

BOOM DEFENCE VESSELS.

PLAN OF STRUCTURAL SECTIONS.

SCALE:- 1/2 INCH = 1 FOOT

SECRET.

noted 19/4/37

bluway

Nº 721 H.M.S. "BARNMOUTH"

DIMENSIONS.	
LENGTH BETWEEN PERPENDICULARS	150'-0" (RULE LENGTH = 156'-0").
BREADTH MOULDED	32'-0"
DEPTH MOULDED	17'-0"

LLOYDS CLASS 100A "FOR GOVERNMENT SERVICE."

NUMERALS	
1 <sup>ST</sup> LONGITUDINAL NUMBER L.D =	2652.
2 <sup>ND</sup> LONGITUDINAL NUMBER L(B.D) =	7644.
THE PROPORTION 1/10 =	9.4
FRAMING DEPTH d IN BUNKERS	= 15.8
IN ENGINE ROOM =	13.31
IN FEED TANKS & MAGAZINE =	7.94
IN HOLD & BALLAST TANK =	7.94
IN BOILER ROOM =	15.31.

SCANTLINGS

FRAME SPACING 23" APART. FRAME 1 IS 2'-5" ABAFT FORE PERPENDICULAR.

FRAME	SCANTLING	EXTENT OF FRAME
0 to 3	5" x 3" x 30"	B.A. UPPER DECK TO STEM.
5 to 9	6" x 3" x 32"	B.A. UPPER DECK TO CENTRE KEELSON.
11 to 22	5" x 3" x 34"	B.A. UPPER DECK TO CENTRE KEELSON.
24 to 30	5" x 3" x 34"	B.A. UPPER DECK TO W.T. LONGITUDINAL BHD.
32 to 35	5" x 3" x 34"	B.A. UPPER DECK TO W.T. LONGITUDINAL BHD.
37 to 39	6" x 3" x 40"	B.A. UPPER DECK TO W.T. LONGITUDINAL BHD.
41 to 57	6" x 3" x 40"	B.A. UPPER DECK TO BUNKER BHD.
59 to 68	5" x 3" x 45"	B.A. UPPER DECK TO CENTRE KEELSON.
70 to 73	5" x 3" x 30"	B.A. UPPER DECK TO W.T. LONGITUDINAL BHD.
74 to 78	5" x 3" x 30"	B.A. UPPER DECK TO STERN FRAME.
79 to 80	5" x 3" x 30"	B.A. UPPER DECK TO STERN FRAME.

BULB ANGLES ALL N.B.S. OR EQUIVALENT.

FRAMES TO FLOORS	FRAMES 5-19	3" x 3" x 34"	DOUBLING FRAMES FORWARD
	24-39	3" x 3" x 34"	BETWEEN LONGITUDINAL BHDS.
	41-57	3" x 3" x 44"	BETWEEN LONGITUDINAL BHDS.
REVERSE FRAMES	FRAMES 5-39	3" x 3" x 34"	
	41-57	3" x 3" x 44"	(DOUBLE UNDER BOILER BEARERS.
	59-72	3" x 3" x 38"	(DOUBLE FR 59-69)
OPEN FLOORS	IN PEAKS	34" FLANGED	
	FRAMES 5-22	22 1/2" DEEP x 34"	
	24-39	19 1/2" DEEP x 34"	BETWEEN LONGITUDINAL BHDS.
	41-57	19 1/2" DEEP x 44"	BETWEEN LONGITUDINAL BHDS.
	59-72	38"	TO SUIT ENGINE SEATS.
CENTRE KEELSON	TOP ANGLES	5" x 3" x 40"	DOUBLE (50" IN BOILER ROOM)
	INTERCOSTAL PLATES	35"	(45" IN BOILER ROOM)
	KEEL ANGLES	5 1/2" x 3 1/2" x 47"	DOUBLE (52" IN BOILER ROOM)
	VERTICAL ANGLES	3 1/2" x 3 1/2" x 35"	SINGLE (44" IN BOILER ROOM)
SIDE KEELSON	TOP ANGLE	6" x 3" x 40"	B.A. SINGLE IN HOLD
	INTERCOSTAL PLATE	31"	
	SHELL ANGLE	5" x 3" x 31"	
UPPER DECK	STRINGER PLATE	48" x 33"	DECK PLATING - 29"
	STRINGER ANGLE	3 1/2" x 3 1/2" x 34"	
	PLATING INCREASED TO	40"	WHERE NECESSARY (SEE DECK PLAN)
	BEAMS	5" x 3" x 30"	B.A. TO 5" x 3" x 44" B.A. ON EVERY FRAME
	HALF BEAMS IN BUNKERS	4" x 3" x 32"	O.A.
	BEAMS & GIRDERS UNDER WINCHES		TO BE CONSIDERED LATER IN CONJUNCTION WITH WINCHES (SEE SEPARATE PLAN)
	STRINGER PLATE	30"	WITH 3" FLANGE TO SHELL
	DECK PLATING	26"	30" OVER TANKS
	BEAMS	5" x 3" x 34"	O.A. ON EVERY FRAME
	7" x 3" x 40"	B.A. IN FRESH WATER & BOILER FEED TANKS	
LOWER DECK	CENTRE KEELSON	5" x 3" x 40"	DOUBLE
	INTERCOSTAL PLATE	35"	
	KEEL ANGLES	5 1/2" x 3 1/2" x 42"	DOUBLE

