7	62.7	15"	12 1/2"
"	55'-0"	33'-0"	8'-5 1/2"	11'-0"	9'-2"	9'-6"	64.1	64.1	16"	13"
"	57'-6"	34'-6"	8'-4"	11'-6"	9'-1 1/2"	10'-3"	65.6	65.6	17"	13 1/2"
"	60'-0"	36'-0"	8'-2 1/2"	12'-0"	9'-1"	11'-0"	67.1	66.6	17 1/2"	13 1/2"
"	62'-6"	37'-6"	8'-1"	12'-6"	9'-0 1/2"	11'-9"	68.8	66.6	18 1/2"	14 1/2"
"	65'-0"	39'-0"	8'-0"	13'-0"	9'-0"	12'-6"	70.4	66.6	19"	14 1/2"
"	67'-6"	40'-6"	7'-10 1/2"	13'-6"	8'-11 1/2"	13'-3"	72.2	66.6	20 1/2"	15 1/2"
"	70'-0"	42'-0"	7'-9"	14'-0"	8'-11"	14'-0"	74.1	66.6	20 1/2"	15 1/2"
"	72'-6"	43'-6"	7'-7 1/2"	14'-6"	8'-10"	14'-9"	75.0	66.6	21"	16"
"	75'-0"	45'-0"	7'-6 1/2"	15'-0"	8'-9 1/2"	15'-6"	75.0	66.6	21 1/2"	16 1/2"
"	77'-6"	46'-6"	7'-5"	15'-6"	8'-7"	16'-3"	75.0	66.6	22 1/2"	17"
"	80'-0"	48'-0"	7'-4"	16'-0"	8'-4 1/2"	17'-0"	75.0	66.6	23"	17 1/2"
"	82'-6"	49'-6"	7'-2 1/2"	16'-6"	8'-3 1/2"	17'-9"	75.0	66.6	23 1/2"	18"
"	85'-0"	51'-0"	7'-1"	17'-0"	8'-2 1/2"	18'-6"	75.0	66.6	24"	18 1/2"
"	87'-6"	52'-6"	6'-11 1/2"	17'-6"	8'-0 1/2"	19'-3"	75.0	66.6	25"	19"
"	90'-0"	54'-0"	6'-10 1/2"	18'-0"	7'-10 1/2"	20'-0"	75.0	66.6	25 1/2"	19 1/2"
"	92'-6"	55'-6"	6'-9"	18'-6"	7'-8"	20'-9"	75.0	66.6	26 1/2"	20"
"	95'-0"	57'-0"	6'-8"	19'-0"	7'-6"	21'-6"	75.0	66.6	27"	20 1/2"
"	97'-6"	58'-6"	6'-6 1/2"	19'-6"	7'-3 1/2"	22'-3"	75.0	66.6	28"	21 1/2"
"	100'-0"	60'-0"	6'-5"	20'-0"	7'-1"	23'-0"	75.0	66.6	28 1/2"	21 1/2"
"	102'-6"	61'-6"	6'-3 1/2"	20'-6"	6'-10"	23'-9"	75.0	66.6	29 1/2"	21 1/2"
"	105'-0"	63'-0"	6'-2 1/2"	21'-0"	6'-7 1/2"	24'-6"	75.0	66.6	30"	21 1/2"
---	107'-0"									
---	110'-0"									
---	112'-6"									
---	115'-0"									
---	117'-6"									
---	120'-0"									

NEITHER TWIN NOR TRIPLE LOADINGS WILL ACCOMMODATE THESE SIX LENGTHS OF LOADS ON THIS TABLE.

TABLE No. 22

BEARING PIECES SPACED SEVEN-TENTHS (7/10) LENGTH OF LOAD

Twin	52'-6"	36'-9"	8'-2"	7'-10 1/2"	9'-0 1/2"	11'-4 1/2"	67.9	66.6	18"	10"
"	55'-0"	38'-6"	8'-0 1/2"	8'-3"	9'-0"	12'-3"	69.9	66.6	18 1/2"	10 1/2"
"	57'-6"	40'-3"	7'-10 1/2"	8'-7 1/2"	8'-11 1/2"	13'-1 1/2"	71.9	66.6	19 1/2"	11"
"	60'-0"	42'-0"	7'-9"	9'-0"	8'-11"	14'-0"	74.1	66.6	20"	11 1/2"
"	62'-6"	43'-9"	7'-7 1/2"	9'-4 1/2"	8'-10 1/2"	14'-10 1/2"	75.0	66.6	21"	11 1/2"
"	65'-0"	45'-6"	7'-6"	9'-9"	8'-10 1/2"	15'-9"	75.0	66.6	22"	12"
"	67'-6"	47'-3"	7'-4 1/2"	10'-1 1/2"	8'-10"	16'-7 1/2"	75.0	66.6	23"	12 1/2"
"	70'-0"	49'-0"	7'-3"	10'-6"	8'-10"	17'-6"	75.0	66.6	23 1/2"	12 1/2"
"	72'-6"	50'-9"	7'-1 1/2"	10'-10 1/2"	8'-9 1/2"	18'-4 1/2"	75.0	66.6	24 1/2"	13"
"	75'-0"	52'-6"	7'-0"	11'-3"	8'-9 1/2"	19'-3"	75.0	66.6	24 1/2"	13 1/2"
"	77'-6"	54'-3"	6'-10 1/2"	11'-7 1/2"	8'-9 1/2"	20'-1 1/2"	75.0	66.6	26 1/2"	14 1/2"
"	80'-0"	56'-0"	6'-9"	12'-0"	8'-9 1/2"	21'-0"	75.0	66.6	26 1/2"	14 1/2"
"	82'-6"	57'-9"	6'-7"	12'-4 1/2"	8'-9 1/2"	21'-1 1/2"	75.0	66.6	27 1/2"	14 1/2"
"	85'-0"	59'-6"	6'-5 1/2"	12'-9"	8'-9 1/2"	22'-3"	75.0	66.6	28"	14 1/2"
"	87'-6"	61'-3"	6'-4"	13'-1 1/2"	8'-8"	19'-4 1/2"	75.0	66.6	29"	15"
"	90'-0"	63'-0"	6'-2 1/2"	13'-6"	8'-6 1/2"	18'-6"	75.0	66.6	29 1/2"	15 1/2"
"	92'-6"	64'-9"	6'-1"	13'-10 1/2"	8'-4 1/2"	17'-7 1/2"	75.0	66.6	30 1/2"	15 1/2"
"	95'-0"	66'-6"	5'-11 1/2"	14'-3"	8'-4 1/2"	16'-9"	75.0	66.6	31"	16"
"	97'-6"	68'-3"	5'-10"	14'-7 1/2"	8'-0"	8'-2 1/2"	75.0	66.6	32"	16 1/2"
"	100'-0"	70'-0"	5'-8 1/2"	15'-0"	7'-9 1/2"	15'-10 1/2"	75.0	66.6	32 1/2"	16 1/2"
"	102'-6"	71'-9"	5'-7"	15'-4 1/2"	7'-5"	14'-1 1/2"	74.4	66.6	33 1/2"	17"
"	105'-0"	73'-6"	5'-5 1/2"	15'-9"	7'-5"	13'-3"	72.2	66.6	34 1/2"	17"
Triple	107'-6"	75'-3"	5'-4 1/2"	16'-1 1/2"	6'-5 1/2"	2'-1 1/2"	52.5	52.5		
"	110'-0"	77'-0"	5'-3 1/2"	16'-6"	6'-4"	3'-0"	53.7	53.7		
"	112'-6"	78'-9"	5'-3 1/2"	16'-10 1/2"	6'-2 1/2"	3'-10 1/2"	54.9	54.9		
"	115'-0"	80'-6"	5'-3 1/2"	17'-3"	6'-1 1/2"	4'-9"	56.2	56.2		
"	117'-6"	82'-3"	5'-0"	17'-7 1/2"	6'-0"	5'-7 1/2"	57.5	57.5		
"	120'-0"	84'-0"	4'-9"	18'-0"	5'-10 1/2"	6'-6"	58.9	58.9		

Gondola Cars Cannot Be Used For These Six Loads.

TABLE No. 23

BEARING PIECES SPACED EIGHT-TENTHS (8/10) LENGTH OF LOAD

Twin	52'-6"	42'-0"	7'-9"	5'-3"	8'-11 1/2"	14'-0"	74.1	66.6	20"	7 1/2"
"	55'-0"	44'-0"	7'-7 1/2"	5'-6"	8'-11"	15'-0"	75.0	66.6	21"	8"
"	57'-6"	46'-0"	7'-5 1/2"	5'-9"	8'-10 1/2"	16'-0"	75.0	66.6	22"	8 1/2"
"	60'-0"	48'-0"	7'-4"	6'-0"	8'-10"	17'-0"	75.0	66.6	23"	8 1/2"
"	62'-6"	50'-0"	7'-2"	6'-3"	8'-10"	18'-0"	75.0	66.6	24"	9"
"	65'-0"	52'-0"	7'-0 1/2"	6'-6"	8'-10"	19'-0"	75.0	66.6	24 1/2"	9"
"	67'-6"	54'-0"	6'-10 1/2"	6'-9"	8'-9 1/2"	20'-0"	75.0	66.6	25 1/2"	9 1/2"
"	70'-0"	56'-0"	6'-9"	7'-0"	8'-9 1/2"	21'-0"	75.0	66.6	26 1/2"	9 1/2"
"	72'-6"	58'-0"	6'-7"	7'-3"	8'-9 1/2"	21'-0"	75.0	66.6	26 1/2"	10"
"	75'-0"	60'-0"	6'-5"	7'-6"	8'-9 1/2"	22'-0"	75.0	66.6	28 1/2"	10 1/2"
"	77'-6"	62'-0"	6'-3"	7'-9"	8'-9 1/2"	19'-0"	75.0	66.6	28 1/2"	10 1/2"
"	80'-0"	64'-0"	6'-1 1/2"	8'-0"	8'-10 1/2"	18'-0"	75.0	66.6	30"	10 1/2"
"	82'-6"	66'-0"	5'-11 1/2"	8'-3"	8'-10 1/2"	17'-0"	75.0	66.6	30"	10 1/2"
"	85'-0"	68'-0"	5'-10"	8'-6"	8'-11"	16'-0"	75.0	66.6	31"	10 1/2"
"	87'-6"	70'-0"	5'-8"	8'-9"	8'-11"	15'-0"	75.0	66.6	32"	10 1/2"
"	90'-0"	72'-0"	5'-6 1/2"	9'-0"	8'-11 1/2"	14'-0"	74.1	66.6	33 1/2"	11"
"	92'-6"	74'-0"	5'-4 1/2"	9'-3"	8'-11"	13'-0"	71.6	66.6	34 1/2"	11 1/2"
"	95'-0"	76'-0"	5'-3"	9'-6"	8'-11"	12'-0"	69.3	66.6	35 1/2"	11 1/2"
"	97'-6"	78'-0"	5'-1"	9'-9"	8'-9"	11'-0"	67.1	66.6	36 1/2"	12"
"	100'-0"	80'-0"	4'-11 1/2"	10'-0"	8'-7"	10'-0"	65.1	65.1	37"	12"
"	102'-6"	82'-0"	4'-9 1/2"	10'-3"	8'-4 1/2"	9'-0"	63.2	63.2	38"	12 1/2"
"	105'-0"	84'-0"	4'-8"	10'-6"	8'-2 1/2"	8'-0"	61.4	61.4	39"	12 1/2"
Triple	107'-6"	86'-0"	4'-5 1/2"	10'-9"	8'-1"	7'-6"	60.5	60.5		
"	110'-0"	88'-0"	4'-2"	11'-0"	8'-0"	8'-6"	62.3	62.3		
"	112'-6"	90'-0"	3'-10 1/2"	11'-3"	7'-11"	9'-6"	64.1	64.1		
"	115'-0"	92'-0"	3'-7"	11'-6"	7'-10"	10'-6"	66.1	66.1		
"	117'-6"	94'-0"	3'-3"	11'-9"	7'-9"	11'-6"	68.2	68.2		
"	120'-0"	96'-0"	2'-11 1/2"	12'-0"	7'-8"	12'-6"	70.4	70.4		

Gondola Cars Cannot Be Used For These Six Loads.

