

Nos 249-50-51.

MIDSHIP SECTION.

SCALE 1/2 INCH TO ONE FOOT.

PRINCIPAL DIMENSIONS:-

LENGTH BETWEEN P.P.	445'-0"
BREADTH MOULDED	58'-0"
DEPTH	34'-0"

SCANTLING NUMBERS:-

BREADTH	58.00
DEPTH	34.00
TRANSVERSE NUMBER	92.00
LENGTH	445.00
LONGITUDINAL NUMBER	4094.00

$d = 20' - 4\frac{1}{2}"$
 HALF EXCESS OF HEIGHT OF TANK
 SIDE BRACKET AT 36" SPACING
 FOR FRAME

$d = 20' - 4\frac{1}{2}"$
 HALF EXCESS OF HEIGHT OF TANK
 SIDE BRACKET AT 27" SPACING
 FOR FRAME

PROPORTIONS

LENGTH TO DEPTH (TO UPPER DE)	13.09
" " " (TO BRIDGE DE)	10.60
" " BREADTH	7.69

LLOYD'S CLASS 100 A.1

STEM:- 11x28" ROLLED STEEL.
 STERN POST 9'x4" CAST STEEL AS PER PLAN.

RUDDER:- FORGED STEEL SINGLE PLATE SYSTEM AS PER PLAN.

FRAMING:-
 SPACING 36" APART FROM AFT PEAK B^{MD} TO 3/4 L^W FORWARD.
 27" " " 3/4 L^W FORWARD TO COLLISION B^{MD}.
 24" " " IN PEAKS.

FRAMES IN PEAKS:- MAIN FRAMES 8'x3 1/2"x44" B.A.
 INTERMEDIATE FRAMES 6'x3 1/2"x44" B.A.
 D² IN WAY OF TUNNEL RECESS MAIN FRAMES 11'x3 1/2"x56" B.A.
 INTERMEDIATE FRAMES 7'x3 1/2"x44" B.A.
 D² AT 27" SPACING:- MAIN FRAMES 11'x3 1/2"x60" B.A.
 INTERMEDIATE FRAMES 7'x3 1/2"x44" B.A.
 D² OTHERWISE MAIN FRAMES 12'x3 1/2"x68" B.A.
 D² IN WAY OF DEEPTANK AS PER PROFILE.
 INTERMEDIATE FRAMES 7'x3 1/2"x44" B.A.
 EXTENSION OF MAIN FRAME:-

INWAY OF CLE:- TO EXTEND TO F¹CLE D² AND 2ND D².
 OTHERWISE:- TO EXTEND TO UPPER D² & 2ND D² ALTERNATELY.
 EXCEPT AT ENDS OF BRIDGE AND IN AFTER PEAK WHERE TO U.D.
 WEB FRAMES IN WAY OF MACHINERY SPACE, DEEPTANK & AFT
 & AFT ENDS AS PER PROFILE.
 WEBS IN WAY OF BRIDGE AS PER PROFILE.

W.T. BULKHEADS:-
 SEVEN IN NUMBER, ALL EXTENDING TO UPPER D².
 VERTICAL STIFFENERS TO BE SPACED 30" APART THROUGHOUT EXCEPT
 COLLISION B^{MD} AFT PEAK B^{MD} INWAY OF TANK & DEEP TANK B^{MD}.
 WHERE 24" APART.
 BRACKET PLATE TO BE FITTED AT HEADS & HEELS OF ALL
 VERTICAL STIFFENERS EXCEPT IN TWEEN D².
 BULKHEAD IN HOLD.

FRAME NO.	THICKNESS OF PLATE	CONNECTING ANGLE	VERTICAL STIFFENERS	SPACING
1	36" AT 2 ND D ²	4"x4"x40"	6"x6"x56"	24"
2	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
3	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
4	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
5	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
6	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
7	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
8	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
9	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
10	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
11	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
12	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
13	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
14	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
15	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
16	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
17	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
18	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
19	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
20	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
21	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
22	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
23	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
24	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
25	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
26	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
27	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
28	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
29	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
30	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
31	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
32	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
33	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
34	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
35	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
36	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
37	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
38	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
39	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
40	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
41	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
42	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
43	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
44	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
45	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
46	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
47	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
48	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
49	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
50	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
51	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
52	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
53	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
54	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
55	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
56	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
57	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
58	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
59	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
60	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
61	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
62	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
63	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
64	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
65	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
66	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
67	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
68	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
69	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
70	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
71	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
72	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
73	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
74	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
75	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
76	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
77	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
78	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
79	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
80	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
81	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
82	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
83	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
84	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
85	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
86	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
87	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
88	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
89	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
90	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
91	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
92	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
93	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
94	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
95	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
96	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
97	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
98	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
99	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"
100	36" AT 2 ND D ²	4"x4"x38"	5"x5"x54"	24"