EQUIPMENT

TO BE SUPPLIED BY ADMIRALTY

- 2- 16 CWT. BOWER ANCHORS STOCKLESS
- 1- 2 1/2 CWT. KEDGE ANCHOR EX STOCK
- 2 LENGTHS OF 5 FATHOMS 1 1/2" DIA. STUD LINK CHAIN
- 1 CABLE FITTED WITH LUGLESS SHACKLES
- 125 FATHOMS OF 3 1/2" F.S.W.R. IN TWO EQUAL LENGTHS
- 100 FATHOMS OF 2" F.S.W.R. FOR KEDGE ANCHOR.

PICKLING OF PLATES.

THE PLATES OF THE OUTER BOTTOM, CENTRE KEELSON AND KEELSONS, LOWER PLATES OF BULKHEADS, ALL PLATES OF FRESH WATER COMPARTMENTS AND THE LOWER PLATES OF FRAMES ARE TO BE PICKLED IN ACCORDANCE WITH ADMIRALTY REQUIREMENTS.

MATERIAL

MATERIAL TO BE TO LLOYD'S REQUIREMENTS & TESTS.

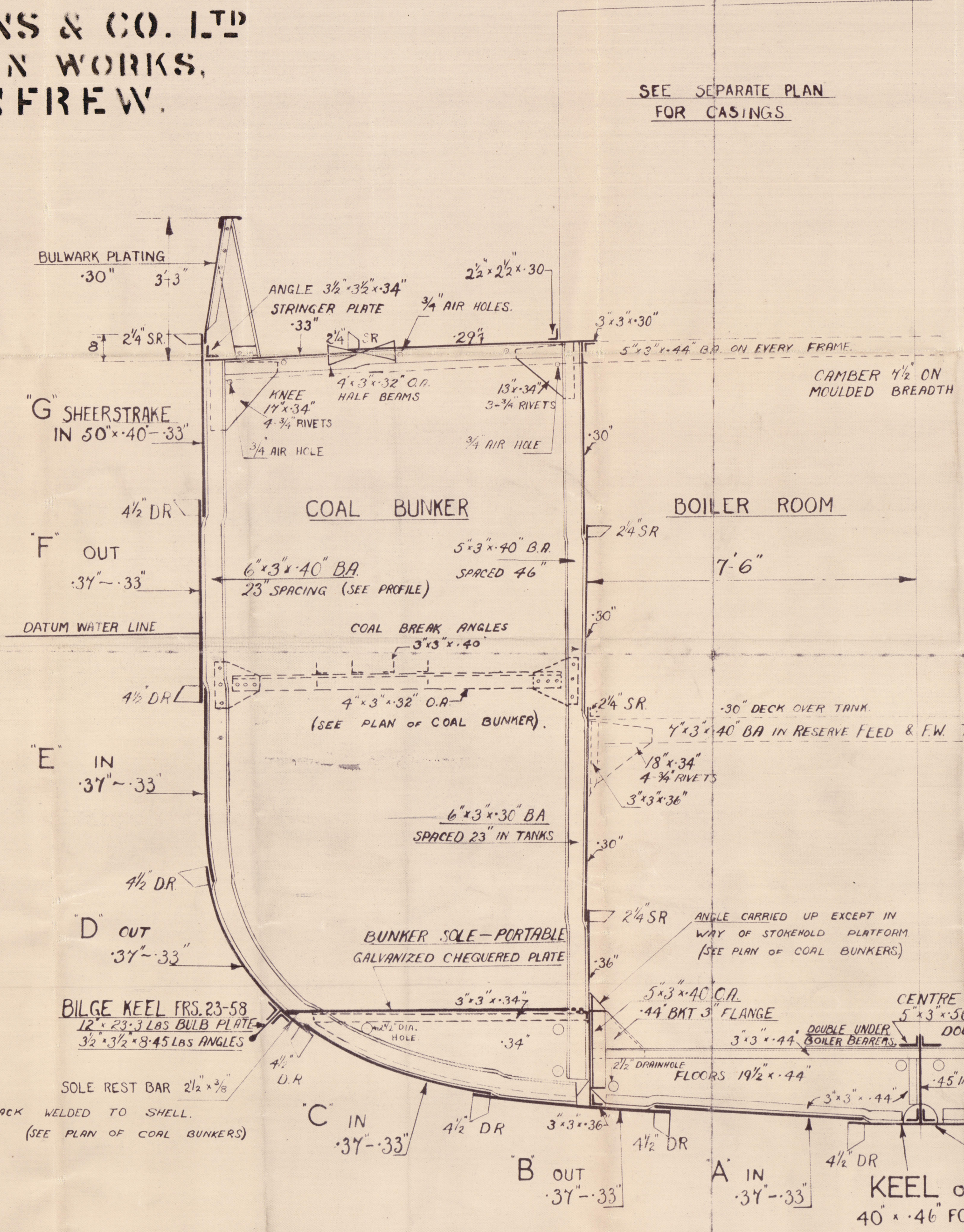
CEMENTING

NO CEMENTING.

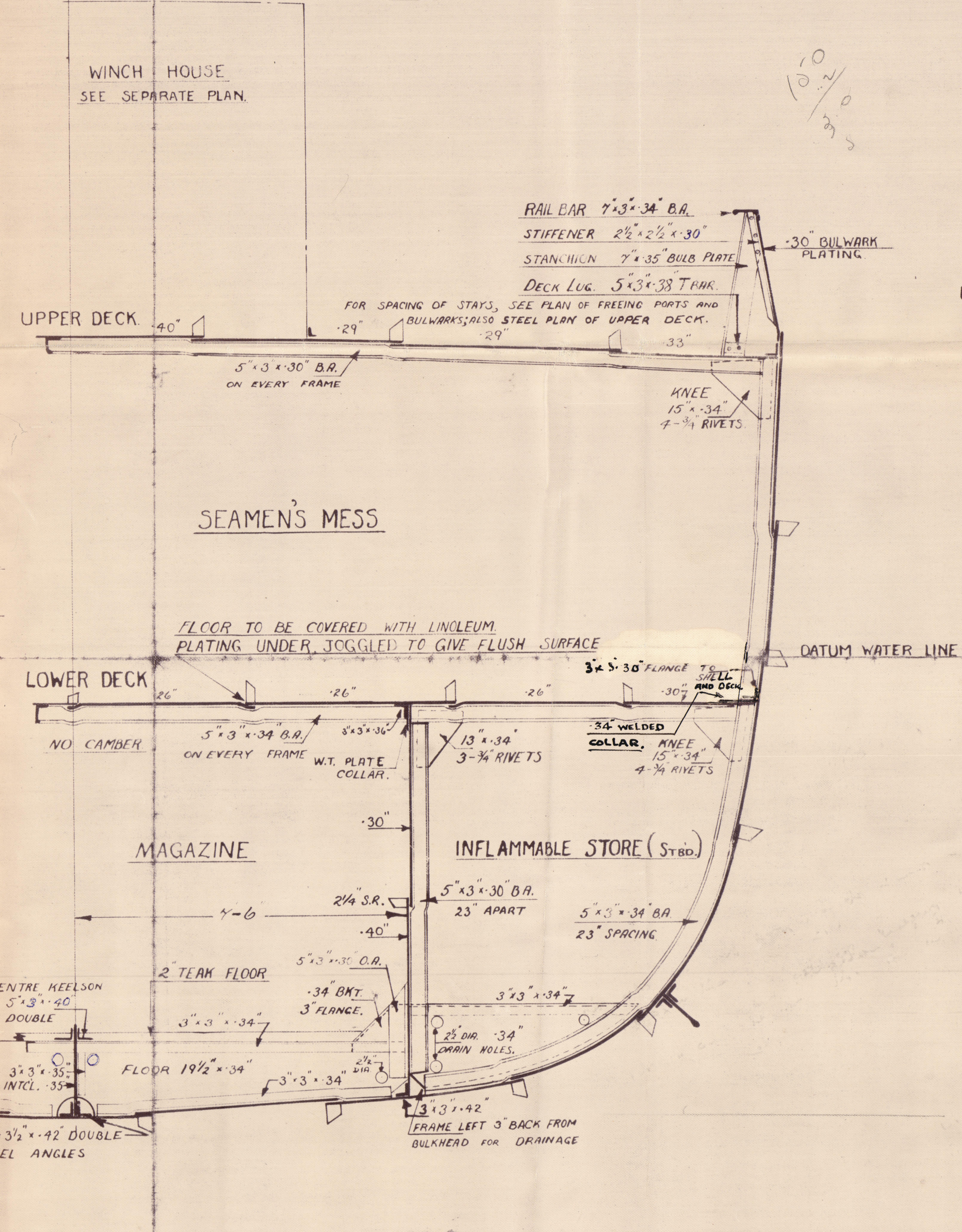
RIVETING SCHEME.