TABLE No. 24

LENGTH OF CAR 58 FT.
BEARING PIECES SPACED SIX-TENTHS (6/10) LENGTH OF LOAD

1 Kind of Load	2 Length of Load	3 Distance Between Bearing Pieces	4 Maximum Width of Load Between Bearing Pieces on Flat Cars	5 Length of Overhang of Load	6 Maximum Width of Overhang of Load on Flat Cars	7 Distance From Center Line of Bearing Piece to Center Line of Nearest Truck	8 Maximum Per Cent of Ld. Wt. Limit Allowed on Bearing Piece Per Rule 6		9 Clearance Required on Each Side of Load When Using Drop End Gondola Cars	
							Fish Belly Type S.U.F.	Other Types S.U.F. Cars	At Center of Load	At Ends of Load
		D	W	C	W					
Twin	55'-0"	33'-0"	8'-4"	11'-0"	9'-0"	9'-6"	62.6	62.6	17"	13 1/2"
"	57'-6"	34'-6"	8'-2 1/2"	11'-6"	9'-1"	10'-3"	63.9	63.9	18"	14"
"	60'-0"	36'-0"	8'-1 1/2"	12'-0"	8'-11 1/2"	11'-0"	65.2	65.2	18 1/2"	14 1/2"
"	62'-6"	37'-6"	8'-0"	12'-6"	8'-11"	11'-9"	66.6	66.6	19 1/2"	15"
"	65'-0"	39'-0"	7'-10 1/2"	13'-0"	8'-10 1/2"	12'-6"	68.1	66.6	20"	15 1/2"
"	67'-6"	40'-6"	7'-9"	13'-6"	8'-10"	13'-3"	69.6	66.6	21"	16"
"	70'-0"	42'-0"	7'-7 1/2"	14'-0"	8'-9 1/2"	14'-0"	71.2	66.6	21 1/2"	16 1/2"
"	72'-6"	43'-6"	7'-6"	14'-6"	8'-9"	14'-9"	72.8	66.6	22 1/2"	17"
"	75'-0"	45'-0"	7'-4 1/2"	15'-0"	8'-9"	15'-6"	74.6	66.6	23 1/2"	17 1/2"
"	77'-6"	46'-6"	7'-2 1/2"	15'-6"	8'-8 1/2"	16'-3"	75.0	66.6	23 1/2"	18"
"	80'-0"	48'-0"	7'-0"	16'-0"	8'-8 1/2"	17'-0"	75.0	66.6	24 1/2"	18 1/2"
"	82'-6"	49'-6"	6'-11 1/2"	16'-6"	8'-6 1/2"	17'-9"	75.0	66.6	25"	19"
"	85'-0"	51'-0"	6'-11"	17'-0"	8'-5 1/2"	18'-6"	75.0	66.6	25 1/2"	19 1/2"
"	87'-6"	52'-6"	6'-9 1/2"	17'-6"	8'-3"	19'-3"	75.0	66.6	26 1/2"	20"
"	90'-0"	54'-0"	6'-8"	18'-0"	8'-1"	20'-0"	75.0	66.6	27 1/2"	20"
"	92'-6"	55'-6"	6'-6 1/2"	18'-6"	7'-11"	20'-9"	75.0	66.6	28 1/2"	20 1/2"
"	95'-0"	57'-0"	6'-5 1/2"	19'-0"	7'-9"	21'-6"	75.0	66.6	28 1/2"	21"
"	97'-6"	58'-6"	6'-3 1/2"	19'-6"	7'-6 1/2"	22'-3"	75.0	66.6	29 1/2"	21 1/2"
"	100'-0"	60'-0"	6'-2 1/2"	20'-0"	7'-4 1/2"	23'-0"	75.0	66.6	30"	22 1/2"
"	102'-6"	61'-6"	6'-1"	20'-6"	7'-1"	23'-3"	75.0	66.6	31"	22 1/2"
"	105'-0"	63'-0"	5'-11 1/2"	21'-0"	6'-10 1/2"	22'-6"	75.0	66.6	31 1/2"	23 1/2"
"	107'-6"	64'-6"	5'-10"	21'-6"	6'-7 1/2"	21'-9"	75.0	66.6	32"	23 1/2"
"	110'-0"	66'-0"	5'-9"	22'-0"	6'-5 1/2"	21'-0"	75.0	66.6	32 1/2"	24"
"	112'-6"	67'-6"	5'-7 1/2"	22'-6"	6'-2"	20'-3"	75.0	66.6	33 1/2"	24 1/2"
"	115'-0"	69'-0"	5'-6"	23'-0"	5'-11"	19'-6"	75.0	66.6	34"	25"
"	117'-6"									
"	120'-0"									

NEITHER TWIN NOR TRIPLE LOADINGS WILL ACCOMMODATE THESE TWO LENGTHS OF LOADS ON THIS TABLE.

TABLE No. 25

BEARING PIECES SPACED SEVEN-TENTHS (7/10) LENGTH OF LOAD

Twin	55'-0"	38'-6"	7'-11"	8'-3"	8'-10 1/2"	12'-3"	67.6	66.6	19 1/2"	11"
"	57'-6"	40'-3"	7'-9"	8'-7 1/2"	8'-10"	13'-1 1/2"	69.3	66.6	20 1/2"	11 1/2"
"	60'-0"	42'-0"	7'-7 1/2"	8'-5 1/2"	8'-9 1/2"	14'-0"	71.2	66.6	21 1/2"	11 1/2"
"	62'-6"	43'-6"	7'-5 1/2"	8'-4 1/2"	8'-9"	14'-10 1/2"	73.1	66.6	22 1/2"	12"
"	65'-0"	45'-6"	7'-4"	8'-3"	8'-8 1/2"	15'-9"	75.0	66.6	23 1/2"	12 1/2"
"	67'-6"	47'-3"	7'-2 1/2"	8'-2"	8'-8"	16'-7 1/2"	75.0	66.6	24"	13"
"	70'-0"	49'-0"	7'-1"	8'-1"	8'-8"	17'-6"	75.0	66.6	24 1/2"	13"
"	72'-6"	50'-9"	6'-11"	8'-0"	8'-7 1/2"	18'-4 1/2"	75.0	66.6	25 1/2"	13 1/2"
"	75'-0"	52'-6"	6'-9 1/2"	8'-0"	8'-7 1/2"	19'-3"	75.0	66.6	26 1/2"	14"
"	77'-6"	54'-3"	6'-8"	8'-0"	8'-7"	20'-1 1/2"	75.0	66.6	27 1/2"	14 1/2"
"	80'-0"	56'-0"	6'-6 1/2"	8'-0"	8'-7"	21'-0"	75.0	66.6	28 1/2"	14 1/2"
"	82'-6"	57'-9"	6'-4 1/2"	8'-0"	8'-7"	21'-10 1/2"	75.0	66.6	29 1/2"	15"
"	85'-0"	59'-6"	6'-3"	8'-0"	8'-7"	22'-9"	75.0	66.6	29 1/2"	15 1/2"
"	87'-6"	61'-3"	6'-1"	8'-0"	8'-7"	23'-4 1/2"	75.0	66.6	30 1/2"	16"
"	90'-0"	63'-0"	5'-11 1/2"	8'-0"	8'-7"	22'-6"	75.0	66.6	31 1/2"	16"
"	92'-6"	64'-9"	5'-9 1/2"	8'-0"	8'-6 1/2"	21'-7 1/2"	75.0	66.6	32 1/2"	16 1/2"
"	95'-0"	66'-6"	5'-8"	8'-0"	8'-6"	20'-9"	75.0	66.6	33 1/2"	16 1/2"
"	97'-6"	68'-3"	5'-6 1/2"	8'-0"	8'-3 1/2"	19'-10 1/2"	75.0	66.6	34"	17"
"	100'-0"	70'-0"	5'-5"	8'-0"	8'-1"	19'-0"	75.0	66.6	34 1/2"	17 1/2"
"	102'-6"	71'-9"	5'-3"	8'-0"	7'-9 1/2"	18'-1 1/2"	75.0	66.6	35 1/2"	18"
"	105'-0"	73'-6"	5'-1 1/2"	8'-0"	7'-6 1/2"	17'-3"	75.0	66.6	36 1/2"	18"
"	107'-6"	75'-3"	4'-11 1/2"	8'-0"	7'-5"	16'-4 1/2"	75.0	66.6	37 1/2"	18 1/2"
"	110'-0"	77'-0"	4'-10"	8'-0"	7'-3 1/2"	15'-6"	74.6	66.6	38"	18 1/2"
"	112'-6"	78'-9"	4'-8 1/2"	8'-0"	7'-1 1/2"	14'-7 1/2"	72.5	66.6	39"	19"
"	115'-0"	80'-6"	4'-7"	8'-0"	6'-11 1/2"	13'-9"	70.6	66.6	39 1/2"	19"
"	117'-6"	82'-3"	5'-2"	8'-0"	5'-9 1/2"	3'-7 1/2"	54.1	54.1	39 1/2"	19"
"	120'-0"	84'-0"	4'-10 1/2"	8'-0"	5'-9"	4'-6"	55.2	55.2	39 1/2"	19"

Gondola Cars Cannot Be Used For These Two Loads.