COLLISION B^{MD} (FNS 150) ADDITIONALLY STIFFENED AS PER
 W.T. B^{MD} PLAN.
 ALL TWEEN D² B^{MD} 1-PLATE 30" WITH STIFFENERS 5'x3'x34" ANGLE
 OR 6 1/2" FLANGE, SPACED 30" APART EXCEPT COLLISION B^{MD}
 WHERE 24" APART.

FRESH WATER TANK B^{MD}:-
 38" AT BOTTOM & 36" AT TOP WITH STIFFENERS 6 1/2'x3'x46" B.A.
 SPACED 25" APART & BRACKETED AT HEADS & HEELS & WITH HOR. STIFFENER
 AS PER PLAN.
 BRIDGE FRONT B^{MD} PLATE 40" COAMING 44" WITH STIFFENERS
 8'x3 1/2'x64" B.A. SPACED 30" APART & BRACKETED AT HEADS
 & HEELS.

POOP FRONT B^{MD} PLATE 40" COAMING 44" WITH STIFFENERS
 7'x3 1/2'x40" ANGLE SPACED 30" APART & BRACKETED AT
 HEADS & HEELS.
 SHAFT TUNNEL:- PLATE 38" 48" INWAY OF HATCHWAY WITH
 STIFFENERS 4'x4'x50" ANGLE SPACED 4'x7" EXCEPT INWAY OF
 HATCHWAY WHERE 3'x10" APART, STIFFENERS IN DEEPTANK 8 1/2'x3'x40"
 B.A. ANGLE SPACED 36" APART & BRACKETED AT HEELS.

TRANSOM PLATE 50"
 FLOOR PLATE IN PEAKS 40"

CENTRE GIRDER:-
 46'x56" FOR 1/2 L^W 46" AT ENDS
 62" IN B. SPACE, BUTT LAPPED
 TREBLE RIVETED ALL FORE &
 AFT.

SIDE GIRDERS:-
 2 IN NUMBER 42" FOR 1/2 L^W
 38" AT ENDS 57" IN B. SPACE
 TO BE FLANGED ON TOP 3 1/2"
 FAYING SURFACE.

ADDITIONAL SIDE GIRDER IN E. SPACE
 2 IN NUMBER ON EACH SIDE

FLAT KEEL PLATE 49'x12" FOR 1/2 L^W
 78" AT ENDS, BUTT DOUBLE STRAPS
 TREBLE RIVETED FOR 1/2 L^W & BUTT LAPPED
 QUADRUPLE RIVETED AT ENDS