ITEM	SEAMS	END CONNECTIONS	END LAP
FLAT KEEL PLATE	3/4 D.R.	INSIDE STRAPS 1/4" L.R. FOR 1/4" DR. AT ENDS	3/4 DIAMS.
A & B STRAKES	3/4 D.R.	LAPS 3/4" D.R. ALL FORE AND AFT.	3/4 DIAMS.
C, D, E & F STRAKES	3/4 D.R.	LAPS 3/4" D.R. ALL FORE AND AFT.	3/4 DIAMS.
G SHEERSTRAKE	3/4 D.R.	STRAPPED 3/4" L.R. FOR 1/4" DR. AT ENDS	3/4 DIAMS.
BULKWARK PLATING	3/4 S.R.	STRAPPED 3/4" L.R. ALL FORE AND AFT. FLUSH RIVETED	5 DIAMS.
UPPER DECK STRINGER PLATE	3/4 S.R.	LAPS 3/4" D.R. ALL FORE AND AFT.	3/4 DIAMS.
UPPER DECK PLATING	3/4 S.R.	LAPS 3/4" D.R. FOR 1/4" DR. TO 3/4" S.R. AT ENDS.	4 DIAMS.
LOWER DECK STRINGER PLATE	3/4 S.R.	LAPS 3/4" D.R. ALL FORE & AFT.	3/4 DIAMS.
LOWER DECK PLATING	3/4 S.R.	LAPS 3/4" D.R. FOR 1/4" DR. TO 3/4" S.R. AT ENDS	4 DIAMS.
RIVETS THROUGH FRAMES AND FLOORS IN FORE AND AFT PEAKS 1/4" RIVETS 5/8" S DIAMS APART.			
RIVETS THROUGH FRAMES AND SHELL IN FORE AND AFT PEAKS 3/4" RIVETS 5/8" DIAMS APART			
RIVETS THROUGH FRAMES, SHELL AND FLOORS 1/4" TO BULKHEAD 10 3/4" RIVETS 5/8" DIAMS IN A & B STRAKES			
RIVETS THROUGH FRAMES, SHELL AND FLOORS, AFT PEAK TO 1/2" L.F.W.D. 3/4" RIVETS 7 DIAMS APART.			
RIVETS THROUGH FRAMES AND SHELL IN FORWARD BALLAST TANK 3/4" RIVETS 5/8" DIAMS APART.			
RIVETS THROUGH DECK PLATING AND BEAMS 3/4" RIVETS 7 DIAMS APART.			
RIVETS THROUGH KEEL ANGLES 3/4" RIVETS 5 DIAMS APART.			
SEAMS OF SHELL PLATING 3/4 D.R. 7 RIVETS IN EACH ROW (EXCLUDING FRAME RIVET)			
SEAMS OF DECK PLATING 3/4 S.R. 7 RIVETS IN EACH ROW (EXCLUDING BEAM RIVET)			
ALL RIVETS TO BE OF IRON TO LLOYD'S REQUIREMENTS			
SPECIAL ATTENTION TO BE GIVEN TO THE RIVETING AND CAULKING OF THE UNDERWATER PORTION OF THE VESSEL, AND OF THE RESERVE FEED AND FRESH WATER TANKS.			
SHELL PLATING: BUTTS ARE OVERLAPPED AND SEARPED, EXCEPT THE FLAT PLATE.			
KEEL AND SHEERSTRAKE WHICH IS TO BE BUTT STRAPPED ON THE INSIDE.			
BULKWARKS: FLUSH RIVET. POINTS FROM THE DECK UPWARDS.			

