UNITED STATES SHIPPING BOARD
EMERGENCY FLEET CORPORATION

# TIMBER SCHEDULE AND SPECIFICATIONS

FOR

# STANDARD WOOD STEAMSHIP

## GULF AND ATLANTIC COAST

## LARGELY SOUTHERN YELLOW PINE

REVISED JANUARY 1, 1918

# 23 REVISED

SUPERSEDES No. 18

WASHINGTON
GOVERNMENT PRINTING OFFICE
1918

UNITED STATES SHIPPING BOARD
EMERGENCY FLEET CORPORATION

# TIMBER SCHEDULE AND SPECIFICATIONS

FOR

# STANDARD WOOD STEAMSHIP

## GULF AND ATLANTIC COAST

## LARGELY SOUTHERN YELLOW PINE

---

REVISED JANUARY 1, 1918

# 23 REVISED

SUPERSEDES NO. 18

WASHINGTON
GOVERNMENT PRINTING OFFICE
1918

# TIMBER SCHEDULE AND SPECIFICATIONS

FOR

## STANDARD WOOD STEAMSHIP, GULF AND ATLANTIC COAST.

---

## GENERAL INFORMATION.

This schedule has been drafted for the information and guidance of lumber mills, contractors, and shipbuilders, and constitutes the official schedule of timbers to be used in the construction of wooden vessels on the Gulf and Atlantic coasts. It does not, however, definitely define the exact number of timbers nor the exact amount of board feet that will be required to build a standard wood steamship. Builders may find it necessary to purchase additional items in order to complete the construction of the vessel to requirements of the Classification Society.

The purchase and inspection of lumber under this schedule will be conducted by the Emergency Fleet Corporation or under its direction.

Inspections will be made at the mills where lumber is manufactured.

Approved January 1, 1918.

UNITED STATES SHIPPING BOARD
EMERGENCY FLEET CORPORATION,
CHARLES PIEZ,
*Vice President and General Manager.*

## RULES GOVERNING TIMBER SCHEDULE.

The accompanying lumber schedule is governed strictly by the following rules:

1. Dimensions of timbers in the form to be used in the ship are net, after surfacing. Material must be sawed large enough to surface down to these dimensions. Dimensions and quantities in the rough, in accordance with the usual milling practice, are given separately for the information of manufacturers.

2. The specification of "Dense merchantable" longleaf yellow pine means the following, as quoted from the January 1, 1917, grading rules issued by the Southern Pine Association.

"All merchantable timbers shall be well manufactured and shall be free from defects such as injurious ring and round shakes and through shakes that extend to the surface, unsound and loose knots, and knots in groups that will materially impair the strength. Seasoning checks and sap stain shall not be considered defects.

"Sizes under 9 inches on the largest dimension shall show two-thirds or more heart surface on one of the wide faces; sizes 9 inches and over on the largest dimension shall show two-thirds or more heart on both of the wide faces. When sticks are square the face showing the most heart shall govern the inspection on sizes under 9 inches and the two faces showing the most heart shall govern the inspection when 9 inches and over. Heart showing the full length, even if not two-thirds of the area as above, shall meet the requirements of this quality.

"Wane not exceeding one-eighth of the dimension of the face and one-quarter of the length of the piece on

one corner, or the equivalent on two or more corners on not to exceed 10 per cent of the pieces, shall be admitted.

"Dense southern yellow pine shall show on either end an average of at least six annual rings per inch and at least one-third summer wood, or else the greater number of the rings shall show at least one-third summer wood, all as measured over the third, fourth, and fifth inches of a radial line from the pith. Wide-ringed material excluded by this rule will be acceptable, provided that the amount of summer wood as above measured shall be at least one-half.

"The contrast in color between summer wood and spring wood shall be sharp and the summer wood shall be dark in color, except in pieces having considerably above the minimum requirement for summer wood.

"In cases where timbers do not contain the pith, and it is impossible to locate it with any degree of accuracy, the same inspection shall be made over 3 inches on an approximate radial line beginning at the edge nearest the pith in timbers over 3 inches in thickness and on the second inch (on the piece) nearest to the pith in timbers 3 inches or less in thickness.

"In dimension material containing the pith but not a 5-inch radial line, which is less than 2 by 8 inches in section or less than 8 inches in width, that does not show over 16 square inches on the cross section, the inspection shall apply to the second inch from the pith. In larger material that does not show a 5-inch radial line the inspection shall apply to the 3 inches farthest from the pith.

"The radial line chosen shall be representative. In case of disagreement between purchaser and seller, the average summer wood and number of rings shall be the average of the two radial lines chosen."

3. Items 29, 97, 99, 102, 106, 107, 108, 110, 111, 112, 115, 118, 122, 123, 134, and 136 are to be furnished under the density rule, but one wide face of every piece must be all heart, free of wane. All these tim-

bers except item 29 must show on edges adjoining the heart face 85 per cent heart the full length of stick, which may be reduced to three-fourths of the length for item 29.

4. The specifications governing yellow pine grades No. 1 common, A edge grain flooring, and A finish are given in the Standard Specifications for Grades of Southern Yellow Pine Lumber issued by the Southern Pine Association April 1, 1917.

5. Cypress timbers shall be equivalent in grade to No. 1 common. The specifications governing cypress grades are given in the Standard Grades and Classifications of the Southern Cypress Manufacturers' Association, edition of January 1, 1917.

6. Oak items, unless otherwise specified, shall be selected stock from the grade of construction oak timbers. The specifications governing oak grades are given in Association Standard Grades issued by the Hardwood Manufacturers' Association of the United States October 1, 1915.

7. Knees shall be free from rot, heart, or ring shake, large or loose knots, and other defects which would impair their strength for the purpose intended. They must be natural crooks.

8. Treenails shall be of clear all-heart wood, straight grained, and thoroughly air dried.

9. Unsurfaced items 40 feet long and over and 18 by 18 inches and over may be furnished by the mills either hewn or sawed. If furnished hewn, such items shall run a full inch over the specified size and be square edged and of uniform size throughout.

Items 145, 146, 147, 148, 149, 150, and 151, oak timbers, may be furnished by the mills either hewn or sawed. If furnished hewn, they shall run a full inch

over the specified size and be square edged and of uniform size throughout.

