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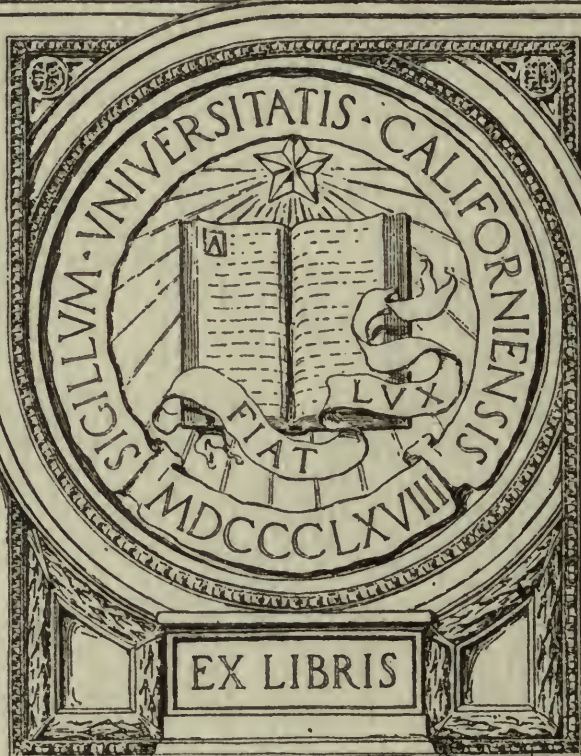
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TIMBER SCHEDULE AND
SPECIFICATIONS

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

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EMERGENCY FLEET CORPORATION

TIMBER SCHEDULE AND
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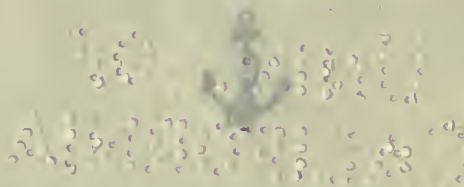
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SPECIFICATIONS

FOR

STANDARD WOOD STEAMSHIP

GULF AND ATLANTIC COAST
LARGELY SOUTHERN YELLOW PINE

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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 ship-builders, 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.

TIMBER SCHEDULE AND SPECIFICATIONS

1918

STANDARD WOOD SPECIFICATIONS, GUYANA AND ATLANTIC COAST.

GENERAL EXPLANATION.

The schedule has been drafted for the information and guidance of timber-merchants, contractors, and others, and contains the general schedule of timber to be used in the construction of wooden vessels on the East 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 vessel. Builders may find it necessary to purchase additional timbers in order to complete the construction of the vessel in accordance with the provisions of the schedule.

The purchase and possession of timber under this schedule will be regulated by the following provisions:

1. The purchase of timber shall be made at the time when the vessel is constructed.

Approved January 1, 1918.

United States Marine Board

Executive Board

Charles J. Fox

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" long-leaf 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 ship-builders 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 fitches, 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, dead-woods, 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 $1\frac{1}{4}$ by 26 inches, can be manufactured from $1\frac{1}{2}$ by $1\frac{1}{2}$ by 26 inches rough dimension stock. Amount of lumber in each piece is 0.405 board foot.

Treenails, finished size $1\frac{3}{8}$ by 32 inches, can be made from $1\frac{1}{2}$ by $1\frac{1}{2}$ by 32 inches rough dimension stock, each piece containing $\frac{1}{2}$ board foot.

