

MIDSHIP SECTION

S.S. "HARTLEBURY"

SCALE 1/2" = ONE FOOT.

TO CLASS 100 A.1. AT LLOYDS SPECIAL SURVEY.
DIMENSIONS:- 415'-0" B.P. x 56'-3" EXT. x 56'-0" MLD. x 27'-3" MLD. TO UPPER PK.



FIRST LONGITUDINAL NUMBER $L \times D = 415.0 \times 27.25 = 11308.75$
SECOND LONGITUDINAL NUMBER $L \times (B+D) = 415.0 \times (56.0 + 27.25) = 34548.75$
PROPORTION L/D TO UPPER DECK = $415.0 \div 27.25 = 15.23$
PROPORTION L/D TO BRIDGE DECK = $415.0 \div 36.75 = 11.29$
D = MOULDED DEPTH = 27.25
d = 27.25 - (3.83 x 33 EXTRA HEIGHT WING BKT) = 23.09
ELECTIONS = 84.30%

EQUIPMENT NUMBER
SECOND LONGITUDINAL NUMBER $L \times (B+D) = 34548.75$
POOP $38.83 \times 8.5 \times 3/4 = 247.54$
BRIDGE $270.04 \times 9.5 \times 3/4 = 1966.78$
FORECASTLE $36.00 \times 8.5 \times 3/4 = 229.50$
SIDEHOUSES & CASING $67.0 \times 8.0 \times 1/2 = 268.00$
SALOON HOUSE $29.5 \times 8.0 \times 1/2 = 118.00$
CAPTAIN'S HOUSE $24.0 \times 8.0 \times 1/2 = 96.00$
HOUSE ON POOP DECK $32.0 \times 7.5 \times 1/2 = 120.00$
EQUIPMENT NUMBER = 37594.57

EQUIPMENT
2 BOWER ANCHORS 65% CWT'S EACH STOCKLESS
1 BOWER ANCHOR 54% CWT'S STOCKLESS
1 STREAM ANCHOR 17 1/2 CWT'S EX-STEEL
270 FATHOMS 2 7/8" STUD CHAIN CABLE 600% CWT'S
90 FATHOMS 1 7/8" STREAM CHAIN OR 4 3/4" FLEX STEEL WIRE 6-12
120 FATHOMS 5 FLEX STEEL WIRE 6-12
2 HAWKERS 90 FATHOMS 8 HEMP OR 2 1/2" FLEX STEEL WIRE 6-12
2 WARPS 90 FATHOMS 7 HEMP OR 2 1/2" FLEX STEEL WIRE 6-12

RIVETING NOTE

RIVETS IN FRAMES TO FLOORS AND CROSS-TIE PLATES IN AFT PEAK SPACED 5 DIAM. APART C² TO C².
RIVETS IN FRAMES TO SHELL AT FLAT OF DOUBLE BOTTOM FORWARD HALF LENGTH FORWARD SPACED 5 1/2 DIAM. (TWO COMPLETE ROWS)
RIVETS IN FRAMES TO FLOORS AT FLAT OF DOUBLE BOTTOM FORWARD HALF LENGTH FORWARD SPACED 6 1/4 DIAM. (TWO COMPLETE ROWS)
RIVETS IN SIDE FRAMES TO SHELL SPACED 7 DIAM. APART, 5 1/2 DIAM. APART IN WAY OF FORE AND AFT PEAK TANKS
AND DEEP FRAMING FORWARD.
RIVETS IN BOTTOM FRAMES TO SHELL AFT HALF LENGTH FORWARD SPACED 7 DIAM. C² TO C².
RIVETS IN 3 R. BUTTS OF OUTSIDE PLATING AND OF DECK STRINGER PLATES SPACED 3 1/2 DIAM. APART C² TO C².
RIVETS IN 4 R. BUTTS OF OUTSIDE PLATING AND OF DECK STRINGER PLATES SPACED 4 DIAM. APART C² TO C².
RIVETS IN SEAMS OF SHELL PLATING, DECK PLATING AND INNER BOTTOM PLATING AS PER TABLE 40.
RIVETS IN BUTTS OF DECK PLATING, INNER BOTTOM AND MARGIN PLATING SPACED 4 DIAM. APART C² TO C².
RIVETS IN SEAMS AND BUTTS OF BULKHEAD AND TUNNEL PLATING, MARGIN ANGLES AND WEATHER DECK STRINGER ANGLES AND BULKHEAD FRAMES TO BULKHEAD SPACED 4 1/2 DIAM. APART C² TO C².
RIVETS IN FLAT KEEL ANGLES, VERTICAL ANGLES, CONNECTING FLOORS TO CENTRE GIRDER, AND SHELL PLATING OF WATERTIGHT BULKHEAD FRAMES SPACED 5 DIAM. APART C² TO C².
RIVETS IN FRAMES TO FLOORS AFT HALF LENGTH FORWARD, REVERSE FRAMES TO FLOORS AND INNER BOTTOM PLATING, VERTICAL ANGLES TO FLOORS AND SIDE GIRDERS, IN BULKHEAD STIFFENERS (EXCEPT PEAK BULKHEADS) AND IN DECK PLATING TO SEAMS ON EVERY FRAME SPACED 7 DIAM. APART C² TO C².
RIVETS IN SHELL CONNECTING ANGLES 5 IN EACH 26 1/2" SPACE AND 4 IN EACH 24" SPACE.
RIVETS IN CENTRE GIRDER TOP ANGLES 7 DIAM. APART C² TO C². NON-WATERTIGHT.
RIVETS IN CENTRE GIRDER TOP ANGLES 5 DIAM. APART C² TO C². WATERTIGHT.