80" FOR 1/2 L^W TO 58"
 AT 36" SPACING & TO
 50" AT 24" SPACING

80" FOR 1/2 L^W TO 58"
 AT 36" SPACING & TO
 50" AT 24" SPACING

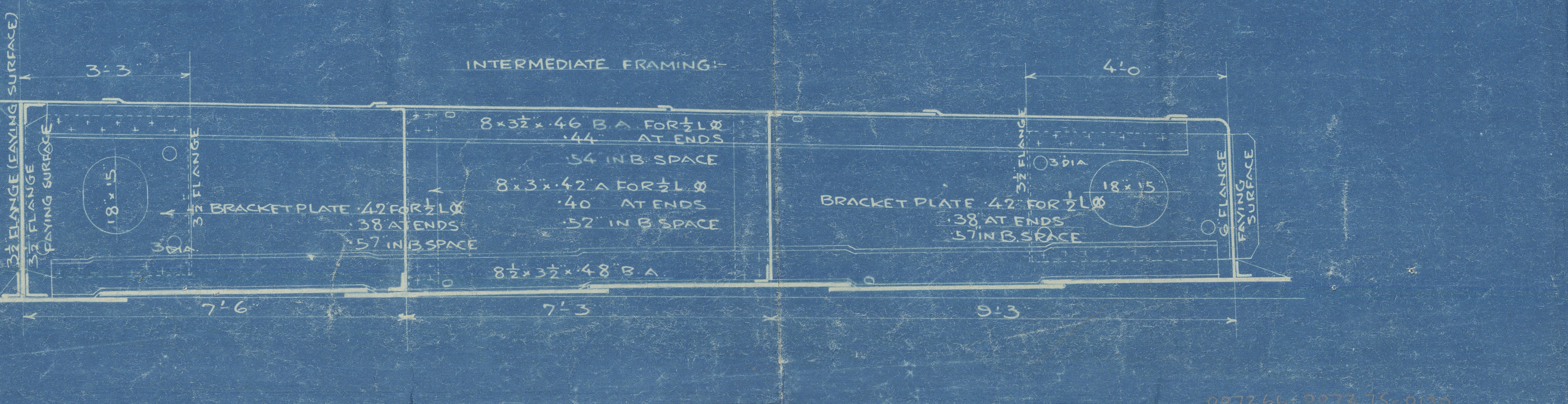
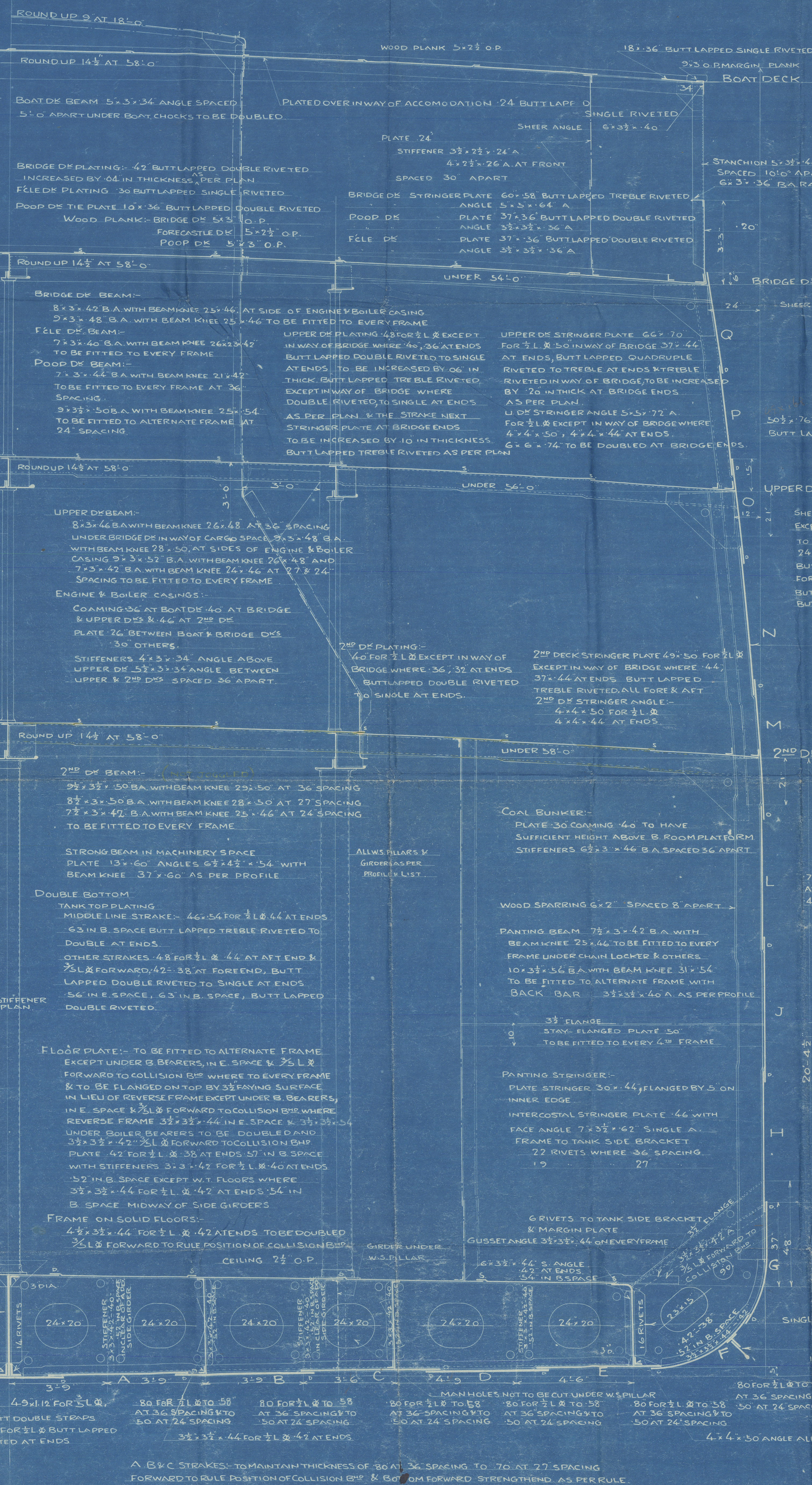
80" FOR 1/2 L^W TO 58"
 AT 36" SPACING & TO
 50" AT 24" SPACING