Treenails, finished size $1\frac{3}{8}$ by 36 inches, can be made from $1\frac{1}{2}$ by $1\frac{1}{2}$ 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 fitches, 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.
1	\$36.50	Rudder blade.....	Inches.	Inches. 16x18	.....	Feet. 20	1	<i>Fl. b. m.</i> 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	1,773	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	1,200	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.	13½x13½	14x14	.....	16	8	2, 091	S4S	Do.
23	29. 20	Hatch strongbacks.....	13½x13½	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.....	13½x13½	14x14	.....	21	1	343	S4S	Do.
27	31. 94	.....do.....	13½x13½	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.	13½x13½	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.....	13½x13½	14x14	3, 600	30 to 50 av., 40	.....	58, 800	S4S	Do.
33A	31. 94	Engine foundation keelsons.	13½x13½	14x14	.....	24	2	784	S4S	Do.
33B	31. 94	.....do.....	13½x13½	14x14	.....	28	2	915	S4S	Do.
33C	38. 32	.....do.....	13½x13½	14x14	.....	30	11	5, 389	S4S	Do.
33D	41. 97	.....do.....	13½x13½	14x14	.....	36	1	588	S4S	Do.
33E	45. 62	.....do.....	13½x13½	14x14	.....	45	1	735	S4S	Do.
33F	31. 94	.....do.....	9½x13½	10x14	.....	24	2	560	S4S	Do.
34	50. 19	Main keelsons.....	13½x13½	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.	Num-ber of pieces.	Gross footage.	Finish.	Species and grade.
35B	\$100. 00	Frames.....	Inches.	Inches. 12x32	.....	Feet.	22	<i>Fl. b. m.</i> 5, 632	Rough	Long leaf yellow pine, dense mer-chantable (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.	Num-ber of pieces.	Gross footage.	Finish.	Species and grade.
39E	\$31.93	Frames.....	Inches.	Inches. 12x16.....	.....	Feet 18	14	Fl. b. m. 4, 032	Rough	Long leaf yellow pine, dense mer-chantable (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	24 to 40 av., 32	.....	42, 000	Rough	Do.
57	42. 89	Shelf timbers	12x14	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	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	12x12	24 to 40 av., 32	.....	6, 000	S4S...	Do.
65	40. 15	Shelf timbers	12x12	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.
66B	\$24. 63	Cant frames.....	Inches.	Inches. 10x12.....	.....	Feet. 10.....	32	<i>Ft. b. m.</i> 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..	9½x13¾	10x14.....	.....	40	14	6, 533	S1S2E	Long leaf yellow pine (square edged), dense merchantable (see rule 20).
70	41. 97	Girder keelsons.....	9½x13¾	10x14.....	.....	45	12	6, 300	S4S	Long leaf yellow pine, dense merchantable.
71	26. 46	Hatch strongbacks.....	9½x11¾	10x12.....	.....	17	4	680	S4S	Do.
72	24. 64	Headers.....	9½x11¾	10x12.....	.....	20	4	800	S4S	Do.
73	28. 29	Hatch strongbacks.....	9½x11¾	10x12.....	.....	21	2	420	S4S	Do.
74	29. 20	.....do.....	9½x11¾	10x12.....	.....	25	2	500	S4S	Do.
75	32. 84	Side ceiling.....	10 x11¾	10x12.....	8, 000	24 to 40	.....	80, 000	S2E	Do.
						av., 32				

76	40. 15	Shelf timbers.....	9½x11½	10x12	2, 200	30 to 50 av., 40	.....	22, 000	S4S	Do.
77	22. 81	Girder timbers and hatch coamings.	9½x9½	10x10	.....	16	8	1, 067	S4S	Do.
78	24. 64	.....do.....	9½x9½	10x10	.....	24	8	1, 600	S4S	Do.
79	36. 50	Poop, bridge, and fore-castle deck beams.	.....	10x10	.....	45	6	2, 250	Rough	Do.
80	91. 25	Forecastle and poop deck plank-shear.	7½x26	8x26	.....	20	14	4, 853	S2S	Do.
81	35. 59	Poop, bridge, and fore-castle deck plank-shear.	7½x13½	8x14	320	24 to 40 av., 32	.....	2, 986	S4S	Do.
82	38. 32	Planking, garboards....	7½x13½	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.....	7½x13½	8x14	.....	45	20	8, 400	S4S	Long leaf yellow pine, dense merchantable.
84	32. 84	Bulkhead studding...	7½x11½	8x12	500	24 to 40 av., 32	.....	4, 000	S4S	Do.
85	24. 63	.....do.....	11½x11½	12x12	.....	20	10	2, 400	S4S	Do.
86	.....	(Omitted.)								
87	32. 84	Floor ceiling.....	8x11½	8x12	6, 700	24 to 40 av., 32	.....	53, 600	S2E	Do.
88	24. 64	Sills and plates.....	7½x9½	8x10	200	20 to 30 av., 24	.....	1, 333	S4S	Do.
89	21. 90	Sills.....	7½x7½	8x8	.....	20	6	640	S4S	Do.
90	23. 72	Poop, bridge, and fore-castle deck beams.	6½x9½	7x10	.....	17	16	1, 587	S4S	Do.
91	24. 64	.....do.....	6½x9½	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.
92	\$31.94	Poop, bridge, and fore-castle deck beams.	<i>Inches.</i> 6½x9½	<i>Inches.</i> 7x10	.....	<i>Feet.</i> 38	15	<i>Ft. b. m.</i> 3,325	S4S	Long leaf yellow pine, dense merchantable.
93	36.50	.....do.....	6½x9½	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.....	6x13½	6½x14	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.....	5½x9½	6x10	250	20 to 30 av., 24	.....	1,250	S4S	Long leaf yellow pine, dense merchantable.
97	35.20	Planking, bilge.....	6x9½	6½x10	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.....	9½x11½	10x12	1,600	24 to 40 av., 32	.....	16,000	S4S	Long leaf yellow pine, dense merchantable.