TABLE No. 26

BEARING PIECES SPACED EIGHT-TENTHS (8/10) LENGTH OF LOAD

Twin	55'-0"	44'-0"	7'-5 1/2"	5'-6"	8'-9"	15'-0"	73.4	66.6	22"	8 1/2"
"	57'-6"	46'-0"	7'-3 1/2"	5'-9"	8'-8 1/2"	16'-0"	75.0	66.6	23"	9"
"	60'-0"	48'-0"	7'-2"	6'-0"	8'-8"	17'-0"	75.0	66.6	24"	9"
"	62'-6"	50'-0"	7'-0"	6'-3"	8'-7 1/2"	18'-0"	75.0	66.6	25"	9 1/2"
"	65'-0"	52'-0"	6'-10"	6'-6"	8'-7 1/2"	19'-0"	75.0	66.6	26"	9 1/2"
"	67'-6"	54'-0"	6'-8"	6'-9"	8'-7"	20'-0"	75.0	66.6	27"	10"
"	70'-0"	56'-0"	6'-6 1/2"	7'-0"	8'-7"	21'-0"	75.0	66.6	28"	10"
"	72'-6"	58'-0"	6'-4 1/2"	7'-3"	8'-7"	22'-0"	75.0	66.6	29"	10 1/2"
"	75'-0"	60'-0"	6'-2 1/2"	7'-6"	8'-7"	23'-0"	75.0	66.6	30"	10 1/2"
"	77'-6"	62'-0"	6'-0 1/2"	7'-9"	8'-7"	23'-0"	75.0	66.6	31"	10 1/2"
"	80'-0"	64'-0"	5'-10 1/2"	8'-0"	8'-7"	22'-0"	75.0	66.6	32"	10 1/2"
"	82'-6"	66'-0"	5'-8 1/2"	8'-3"	8'-7"	21'-0"	75.0	66.6	33"	11"
"	85'-0"	68'-0"	5'-6 1/2"	8'-6"	8'-7 1/2"	20'-0"	75.0	66.6	34"	11"
"	87'-6"	70'-0"	5'-4 1/2"	8'-9"	8'-7 1/2"	19'-0"	75.0	66.6	35"	11 1/2"
"	90'-0"	72'-0"	5'-3"	9'-0"	8'-6 1/2"	18'-0"	75.0	66.6	35 1/2"	11 1/2"
"	92'-6"	74'-0"	5'-1"	9'-3"	8'-6 1/2"	17'-0"	75.0	66.6	36 1/2"	12"
"	95'-0"	76'-0"	4'-11"	9'-6"	8'-9 1/2"	16'-0"	75.0	66.6	37 1/2"	12"
"	97'-6"	78'-0"	4'-9"	9'-9"	8'-9 1/2"	15'-0"	73.4	66.6	38 1/2"	12 1/2"
"	100'-0"	80'-0"	4'-7 1/2"	10'-0"	8'-10"	14'-0"	71.2	66.6	39 1/2"	12 1/2"
"	102'-6"	82'-0"	4'-5 1/2"	10'-3"	8'-7"	13'-0"	69.1	66.6	40 1/2"	13"
"	105'-0"	84'-0"	4'-3 1/2"	10'-6"	8'-4 1/2"	12'-0"	67.1	66.6	41 1/2"	13"
"	107'-6"	86'-0"	4'-1 1/2"	10'-9"	8'-3"	11'-0"	65.2	65.2	42 1/2"	13 1/2"
"	110'-0"	88'-0"	3'-11 1/2"	11'-0"	8'-2"	10'-0"	63.5	63.5	43"	13 1/2"
"	112'-6"	90'-0"	3'-9 1/2"	11'-3"	7'-11 1/2"	9'-0"	61.8	61.8	44"	14"
"	115'-0"	92'-0"	3'-8"	11'-6"	7'-9"	8'-0"	60.2	60.2	45"	14"
"	117'-6"	94'-0"	3'-3"	11'-9"	7'-8 1/2"	9'-6"	62.6	62.6	45"	14"
"	120'-0"	96'-0"	2'-11 1/2"	12'-0"	7'-8"	10'-6"	64.3	64.3	45"	14"

Gondola Cars Cannot Be Used For These Two Loads.

LENGTH OF CAR 64 FT.
BEARING PIECES SPACED SIX-TENTHS (6/10) LENGTH OF LOAD

1 Kind of Load	2 Length of Load	3 Distance Between Bearing Pieces	4 Maximum Width of Load Between Bearing Pieces on Flat Cars	5 Length of Overhang of Load	6 Maximum Width of Overhang of Load on Flat Cars	7 Distance From Center Line of Bearing Piece to Center Line of Nearest Truck	8 Maximum Per Cent of Ld. Wt. Limit Allowed on Bearing Piece Per Rule 6		9 Clearance Required on Each Side of Load When Using Drop End Gondola Cars	
							Fish Belly Type S.U.F.	Other Types S.U.F. Cars	At Center of Load	At Ends of Load
		D	W	C	W					
Twin	62'-6"	37'-6"	7'-9 1/2"	12'-6"	8'-8 1/2"	11'-9"	64.2	64.2	21"	16 1/2"
"	65'-0"	39'-0"	7'-8"	13'-0"	8'-8"	12'-6"	65.4	65.4	21 1/2"	17"
"	67'-6"	40'-6"	7'-6 1/2"	13'-6"	8'-7 1/2"	13'-3"	66.6	66.6	22 1/2"	17 1/2"
"	70'-0"	42'-0"	7'-5"	14'-0"	8'-7"	14'-0"	67.9	66.6	23"	18"
"	72'-6"	43'-6"	7'-3"	14'-6"	8'-6 1/2"	14'-9"	69.2	66.6	24"	18 1/2"
"	75'-0"	45'-0"	7'-1 1/2"	15'-0"	8'-6"	15'-6"	70.6	66.6	24 1/2"	19"
"	77'-6"	46'-6"	7'-0"	15'-6"	8'-5 1/2"	16'-3"	72.1	66.6	25 1/2"	19 1/2"
"	80'-0"	48'-0"	6'-10 1/2"	16'-0"	8'-5"	17'-0"	73.6	66.6	26"	20"
"	82'-6"	49'-6"	6'-9"	16'-6"	8'-4 1/2"	17'-9"	75.0	66.6	27"	20 1/2"
"	85'-0"	51'-0"	6'-7 1/2"	17'-0"	8'-4"	18'-6"	75.0	66.6	28"	21"
"	87'-6"	52'-6"	6'-6"	17'-6"	8'-3 1/2"	19'-3"	75.0	66.6	29"	21 1/2"
"	90'-0"	54'-0"	6'-4 1/2"	18'-0"	8'-3 1/2"	20'-0"	75.0	66.6	29 1/2"	22"
"	92'-6"	55'-6"	6'-2 1/2"	18'-6"	8'-2"	20'-9"	75.0	66.6	30 1/2"	22 1/2"
"	95'-0"	57'-0"	6'-1"	19'-0"	8'-1"	21'-6"	75.0	66.6	31 1/2"	23"
"	97'-6"	58'-6"	5'-11 1/2"	19'-6"	7'-10 1/2"	22'-3"	75.0	66.6	32"	23 1/2"
"	100'-0"	60'-0"	5'-10"	20'-0"	7'-8"	23'-0"	75.0	66.6	32 1/2"	24"
"	102'-6"	61'-6"	5'-8 1/2"	20'-6"	7'-6"	23'-9"	75.0	66.6	33 1/2"	25"
"	105'-0"	63'-0"	5'-7"	21'-0"	7'-4"	24'-6"	75.0	66.6	34 1/2"	25 1/2"
"	107'-6"	64'-6"	5'-5"	21'-6"	7'-1"	25'-3"	75.0	66.6	35"	26"
"	110'-0"	66'-0"	5'-3 1/2"	22'-0"	6'-10"	26'-0"	75.0	66.6	35 1/2"	26 1/2"
"	112'-6"	67'-6"	5'-2"	22'-6"	6'-7"	26'-3"	75.0	66.6	36 1/2"	27"
"	115'-0"	69'-0"	5'-0 1/2"	23'-0"	6'-4 1/2"	25'-6"	75.0	66.6	37 1/2"	27 1/2"
"	117'-6"	70'-6"	4'-11"	23'-6"	6'-2 1/2"	24'-9"	75.0	66.6	38 1/2"	28"
"	120'-0"	72'-0"	4'-9 1/2"	24'-0"	6'-0 1/2"	24'-0"	75.0	66.6	39"	28 1/2"

TABLE No. 28

BEARING PIECES SPACED SEVEN-TENTHS (7/10) LENGTH OF LOAD

Twin	62'-6"	43'-9"	7'-3"	9'-4 1/2"	8'-6"	14'-10 1/2"	69.5	66.6	24"	13"
"	65'-0"	45'-6"	7'-1"	9'-9"	8'-5 1/2"	15'-9"	71.1	66.6	25"	13 1/2"
"	67'-6"	47'-3"	6'-11"	10'-1 1/2"	8'-5"	16'-7 1/2"	72.8	66.6	26"	14"
"	70'-0"	49'-0"	6'-9 1/2"	10'-6"	8'-4 1/2"	17'-6"	74.6	66.6	27"	14 1/2"
"	72'-6"	50'-9"	6'-7 1/2"	10'-10 1/2"	8'-4"	18'-4 1/2"	75.0	66.6	28"	15 1/2"
"	75'-0"	52'-6"	6'-6"	11'-3"	8'-3 1/2"	19'-3"	75.0	66.6	28 1/2"	15"
"	77'-6"	54'-3"	6'-4"	11'-7 1/2"	8'-3"	20'-1 1/2"	75.0	66.6	29 1/2"	15 1/2"
"	80'-0"	56'-0"	6'-2 1/2"	12'-0"	8'-3"	21'-0"	75.0	66.6	30 1/2"	16"
"	82'-6"	57'-9"	6'-0 1/2"	12'-4 1/2"	8'-2 1/2"	21'-10 1/2"	75.0	66.6	31 1/2"	16 1/2"
"	85'-0"	59'-6"	5'-10 1/2"	12'-9"	8'-2 1/2"	22'-9"	75.0	66.6	32 1/2"	16 1/2"
"	87'-6"	61'-3"	5'-8 1/2"	13'-1 1/2"	8'-2 1/2"	23'-7 1/2"	75.0	66.6	33 1/2"	17"
"	90'-0"	63'-0"	5'-7"	13'-6"	8'-2 1/2"	24'-6"	75.0	66.6	34 1/2"	17 1/2"
"	92'-6"	64'-6"	5'-5"	13'-10 1/2"	8'-2 1/2"	25'-4 1/2"	75.0	66.6	35"	18"
"	95'-0"	66'-6"	5'-3"	14'-3"	8'-2 1/2"	26'-3"	75.0	66.6	36"	18"
"	97'-6"	68'-3"	5'-1"	14'-7 1/2"	8'-2 1/2"	25'-10 1/2"	75.0	66.6	37"	18 1/2"
"	100'-0"	70'-0"	4'-11 1/2"	15'-0"	8'-2 1/2"	25'-0"	75.0	66.6	38"	19"
"	102'-6"	71'-9"	4'-9 1/2"	15'-4 1/2"	8'-2"	24'-1 1/2"	75.0	66.6	39"	19 1/2"
"	105'-0"	73'-6"	4'-8"	15'-9"	8'-2"	23'-3"	75.0	66.6	39 1/2"	19 1/2"
"	107'-6"	75'-3"	4'-6"	16'-1 1/2"	7'-11 1/2"	22'-4 1/2"	75.0	66.6	40 1/2"	20"
"	110'-0"	77'-0"	4'-4"	16'-6"	7'-9 1/2"	21'-6"	75.0	66.6	41 1/2"	20 1/2"
"	112'-6"	78'-9"	4'-2 1/2"	16'-10 1/2"	7'-6 1/2"	20'-7 1/2"	75.0	66.6	42 1/2"	21"
"	115'-0"	80'-6"	4'-1"	17'-3"	7'-4"	19'-9"	75.0	66.6	43"	21"
"	117'-6"	82'-3"	3'-11"	17'-7 1/2"	7'-1 1/2"	18'-10 1/2"	75.0	66.6	44"	21 1/2"
"	120'-0"	84'-0"	3'-9"	18'-0"	6'-11 1/2"	18'-0"	75.0	66.6	45"	22"