10. Any finished timbers in this schedule which shipbuilders may desire to have furnished rough, gross size, may be furnished that way by mutual arrangement with the mills designated to saw the timbers.

11. The frame timbers to be either square edged or flitches, provided that the specified width is obtained at the narrowest point inside of the bark, except where templets are used as provided for in rule 16.

12. All timbers that are furnished rough can be put into ships unsurfaced except as regards necessary surfacing to make a good workmanlike job in the fitting of the timbers and the surfacing that would be brought about by having to shape the timbers.

13. *Substitutions.*—Any yellow-pine items can be furnished in real white oak or live oak of the sizes as specified. Any of the larger sized yellow-pine timbers may be furnished in fir if desired, in the same sizes as shown in this schedule.

Items specified to be furnished in white oak can be furnished in live oak or greenheart, but not in fir or yellow pine, except that the keel shoe may be of gum or other material approved by the American Bureau of Shipping.

The frames may be furnished in red swamp cypress in the same sizes as given in the schedule. Red swamp cypress may also be substituted for the aprons, deadwoods, hooks, and pointers in the same sizes as given in the schedule. These are items 7, 10, 12, and 125.

14. Firms which do not have facilities for manufacturing finished treenails, but which wish to supply rough lumber from which treenails may be made by ship-

building firms, may find the following suggestions helpful:

Treenails, finished size 1¼ by 26 inches, can be manufactured from 1½ by 1½ by 26 inches rough dimension stock. Amount of lumber in each piece is 0.405 board foot.

Treenails, finished size 1⅜ by 32 inches, can be made from 1½ by 1½ by 32 inches rough dimension stock, each piece containing ½ board foot.

Treenails, finished size 1⅜ by 36 inches, can be made from 1½ by 1½ by 36 inches rough dimension stock, each piece containing 0.562 board foot.

15. In view of portions of certain of the timbers being cut away by shaping, scarfs, etc., the following defects may be allowed, in the discretion of the owner's timber inspector:

Item 4. *Knightheads:* These can have 12 inches of wane the entire length of one corner or any other defect that will work out.

Item 5. *Stem:* Wane or any other defect anywhere in the piece that will work out when timber is shaped will be allowed.

Items 23, 26, and 27. *Hatch strong backs:* These can have wane the entire length on two corners or any other defect that will work out when timber is shaped.

Item 32. *Clamp timbers:* 2,400 linear feet of these can have 5 inches of wane the entire length on one corner or any other defect that will work out when timber is shaped. Splits, shakes, or any other defects in the end that will work out in the scarf will be allowed.

Items 31 and 56. *Bilge ceiling:* 2 inches of wane or other defects that will work out will be allowed on two

corners or sides on 600 linear feet of item No. 31 and 400 linear feet of item No. 56.

Items 41 to 52. *Upper deck beams:* Wane or any other defect will be allowed that will work out when the timber is shaped to 14 inches in width or as shown by plan of typical midship beam. In this connection it may be stated that items 41 to 51, inclusive, have the same camber in proportion to their length beginning at the center as item No. 52.

Items 77 and 78. *Hatch coamings:* These can have wane on one corner the entire length or any other defect that will work out.

Items 18, 19, 29, 31, 32, 34, 56, 57, 64, 65, 69, 70, and 76 will allow wane, splits, shakes, or any other defects that will work out on half splice or scarfs.

16. It is desirable to use natural crooks as much as possible for curved timbers, and the dimensions of a number of the frame timbers can be considerably reduced by their use. To assist in this work templets showing the shape of the finished timber can be employed. Templets should be large enough to allow for the bevel of the frames. The detail frame plan will show the shape of the frame timbers, and the difference between the net size and the mill size there specified will show the amount to be added to the width as drawn to obtain the necessary width of the templet. Unless the templets are furnished by the shipbuilder they should be used only as a general guide in the selection of the timbers. All shipbuilders are to furnish the mills with paper templets, showing the finished size of flitches, 20 inches and wider. The width for invoicing shall be obtained by measuring the width on both faces at the mid length, adding together and dividing by two.

17. If the bilge planking is not edge bolted and the bilge frames are sawed out of wide flitches instead of being cut from natural crooks, filling floors will have to be fitted at the bilges in accordance with drawing 373 No. 18A. The edge bolting of the planks is preferred.

18. All timbers must be marked with paint on ends with the item number.

19. Short timbers may be furnished in multiples if the pieces are properly marked. Thus, a 14-foot piece for two 35A items should be marked 35A2, a 16-foot piece for one 35E and one 35G item should be marked 35E&G.