SCANTLINGS AND DETAILS OF CONSTRUCTION NOTED HEREON ARE SUBMITTED ON THE UNDERSTANDING THAT THEY ARE THE MINIMUM WHICH WILL BE ACCEPTED FOR CLASS. ERRORS AND OMISSIONS EXCEPTED.

SIDE FRAMES

FRAMES SPACED 26 1/2" APART 24" IN FORE AND AFT PEAKS.
MAIN SIDE FRAMES CLEAR OF DEEP FRAMING, TUNNEL RECESS & FORE & AFT PEAK TANKS 11 1/2" x 3 1/2" x 48 B.A. N.B.S. ALL TO UPPER DECK.
FRAMES IN ENGINE AND BOILER ROOM TO BE INCREASED 104 IN LIEU OF WEB FRAMES (TO BE OMITTED IF BULKER BULKHEAD FITTED).
FRAMES IN BOILER ROOM AND PERMANENT BUNKERS (HOLD & TUN. DKS.) TO BE INCREASED 108.
MAIN SIDE FRAMES IN WAY OF TUNNEL RECESS 2 1/2" x 3 1/2" x 44 B.A. N.B.S. ALL TO UPPER DECK.
MAIN SIDE FRAMES IN WAY OF DEEP FRAMING FORWARD - 10 1/2" APART RULE POSITION OF COLLISION BULKHEAD (SEE PROFILE & DECK PLAN) 12" x 4" x 44 C² WITH 5" x 4" x 46 REVERSE BAR ALL TO UPPER DECK.
PEAK FRAMES 7" x 3 1/2" x 41 B.A. N.B.S. 3 1/2" FOR 7/8" RIVETS.
BRIDGE TWELVE DECK FRAMES 5 1/2" x 3" x 34 B.A. N.B.S. FITTED ON EVERY FRAME AND SCARFED TO MAIN FRAMES AT UPPER DECK FITTED 6" x 3 1/2" x 30 B.A. N.B.S.
POOP TWELVE DECK FRAMES 6 1/2" x 3" x 42 B.A. N.B.S. ON ALTERNATE FRAMES SCARFED TO MAIN FRAMES AT UPPER DECK WITH 4 1/2" x 3" x 38 O.A. INTERMEDIATE HAUSING FRAMES.
FORECASTLE TWELVE DECK FRAMES 6 1/2" x 3" x 42 B.A. N.B.S. ON ALTERNATE FRAMES WITH 5" x 3" x 38 O.A. INTERMEDIATE FRAMES BOTH SCARFED OR BRACKETED AT UPPER DECK.

STERNPOST:- 9 1/2" x 2 1/2"
STERNPOST:- 10 1/4" x 7 3/8"
RUGGERPOST:- 10 1/4" x 7 3/8"

ADDITIONAL SIDE GIRDERS IN WAY OF ENGINE & THRUST SEATING

CENTRE GIRDER
TO RULE 4 1/2" x 51 FOR 1/2" LEN. 41 AT ENDS
FITTED 46" x 46" FOR 1/2" LEN. 30 AT ENDS
56 IN BOLLER SPACE BUTTS LAPPED 5 3 R.
VERTICAL ANGLES 3" x 3" x 40 SINGLE 50 IN B.S.
5" x 3" x 40 SINGLE UNDER ENGINE SPACE & THRUST SEATING 5" x 5" x 50 UNDER BOLLER BEARERS