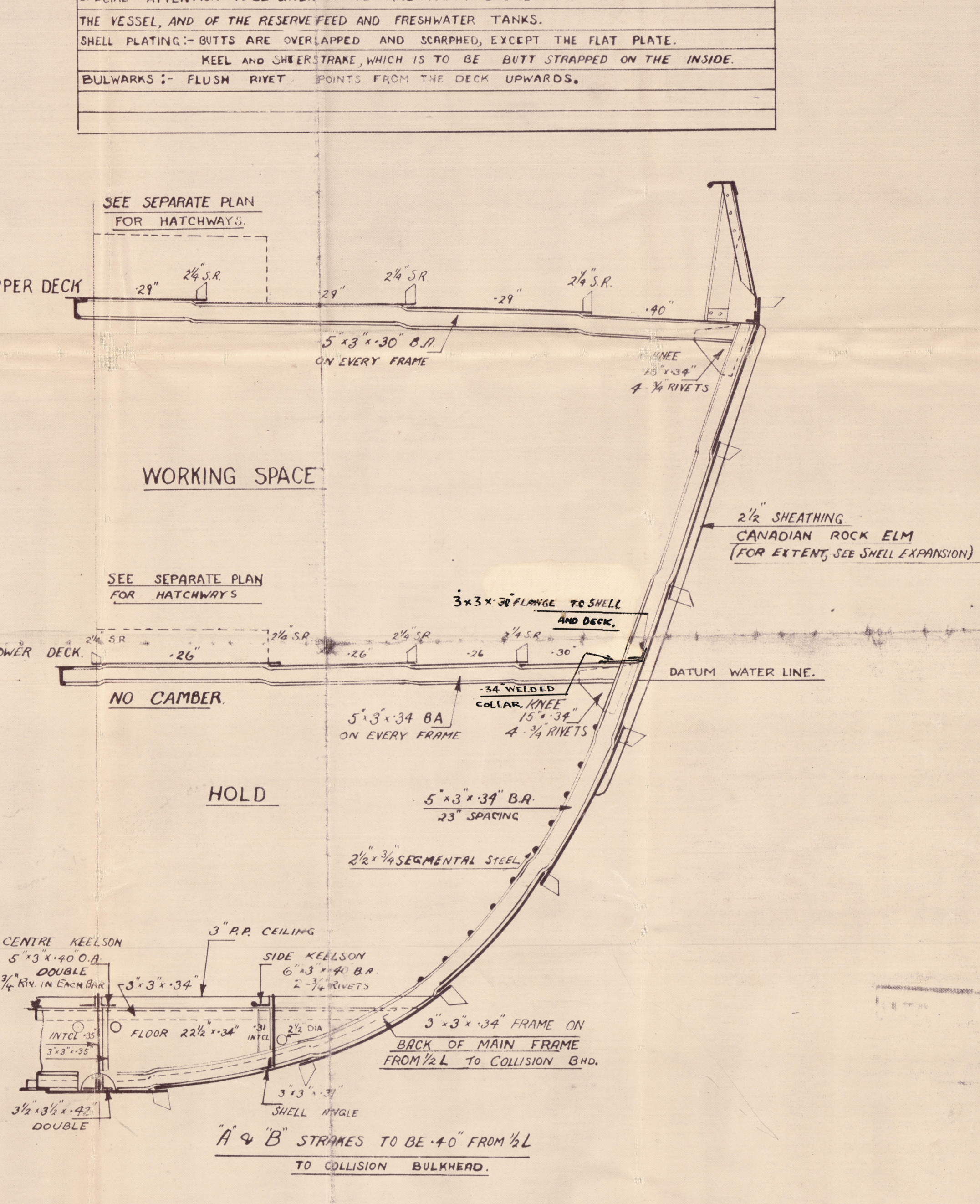
W. SIMONS & CO. LTD  
LONDON WORKS,  
RENFREW.



SECTION THRO SIDE BUNKER & BOILER ROOM  
LOOKING AFT.



SECTION THRO SEAMENS MESS. MAGAZINE ETC.  
LOOKING FORWARD.



SECTION THRO HOLD  
LOOKING FORWARD.



Glasgow.

Wm Simons & Co. Ltd.,

No. 721

"H.M.S. BARMOUTH."

MIDSHIP SECTION AS BUILT.

SISTER VESSEL: "H.M.S. BARLOW"  
No 720.

Gen. Rpt. No 60313

GLASGOW REPORT No 60490

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