20. The dressed side of planking shall be the sap side and the heart side is to be placed against the frames.

*Timber schedule for standard wood steamship—Gulf and Atlantic coast.*

| Item. | Item prices. | Part. | Net size. | Gross size. | Linear feet. | Length. | Number of pieces. | Gross footage. | Finish. | Species and grade. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | *Inches.* | *Inches.* | | *Feet.* | | *Ft. b. m.* | | |
| 1 | $36.50 | Rudder blade | ..... | 16x18 | ..... | 20 | 1 | 480 | Rough | Long leaf yellow pine, dense merchantable. |
| 2 | 41.06 | .....do | ..... | 16x18 | ..... | 26 | 1 | 624 | Rough | Do. |
| 3 | 91.25 | Hull end framing | ..... | 12x24 | 240 | 16 to 32 av., 24 | 10 | 5,760 | Rough | Do. |
| 4 | 91.25 | Knightheads | ..... | 16x24 | ..... | 40 | 2 | 2,560 | Rough | Do. |
| 5 | 91.25 | Stem | ..... | 16x20 | ..... | 44 | 1 | 1,173 | Rough | Do. |
| 6 | 38.32 | Rudder blade | ..... | 16x16 | ..... | 28 | 1 | 597 | Rough | Do. |
| 7 | 51.10 | Apron | ..... | 16x18 | ..... | 44 | 2 | 2,112 | Rough | Do. |
| 8 | 68.43 | Rudder blade | ..... | 16x22 | ..... | 22 | 1 | 645 | Rough | Do. |
| 9 | 91.25 | Hull end framing | ..... | 12x22 | 120 | 16 to 32 av., 24 | 5 | 2,640 | Rough | Do. |
| 10 | 31.94 | Forward deadwood | ..... | 14x16 | ..... | 20 | 9 | 3,360 | Rough | Do. |
| 11 | 31.94 | Hold beams | ..... | 14x16 | ..... | 20 | 2 | 747 | Rough | Do. |
| 12 | 34.67 | After deadwood | ..... | 14x16 | ..... | 22 | 9 | 3,696 | Rough | Do. |
| 13 | 38.32 | Hold beams | ..... | 14x16 | ..... | 30 | 2 | 1,120 | Rough | Do. |
| 14 | 41.97 | .....do | ..... | 14x16 | ..... | 36 | 2 | 1,344 | Rough | Do. |
| 15 | 45.62 | .....do | ..... | 14x16 | ..... | 40 | 2 | 1,493 | Rough | Do. |
| 16 | 48.36 | .....do | ..... | 14x16 | ..... | 42 | 2 | 1,568 | Rough | Do. |
| 17 | 51.10 | .....do | ..... | 14x16 | ..... | 44 | 46 | 37,780 | Rough | Do. |
| 18 | 51.10 | Keel | ..... | 14x16 | ..... | 44 | 3 | 2,464 | Rough | Do. |
| 19 | 54.75 | .....do | ..... | 14x16 | ..... | 48 | 4 | 3,584 | Rough | Do. |
| 20 | 27.37 | Stern framing | ..... | 14x14 | ..... | 10 | 34 | 5,553 | Rough | Do. |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 21 | 31.94 | Rudder blade | ..... | 14x16 | ..... | 12 | 1 | 224 | Rough | Do. |
| 22 | 27.37 | Girder timbers and hatch coamings. | 13¾x13¾ | 14x14 | ..... | 16 | 8 | 2,091 | S4S | Do. |
| 23 | 29.20 | Hatch strongbacks | 13¾x13¾ | 14x14 | ..... | 17 | 2 | 555 | S4S | Do. |
| 24 | 27.37 | Stern framing | ..... | 14x14 | ..... | 18 | 34 | 9,996 | Rough | Do. |
| 25 | ..... | (Omitted.) | | | | | | | | |
| 26 | 31.02 | Hatch strongback | 13¾x13¾ | 14x14 | ..... | 21 | 1 | 343 | S4S | Do. |
| 27 | 31.94 | .....do | 13¾x13¾ | 14x14 | ..... | 25 | 1 | 408 | S4S | Do. |
| 28 | ..... | (Omitted.) | | | | | | | | |
| 29 | 45.59 | Upper deck waterway | ..... | 14x14 | 1,400 | 24 to 40 av., 32 | ..... | 22,867 | Rough | Long leaf yellow pine, dense (see rule 3). |
| 30 | 35.59 | Girder timbers and hatch coamings. | 13¾x13¾ | 14x14 | 1,400 | 24 to 40 av., 32 | ..... | 22,867 | S4S | Long leaf yellow pine, dense merchantable. |
| 31 | 35.59 | Bilge ceiling | ..... | 14x14 | 2,000 | 24 to 40 av., 32 | ..... | 32,667 | Rough | Do. |
| 32 | 42.89 | Clamp timbers | 13¾x13¾ | 14x14 | 3,600 | 30 to 50 av., 40 | ..... | 58,800 | S4S | Do. |
| 33A | 31.94 | Engine foundation keelsons. | 13¾x13¾ | 14x14 | ..... | 24 | 2 | 784 | S4S | Do. |
| 33B | 31.94 | .....do | 13¾x13¾ | 14x14 | ..... | 28 | 2 | 915 | S4S | Do. |
| 33C | 38.32 | .....do | 13¾x13¾ | 14x14 | ..... | 30 | 11 | 5,389 | S4S | Do. |
| 33D | 41.97 | .....do | 13¾x13¾ | 14x14 | ..... | 36 | 1 | 588 | S4S | Do. |
| 33E | 45.62 | .....do | 13¾x13¾ | 14x14 | ..... | 45 | 1 | 735 | S4S | Do. |
| 33F | 31.94 | .....do | 9¾x13¾ | 10x14 | ..... | 24 | 2 | 560 | S4S | Do. |
| 34 | 50.19 | Main keelsons | 13¾x13¾ | 14x14 | ..... | 48 | 56 | 43,904 | S4S | Do. |
| 36 | ..... | (Omitted.) | | | | | | | | |
| 35A | 100.00 | Frames | ..... | 12x34 | ..... | 7 | 2 | 476 | Rough | Long leaf yellow pine, dense merchantable (see rule 19). |

*Timber schedule for standard wood steamship—Gulf and Atlantic coast*—Continued.

