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Rpt. C.12

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Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey <u>Hull</u>
having <u>POOP, BRIDGE AND FORECASTLE.</u>					Date of Survey <u>23rd May 1932.</u>
(Type of Superstructures.)					Name of Surveyor <u>A. W. Angledon</u>
Ship's Name <u>S.S. GOTHIC</u>	Nationality and Port of Registry <u>BRITISH HULL</u>	Official Number <u>143511</u>	Gross Tonnage <u>2546</u>	Date of Build <u>1920-74</u>	Particulars of Classification <u>+100A.1.</u>
Moulded Dimensions: Length <u>303.0</u> Breadth <u>42' 9"</u> Depth <u>23' 0"</u>					
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>5755</u> tons					
Coefficient of fineness for use with Tables <u>.796</u>					

Depth for Freeboard (D)		Depth correction	Round of Beam correction
Moulded depth ...	<u>23' 0"</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>(23.04 - 20.78) 2.268 = + 6.66"</u>	Moulded Breadth (B) <u>42.75</u>
Stringer plate ...	<u>.46</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$ <u>10.26"</u>
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$		If restricted by superstructures	Ship's Round of Beam = <u>10.44"</u>
Depth for Freeboard (D) =	<u>23.04</u>		Difference <u>.49"</u>
			Restricted to
			Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ <u>$\frac{.49}{4} \times .5184 = -.06"$</u>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	<u>32.5</u>	<u>32.50</u>	<u>7' 6"</u>		<u>32.50</u>	Standard Height of Superstructure <u>6.527</u>
" overhang ...						" " R.Q.D. <u>✓</u>
R.Q.D. enclosed ...						Deduction for complete superstructure <u>35.51</u>
" overhang ...						Percentage covered $\frac{S}{L} =$ <u>48.40%</u>
Bridge enclosed...	<u>80.0</u>	<u>80.00</u>	<u>7' 6"</u>		<u>80.00</u>	" " $\frac{S_1}{L} =$ <u>48.16%</u>
" overhang aft ...						" " $\frac{E}{L} =$ <u>48.16%</u>
" overhang forward	<u>1.6</u>	<u>.75</u>			<u>.75</u>	Percentage from Table, Line A. (corrected for absence of forecastle (if required))
F'le enclosed ...	<u>32.5</u>	<u>32.50</u>	<u>7' 6"</u>		<u>32.50</u>	Percentage from Table, Line B. (corrected for absence of forecastle (if required))
" overhang ...						Interpolation for bridge less than .2L (if required)
Trunk aft ...						Deduction = <u>35.51 x .3443 = + 12.23</u>
" forward ...						
Tonnage opening aft ...						
" " forward						
Total ...	<u>146.50</u>	<u>145.75</u>			<u>145.75</u>	

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product	
A.P. ...	<u>40.27</u>	1	<u>40.27</u>	<u>64.5</u>	<u>40.27</u>	1	<u>40.27</u>	Mean actual sheer aft = <u>Excess</u>
$\frac{1}{2}$ L from A.P. ...	<u>17.92</u>	4	<u>71.68</u>	<u>31</u>	<u>28.44</u>	4	<u>71.68</u>	Mean actual sheer forward = <u>Deficient</u>
$\frac{2}{3}$ L " ...	<u>4.43</u>	2	<u>8.86</u>	<u>8.5</u>	<u>7.11</u>	2	<u>8.86</u>	Mean standard sheer forward
Amidships ...		4				4		Length of enclosed superstructure forward of amidships = <u>.141</u>
$\frac{2}{3}$ L from F.P. ...	<u>8.86</u>	2	<u>17.72</u>	<u>9.5</u>	<u>8.14</u>	2	<u>16.28</u>	" " aft of " = <u>.124</u>
$\frac{1}{2}$ L " ...	<u>35.84</u>	4	<u>143.36</u>	<u>34</u>	<u>32.58</u>	4	<u>130.32</u>	
F.P. ...	<u>80.54</u>	1	<u>80.54</u>	<u>72</u>	<u>72.00</u>	1	<u>72.00</u>	
Total ...			<u>362.43</u>				<u>339.41</u>	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{23.02}{18} (.75 - .242) = + .65$