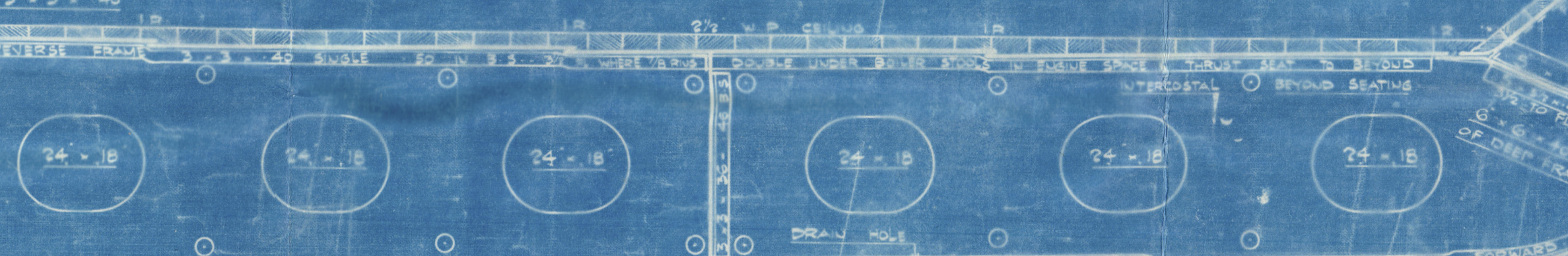
INNER BOTTOM PLATING 1/4" FOR 1/2" LEN. 41 AT ENDS
49 IN ENGINE SPACE 1/8" IN BOLLER SPACE BUTTS LAPPED 5 2 R. TO 1 R. AT ENDS SEAMS 1 R.
SEAMS 1 R. IN ENGINE SPACE BUTTS LAPPED 5 2 R. IN E.S.
FITTED 59 E.S. 67 B.S. (OWNERS)
TANK TOP CENTRE STRAKE TO RULE 49 1/2" x 49 FOR 1/2" LEN. 41
TO 40 AT ENDS 49 IN ENGINE SPACE 56 IN BOLLER SPACE
FITTED 78" x 46" FOR 1/2" LEN. 41 TO 39 AT ENDS
49 IN E.S. 56 IN B.S. BUTTS LAPPED 5 3 R. TO 2 R. AT ENDS
FITTED 59 IN E.S. 67 IN B.S. (OWNERS)

FLOOR PLATES 3/8" THROUGHOUT N. HOLDS AND ENGINE SPACE 1/4" IN BOLLER SPACE
WATERTIGHT FLOORS 3/8" x 108" x 48" WITH STIFFENERS 5 1/2" x 3" x 38 ANGLE SPACED 30" APART FOR OVERFLOW 34" 0" ABOVE TANK TOP

WING BRACKETS 1/4" IN HOLDS 1/8" IN BOLLER SPACE
MARGIN CONNECTION 5" x 5" x 45 SINGLE 53 IN BOLLER SPACE
WITH 11" x 7/8" RIVETS EACH FLANGE 12 1/2" RING RIVETS 1/4" LEN. 41
IN WAY OF DEEP FRAMING 6" x 6" x 48 SINGLE WITH 162 7/8" RIVETS EACH FLANGE 48 IN W.B.
38 CONT. GUSSET PLATE ON EVERY FRAME WITH 5" x 5" RIVETS
8" x 7/8" RIVETS IN WAY OF DEEP FRAMING

TOP ANGLE 3" x 3" x 50 FOR 1/2" LEN. 41
TO 46 AT ENDS 60 IN B.S.
3 1/2" FL. WHERE 7/8" RIVETS
3" x 3" x 40

DOUBLE BOTTOM ARRANGED FOR CARRYING OF OIL FUEL IF NECESSARY



WORK CLOSED TO SURVEYORS SATISFACTION
INT. SHELL ANGLE DOUBLE BETWEEN 1/2" & 3/8" LEN.
KEEL ANGLES 4" x 4" x 55 FOR 1/2" LEN. 51 AT ENDS

KEEL OUT

49" x 78" FOR 1/2" LEN. 41
TO 46 AT ENDS BUTTS LAPPED 5 4 R. TO 3 R. AT ENDS

A IN

79" x 59" FOR 1/2" LEN. 41
TO 46 AT ENDS BUTTS LAPPED 5 3 R.

B OUT

69" x 59" FOR 1/2" LEN. 41
TO 46 AT ENDS BUTTS LAPPED 5 3 R.

C IN

69" x 59" FOR 1/2" LEN. 41
TO 46 AT ENDS BUTTS LAPPED 5 3 R.