TABLE No. 29

BEARING PIECES SPACED EIGHT-TENTHS (8/10) LENGTH OF LOAD

Twin	62'-6"	50'-0"	6'-8 1/2"	6'-3"	8'-4 1/2"	18'-0"	75.0	66.6	27 1/2"	10"
"	65'-0"	52'-0"	6'-6 1/2"	6'-6"	8'-4"	19'-0"	75.0	66.6	28 1/2"	10"
"	67'-6"	54'-0"	6'-4 1/2"	6'-9"	8'-3 1/2"	20'-0"	75.0	66.6	29 1/2"	10 1/2"
"	70'-0"	56'-0"	6'-2 1/2"	7'-0"	8'-3"	21'-0"	75.0	66.6	30 1/2"	10 1/2"
"	72'-6"	58'-0"	6'-0"	7'-3"	8'-2 1/2"	22'-0"	75.0	66.6	31 1/2"	11"
"	75'-0"	60'-0"	5'-10"	7'-6"	8'-2 1/2"	23'-0"	75.0	66.6	32 1/2"	11"
"	77'-6"	62'-0"	5'-8"	7'-9"	8'-2 1/2"	24'-0"	75.0	66.6	33 1/2"	11 1/2"
"	80'-0"	64'-0"	5'-6"	8'-0"	8'-2 1/2"	25'-0"	75.0	66.6	34 1/2"	11 1/2"
"	82'-6"	66'-0"	5'-3 1/2"	8'-3"	8'-2 1/2"	26'-0"	75.0	66.6	36"	12"
"	85'-0"	68'-0"	5'-1 1/2"	8'-6"	8'-2 1/2"	26'-0"	75.0	66.6	37"	12"
"	87'-6"	69'-0"	4'-11 1/2"	8'-9"	8'-2 1/2"	25'-0"	75.0	66.6	38"	12 1/2"
"	90'-0"	70'-0"	4'-9 1/2"	9'-0"	8'-2 1/2"	24'-0"	75.0	66.6	39"	12 1/2"
"	92'-6"	72'-0"	4'-7"	9'-3"	8'-2 1/2"	23'-0"	75.0	66.6	40"	13"
"	95'-0"	74'-0"	4'-4 1/2"	9'-6"	8'-3 1/2"	22'-0"	75.0	66.6	41"	13"
"	97'-6"	76'-0"	4'-2 1/2"	9'-9"	8'-3 1/2"	21'-0"	75.0	66.6	42"	13 1/2"
"	100'-0"	78'-0"	4'-11"	10'-0"	8'-4"	20'-0"	75.0	66.6	43"	13 1/2"
"	102'-6"	80'-0"	4'-11"	10'-3"	8'-4 1/2"	19'-0"	75.0	66.6	44"	14"
"	105'-0"	82'-0"	3'-11"	10'-6"	8'-5"	18'-0"	75.0	66.6	45"	14"
"	107'-6"	84'-0"	3'-9"	10'-9"	8'-5 1/2"	17'-0"	73.6	66.6	46"	14 1/2"
"	110'-0"	86'-0"	3'-6 1/2"	11'-0"	8'-6"	16'-0"	71.6	66.6		
"	110'-0"	88'-0"	3'-4 1/2"	11'-3"	8'-4"	15'-0"	69.7	66.6		
"	112'-6"	90'-0"	3'-2 1/2"	11'-6"	8'-2"	14'-0"	67.9	66.6		
"	115'-0"	92'-0"	3'-0 1/2"	11'-9"	8'-0 1/2"	13'-0"	66.2	66.6		
"	117'-6"	94'-0"	2'-10"	11'-9"	7'-11 1/2"	12'-0"	64.6	66.6		
"	120'-0"	96'-0"	2'-8"	12'-0"						

Gondola Cars Cannot Be Used For These Five Loads.

TABLE No. 30

LENGTH OF CAR 68 FT.
BEARING PIECES SPACED SIX-TENTHS (6/10) LENGTH OF LOAD

1 Kind of Load	2 Length of Load	3 Distance Between Bearing Pieces	4 Maximum Width of Load Between Bearing Pieces on Flat Cars	5 Length of Overhang of Load	6 Maximum Width of Overhang of Load on Flat Cars	7 Distance From Center Line of Bearing Piece to Center Line of Nearest Truck	8 Maximum Per Cent of Ld. Wt. Limit Allowed on Bearing Piece Per Rule 6		9 Clearance Required on Each Side of Load When Using Drop End Gondola Cars	
							Fish Belly Type S.U.F.	Other Types S.U.F. Cars	At Center of Load	At Ends of Load
		D	W	C	W					
Twin	65'-0"	39'-0"	7'-7 1/2"	13'-0"	8'-6 1/2"	12'-6"	64.0	64.0	23"	17 1/2"
"	67'-6"	40'-6"	7'-5"	13'-6"	8'-5 1/2"	13'-3"	65.1	65.1	24"	18"
"	70'-0"	42'-0"	7'-2 1/2"	14'-0"	8'-5"	14'-0"	66.2	66.2	24 1/2"	18 1/2"
"	72'-6"	43'-6"	7'-1"	14'-6"	8'-4 1/2"	14'-9"	67.4	66.6	25 1/2"	19 1/2"
"	75'-0"	45'-0"	7'-0"	15'-0"	8'-4"	15'-6"	68.6	66.6	26"	20"
"	77'-6"	46'-6"	6'-10"	15'-6"	8'-3"	16'-3"	69.9	66.6	27"	20 1/2"
"	80'-0"	48'-0"	6'-8 1/2"	16'-0"	8'-2 1/2"	17'-0"	71.2	66.6	28"	21"
"	82'-6"	49'-6"	6'-6 1/2"	16'-6"	8'-2"	17'-9"	72.6	66.6	29"	21 1/2"
"	85'-0"	51'-0"	6'-5"	17'-0"	8'-1 1/2"	18'-6"	74.0	66.6	29 1/2"	22"
"	87'-6"	52'-6"	6'-3"	17'-6"	8'-1"	19'-3"	75.0	66.6	30 1/2"	22 1/2"
"	90'-0"	54'-0"	6'-1 1/2"	18'-0"	8'-1"	20'-0"	75.0	66.6	31"	23"
"	92'-6"	55'-6"	6'-0"	18'-6"	8'-0 1/2"	20'-9"	75.0	66.6	32"	23 1/2"
"	95'-0"	57'-0"	5'-10 1/2"	19'-0"	8'-0"	21'-6"	75.0	66.6	33"	24"
"	97'-6"	58'-6"	5'-8 1/2"	19'-6"	7'-11 1/2"	22'-3"	75.0	66.6	34"	25"
"	100'-0"	60'-0"	5'-7"	20'-0"	7'-11"	23'-0"	75.0	66.6	34 1/2"	25 1/2"
"	102'-6"	61'-6"	5'-5"	20'-6"	7'-8 1/2"	23'-9"	75.0	66.6		
"	105'-0"	63'-0"	5'-3 1/2"	21'-0"	7'-6 1/2"	24'-6"	75.0	66.6		
"	107'-6"	64'-6"	5'-2"	21'-6"	7'-4 1/2"	25'-3"	75.0	66.6		
"	110'-0"	66'-0"	5'-0 1/2"	22'-0"	7'-1 1/2"	26'-0"	75.0	66.6		
"	112'-6"	67'-6"	4'-10 1/2"	22'-6"	6'-10 1/2"	26'-9"	75.0	66.6		
"	115'-0"	69'-0"	4'-9"	23'-0"	6'-8"	27'-6"	75.0	66.6		
"	117'-6"	70'-6"	4'-7"	23'-6"	6'-5"	28'-3"	75.0	66.6		
"	120'-0"	72'-0"	4'-5 1/2"	24'-0"	6'-2"	28'-0"	75.0	66.6		

TABLE No. 31

BEARING PIECES SPACED SEVEN-TENTHS (7/10) LENGTH OF LOAD

Twin	65'-0"	45'-6"	6'-11"	9'-9"	8'-3 1/2"	15'-9"	69.0	66.6	26 1/2"	14"
"	67'-6"	47'-3"	6'-9"	10'-1 1/2"	8'-3"	16'-7 1/2"	70.5	66.6	27 1/2"	14 1/2"
"	70'-0"	49'-0"	6'-7 1/2"	10'-6"	8'-2 1/2"	17'-6"	72.1	66.6	28 1/2"	15"
"	72'-6"	50'-9"	6'-5 1/2"	10'-10 1/2"	8'-2"	18'-4 1/2"	73.7	66.6	29 1/2"	15 1/2"
"	75'-0"	52'-6"	6'-3 1/2"	11'-3"	8'-1 1/2"	19'-3"	75.0	66.6	30 1/2"	16"
"	77'-6"	54'-3"	6'-1 1/2"	11'-7 1/2"	8'-1"	20'-1 1/2"	75.0	66.6	31 1/2"	16 1/2"
"	80'-0"	56'-0"	5'-11 1/2"	12'-0"	8'-0 1/2"	21'-0"	75.0	66.6	32"	17"
"	82'-6"	57'-9"	5'-9 1/2"	12'-4 1/2"	8'-0"	21'-10 1/2"	75.0	66.6	33"	17 1/2"
"	85'-0"	59'-6"	5'-7 1/2"	12'-9"	7'-11 1/2"	22'-9"	75.0	66.6	34"	18"
"	87'-6"	61'-3"	5'-5 1/2"	13'-1 1/2"	7'-11"	23'-7 1/2"	75.0	66.6	35"	18"
"	90'-0"	63'-0"	5'-3 1/2"	13'-6"	7'-11"	24'-6"	75.0	66.6		
"	92'-6"	64'-9"	5'-1 1/2"	13'-10 1/2"	7'-11"	25'-4 1/2"	75.0	66.6		
"	95'-0"	66'-6"	5'-0"	14'-3"	7'-11"	26'-3"	75.0	66.6		
"	97'-6"	68'-3"	4'-10"	14'-7 1/2"	7'-11"	27'-1 1/2"	75.0	66.6		
"	100'-0"	70'-0"	4'-8"	15'-0"	7'-11"	28'-0"	75.0	66.6		
"	102'-6"	71'-9"	4'-6"	15'-4 1/2"	7'-11"	28'-1 1/2"	75.0	66.6		
"	105'-0"	73'-6"	4'-4"	15'-9"	7'-11"	29'-0"	75.0	66.6		
"	107'-6"	75'-3"	4'-2"	16'-1 1/2"	7'-11"	29'-9"	75.0	66.6		
"	110'-0"	77'-0"	4'-0"	16'-6"	7'-11 1/2"	30'-6"	75.0	66.6		
"	112'-6"	78'-9"	3'-10"	16'-10 1/2"	7'-10"	31'-3"	75.0	66.6		
"	115'-0"	80'-6"	3'-8 1/2"	17'-3"	7'-8 1/2"	32'-0"	75.0	66.6		
"	117'-6"	82'-3"	3'-6 1/2"	17'-7 1/2"	7'-6"	32'-9"	75.0	66.6		
"	120'-0"	84'-0"	3'-4 1/2"	18'-0"	7'-3 1/2"	33'-6"	75.0	66.6		