99	35. 20	Planking, topside.....	6x8½	6½x9	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.....	5½x7½	6x8	.....	8	60	1, 920	S4S	Long leaf yellow pine, dense mer- chantable.
101	22. 81	Sills and plates.....	5½x7½	6x8	250	20 to 30 av., 24	.....	1, 000	S4S	Do.
102	31. 00	Poop, bridge, and fore- castle 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 fore- castle decks, shelf.	.....	6x8	320	24 to 40 av., 32	.....	1, 280	Rough	Long leaf yellow pine, dense mer- chantable.
104	21. 90	Studding.....	5½x5½	6x6	.....	7	40	840	S4S	Do.
105	22. 81	Sills and plates.....	5½x5½	6x6	200	20 to 30 av., 24	.....	600	S4S	Do.
106	31. 00	Planking, bead streak.	6x6	6½x6½	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.	5x13½	5½x14	10, 000	24 to 40 av., 32	.....	61, 252	S1S2E	Do.
108	46. 50	Planking, p o p , bridge, and fore- castle.	5x13½	5½x14	400	24 to 40 av., 32	.....	2, 450	S1S2E	Do.
109	32. 84	Poop, bridge, and forecastle clamps.	4½x11½	5x12	1, 000	24 to 40 av., 32	.....	5, 000	S4S	Long leaf yellow pine, dense mer- chantable.

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.
110	\$37.02	Planking, bottom and side.	Inches. 5x9 $\frac{1}{2}$	Inches. 5 $\frac{1}{2}$ x10	5,800	Feet. 24 to 40 av., 32	.....	<i>Ft. b. m.</i> 25,374	S1S2E	Long leaf yellow pine (square edged), dense (see rules 3 and 20).
111	35.20	.....do.....	5x8 $\frac{1}{2}$	5 $\frac{1}{2}$ x9	5,800	24 to 40 av., 32	.....	22,836	S1S2E	Do.
112	34.20	.....do.....	5x7 $\frac{1}{2}$	5 $\frac{1}{2}$ x8	4,000	24 to 40 av., 32	.....	14,002	S1S2E	Do.
113	29.20	Poop, bridge, and fore-castle decks, shelf.	4 $\frac{3}{4}$ x7 $\frac{1}{2}$	5x8	650	24 to 40 av., 32	.....	2,166	S4S	Long leaf yellow pine, dense merchantable.
114	22.81	Sills and plates.....	4 $\frac{3}{4}$ x4 $\frac{3}{4}$	5x5	400	20 to 30 av., 24	.....	833	S4S	Do.
115	37.02	Planking, bulwarks...	4x9 $\frac{1}{2}$	4 $\frac{1}{2}$ x10	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.....	3 $\frac{3}{4}$ x9 $\frac{1}{2}$	4x10	800	24 to 40 av., 32	.....	2,667	S4S	Long leaf yellow pine, dense merchantable.
117	27.37	Ends of erections, bulkheads.	3 $\frac{3}{4}$ x7 $\frac{1}{2}$	4x8	2,000	20 to 40 av., 26	.....	5,333	S4S	Do.