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.68 + .796}{1.36} = \frac{1.476}{1.36}$
Depth to Freeboard Deck = <u>23.04</u>	$\Delta =$ <u>57.35</u>	Depth Correction ... <u>6.66</u>
Summer freeboard = <u>3.56</u>	Tons per inch immersion at summer load water line	Deduction for superstructures ... <u>12.23</u>
Moulded draught (d) = <u>19.48</u>	T = <u>26.75</u>	Sheer correction ... <u>.06</u>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>4.87 = 4 $\frac{3}{4}$</u>	Deduction = $\frac{\Delta}{40T}$ inches = <u>5.36 = 5 $\frac{1}{4}$</u>	Round of Beam correction ...
Addition for Winter North Atlantic Freeboard (if required) = <u>2"</u>		Correction for Thickness of Deck amidships
		Other corrections, scantlings, etc. ...
		Summer Freeboard = <u>42.84</u>

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc ...	<u>10"</u>	Tropical Fresh Water Freeboard ...	<u>3' 6 $\frac{3}{4}$"</u>
Fresh Water Line " " ...	<u>5 $\frac{1}{4}$"</u>	Fresh Water " " ...	<u>2' 8 $\frac{3}{4}$"</u>
Tropical Line " " ...	<u>4 $\frac{3}{4}$"</u>	Tropical " " ...	<u>3' 2"</u>
Winter Line below " " ...	<u>4 $\frac{3}{4}$"</u>	Winter " " ...	<u>3' 11 $\frac{1}{2}$"</u>
Winter North Atlantic Line " " ...	<u>6 $\frac{3}{4}$"</u>	Winter North Atlantic " " ...	<u>4' 1 $\frac{1}{2}$"</u>

Lloyd's Register
Foundation

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

		HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS							
		UPPER D ^W	UPPER D ^W	UPPER D ^W	UPPER D ^W	UPPER D ^W	BRIDGE D ^W		
		N ^o 1 H.	N ^o 2 H.	N ^o 3 H.	N ^o 4 H.	N ^o 5 H.	BRIDGE HATCH		
Description of Hatchway		26'0" x 16'0"	26'0" x 18'0"	6'0" x 17'0"	26'0" x 18'0"	26'0" x 16'0"	11'6" x 17'0"		
Dimensions of Hatchway		2'6"	2'6"	9" PLATE	2'6"	2'6"	2'6"		
COAMINGS	Height above Deck	.44	.44	.42	.44	.42	.42		
	Thickens { Sides	.44	.44	.42	.44	.42	.42		
	{ Ends	.44	.44	.42	.44	.42	.42		
	Stiffeners	7 x 3 x 40	7 x 3 x 40	✓	7 x 3 x 40	7 x 3 x 40	7 x 3 x 40		
Brackets, Stays		2 on 2 1/2 Dia	2 on 2 1/2 Dia	✓	2-2 1/2 Dia	2-2 1/2 Dia	NONE		
HATCH BEAMS	Number	5	5	NONE	5	5	NONE		
	Spacing	EQUAL	EQUAL	✓	EQUAL	EQUAL	HATCH		
	Scantling and Sketch	3 1/2 x 40	3 1/2 x 40	✓	3 1/2 x 40	3 1/2 x 40	TRUNK		
	Bearing Surface	3'	3'	✓	3'	3'	TRUNK		
FORE AND AFTERS		NONE							
HATCH COVERS	Material	W.P.	W.P.	W.P.	W.P.	W.P.	W.P.		
	Thickness	3'	3'	3'	3'	3'	3'		
	How fitted	F.A.	F.A.	2 1/2'	3'	3'	3'		
	Bearing Surface	3'	3'	24"	24"	24"	24"		
Spacing of Cleats		24"	24"	2	3	3	2		
Number of Tarpaulins		3	3	2	3	3	2		
*Are wood fore and afters steel shod at all bearing surfaces?		NONE							
Are battens and wedges efficient and in good condition?		YES							
Are tarpaulins in good condition and in accordance with rule requirements?		YES							
Are lashings provided in accordance with rule requirements?		Manilla lashings supplied for weather deck hatch from my plates on horizontal bulk angle stiffeners on deck side.							