| Item. | Item prices. | Part. | Net size. | Gross size. | Linear feet. | Length. | Number of pieces. | Gross footage. | Finish. | Species and grade. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | *Inches.* | *Inches.* | | *Feet.* | | *Ft. b. m.* | | |
| 35B | $100.00 | Frames | | 12x32 | | | 22 | 5,632 | Rough | Long leaf yellow pine, dense merchantable (see rule 19). |
| 35C | 100.00 | do | | 12x32 | | 9 | 10 | 2,880 | Rough | Do. |
| 35D | 90.00 | do | | 12x30 | | 6 | 78 | 14,040 | Rough | Do. |
| 35E | 90.00 | do | | 12x30 | | 7 | 6 | 1,260 | Rough | Do. |
| 35F | 90.00 | do | | 12x30 | | 8 | 44 | 10,560 | Rough | Do. |
| 35G | 90.00 | do | | 12x30 | | 9 | 22 | 5,940 | Rough | Do. |
| 35H | 90.00 | do | | 12x30 | | 10 | 16 | 4,800 | Rough | Do. |
| 35I | 90.00 | do | | 12x30 | | 11 | 10 | 3,300 | Rough | Do. |
| 35J | 82.25 | do | | 12x28 | | 6 | 24 | 4,032 | Rough | Do. |
| 35K | 82.25 | do | | 12x28 | | 8 | 76 | 17,024 | Rough | Do. |
| 35L | 82.25 | do | | 12x28 | | 9 | 82 | 20,664 | Rough | Do. |
| 35M | 82.25 | do | | 12x28 | | 10 | 6 | 1,680 | Rough | Do. |
| 35N | 82.25 | do | | 12x28 | | 11 | 16 | 4,928 | Rough | Do. |
| 35O | 82.25 | do | | 12x28 | | 15 | 16 | 6,720 | Rough | Do. |
| 35P | 79.50 | do | | 12x26 | | 9 | 30 | 7,020 | Rough | Do. |
| 35Q | 79.50 | do | | 12x26 | | 11 | 12 | 3,432 | Rough | Do. |
| 35R | 79.50 | do | | 12x26 | | 12 | 14 | 4,368 | Rough | Do. |
| 35S | 79.50 | do | | 12x26 | | 14 | 6 | 2,184 | Rough | Do. |
| 35T | 77.50 | do | | 12x24 | | 9 | 20 | 4,320 | Rough | Do. |
| 35V | 77.50 | do | | 12x24 | | 10 | 8 | 1,920 | Rough | Do. |
| 35W | 77.50 | do | | 12x24 | | 12 | 18 | 5,184 | Rough | Do. |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35X | 77.50 | do | | 12x24 | 13 | 8 | 2,496 | Rough | Do. |
| 35Y | 77.50 | do | | 12x24 | 14 | 16 | 5,376 | Rough | Do. |
| 35Z | 82.25 | do | | 12x24 | 19 | 12 | 5,472 | Rough | Do. |
| 37A | 69.50 | do | | 12x22 | 8 | 8 | 1,408 | Rough | Do. |
| 37B | 69.50 | do | | 12x22 | 9 | 16 | 3,168 | Rough | Do. |
| 37C | 69.50 | do | | 12x22 | 10 | 6 | 1,320 | Rough | Do. |
| 37D | 69.50 | do | | 12x22 | 12 | 18 | 4,752 | Rough | Do. |
| 37E | 69.50 | do | | 12x22 | 14 | 22 | 6,776 | Rough | Do. |
| 37F | 69.50 | do | | 12x22 | 16 | 8 | 2,816 | Rough | Do. |
| 37G | 41.06 | do | | 12x20 | 6 | 6 | 720 | Rough | Do. |
| 37H | 41.06 | do | | 12x20 | 9 | 6 | 1,080 | Rough | Do. |
| 37I | 41.06 | do | | 12x20 | 10 | 10 | 3,300 | Rough | Do. |
| 37J | 41.06 | do | | 12x20 | 11 | 10 | 2,200 | Rough | Do. |
| 37K | 41.06 | do | | 12x20 | 12 | 14 | 3,360 | Rough | Do. |
| 37L | 41.06 | do | | 12x20 | 14 | 8 | 2,240 | Rough | Do. |
| 37M | 44.06 | do | | 12x20 | 22 | 8 | 3,520 | Rough | Do. |
| 38A | 36.20 | do | | 12x18 | 8 | 8 | 1,152 | Rough | Do. |
| 38B | 36.20 | do | | 12x18 | 9 | 12 | 1,944 | Rough | Do. |
| 38C | 36.20 | do | | 12x18 | 10 | 18 | 3,240 | Rough | Do. |
| 38D | 36.20 | do | | 12x18 | 11 | 10 | 1,980 | Rough | Do. |
| 38E | 36.20 | do | | 12x18 | 12 | 32 | 6,912 | Rough | Do. |
| 38F | 39.20 | do | | 12x18 | 13 | 8 | 1,872 | Rough | Do. |
| 38G | 39.20 | do | | 12x18 | 14 | 10 | 2,520 | Rough | Do. |
| 38H | 39.20 | do | | 12x18 | 15 | 62 | 16,740 | Rough | Do. |
| 38I | 39.20 | do | | 12x18 | 16 | 20 | 5,760 | Rough | Do. |
| 38J | 39.20 | do | | 12x18 | 18 | 8 | 2,592 | Rough | Do. |
| 38K | 41.20 | do | | 12x18 | 22 | 6 | 2,376 | Rough | Do. |
| 39A | 31.93 | do | | 12x16 | 6 | 6 | 576 | Rough | Do. |
| 39B | 31.93 | do | | 12x16 | 11 | 10 | 1,760 | Rough | Do. |
| 39C | 31.93 | do | | 12x16 | 12 | 20 | 3,840 | Rough | Do. |
| 39D | 31.93 | do | | 12x16 | 16 | 8 | 2,048 | Rough | Do. |

*Timber schedule for standard wood steamship—Gulf and Atlantic coast*—Continued.