80" FOR 1/2 L^W TO 58"
 AT 36" SPACING & TO
 50" AT 24" SPACING

80" FOR 1/2 L^W TO 58"
 AT 36" SPACING & TO
 50" AT 24" SPACING

80" FOR 1/2 L^W TO 58"
 AT 36" SPACING & TO
 50" AT 24" SPACING

80" FOR 1/2 L^W TO 58"
 AT 36" SPACING & TO
 50" AT 24" SPACING



EQUIPMENT NUMBER

(B+D) x L	= 4094000
ERECTATIONS 1/2 (138x8+3775+3475)x775	= 124941
D ² HOUSE 1/2 (95x775)	= 36813
TOTAL	4259754

EQUIPMENTS

3 BOWER ANCHORS (STOCKLESS)	73 1/2 CWT EACH
1 STREAM ANCHOR (ORDINARY)	20 1/2 CWT EX STOCK
1 KEDGE	9 CWT
STUD CHAIN CABLE	300 FMS 2 3/8"
STEEL WIRE (FOR STREAM)	120 " 5"
" " (TOWLINE)	130 " 5 1/2"
2 " " (HAWERS)	100 " 2 3/4 EACH
2 " " (WARPS)	100 FMS 3 1/4 EACH

POOP DECK SIDE PLATING 40"
 FILE DECK 42"
 BUTT LAPPED DOUBLE RIVETED
 SEAM SINGLE RIVETED

BULWARK PLATE 25'x78" AT BREAKS OF BRIDGE
 STAY 6'x30" BULB PLATE SPACED NOT
 MORE THAN 6'0" APART & 5'0" APART FROM ENDS
 OF BRIDGE
 RAIL 6'x3'x36" B.A.

50 1/2'x76" 78" AT ENDS OF BRIDGE
 BUTT LAPPED QUADRUPLE RIVETED

DOUBLE STRINGER ANGLES
 6'x6'x74" FOR ABOUT 10'0"
 LONG AT BRIDGE ENDS EACH WAY

SHEER STRAKE 49'x80" BUTT LAPPED QUADRUPLE RIVETED

EXCEPT INWAY OF BRIDGE WHERE 76"
 TO 52" AT 36" SPACING & TO 48" AT
 24" SPACING, DOUBLED AT BRIDGE ENDS
 BUTT LAPPED QUINUPLE RIVETED
 FOR 1/2 L^W EXCEPT INWAY OF BRIDGE WHERE
 BUTT LAPPED QUADRUPLE RIVETED
 BUTT LAPPED QUADRUPLE RIVETED TO TREBLE AT ENDS

6 1/2'x100" FOR 1/2 L^W 102" AT BRIDGE ENDS,
 76" INWAY OF BRIDGE TO 54" AT 36" SPACING
 & TO 48" AT 24" SPACING, BUTT LAPPED
 QUINUPLE RIVETED FOR 1/2 L^W EXCEPT INWAY OF
 BRIDGE WHERE BUTT LAPPED QUADRUPLE
 RIVETED, BUTT LAPPED QUADRUPLE RIVETED
 TO TREBLE AT ENDS

76" FOR 1/2 L^W TO 54"
 AT 36" SPACING &

Section (as built)

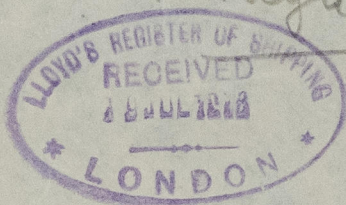
N^o 250

Y. S. S. Yuruga Maru

Rept. N^o 1069

Nagasaki

Yuruga Maru



Y. S. S. Yuruga Maru



© 2021

Lloyd's Register
Foundation

007266-007275-0130