TABLE No. 32

BEARING PIECES SPACED SEVEN-TENTHS (7/10) LENGTH OF LOAD

Twin	65'-0"	52'-0"	6'-4"	6'-6"	8'-1 1/2"	19'-0"	75.0	66.6	30"	10 1/2"
"	67'-6"	54'-0"	6'-1 1/2"	6'-9"	8'-1"	20'-0"	75.0	66.6	31"	11"
"	70'-0"	56'-0"	5'-11 1/2"	7'-0"	8'-0 1/2"	21'-0"	75.0	66.6	32"	11 1/2"
"	72'-6"	58'-0"	5'-9"	7'-3"	8'-0"	22'-0"	75.0	66.6	33"	11 1/2"
"	75'-0"	60'-0"	5'-7"	7'-6"	7'-11 1/2"	23'-0"	75.0	66.6	34"	11 1/2"
"	77'-6"	62'-0"	5'-4 1/2"	7'-9"	7'-11"	24'-0"	75.0	66.6		
"	80'-0"	64'-0"	5'-2 1/2"	8'-0"	7'-11"	25'-0"	75.0	66.6		
"	82'-6"	66'-0"	5'-0"	8'-3"	7'-11"	26'-0"	75.0	66.6		
"	85'-0"	68'-0"	4'-10"	8'-6"	7'-11"	27'-0"	75.0	66.6		
"	87'-6"	70'-0"	4'-7 1/2"	8'-9"	7'-11"	28'-0"	75.0	66.6		
"	90'-0"	72'-0"	4'-5 1/2"	9'-0"	7'-11"	28'-0"	75.0	66.6		
"	92'-6"	74'-0"	4'-3 1/2"	9'-3"	7'-11"	27'-0"	75.0	66.6		
"	95'-0"	76'-0"	4'-1 1/2"	9'-6"	7'-11"	26'-0"	75.0	66.6		
"	97'-6"	78'-0"	3'-11"	9'-9"	7'-11"	25'-0"	75.0	66.6		
"	100'-0"	80'-0"	3'-9"	10'-0"	7'-11 1/2"	24'-0"	75.0	66.6		
"	102'-6"	82'-0"	3'-6 1/2"	10'-3"	8'-0"	23'-0"	75.0	66.6		
"	105'-0"	84'-0"	3'-4 1/2"	10'-6"	8'-0 1/2"	22'-0"	75.0	66.6		
"	107'-6"	86'-0"	3'-2"	10'-9"	8'-1"	21'-0"	75.0	66.6		
"	110'-0"	88'-0"	3'-0"	11'-0"	8'-1 1/2"	20'-0"	75.0	66.6		
"	112'-6"	90'-0"	2'-9 1/2"	11'-3"	8'-2"	19'-0"	75.0	66.6		
"	115'-0"	92'-0"	2'-7 1/2"	11'-6"	8'-3"	18'-0"	73.0	66.6		
"	117'-6"	94'-0"	2'-5"	11'-9"	8'-3 1/2"	17'-0"	71.2	66.6		
"	120'-0"	96'-0"	2'-3"	12'-0"	8'-4"	16'-0"	69.5	66.6		

LENGTH OF CAR 72 FT.
BEARING PIECES SPACED SIX-TENTHS (6/10) LENGTH OF LOAD

1 Kind of Load	2 Length of Load	3 Distance Between Bearing Pieces	4 Maximum Width of Load Between Bearing Pieces on Flat Cars	5 Length of Overhang of Load	6 Maximum Width of Overhang of Load on Flat Cars	7 Distance From Center Line of Bearing Piece to Center Line of Nearest Truck	8 Maximum Per Cent of Ld. Wt. Limit Allowed on Bearing Piece Per Rule 6		9 Clearance Required on Each Side of Load When Using Drop End Gondola Cars	
							Fish Belly Type S.U.F.	Other Types S.U.F. Cars	At Center of Load	At Ends of Load
		D	W	C	W					
Twin	70'-0"	42'-0"	7'-1 1/2"	14'-0"	8'-3 1/2"	14'-0"	64.8	64.8	25 1/2"	19 1/2"
"	72'-6"	43'-6"	6'-11 1/2"	14'-6"	8'-2 1/2"	14'-9"	65.9	65.9	26 1/2"	20"
"	75'-0"	45'-0"	6'-10"	15'-0"	8'-2"	15'-6"	67.0	66.6	27"	20 1/2"
"	77'-6"	46'-6"	6'-8"	15'-6"	8'-1"	16'-3"	68.1	66.6	28"	21 1/2"
"	80'-0"	48'-0"	6'-6 1/2"	16'-0"	8'-0 1/2"	17'-0"	69.3	66.6	29"	22"
"	82'-6"	49'-6"	6'-4 1/2"	16'-6"	8'-0"	17'-9"	70.5	66.6	30"	22 1/2"
"	85'-0"	51'-0"	6'-3 1/2"	17'-0"	7'-11 1/2"	18'-6"	71.7	66.6	30 1/2"	23"
"	87'-6"	52'-6"	6'-1"	17'-6"	7'-11"	19'-3"	73.0	66.6	31 1/2"	23 1/2"
"	90'-0"	54'-0"	5'-11 1/2"	18'-0"	7'-10 1/2"	20'-0"	74.3	66.6	32 1/2"	24"
"	92'-6"	55'-6"	5'-9 1/2"	18'-6"	7'-10"	20'-9"	75.0	66.6	33 1/2"	24 1/2"
"	95'-0"	57'-0"	5'-7 1/2"	19'-0"	7'-9 1/2"	21'-6"	75.0	66.6	34"	25"
"	97'-6"	58'-6"	5'-5 1/2"	19'-6"	7'-9"	22'-3"	75.0	66.6	35"	26"
"	100'-0"	60'-0"	5'-4"	20'-0"	7'-9"	23'-0"	75.0	66.6		
"	102'-6"	61'-6"	5'-2"	20'-6"	7'-8 1/2"	23'-9"	75.0	66.6		
"	105'-0"	63'-0"	5'-0 1/2"	21'-0"	7'-8"	24'-6"	75.0	66.6		
"	107'-6"	64'-6"	4'-10 1/2"	21'-6"	7'-6"	25'-3"	75.0	66.6		
"	110'-0"	66'-0"	4'-9"	22'-0"	7'-4 1/2"	26'-0"	75.0	66.6		
"	112'-6"	67'-6"	4'-7"	22'-6"	7'-1 1/2"	26'-9"	75.0	66.6		
"	115'-0"	69'-0"	4'-5 1/2"	23'-0"	6'-11"	27'-6"	75.0	66.6		
"	117'-6"	70'-6"	4'-3 1/2"	23'-6"	6'-8"	28'-3"	75.0	66.6		
"	120'-0"	72'-0"	4'-2"	24'-0"	6'-5 1/2"	29'-0"	75.0	66.6		

Gondola Cars Cannot Be Used For These Nine Loads.

TABLE No. 34

BEARING PIECES SPACED SEVEN-TENTHS (7/10) LENGTH OF LOAD

Twin	70'-0"	49'-0"	6'-5"	10'-6"	8'-0"	17'-6"	70.1	66.6	29 1/2"	15 1/2"
"	72'-6"	50'-9"	6'-3"	10'-10 1/2"	7'-11 1/2"	18'-4 1/2"	71.5	66.6	30 1/2"	16"
"	75'-0"	52'-6"	6'-1"	11'-3"	7'-11"	19'-3"	73.0	66.6	31 1/2"	16 1/2"
"	77'-6"	54'-3"	5'-11"	11'-7 1/2"	7'-10 1/2"	20'-1 1/2"	74.6	66.6	32 1/2"	17"
"	80'-0"	56'-0"	5'-9"	12'-0"	7'-10"	21'-0"	75.0	66.6	33 1/2"	17 1/2"
"	82'-6"	57'-9"	5'-7"	12'-4 1/2"	7'-9 1/2"	21'-10 1/2"	75.0	66.6	34 1/2"	
"	85'-0"	59'-6"	5'-5"	12'-9"	7'-9"	22'-9"	75.0	66.6		
"	87'-6"	61'-3"	5'-2 1/2"	13'-1 1/2"	7'-8 1/2"	23'-7 1/2"	75.0	66.6		
"	90'-0"	63'-0"	5'-0 1/2"	13'-6"	7'-8"	24'-6"	75.0	66.6		
"	92'-6"	64'-9"	4'-10 1/2"	13'-10 1/2"	7'-7 1/2"	25'-4 1/2"	75.0	66.6		
"	95'-0"	66'-6"	4'-8 1/2"	14'-3"	7'-7 1/2"	26'-3"	75.0	66.6		
"	97'-6"	68'-3"	4'-6 1/2"	14'-7 1/2"	7'-7 1/2"	27'-1 1/2"	75.0	66.6		
"	100'-0"	70'-0"	4'-4 1/2"	15'-0"	7'-7 1/2"	28'-0"	75.0	66.6		
"	102'-6"	71'-9"	4'-2 1/2"	15'-4 1/2"	7'-7 1/2"	28'-10 1/2"	75.0	66.6		
"	105'-0"	73'-6"	4'-0 1/2"	15'-9"	7'-7 1/2"	29'-9"	75.0	66.6		
"	107'-6"	75'-3"	3'-10 1/2"	16'-1 1/2"	7'-7 1/2"	30'-4 1/2"	75.0	66.6		
"	110'-0"	77'-0"	3'-8 1/2"	16'-6"	7'-7 1/2"	29'-6"	75.0	66.6		
"	112'-6"	78'-9"	3'-6"	16'-10 1/2"	7'-7 1/2"	28'-7 1/2"	75.0	66.6		
"	115'-0"	80'-6"	3'-4"	17'-3"	7'-7 1/2"	27'-9"	75.0	66.6		
"	117'-6"	82'-3"	3'-2"	17'-7 1/2"	7'-7 1/2"	26'-10 1/2"	75.0	66.6		
"	120'-0"	84'-0"	3'-0 1/2"	18'-0"	7'-7 1/2"	26'-0"	75.0	66.6		

Gondola Cars Cannot Be Used For These Fifteen Loads.

TABLE No. 35

BEARING PIECES SPACED EIGHT-TENTHS (8/10) LENGTH OF LOAD

Twin	70'-0"	56'-0"	5'-9"	7'-0"	7'-10"	21'-0"	75.0	66.6	33 1/2"	11 1/2"
"	72'-6"	58'-0"	5'-6 1/2"	7'-3"	7'-9 1/2"	22'-0"	75.0	66.6		
"	75'-0"	60'-0"	5'-4"	7'-6"	7'-9"	23'-0"	75.0	66.6		
"	77'-6"	62'-0"	5'-1 1/2"	7'-9"	7'-8 1/2"	24'-0"	75.0	66.6		
"	80'-0"	64'-0"	4'-11 1/2"	8'-0"	7'-8"	25'-0"	75.0	66.6		
"	82'-6"	66'-0"	4'-9"	8'-3"	7'-7 1/2"	26'-0"	75.0	66.6		
"	85'-0"	68'-0"	4'-7"	8'-6"	7'-7 1/2"	27'-0"	75.0	66.6		
"	87'-6"	70'-0"	4'-4 1/2"	8'-9"	7'-7"	28'-0"	75.0	66.6		
"	90'-0"	72'-0"	4'-2"	9'-0"	7'-7"	29'-0"	75.0	66.6		
"	92'-6"	74'-0"	3'-11 1/2"	9'-3"	7'-7"	30'-0"	75.0	66.6		
"	95'-0"	76'-0"	3'-9 1/2"	9'-6"	7'-7 1/2"	30'-0"	75.0	66.6		
"	97'-6"	78'-0"	3'-7"	9'-9"	7'-7 1/2"	29'-0"	75.0	66.6		
"	100'-0"	80'-0"	3'-5"	10'-0"	7'-7 1/2"	28'-0"	75.0	66.6		
"	102'-6"	82'-0"	3'-2 1/2"	10'-3"	7'-7 1/2"	27'-0"	75.0	66.6		
"	105'-0"	84'-0"	3'-0"	10'-6"	7'-8"	26'-0"	75.0	66.6		
"	107'-6"	86'-0"	2'-9 1/2"	10'-9"	7'-8 1/2"	25'-0"	75.0	66.6		
"	110'-0"	88'-0"	2'-7 1/2"	11'-0"	7'-9"	24'-0"	75.0	66.6		
"	112'-6"	90'-0"	2'-5"	11'-3"	7'-9 1/2"	23'-0"	75.0	66.6		
"	115'-0"	92'-0"	2'-2 1/2"	11'-6"	7'-10"	22'-0"	75.0	66.6		
"	117'-6"	94'-0"	2'-0"	11'-9"	7'-10 1/2"	21'-0"	75.0	66.6		
"	120'-0"	96'-0"	1'-10"	12'-0"	7'-11 1/2"	20'-0"	74.3	66.6		

Gondola Cars Cannot Be Used For These Twenty Loads.