| Item. | Item prices. | Part. | Net size. | Gross size. | Linear feet. | Length. | Number of pieces. | Gross footage. | Finish. | Species and grade. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | *Inches.* | *Inches.* | | *Feet.* | | *Ft. b. m.* | | |
| 39E | $31.93 | Frames | | 12x16 | | 18 | 14 | 4,032 | Rough | Long leaf yellow pine, dense merchantable (see rule 19). |
| 39F | 36.00 | do | | 12x16 | | 23 | 8 | 2,944 | Rough | Do. |
| 39G | 38.31 | do | | 12x16 | | 30 | 8 | 3,840 | Rough | Do. |
| 39H | 40.31 | do | | 12x16 | | 32 | 10 | 5,120 | Rough | Do. |
| 39I | 41.31 | do | | 12x16 | | 33 | 78 | 41,184 | Rough | Do. |
| 39J | 27.36 | do | | 12x14 | | 8 | 6 | 672 | Rough | Do. |
| 39K | 27.36 | do | | 12x14 | | 14 | 8 | 1,568 | Rough | Do. |
| 39L | 27.36 | do | | 12x14 | | 17 | 16 | 3,808 | Rough | Do. |
| 39M | 27.36 | do | | 12x14 | | 18 | 16 | 4,032 | Rough | Do. |
| 39N | 27.36 | do | | 12x14 | | 20 | 8 | 2,240 | Rough | Do. |
| 39O | 31.50 | do | | 12x14 | | 22 | 6 | 1,848 | Rough | Do. |
| 39P | 31.50 | do | | 12x14 | | 23 | 8 | 2,576 | Rough | Do. |
| 39Q | 35.58 | do | | 12x14 | | 30 | 8 | 3,360 | Rough | Do. |
| 39R | 35.58 | do | | 12x14 | | 32 | 10 | 4,480 | Rough | Do. |
| 39S | 35.58 | do | | 12x14 | | 33 | 78 | 36,036 | Rough | Do. |
| 40A | 24.63 | do | | 12x12 | | 6 | 8 | 576 | Rough | Do. |
| 40B | 24.63 | do | | 12x12 | | 12 | 16 | 2,304 | Rough | Do. |
| 40C | 24.63 | do | | 12x12 | | 16 | 134 | 25,724 | Rough | Do. |
| 40D | 25.63 | do | | 12x12 | | 18 | 8 | 1,728 | Rough | Do. |
| 40E | 24.63 | do | | 10x12 | | 10 | 54 | 5,400 | Rough | Do. |
| 41 | 36.50 | Upper deck beams | | 12x16 | | 26 | 2 | 832 | Rough | Do. |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 42 | 36.50 | .....do..... | ..... | 12x16 | ..... | 26 | 2 | 832 | Rough | Do. |
| 43 | 43.80 | .....do..... | ..... | 12x18 | ..... | 30 | 1 | 540 | Rough | Do. |
| 44 | 45.62 | .....do..... | ..... | 12x18 | ..... | 32 | 2 | 1,152 | Rough | Do. |
| 45 | 45.62 | .....do..... | ..... | 12x18 | ..... | 32 | 2 | 1,152 | Rough | Do. |
| 46 | 50.19 | .....do..... | ..... | 12x18 | ..... | 34 | 2 | 1,224 | Rough | Do. |
| 47 | 50.19 | .....do..... | ..... | 12x18 | ..... | 36 | 2 | 1,296 | Rough | Do. |
| 48 | 50.19 | .....do..... | ..... | 12x18 | ..... | 36 | 2 | 1,296 | Rough | Do. |
| 49 | 54.75 | .....do..... | ..... | 12x18 | ..... | 38 | 2 | 1,368 | Rough | Do. |
| 50 | 54.75 | .....do..... | ..... | 12x18 | ..... | 40 | 3 | 2,160 | Rough | Do. |
| 51 | 54.75 | .....do..... | ..... | 12x18 | ..... | 40 | 2 | 1,440 | Rough | Do. |
| 52 | 59.31 | .....do..... | ..... | 12x18 | ..... | 44 | 40 | 31,680 | Rough | Do. |
| 53 | ..... | (Omitted.) | | | | | | | | |
| 54 | 31.94 | Upper deck short beams. | ..... | 12x16 | ..... | 16 | 66 | 16,896 | Rough | Do. |
| 55 | ..... | (Omitted.) | | | | | | | | |
| 56 | 35.59 | Bilge ceiling..... | ..... | 12x14 | 3,000 | 24 to 40 av., 32 | ..... | 42,000 | Rough | Do. |
| 57 | 42.89 | Shelf timbers..... | $11\frac{3}{4}$x$13\frac{3}{4}$ | 12x14 | 700 | 30 to 50 av., 40 | ..... | 9,800 | S4S... | Do. |
| 58 | ..... | (Omitted.) | | | | | | | | |
| 59 | 24.64 | Stanchions..... | ..... | 12x12 | ..... | 10 | 15 | 1,800 | Rough | Do. |
| 60 | ..... | (Omitted.) | | | | | | | | |
| 61 | 24.64 | Stanchions..... | ..... | 12x12 | ..... | 14 | 15 | 2,520 | Rough | Do. |
| 62 | 24.64 | Girder timbers and hatch coamings. | $11\frac{3}{4}$x$11\frac{3}{4}$ | 12x12 | ..... | 16 | 8 | 1,536 | S4S... | Do. |
| 63 | 27.37 | Stanchions..... | ..... | 12x12 | ..... | 24 | 36 | 10,368 | Rough | Do. |
| 64 | 32.85 | Girder timbers and hatch coamings. | $11\frac{3}{4}$x$11\frac{3}{4}$ | 12x12 | 500 | 24 to 40 av.,32 | ..... | 6,000 | S4S... | Do. |
| 65 | 40.15 | Shelf timbers ..... | $11\frac{3}{4}$x$11\frac{3}{4}$ | 12x12 | 1,800 | 30 to 50 av.,40 | ..... | 21,600 | S4S... | Do. |
| 66A | 24.63 | Cant frames..... | ..... | 10x12 | ..... | 8 | 36 | 2,880 | Rough | Do. |

*Timber schedule for standard wood steamship—Gulf and Atlantic coast*—Continued.