Particulars of fiddle, funnel and ventilator coamings:— *Fiddle gratings closed by hinges, steel storm cover.*
Engine room skylight of steel strongly constructed *9 port glass broken to be renewed.*
Gally
2 Boiler room and 4 engine room units efficient, 8-6" dia mushroom units to cabins 3 to be repaired
Coal hatch 4'4" x 16'0" 9 1/2" Coaming, 2 3/4" Cover, 2 1/2" bearing surface, 24" Cleat, 1 Tarpaulin only *Cover to be repaired*

Particulars of Flush Bunker Scuttles:—

None fitted.

Particulars of Companionways:—

None fitted.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—

		ON FORECASTLE DECK		3 VENTS COUL 4" DIA.		2'9" x 35 Coaming To FOLE SPACE.	
UPPER	4	16'	3'0" x 40"	N ^o 1-2 HOLS			
BRIDGE	4	16'	3'0" x 40"	N ^o 3-4 "			
	2	12'	3'0" x 30"	LOWER BUNKER			
	2	12'	3'0" x 32"	BRIDGE			
	2	5'	18" x 25"				

ON POOP DECK 1 VENT COULS 8" DIA x 3'0" x 25" TO TUNNEL
 B. 6 3/4" x 2'10" x 30" CREW SPACES
 (FORE END) 4 GOOSE NECK VENTS 4" DIA x 20" TO MOUTH TO CREW SPACES
 W.C. WASH PLUGS
 LONG COULS AT POOP VENTS TO REPAIR.
 WOOD PLUGS TO SUPPLY FOR GOOSE NECKS AND SOME COUL VENT PLUGS.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

		ON FORECASTLE DECK UNDER BOW CHOCK PLATE		AIR PIPE 4" DIA TO FORE PEAK		24" HIGH OPEN END.	
UPPER	FORE WELL AT BULKHEAD	2	2 1/2'	N ^o 2 TANK	12" TO MOUTH	GOOSE NECK	
	under quarter	1	2 1/2'	N ^o 1	12"		
	AFTER WELL	2	2 1/2'	N ^o 4	12"		
		2	2 1/2'	N ^o 5	12"		
BRIDGE		2	2 1/2'	N ^o 3 E.A. TANK	18"		
POOP		1	2 1/2'	AFTER PEAK	20'		


NO PLUGS OR SNIFFING HOLES SUPPLIED

Particulars of Gangway Cargo and Coaling Ports:—

NONE FITTED.

Efficient means of closing provided by wood plugs & canvas covers



FORE WELL 3 SCUPPERS EACH SIDE CUT THROUGH STRINGER ANGLE.
AFTER 3
BRIDGE SPACE NO SCUPPERS FITTED.
BRIDGE DECK 2 TIRE SCUPPERS 2 1/2' DIA P. S. →  BRIDGE DK. 10"

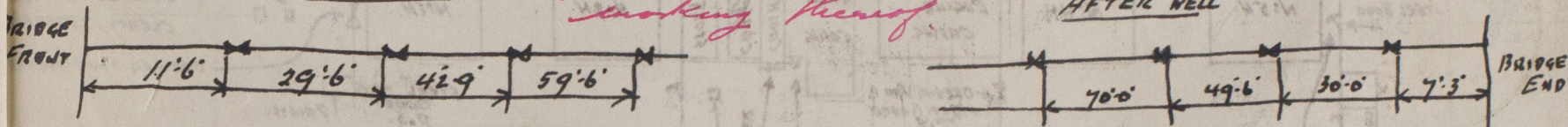
Particulars of Scupper and Sanitary Discharge Pipes —
 PARTIALS W.C. TRAPPED DISCHARGES 2' 6" BELOW UPPER DECK 4' S.V. ✓
 BATH 12' ABOVE " " 2' PIPE NO S.V. ✓

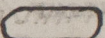


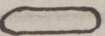


Particulars of Side Scuttles:	2'-0" BELOW UPPER DECK	4" S.V.
OFFICERS AND ENGINEERS W.C. PORT - STARBOARD TRAPPED DISCHARGES	12" ABOVE	NO S.V. 2" PIPE.
BATH	16" "	NO S.V. 1 1/2"
PANTY WASTE. PORT SIDE AMIDSHIPS	15" "	NO S.V. 1 1/2" <u>TO REPAIR BROKEN AT BEND</u>
SANITARY TANK OVERFLOW	30" BELOW	"
CREWS W.C. PORT - STARBOARD AFT	4" S.V.	"
WASH PLACE DECK	2" PIPE NO S.V.	10" " " NO S.V. VALVE.