Rule 19. Machinery, Rotary or Swinging Type—Inspection and Carding.—Machinery (including covered machinery), of this type, such as cranes, derricks, steam shovels, mining, etc., due to extraordinary hazards in transporting, whether loaded on cars or moving on its own wheels, the rotating or swinging portions, including booms, extensions, etc., must be secured in accordance with A. A. R. Loading Rules. This security must be certified to by an authorized inspector who shall fill out two cards, of the form printed below, and attach one card to each side of machine moving on its own wheels, or to each side of car upon which machine is loaded.

(Card)

Form ()
(Size 5 in. x 8 in.)

MACHINERY—ROTARY TYPE

INITIAL & NUMBER.....CONTENTS.....DESTINATION
SHIPPER.....PLACE.....DATE

This is to certify that I, the undersigned, have on this date inspected the load on the above car and found it secured in accordance with Fig.....of the A. A. R. Loading Rules.

OR

I inspected this machine, moving on its own wheels, secured in accordance with Fig.....and found the propelling mechanism disengaged.

Point of Inspection.....Inspector.....Railroad.....

Rule 19-A. Machines—Motivated by Gasoline or Fuel Oil.—Positive methods must be used by the shippers to make it impossible to cause accidental starting of engines in transit.

Interstate Commerce Commission Regulations covering "Automobiles, motorcycles, tractors, or other self propelled vehicles, equipped with acetylene gas cylinders or gasoline or other fuel tanks are exempt from specification packing and labeling requirements provided such cylinders and tanks are securely closed. When offered for transportation by carriers by rail or highway, drainage of fuel tanks is not required. When offered for transportation by rail express, fuel tanks must have been drained and securely closed."

Rule 19-B. Machines—Equipped with Pneumatic Tires.—Tires must be inflated as uniformly as possible, and unless otherwise specified sufficiently to provide a firm bearing against wheel blocking.

Valve caps must be securely tightened to prevent their loss or loosening in transit.

Suitable protective material between tires of units and side blocking must be used to prevent chafing and damage to tire walls. Applicable only to Section No. 6.

Rule 20. Drop Doors—Open Top Cars.—Door openings in gondola cars need not be covered when loading material such as coal, coke, ballast, metal borings, loose tin, sheet steel cuttings not over 1/8 in. thick, and similar material, also loose scrap which is interlaced so as to prevent falling through drop door openings.

Door openings must be covered with boards 2 in. thick, secured to prevent displacement, when loading any of the following material short enough to fall through door openings; stone, ferro-manganese or other ferro products of similar density, or fluxing, any or all of which is larger than ballast, small castings, ingots, short billets, pig iron, short rolled material, baled scrap, or sheet steel cuttings over 1/8 in. thick, except when door openings do not exceed 25 per cent of the floor surface and the material is secured to prevent bearing or shifting on to drop doors. The loading of this material in hopper cars is prohibited.

Rule 21. Coupler—Preparation of—Spacing Blocks, Uncoupling Mechanism, Loads Requiring Use of More than One Car.—

Except on cars equipped with Duryea underframes, all draft gear slack must be eliminated by jacking cars apart and using spacing blocks as per Fig. 3, between cars on which the load is fully or partially carried.

On all cars, the uncoupling mechanism must be made inoperative, but not disconnected, as per Fig. 4, between cars on which load is carried, on the end of the carrying car on which the overhanging portion of load is located, also, on the adjacent end of the idler car.

Fig. 3

MINIMUM REQUIREMENTS FOR COUPLER SPACING BLOCKS

Cars must be jacked apart so as to fully compress draft gear by placing jack on each side of coupler. Insert metal or composite blocks (except cast iron) to fully fill space back of coupler horn. See General Rules for further details.

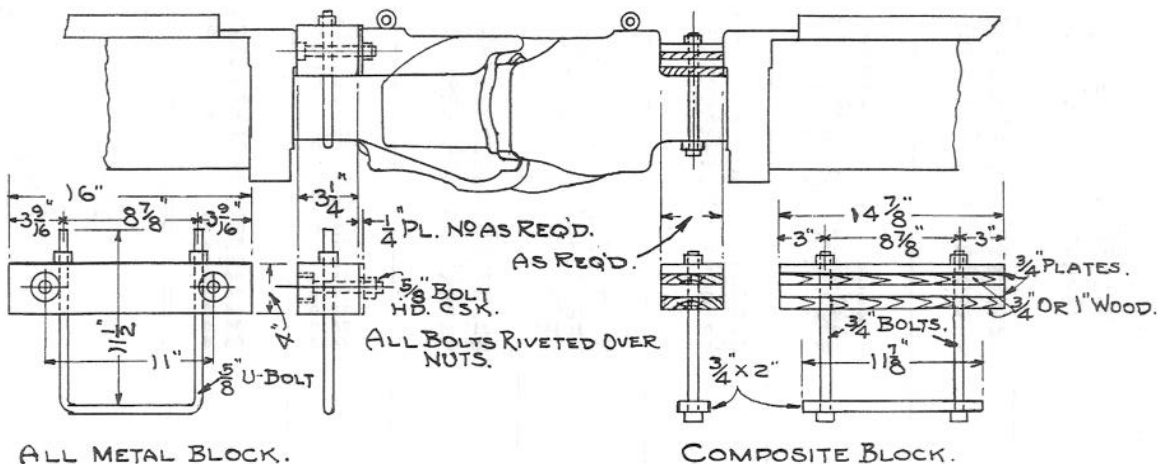
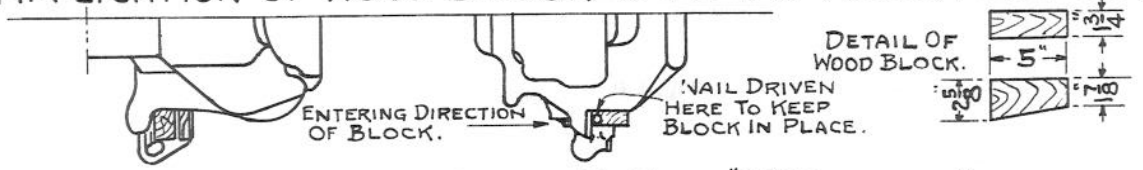


Fig. 4

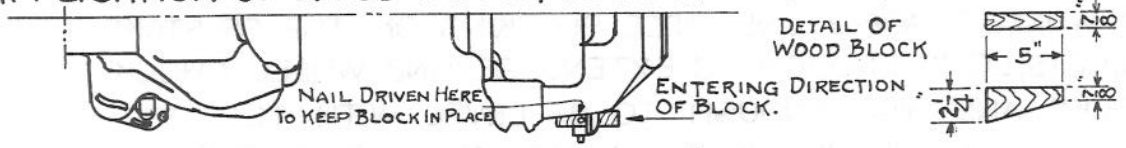
MINIMUM REQUIREMENTS FOR MAKING INOPERATIVE UNCOUPLING MECHANISM

Secure uncoupling mechanism on Rotary Type couplers as shown. On couplers other than Rotary Type, make uncoupling mechanism inoperative by securing lift lever, etc. See General Rules for further details.

APPLICATION OF WOOD BLOCK TO TYPE "E" ROTARY COUPLER.



APPLICATION OF WOOD BLOCK TO TYPE "D" ROTARY COUPLER.



APPLICATION OF WOOD BLOCK TO TYPE "D" ROTARY COUPLER (OLD STYLE)

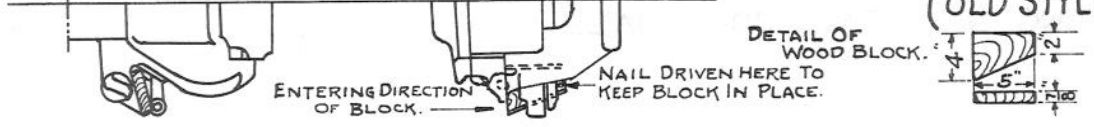


FIGURE REFERENCES USED IN SECTION NO. 1

Fig. 1

EXPERIMENTAL LOAD CARD

See General Rule 1.

Fig. 1-A

Report covering condition of experimental load when adjusted enroute.

See General Rule 1.

Fig. 1-B

WHEN NECESSARY TO EXTEND FLOOR TO PROVIDE BEARING FOR WHEELS, APPLY ONE PIECE BLOCKING ON TOP OF STAKE POCKETS, LONG ENOUGH TO EXTEND BEYOND WHEEL CHOCK BLOCKS AND HIGH ENOUGH TO BE LEVEL WITH TOP OF FLOOR. USE 1 IN. X 4 IN. X 18 IN. AT EACH END OF BLOCKING, NAIL EACH TO FLOOR WITH THREE 20-D NAILS AND TO BLOCKING WITH TWO 20-D NAILS.

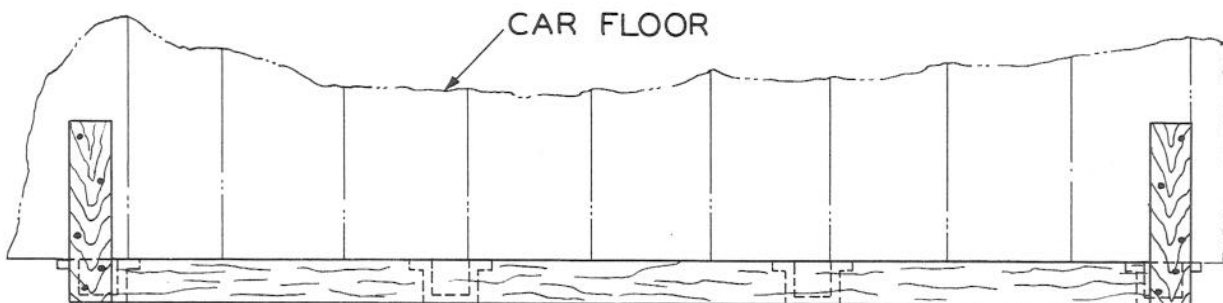


Fig. 2

BRAKE WHEEL CLEARANCE

See General Rule 2.

Fig. 3

MINIMUM REQUIREMENTS FOR COUPLER SPACING BLOCKS

See General Rule 21.

Fig. 4

MINIMUM REQUIREMENTS FOR MAKING INOPERATIVE UNCOUPLING MECHANISM

See General Rule 21.

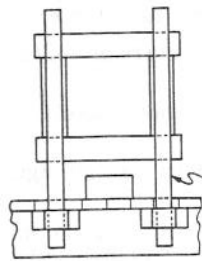
FIGURE REFERENCES USED IN SECTION NO. 1 (Concluded)

Fig. 5

DIMENSIONS OF SLOT IN BLOCKING UNDER CENTER PLATE FOR CENTER PIN USED IN CONNECTION WITH PIVOTED BOLSTER

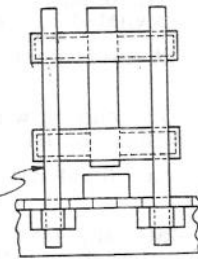
See General Rule 17.