| Item. | Item prices. | Part. | Net size. | Gross size. | Linear feet. | Length. | Number of pieces. | Gross footage. | Finish. | Species and grade. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | *Inches.* | *Inches.* | | *Feet.* | | *Ft. b. m.* | | |
| 66B | $24.63 | Cant frames | | 10x12 | | 10 | 32 | 3,200 | Rough | Long leaf yellow pine, dense merchantable (see rule 19). |
| 66C | 24.63 | do | | 10x12 | | 12 | 16 | 1,920 | Rough | Do. |
| 67A | 77.55 | do | | 10x24 | | 8 | 18 | 2,880 | Rough | Do. |
| 67B | 77.55 | do | | 10x24 | | 9 | 6 | 1,080 | Rough | Do. |
| 67C | 77.55 | do | | 10x24 | | 12 | 4 | 960 | Rough | Do. |
| 68 | 31.94 | Engine bed floors | | 12x16 | | 18 | 20 | 5,760 | Rough | Do. |
| 69 | 41.06 | Planking, garboards | 9¾x13¾ | 10x14 | | 40 | 14 | 6,533 | S1S2E | Long leaf yellow pine (square edged), dense merchantable (see rule 20). |
| 70 | 41.97 | Girder keelsons | 9¾x13¾ | 10x14 | | 45 | 12 | 6,300 | S4S | Long leaf yellow pine, dense merchantable. |
| 71 | 26.46 | Hatch strongbacks | 9¾x11¾ | 10x12 | | 17 | 4 | 680 | S4S | Do. |
| 72 | 24.64 | Headers | 9¾x11¾ | 10x12 | | 20 | 4 | 800 | S4S | Do. |
| 73 | 28.29 | Hatch strongbacks | 9¾x11¾ | 10x12 | | 21 | 2 | 420 | S4S | Do. |
| 74 | 29.20 | do | 9¾x11¾ | 10x12 | | 25 | 2 | 500 | S4S | Do. |
| 75 | 32.84 | Side ceiling | 10 x11¾ | 10x12 | 8,000 | 24 to 40 av., 32 | | 80,000 | S2E | Do. |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 76 | 40. 15 | Shelf timbers..... | 9¾x11¾ | 10x12 | 2, 200 | 30 to 50 av., 40 | ..... | 22, 000 | S4S | Do. |
| 77 | 22. 81 | Girder timbers and hatch coamings. | 9¾x9¾ | 10x10 | ..... | 16 | 8 | 1, 067 | S4S | Do. |
| 78 | 24. 64 | .....do..... | 9¾x9¾ | 10x10 | ..... | 24 | 8 | 1, 600 | S4S | Do. |
| 79 | 36. 50 | Poop, bridge, and forecastle deck beams. | ..... | 10x10 | ..... | 45 | 6 | 2, 250 | Rough | Do. |
| 80 | 91. 25 | Forecastle and poop deck plank-sheer. | 7¾x26 | 8x26 | ..... | 20 | 14 | 4, 853 | S2S | Do. |
| 81 | 35. 59 | Poop, bridge, and forecastle deck plank-sheer. | 7¾x13¾ | 8x14 | 320 | 24 to 40 av., 32 | ..... | 2, 986 | S4S | Do. |
| 82 | 38. 32 | Planking, garboards... | 7¾x13¾ | 8x14 | 560 | 30 to 40 av., 35 | 16 | 5, 226 | S1S2E | Long leaf yellow pine, dense merchantable (see rule 20). |
| 83 | 41. 97 | Girder keelsons..... | 7¾x13¾ | 8x14 | ..... | 45 | 20 | 8, 400 | S4S | Long leaf yellow pine, dense merchantable. |
| 84 | 32. 84 | Bulkhead studding... | 7¾x11¾ | 8x12 | 500 | 24 to 40 av., 32 | ..... | 4, 000 | S4S | Do. |
| 85 | 24. 63 | .....do..... | 11¾x11¾ | 12x12 | ..... | 20 | 10 | 2, 400 | S4S | Do. |
| 86 | ..... | (Omitted.) | | | | | | | | |
| 87 | 32. 84 | Floor ceiling..... | 8x11¾ | 8x12 | 6, 700 | 24 to 40 av., 32 | ..... | 53, 600 | S2E | Do. |
| 88 | 24. 64 | Sills and plates..... | 7¾x9¾ | 8x10 | 200 | 20 to 30 av., 24 | ..... | 1, 333 | S4S | Do. |
| 89 | 21. 90 | Sills..... | 7¾x7¾ | 8x8 | ..... | 20 | 6 | 640 | S4S | Do. |
| 90 | 23. 72 | Poop, bridge, and forecastle deck beams. | 6¾x9¾ | 7x10 | ..... | 17 | 16 | 1, 587 | S4S | Do. |
| 91 | 24. 64 | .....do..... | 6¾x9¾ | 7x10 | ..... | 24 | 8 | 1, 120 | S4S | Do. |

*Timber schedule for standard wood steamship—Gulf and Atlantic coast*—Continued.

| Item. | Item prices. | Part. | Net size. | Gross size. | Linear feet. | Length. | Number of pieces. | Gross footage. | Finish. | Species and grade. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | *Inches.* | *Inches.* | | *Feet.* | | *Ft. b. m.* | | |
| 92 | $31.94 | Poop, bridge, and forecastle deck beams. | 6¾x9¾ | 7x10 | ..... | 38 | 15 | 3,325 | S4S | Long leaf yellow pine, dense merchantable. |
| 93 | 36.50 | .....do..... | 6¾x9¾ | 7x10 | ..... | 45 | 18 | 4,725 | S4S | Do. |
| 94 | 52.92 | Planking, main rail... | ..... | 6x19 | 500 | 24 to 40 av., 32 | ..... | 4,750 | Rough | Long leaf yellow pine (square edged), dense merchantable. |
| 95 | 38.32 | Planking, garboards... | 6x13¾ | 6¼x14 | 560 | 30 to 40 av., 35 | 16 | 4,083 | S1S2E | Long leaf yellow pine (square edged), dense merchantable (see rule 20). |
| 96 | 24.64 | Sills and plates..... | 5¾x9¾ | 6x10 | 250 | 20 to 30 av., 24 | ..... | 1,250 | S4S | Long leaf yellow pine, dense merchantable. |
| 97 | 35.20 | Planking, bilge..... | 6x9¾ | 6¼x10 | 8,000 | 24 to 40 av., 32 | ..... | 41,667 | S1S2E | Long leaf yellow pine (square edged), dense (see rules 3 and 20). |
| 98 | 32.84 | Shaft tunnel..... | 9¾x11¾ | 10x12 | 1,600 | 24 to 40 av., 32 | ..... | 16,000 | S4S | Long leaf yellow pine, dense merchantable. |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 99 | 35.20 | Planking, topside..... | 6x8¾ | 6¼x9 | 8,000 | 24 to 40 av., 32 | ..... | 37,500 | S1S2E | Long leaf yellow pine (square edged), dense (see rules 3 and 20). |
| 100 | 21.90 | Studding..... | 5¾x7¾ | 6x8 | ..... | 8 | 60 | 1,920 | S4S | Long leaf yellow pine, dense merchantable. |
| 101 | 22.81 | Sills and plates..... | 5¾x7¾ | 6x8 | 250 | 20 to 30 av., 24 | ..... | 1,000 | S4S | Do. |
| 102 | 31.00 | Poop, bridge, and forecastle decks, lock streak. | ..... | 6x8 | 320 | 24 to 40 av., 32 | ..... | 1,280 | Rough | Long leaf yellow pine, dense (see rules 3 and 20). |
| 103 | 26.00 | Poop, bridge, and forecastle decks, shelf. | ..... | 6x8 | 320 | 24 to 40 av., 32 | ..... | 1,280 | Rough | Long leaf yellow pine, dense merchantable. |
| 104 | 21.90 | Studding..... | 5¾x5¾ | 6x6 | ..... | 7 | 40 | 840 | S4S | Do. |
| 105 | 22.81 | Sills and plates..... | 5¾x5¾ | 6x6 | 200 | 20 to 30 av., 24 | ..... | 600 | S4S | Do. |
| 106 | 31.00 | Planking, bead streak. | 6x6 | 6¼x6¼ | 360 | 24 to 40 av., 32 | ..... | 1,173 | S4S | Long leaf yellow pine (square edged), dense (see rules 3 and 20). |
| 107 | 46.50 | Planking, bottom and side. | 5x13¾ | 5¼x14 | 10,000 | 24 to 40 av., 32 | ..... | 61,252 | S1S2E | Do. |
| 108 | 46.50 | Planking, poop, bridge, and forecastle. | 5x13¾ | 5¼x14 | 400 | 24 to 40 av., 32 | ..... | 2,450 | S1S2E | Do. |
| 109 | 32.84 | Poop, bridge, and forecastle clamps. | 4¾x11¾ | 5x12 | 1,000 | 24 to 40 av., 32 | ..... | 5,000 | S4S | Long leaf yellow pine, dense merchantable. |