POOP SIDE TO CREW SPACES 7 each side $7\frac{1}{2}$ " DIA. all fitted with deadlights 4 broken glass to unus
FLOOR 2P. 25. with deadlights 1 broken glass to unus

Guard Rails:—	HEIGHT	SPACING OF STANCHIONS	RODS.
On pavement deck	3'-4"	4'-11"	1-3/4 - 1-7/8 Dia
" BRIDGE.	3'-4"	5'-0"	1-7/8 - 2-3/4 "
" ROOF.	3'-0"	5'-0"	2-3/4 Rods

NONE FITTED (Crew accommodated in the poop.)
Suitable provision made for rigging Lifelines which
are available for use in any part of the ship which
FORE WELL might have to be used by the crew in the regular
smoking thereof. AFTER WELL



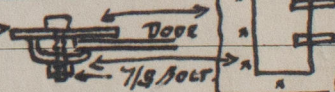
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	82'-0"	4'-0"	3'-0" x 1'-6" 	4 ✓	18 	16.4 
Forward Well	76'-0"	4'-0"	3'-0" x 1'-6" 	4 ✓	18 	15.2 

State position of each freeing port { After Well :—
(F. and A. position and height above deck edge) { Forward Well :—

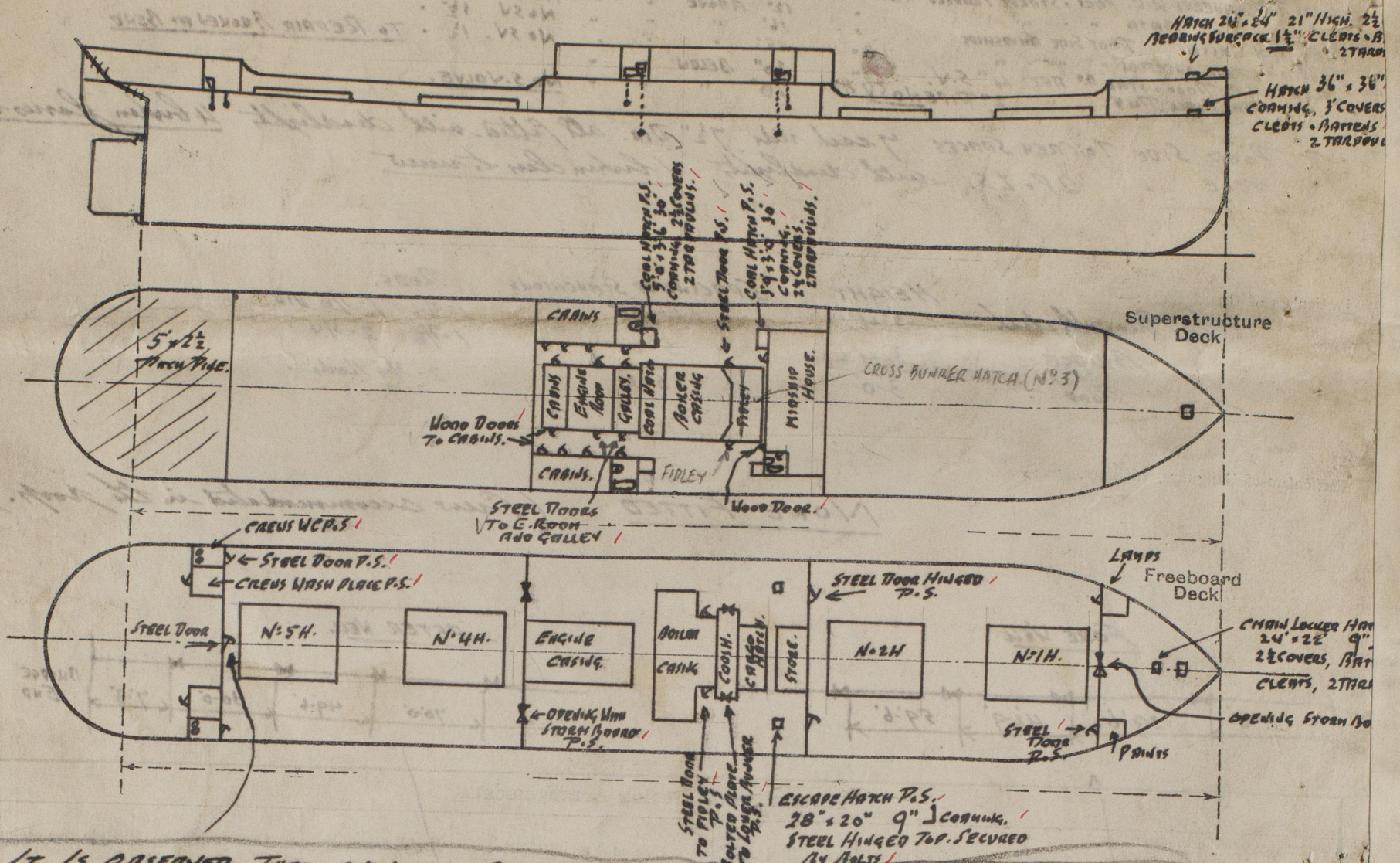
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :— 2 Horizontal rods each port 1 1/2" Dia.