Fig. 5-A

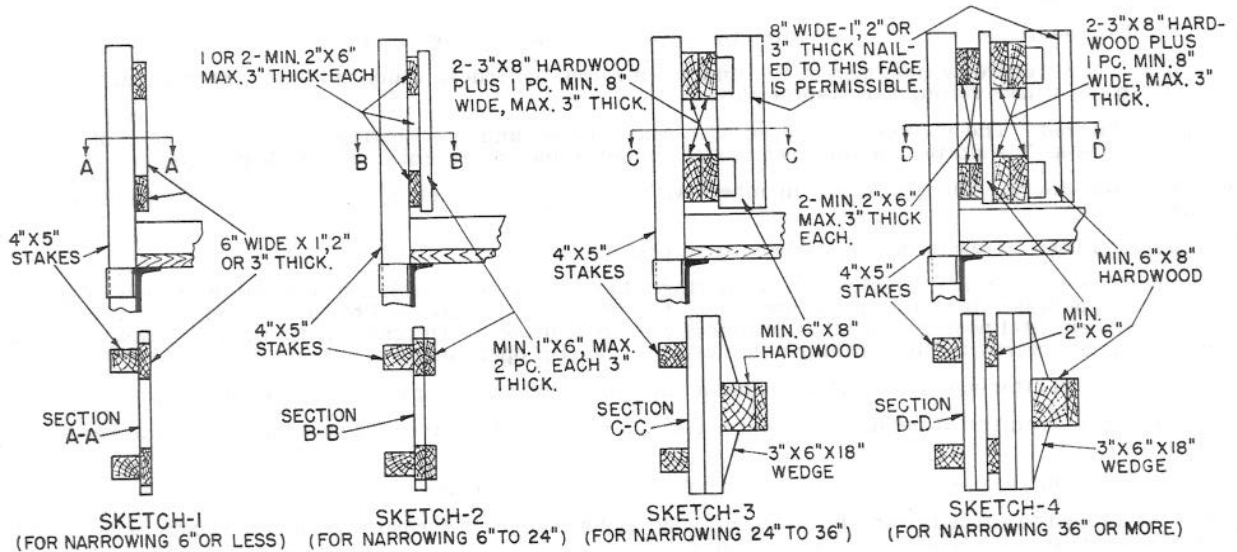


METHOD OF NARROWING LOADS OF POLES AND LUMBER - MANDATORY WHEN SO SPECIFIED UNDER THE FIGURE.

FOR DETAILS SEE SKETCHES 1 & 2

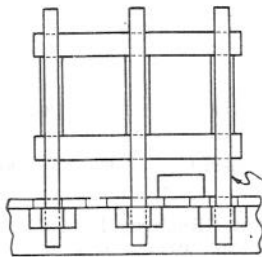


FOR DETAILS SEE SKETCHES 3 & 4

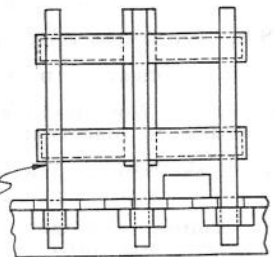


See General Rules 16 and 18.

Fig. 5-B

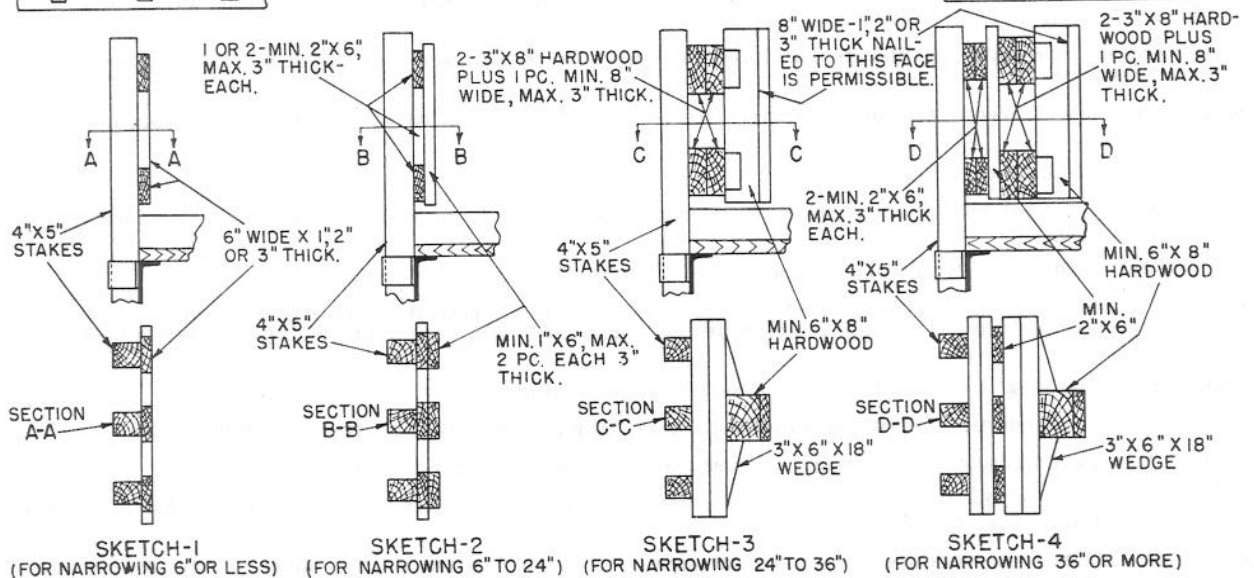


FOR DETAILS SEE SKETCHES 1 & 2



FOR DETAILS SEE SKETCHES 3 & 4

METHOD OF NARROWING LOADS OF POLES AND LUMBER - MANDATORY WHEN SO SPECIFIED UNDER THE FIGURE.



See General Rules 16 and 18.

DICTIONARY OF CAR AND LOADING TERMS

"A" End of Car. The opposite end to that on which the brake wheel is located. In the event there are two brake wheels, the ends are designated by stenciling the letters "A" and "B," respectively, on both sides, near the ends.

Anti-Skid Plates. A metal plate with sharp projections on each side used between wood members or containers to retard movement.

"B" End of Car. The end on which the brake wheel is located. In the event there are two brake wheels, the ends are designated by stenciling the letters "A" and "B", respectively, on both sides, near the ends.

Bands, High Tension. Steel strapping of various widths and thicknesses, each with a standard load strength, used to secure lading.

Bearing Pieces. Material placed crosswise of car, underneath lading, to facilitate loading or unloading; to maintain 4 in. clearance below overhanging portion of load and any part of idler car or cars; used longitudinally to distribute weight of lading over greater area of floor.

Blocks. Wood material, nailed, bolted or wired in position to secure lading in place.

Bolster, Body. The transverse members of the underframe over the trucks which transmit the load carried by the longitudinal sills to the trucks through the center plates.

Bolster, Load, Pivoted. The members equipped with center plates and side bearing on which the load of a two or three-car shipment rests. The slotted member permits the longitudinal movement of the load in transit.

Bolster, Load Stationary. The stationary members without center plates on which the load of a two or three-car shipment rests.

Braces. Material used to retain lading or blocking in position.

Brake Shaft. The metal shaft, usually vertical, having a hand wheel, or handle, on one end, by means of which a chain, connected to the brake shaft and brake levers, may be wound on the shaft and brakes applied. In some instances brake shafts are in horizontal position, in other instances cars are equipped with brake shafts normally in vertical position but which may be lowered to horizontal position and still remain operative.

Brake Wheel. Wheel attached to the end of the brake shaft by which the latter is turned to apply the brakes by hand.

Cable. A lading securement of definite size, composed of a number of twisted strands of a certain number of wires each.

Cable Clips. Metal fittings equipped with bolt, or bolts, used to secure cable to car or lading.

Capacity. As applied to a freight car, the maximum load in pounds which the car is designed to carry, also the cubic feet capacity. These figures are stenciled on each side of car.

Center Plate. One of a pair of plates which fit one into the other and which support the car body on the trucks, allowing them to swivel freely under the car. Also used near each end of load requiring the use of pivoted bolsters.

Center Sill. The center longitudinal member of the car underframe.

Chock Block. Concave or mitered blocking pieces used to secure objects in position.

Clamping Piece. Wood member placed across top of load to keep lading in position, secured to car or stake pockets with rods. Also used on machinery or vehicles to secure movable parts.

Clearance, Brake Wheel. The necessary clearance, as shown in Figure 2, to permit the safe operation of hand brakes by trainmen.

Clearance, Lading. Limitations for height and width of cars and loads, as published in the "Railway Line Clearances." Special authority must be obtained for handling loads exceeding published clearances and for those which exceed dimensions as shown in Tables 1-35 inclusive.

Cleats. Wooden pieces nailed to floor to reinforce blocking. Also pieces nailed to floor or blocking against lading to retain lading in position.

Crossties, Side Stake. Wood, wire or metal ties used to keep stakes in position, and retain the alignment of the lading.

Deck. The wood floor of a flat car.

Depressed Car. A flat car having the portion of the floor between trucks depressed to provide increased head room for certain classes of lading.

Double Load. A shipment requiring the use of two cars.

Drop End Gondola. A freight car with sides and ends but without top covering. The ends are in the form of doors, which can be lowered to facilitate loading and unloading, or for transporting long material which extends beyond ends of car.

End Blocking. Blocking used to prevent end movement of lading.

End Sill. The transverse member of the underframe extending across ends of all the longitudinal sills.

Eye Bolt. Closed eye fittings with threaded end used to secure wire and band lading ties.

Filler. Wood pieces used between car and lading, car and blocking, or between two sections of blocking or lading, to retain lading and blocking in position.

Filler, Metal. Metal protectors used under wire or band securements to prevent the failure of the securement as a result of contacting sharp edges of either car or lading.

Fish Belly Sill. Type of heavy, deep, built-up side or center sill.

Fixed End Gondola. A freight car with fixed sides and ends but without top covering. Used for the transportation of freight in bulk.

Flat Car. A freight car having the floor laid over sills, and without any sides or body above.

Floating Load. A load in which the lading is prepared into a unit with space between unit and ends of car and end blocking omitted. This type of loading permits the dissipating of impact shocks by the lengthwise movement of lading over floor of car.

Flooring. The general term given to the layer of material which is placed on top of the underframe of a car and provides the direct support of lading.

Gondola. A freight car with sides and ends but without a top covering. May be equipped with high or low sides, drop or fixed ends, solid or drop bottoms and is used for shipment of any commodity not requiring protection from the weather.

Gondola, Drop End. See "Drop End Gondola".

Gondola, Fixed End. See "Fixed End Gondola".

Gross Weight. The total of the car weight (light weight) and the total weight of lading permitted (load limit) which is the maximum weight permitted on rail. The light weight and load limit for each car is stenciled on sides of car.

Guide Strips. Longitudinal pieces secured to floor of car against sides of unit or skids to prevent side shifting.

Hand Brake Wheel. See "Brake Wheel".

Hopper Car. A freight car with sides and ends but without a top covering, and the floor sloping from ends and center to permit the entire lading to be discharged by gravity through the hopper doors.

Idler Car. A freight car used to protect overhanging loads or used between carrying cars loaded with long material on bearing pieces or pivoted bolsters.

"J" Bolt. Open end fittings with threaded ends, used to secure wire or band ties, or as a direct tie-down securement. The open end closed by the application of a plate over end and stem of bolt.

"L" Side. Left side—the side of car on the left of the observer when standing inside of car and facing the "A" end of car.

Lag Screw. Screw type securement for blocking or as a retarding device between blocking and skids on machinery shipment.

Laminate. The use of two or more wood, or wood and steel, members, in the makeup of a blocking detail or skid.

Light Weight. The weight of any empty freight car. This figure is stenciled on sides of car.

Load Limit. The maximum load in pounds which the car is designed to carry. This figure is stenciled on sides of car.

Mechanical Brakeman. Slotted metal plates nailed to floor of car used to retard movement of lading. The retarding action is caused by the frictional resistance of the load securement bands passing through slotted hole in plate.

Metal Blocking. Suitable metal sections which are acceptable as alternates for wood blocking securement.

Overhanging Load. The portion of lading overhanging one or both ends of car. The length of overhang is measured from center line of truck bolster.