*Timber schedule for standard wood steamship—Gulf and Atlantic coast*—Continued.

| Item. | Item prices. | Part. | Net size. | Gross size. | Linear feet. | Length. | Number of pieces. | Gross footage. | Finish. | Species and grade. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | *Inches.* | *Inches.* | | *Feet.* | | *Ft. b. m.* | | |
| 110 | $37.02 | Planking, bottom and side. | 5x9¾ | 5¼x10 | 5,800 | 24 to 40 av., 32 | ..... | 25,374 | S1S2E | Long leaf yellow pine (square edged), dense (see rules 3 and 20). |
| 111 | 35.20 | .....do..... | 5x8¾ | 5¼x9 | 5,800 | 24 to 40 av., 32 | ..... | 22,836 | S1S2E | Do. |
| 112 | 34.20 | .....do..... | 5x7¾ | 5¼x8 | 4,000 | 24 to 40 av., 32 | ..... | 14,002 | S1S2E | Do. |
| 113 | 29.20 | Poop, bridge, and forecastle decks, shelf. | 4¾x7¾ | 5x8 | 650 | 24 to 40 av., 32 | ..... | 2,166 | S4S | Long leaf yellow pine, dense merchantable. |
| 114 | 22.81 | Sills and plates..... | 4¾x4¾ | 5x5 | 400 | 20 to 30 av., 24 | ..... | 833 | S4S | Do. |
| 115 | 37.02 | Planking, bulwarks... | 4x9½ | 4¼x10 | 400 | 24 to 40 av., 32 | ..... | 1,416 | S1S2E | Long leaf yellow pine (square edged), dense (see rules 3 and 20). |
| 116 | 31.02 | Shaft tunnel..... | 3¾x9¾ | 4x10 | 800 | 24 to 40 av., 32 | ..... | 2,667 | S4S | Long leaf yellow pine, dense merchantable. |
| 117 | 27.37 | Ends of erections, bulkheads. | 3¾x7¾ | 4x8 | 2,000 | 20 to 40 av., 26 | ..... | 5,333 | S4S | Do. |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 118 | 36.94 | Planking, bulwarks.. | 4x7½ | 4¼x8 | 700 | 24 to 40 av., 32 | ..... | 1,985 | S1S2E | Long leaf yellow pine (square edged), dense (see rules 3 and 20). |
| 119 | 22.81 | Sills and plates..... | 3¾x5¾ | 4x6 | 350 | 20 to 30 av., 24 | ..... | 700 | S4S | Long leaf yellow pine, dense merchantable. |
| 120 | 24.64 | Studding..... | 3¾x3¾ | 4x4 | ..... | 7 | 64 | 597 | S4S | Do. |
| 121 | 27.37 | .....do..... | 3¾x3¾ | 4x4 | ..... | 28 | 60 | 2,240 | S4S | Do. |
| 122 | 56.50 | Upper decking..... | ..... | 4¼x4¼ | 42,000 | 16 and up, av., 26 | ..... | 63,219 | Rough | Long leaf yellow pine (square edged), dense (see rule 3). |
| 123 | 56.50 | Decking in way of tanks. | ..... | 4¼x4¼ | 2,000 | 16 and up, av., 26 | ..... | 3,010 | Rough | Do. |
| 124 | 27.37 | Hatch covers..... | 2¾x7¾ to 15¾ | 3x8 to 16 av., 12 | 2,400 | 14 and up. | ..... | 7,200 | S4S | Long leaf yellow pine, dense merchantable. |
| 125 | 45.00 | Timber for pointers and riders. | 3¾x13¾ | 4x14 | 1,500 | 24 to 40 av., 32 | ..... | 7,000 | S4S | Do. |
| 126 | 27.37 | Cross spalls..... | ..... | 3x8 | ..... | 24 | 400 | 19,200 | Rough | Do. |
| 127A | 31.00 | Bulkheads..... | 2¾x7¾ | 3x8 | 4,000 | 20 to 40 av., 32 | ..... | 8,000 | S4S | Long leaf yellow pine (square edged), dense merchantable. |
| 127B | 38.20 | .....do..... | 9¾x11¾ | 10x12 | ..... | 42 | 53 | 22,260 | S4S | Long leaf yellow pine dense merchantable. |
| 127C | 38.20 | .....do..... | 9¾x11¾ | 10x12 | ..... | 40 | 9 | 3,600 | S4S | Do. |
| 127D | 27.36 | .....do..... | 9¾x11¾ | 10x12 | ..... | 24 | 1 | 240 | S4S | Do. |

*Timber schedule for standard wood steamship—Gulf and Atlantic coast*—Continued.