118	36. 94	Planking, bulwarks..	4x7½	4½x8	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.....	3½x5½	4x6	350	20 to 30 av., 24	700	S4S	Long leaf yellow pine, dense mer- chantable.
120	24. 64	Studding.....	3½x3½	4x4	.....	7	64	S4S	Do.
121	27. 37	.....do.....	3½x3½	4x4	.....	28	60	S4S	Do.
122	56. 50	Upper decking.....	.....	4½x4½	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.	.....	4½x4½	2,000	16 and up, av., 26	3,010	Rough	Do.
124	27. 37	Hatch covers.....	2½x7½ to 15½	3x8 to 16 av., 12	2,400	14 and up.	7,200	S4S	Long leaf yellow pine, dense mer- chantable.
125	45. 00	Timber for pointers and riders.	3¾x13¾	4x14	1,500	24 to 40	7,000	S4S	Do.
126	27. 37	Cross spalls.....	.....	3x8	.....	24	400	Rough	Do.
127A	31. 00	Bulkheads.....	2½x7½	3x8	4,000	20 to 40 av., 32	8,000	S4S	Long leaf yellow pine (square edged), dense merchantable.
127B	38. 20	.....do.....	9½x11½	10x12	.....	42	53	S4S	Long leaf yellow pine dense mer- chantable.
127C	38. 20	.....do.....	9½x11½	10x12	.....	40	9	S4S	Do.
127D	27. 36	.....do.....	9½x11½	10x12	.....	24	1	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.
127E	\$24. 63	Bulkheads.....	Inches. 9½x11½	Inches. 10x12	.....	Feet. 20	17	<i>Ft. b. m.</i> 3, 400	S4S	Long leaf yellow pine, dense merchantable.
127F	24. 63	.....do.....	9½x11½	10x12	.....	18	14	2, 520	S4S	Do.
127G	24. 63	.....do.....	9½x11½	10x12	.....	16	14	2, 240	S4S	Do.
128	27. 37	Deck carlings.....	2½x5½	3x6	.....	17	10	255	S4S	Do.
129	27. 37	.....do.....	2½x5½	3x6	.....	24	56	2, 016	S4S	Do.
130	36. 50	Bridge, poop, and fore-castle ceiling.	2½x5½	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..	2½x4½	3x5	.....	20	60	1, 500	S4S	Long leaf yellow pine, dense merchantable.
132	27. 37	Sills and plates.....	2½x4½	3x5	100	20 to 30 av., 24	.....	125	S4S	Do.
133	27. 37	Pilot-house carlings....	2½x3½	3x4	.....	16	15	240	S4S	Do.
134A	65. 62	Plan king, poop, bridge, fore-castle, 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.

STANDARD WOOD STEAMSHIP.

135	27. 37	Studding.....	2½x2½	3x3	.....	7	29	152	S4S	Long leaf yellow pine, dense merchantable.
136	65. 62	Poop, bridge, and fore-castle decking.	.....	3½x3½	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.	1½x5½	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.	1½x5½	2x6	4, 500	20 to 30 av., 24	.....	4, 500	S4S	Do.
139	25. 72	Coal chute.....	1½x5½	2x6	450	20 to 30 av., 24	.....	450	S4S	Long leaf yellow pine, dense merchantable.
140	.....	(Omitted.)	.....	.....	.....	.....	.....	.....	.....	.....
141	30. 11	Coal bunkers.....	1½x5½	1½x6	14, 000	12 and up.	.....	6, 768	D.&M.	Long leaf yellow pine, No. 1 common.
142	50. 19	House decking.....	1½x3½	1½x4	16, 000	12 and up.	.....	8, 910	S2SCM.	Long leaf yellow pine, A edge grain flooring.
143	36. 50	House sheathing, outside.	1½x5½	1x6	12, 000	12 and up.	.....	2, 250	D.&M.	Long leaf yellow pine, A finish.
144	36. 50	House sheathing, inside.	1½x5½	1x6	16, 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.	Num-ber of pieces.	Gross footage.	Finish.	Species and grade.
145	Rudder stock.....	Inches.....	Inches. 20x20.....	.....	<i>Feet.</i> 30.....	1	<i>Fl. b. m.</i> 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.
			<i>Inches.</i>	<i>Inches.</i>		<i>Feet.</i>		<i>Tt. b. m.</i>		
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.