D OUT

69" x 59" FOR 1/2" LEN. 41
TO 46 AT ENDS BUTTS LAPPED 5 3 R.

THICKNESS OF BOTTOM SHELL PLATING FROM FORWARD HALF LENGTH FORWARD TO RULE POSITION OF COLLISION BULKHEAD
59" x 10 1/2" x 65

POOP DECK STRINGER PLATE 35" x 35
BUTTS LAPPED 5 1 R.
STRINGER ANGLE 3 1/2" x 3 1/2" x 35
DECK PLATING 1/8" SHEATHED 1/30 UNSHEATHED
BUTTS LAPPED 5 1 R.
BEAMS ON EVERY FRAME AS PER PROFILE & DECK PLAN

FORECASTLE DECK STRINGER PLATE 34" x 35
BUTTS LAPPED 5 1 R.
STRINGER ANGLE 3 1/2" x 3 1/2" x 35
DECK PLATING 1/8" SHEATHED 1/30 UNSHEATHED
BUTTS LAPPED 5 1 R.
BEAMS ON EVERY FRAME AS PER PROFILE & DECK PLAN

BRIDGE STRINGER PLATE 57" x 56 TO RAIL
FITTED 57" x 62" IN VIEW OF SIDE
PLATING BEING REDUCED
BUTTS LAPPED 5 1 R.
STRINGER ANGLE 5" x 5" x 60

L IN
TO RULE BRIDGE 62" FITTED 60 IN
VIEW OF SIDE FRAMES ON EVERY FRAME
POOP 38 FORECASTLE 41
BUTTS LAPPED 5 3 R. AT BRIDGE
BUTTS LAPPED 5 1 R. AT POOP & FORECASTLE

K OUT
TO RULE BRIDGE 62" FITTED 60
POOP 38 FORECASTLE 41
BUTTS LAPPED 5 3 R. AT BRIDGE
BUTTS LAPPED 5 1 R. AT POOP & FORECASTLE

J IN
50" x 1 1/4" TO RULE FITTED 77" x 104" FOR 1/2" LEN. 41
TO 44 AT ENDS 58 IN WAY OF BRIDGE
BUTTS LAPPED 5 5 R. FOR 1/2" LEN. 41
TO 3 R. AT ENDS 3 R. IN BRIDGE
FOR THIS STRAKE CLEAR OF BRIDGE
SPECIAL PLAN TO BE SUBMITTED

G OUT
TO RULE BRIDGE 62" FITTED 60
POOP 38 FORECASTLE 41
BUTTS LAPPED 5 3 R. AT BRIDGE
BUTTS LAPPED 5 1 R. AT POOP & FORECASTLE

H OUT
50" x 37" TO RULE FITTED 77" x 77" FOR 1/2" LEN. 41
TO 44 AT ENDS 58 IN WAY OF BRIDGE
BUTTS LAPPED 5 4 R. FOR 1/2" LEN. 41
TO 3 R. IN BRIDGE
FOR THIS STRAKE CLEAR OF BRIDGE
SPECIAL PLAN TO BE SUBMITTED

F OUT
77" x 59" FOR 1/2" LEN. 41
TO 44 AT ENDS
BUTTS LAPPED 5 3 R.

E IN
60" x 59" FOR 1/2" LEN. 41
TO 44 AT ENDS
BUTTS LAPPED 5 3 R.

D OUT
60" x 59" FOR 1/2" LEN. 41
TO 44 AT ENDS
BUTTS LAPPED 5 3 R.

C IN
60" x 59" FOR 1/2" LEN. 41
TO 44 AT ENDS
BUTTS LAPPED 5 3 R.

B OUT
60" x 59" FOR 1/2" LEN. 41
TO 44 AT ENDS
BUTTS LAPPED 5 3 R.

A IN
60" x 59" FOR 1/2" LEN. 41
TO 44 AT ENDS
BUTTS LAPPED 5 3 R.

MARGIN PLATE TO RULE 35" x 49" x 58 IN B.S.
FITTED ABOUT 44" x 49" x 69 IN B.S. 100 IN E.S. (OWNERS)
BUTTS LAPPED 5 3 R. THROUGHOUT

BULGE KEEL 6" x 4" x 50 TEE BAR
WITH 12" x 44" BULGE PLATE FOR ABOUT 120' 0" ANDSHIPS

LITHGOWS LTD

Nº 865

S. S. "HARTLEBURY"

MIDSHIP SECTION.

(AS BUILT).

Greenock Ship Repairing Report Nº 19423.

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