| Item. | Item prices. | Part. | Net size. | Gross size. | Linear feet. | Length. | Number of pieces. | Gross footage. | Finish. | Species and grade. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | *Inches.* | *Inches.* | | *Feet.* | | *Ft. b. m.* | | |
| 127E | $24.63 | Bulkheads..... | 9¾x11¾ | 10x12 | ..... | 20 | 17 | 3,400 | S4S | Long leaf yellow pine, dense merchantable. |
| 127F | 24.63 | .....do..... | 9¾x11¾ | 10x12 | ..... | 18 | 14 | 2,520 | S4S | Do. |
| 127G | 24.63 | .....do..... | 9¾x11¾ | 10x12 | ..... | 16 | 14 | 2,240 | S4S | Do. |
| 128 | 27.37 | Deck carlings..... | 2¾x5¾ | 3x6 | ..... | 17 | 10 | 255 | S4S | Do. |
| 129 | 27.37 | .....do..... | 2¾x5¾ | 3x6 | ..... | 24 | 56 | 2,016 | S4S | Do. |
| 130 | 36.50 | Bridge, poop, and forecastle ceiling. | 2¾x5¾ | 3x6 | 2,000 | 20 to 40 av., 30 | ..... | 3,000 | S4S | Long leaf yellow pine (square edged), dense merchantable. |
| 131 | 27.37 | Upper house carlings.. | 2¾x4¾ | 3x5 | ..... | 20 | 60 | 1,500 | S4S | Long leaf yellow pine, dense merchantable. |
| 132 | 27.37 | Sills and plates..... | 2¾x4¾ | 3x5 | 100 | 20 to 30 av., 24 | ..... | 125 | S4S | Do. |
| 133 | 27.37 | Pilot-house carlings... | 2¾x3¾ | 3x4 | ..... | 16 | 15 | 240 | S4S | Do. |
| 134A | 65.62 | Planking, poop, bridge, forecastle, and bulwark. | 3½x7½ | 4x8 | 600 | 24 to 40 av., 32 | ..... | 1,600 | S4S | Long leaf yellow pine (square edged), dense (see rule 3). |
| 134B | 65.62 | .....do ..... | 3½x6½ | 4x7 | 814 | 24 to 40 av., 32 | ..... | 1,900 | S4S | Do. |
| 134C | 65.62 | .....do..... | 3½x5½ | 4x6 | 3,900 | 24 to 40 av., 32 | ..... | 7,800 | S4S | Do. |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 135 | 27.37 | Studding | 2¾x2¾ | 3x3 | ..... | 7 | 29 | 152 | S4S | Long leaf yellow pine, dense merchantable. |
| 136 | 65.62 | Poop, bridge, and forecastle decking. | ..... | 3¼x3¼ | 28,000 | 16 and up, av., 26 | ..... | 24,646 | Rough | Long leaf yellow pine (square edged), dense (see rule 3). |
| 137 | 23.72 | Engine and boiler hatch planking. | 1¾x5¾ | 2x6 | 1,800 | 12 to 24 av., 16 | ..... | 1,800 | S4S | Long leaf yellow pine (square edged), dense merchantable. |
| 138 | 25.72 | Bridge house and aft house planking. | 1¾x5¾ | 2x6 | 4,500 | 20 to 30 av., 24 | ..... | 4,500 | S4S | Do. |
| 139 | 25.72 | Coal chute | 1¾x5¾ | 2x6 | 450 | 20 to 30 av., 24 | ..... | 450 | S4S | Long leaf yellow pine, dense merchantable. |
| 140 | ..... | (Omitted.) | | | | | | | | |
| 141 | 30.11 | Coal bunkers | 1 5/16x5¼ | 1½x6 | [1] 4,000 | 12 and up. | ..... | 6,768 | D.&M. | Long leaf yellow pine, No. 1 common. |
| 142 | 50.19 | House decking | 1 1/16x3¼ | 1¼x4 | [1] 6,000 | 12 and up. | ..... | 8,910 | S2SCM. | Long leaf yellow pine, A edge grain flooring. |
| 143 | 36.50 | House sheathing, outside. | 13/16x5¼ | 1x6 | [1] 2,000 | 12 and up. | ..... | 2,250 | D.&M. | Long leaf yellow pine, A finish. |
| 144 | 36.50 | House sheathing, inside. | 13/16x5¼ | 1x6 | [1] 6,000 | 12 and up. | ..... | 6,750 | D.&M. | Do. |

[1] Square feet.

Total gross footage of yellow pine ..... 1,544,107

*Timber schedule for standard wood steamship—Gulf and Atlantic coast*—Continued.

| Item. | Item prices. | Part. | Net size. | Gross size. | Linear feet. | Length. | Number of pieces. | Gross footage. | Finish. | Species and grade. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | *Inches.* | *Inches.* | | *Feet.* | | *Ft. b. m.* | | |
| 145 | ..... | Rudder stock | ..... | 20x20 | ..... | 30 | 1 | 1,000 | Rough | White oak, all heart, highest structural grade. |
| 146 | ..... | Rudder post | ..... | 16x18 | ..... | 34 | 1 | 816 | Rough | White oak, selected structural. |
| 147 | ..... | Sternpost | ..... | 14x20 | ..... | 30 | 4 | 2,800 | Rough | Do. |
| 148 | ..... | Shaft log | ..... | 14x18 | ..... | 12 | 4 | 1,008 | Rough | Do. |
| 149 | ..... | Horn timbers | ..... | 12x24 | ..... | 34 | 2 | 1,632 | Rough | Do. |
| 150 | ..... | Forecastle and poop deck chock rails. | ..... | 6x8 | 180 | 12 and up. | ..... | 720 | Rough | Do. |
| 151 | ..... | Keel shoe | ..... | 3x16 | ..... | 20 | 14 | 1,120 | Rough | Do. |
| 152 | ..... | Stem grips | ..... | 16x36 | ..... | 11 | 1 | 528 | Rough | Do. |

Total gross footage of white oak ..... 9,624

| Item. | Item prices. | Part. | Net size. | Gross size. | Linear feet. | Length. | Number of pieces. | Gross footage. | Finish. | Species and grade. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | *Inches.* | *Inches.* | | *Feet.* | | *Ft. b. m.* | | |
| 153 to 158 | ..... | Knees. (See detail plan of knees with schedule accompanying the sketches of the knees.) | ..... | ..... | ..... | ..... | ..... | ..... | ..... | Hackmatack or tamarack, white oak, live oak, cypress, spruce, white cedar, western red cedar, Douglas fir, high-grade juniper. |
| | | Treenails..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | Black or yellow locust, iron bark, bois de arc, or live oak. |

The number, diameter, and length of treenails are to be in accordance with detail construction and fastening plans. The American Bureau of Shipping or their local surveyors should be consulted as to the necessary finished diameters of the different treenails, some of which will have to be tapered or made in two drifts.

Mold material: 4,000 linear feet of white pine or select common cypress, 1 by 12 inches, in lengths of 14 to 16 feet, surfaced two sides.