Project description and objectives

Item	Unit	Quantity	Value	Notes
1. Personnel	Person	10	1000	Project staff
2. Materials	kg	500	5000	Raw materials
3. Equipment	Unit	5	15000	Specialized machinery
4. Fuel	Liter	2000	20000	Operational fuel
5. Transport	km	10000	100000	Logistics costs
6. Maintenance	Hour	500	5000	Equipment upkeep
7. Office Supplies	Box	100	1000	Administrative needs
8. Travel	Day	20	20000	Field research expenses
9. Miscellaneous	Item	50	5000	Various small items
Total			100000	

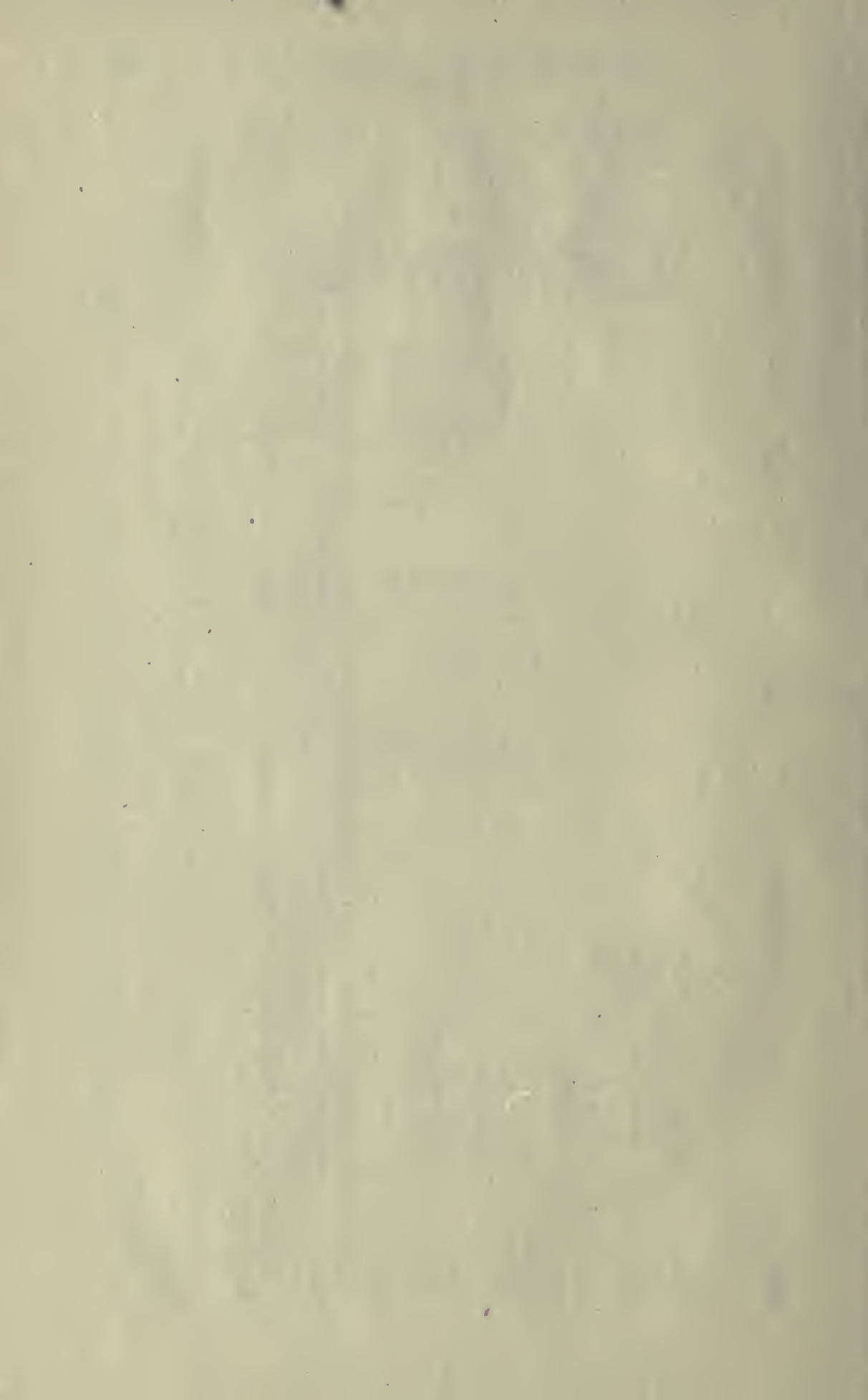
Project start date

Detailed description of the project activities, including a timeline and key milestones.

Financial summary and budget breakdown, including income and expenses.

Operational details, including equipment specifications and personnel assignments.

Concluding remarks, project status, and recommendations for future work.



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