Pallet. A platform or skid on which lading is placed and secured, used to facilitate handling of small sized commodity shipments by mechanical means.

Palletized Load. A method of loading palletized units.

Pile. A load or portion of load, composed of one or more units which may be either located side by side or one on top of another, or both, which may be secured as a single unit.

Protection Plates. Metal protectors used under wire or band securements to prevent the failure of the securement as a result of contacting sharp edges of either car or lading.

"R" Side. Right side. The side of car on the right of the observer when standing inside of car and facing the "A" end.

Release Lever. A rod with a bent handle forming a lever, usually attached to the end sill, by which the lock of the automatic coupler is opened and the cars uncoupled without the necessity of going between them.

Rigid Brace Load. A load in which the lading is secured by blocking, etc., to prevent any movement of the lading in transit.

Rotary Machine. Machines designed to rotate totally or in part and necessitate securement of the rotary feature in transportation.

Semi-Floating Load. A load where lading is secured in two units with a space at center but with no space between units and the ends of car. This permits movement of each unit in one direction only.

Side Bearing Clearance. The space provided between body and truck side bearings to permit free curvature of trucks.

Sill, Center. The center longitudinal member of the car underframe.

Sill, End. The transverse member of the underframe extending across ends of all the longitudinal sills.

Sill, Intermediate. The main longitudinal members of the car underframe between the side sills and the center sills.

Sill, Side. The outside longitudinal members of the car underframe.

Single Load. A shipment requiring the use of one car.

Skids. A platform composed of two or more longitudinal members and two or more cross members to which lading is bolted to facilitate handling and to evenly distribute load weight in transportation, or composed of two or more longitudinal members only secured to lading to facilitate handling.

Snubbed Load. A method of loading using anti-skid plates, lag screws or other retarding devices which permits a restricted lengthwise movement of the load.

Spacing Blocks. Metal blocks used between face of striking plate and coupler horn to completely fill space after cars have been jacked apart, to take up all slack in cars handling shipments requiring the use of two or three cars.

Stake. A piece of timber or metal inserted in the stake pocket on sides or ends of flat cars to hold load in place, extending slightly higher than top of load. Also used on inside of gondola cars to secure lading in position.

Stake Pocket. A metal receptacle attached to side or ends of flat cars to receive end of stake used in securing loads.

Stake, Stub. A piece of timber or metal inserted in the stake pocket on sides or ends of flat cars extending sufficiently above floor to provide protection against side or end movement of lading.

Tare Weight. The weight of any empty freight car.

Thimble. Metal protectors used to prevent cutting or breaking at sharp turns of cable securement.

Triple Load. A shipment requiring the use of three cars.

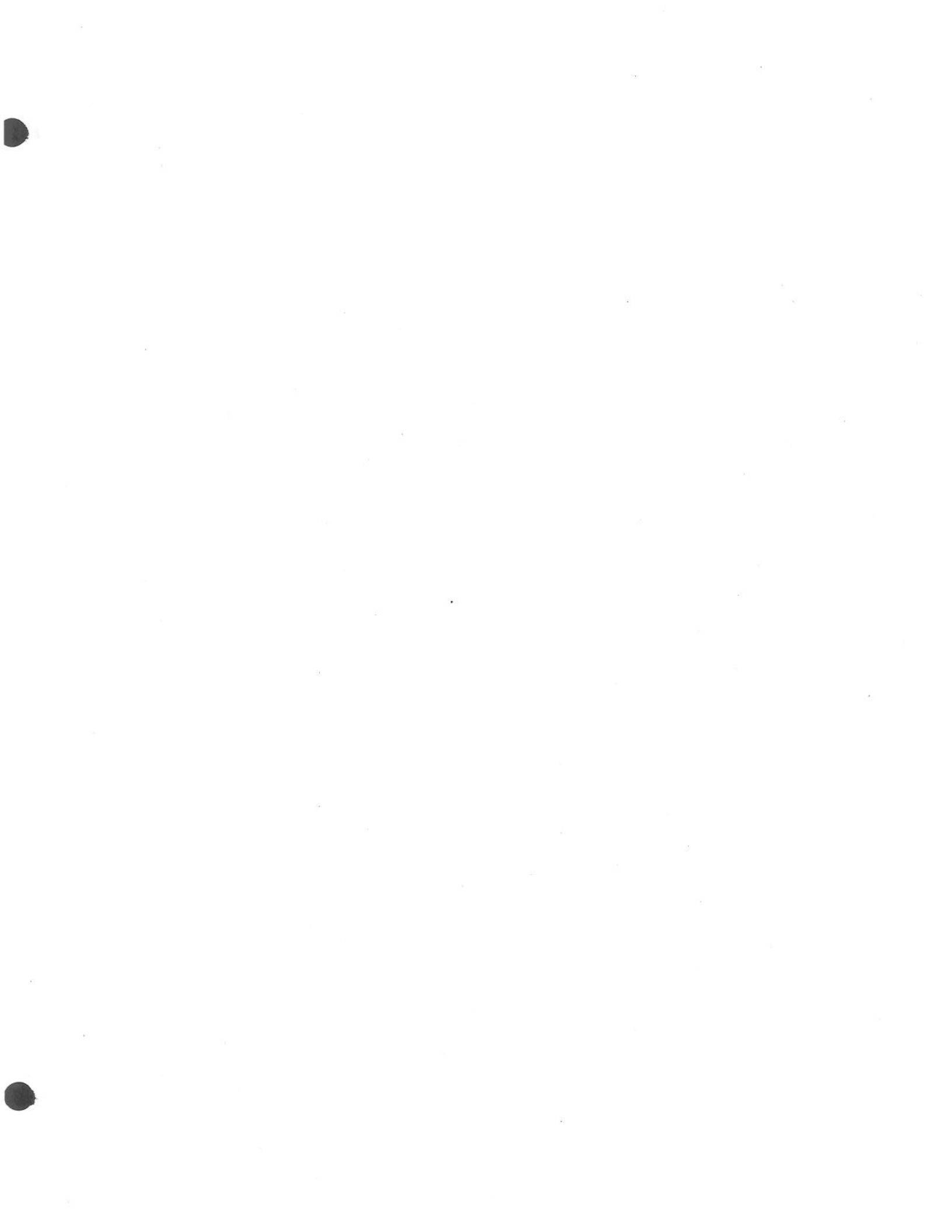
Truck Centers. The distance from center line to center line of the freight car truck bolsters.

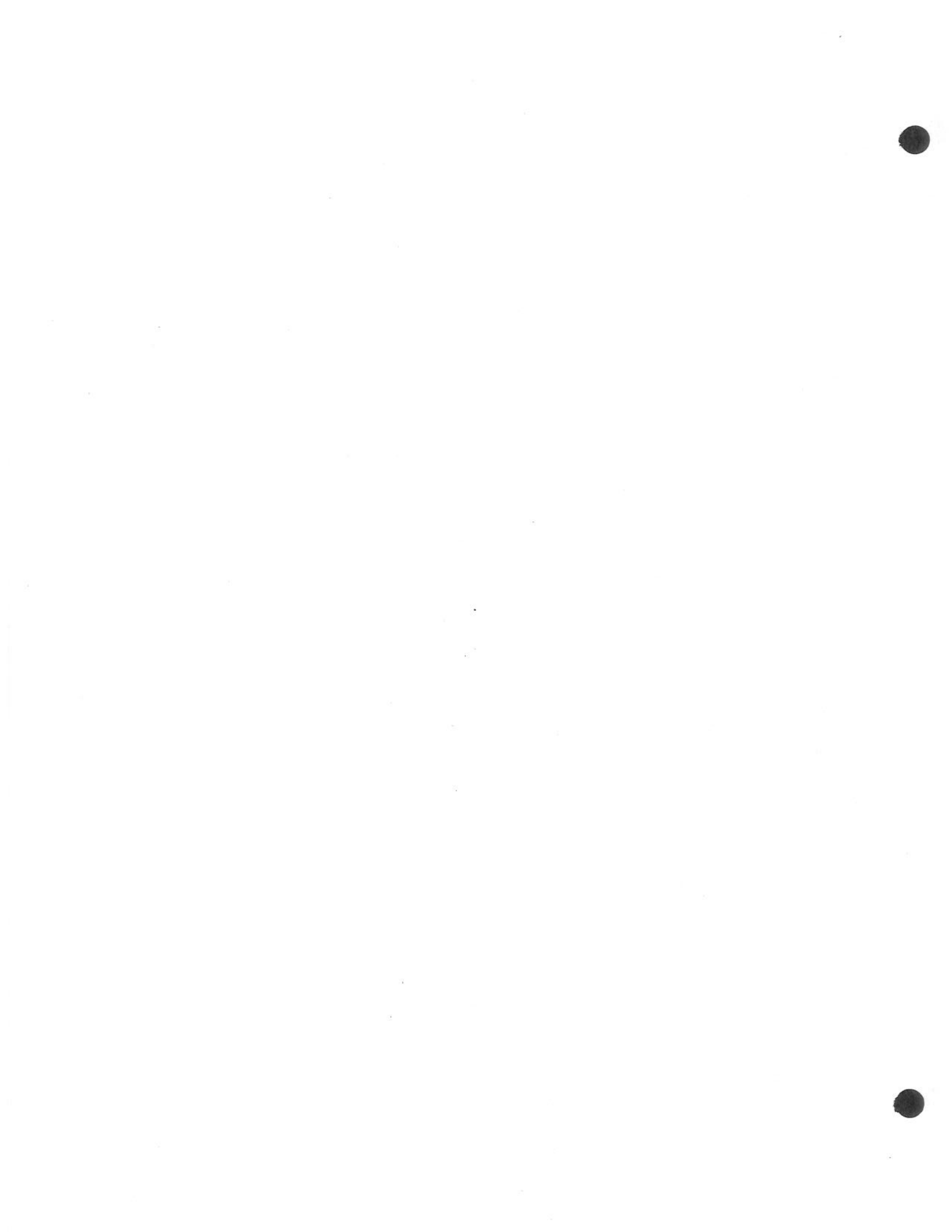
Well Hole Car. A flat car with a depression or opening in the center to allow load to extend below the normal floor level when it could not otherwise come within the overhead clearance limits.

Wheel Chocks. Concave or mitered blocking used to secure wheeled units.

Wire, Common. Soft wire of various sizes used as a lading securement.

Wire, High Tension. Steel wire of definite size and load strength used as a lading securement.





SECTION No. 2

Association of American Railroads
OPERATIONS AND
MAINTENANCE DEPARTMENT
MECHANICAL DIVISION

RULES GOVERNING THE Loading of Steel Products Including Pipe On Open Top Cars

Adopted by the
Former Master Car Builders' Association
as Recommended Practice, 1896
Advanced to Standard 1908

EFFECTIVE FEBRUARY 1, 1960

Published by the Association of American Railroads
59 East Van Buren Street, Chicago 5, Illinois

1960

Printed in U. S. A.

1947

1. The first part of the report deals with the general situation in the country at the end of 1946. It is a very interesting and well-written account of the political and economic conditions of the time.

2. The second part of the report is devoted to a detailed study of the financial situation of the country. It shows how the government has managed to keep the economy from falling into a complete state of collapse.

3. The third part of the report is a study of the social conditions of the country. It shows how the government has managed to keep the social order from falling into a complete state of chaos.

4. The fourth part of the report is a study of the foreign relations of the country. It shows how the government has managed to keep the country from falling into a complete state of isolation.

5. The fifth part of the report is a study of the future of the country. It shows how the government has managed to keep the country from falling into a complete state of stagnation.

1947