Additional area where sheer is less than standard.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..	.40 ✓	.32 ✓	6 x 3 x .35 L	26"	NONE ✓	3 STEEL DOORS 4'5" x 2'2"	21"	7'6"
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ... ..	.35 ✓	.30 ✓	3½ x 3½ x .30	30"	NONE ✓	2 OPENINGS 4'6" x 4'0"	21"	7'6"
Bridge, Forward Bulkhead ... ..	.42 ✓	.40 ✓	7 x 3 x .45]	30"	KNEES TOP • BOTTOM	2 STEEL WINGED DOORS 4'6" x 2'0"	20"	7'6"
Forecastle Bulkhead ... ..	.35 ✓	.30 ✓	3½ x 3½ x .35	39"	NONE ✓	1 OPENING 4'0" x 4'4" 2 STEEL DOORS 4'6" x 2'0"	21" 20"	7'6"
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...	✓							
Exposed Machinery Casings on Super- structure Decks ... ..	.38 ✓	.32 ✓	4 x 4 x .35	30"	KNEES AT TOP ✓	6 STEEL DOORS 4'6" x 2'0"	19"	7'6"
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances ... ..	.35 ✓	.30 ✓	4 x 4 x .35	30"	NONE ✓	2 STEEL DOORS 4'6" x 2'0" 2 BOLTED PLATES 4'6" x 2'0"	19"	7'6"
Deckhouses on Flush Deck Ships ...	✓							

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	✓ <u>1 STEEL HINGED DOOR TO CREWS SPACE (IN CENTRE) SECURED BY 5 LEVER FASTENERS TO OPEN FROM BOTH SIDES. LEVER FASTENERS TO REPAIR. 2 STEEL DOORS TO CREWS C. NO HANDLES TO BE REPAIRED NEW HANDLES</u>
Raised Quarter Deck Bulkhead	✓
Bridge, After Bulkhead	2 OPENINGS CLOSED BY 3" STORM BOARDS IN RIVETED CHANNELS. FULL HEIGHT OF OPENING.
Bridge, Forward Bulkhead	2 STEEL HINGED DOORS SECURED BY 5 CLIPS <u>NOT WORKABLE FROM BOTH SIDES.</u>  DOOR 7/8" BOLT
Forecastle Bulkhead	{ 1 OPENING WITH 3" STORM BOARDS IN RIVETED CHANNELS FULL HEIGHT OF OPENING. 2 STEEL DOOR TO PAINT & LANDS ROOMS SPRING LOCKS AND HANDLES. }
Exposed Machinery Casings on Free-board or Raised Quarter Decks	✓
Exposed Machinery Casings on Super-structure Decks	2 STEEL DOORS TO FIDLEY 2 " " " GALLEY 2 " " " ENGINE ROOM. } SPRING LOCKS AND HANDLES BOTH SIDES <u>TO BE REPAIRED</u>
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	2 STEEL DOORS TO BOILER ROOM SPRING LOCKS AND HANDLES BOTH SIDES. 2 PORTABLE BOLTED PLATES IN SLOPING CASING FOR COILING LOWER MUNKER.
Deckhouses on Flush Deck Ships	✓

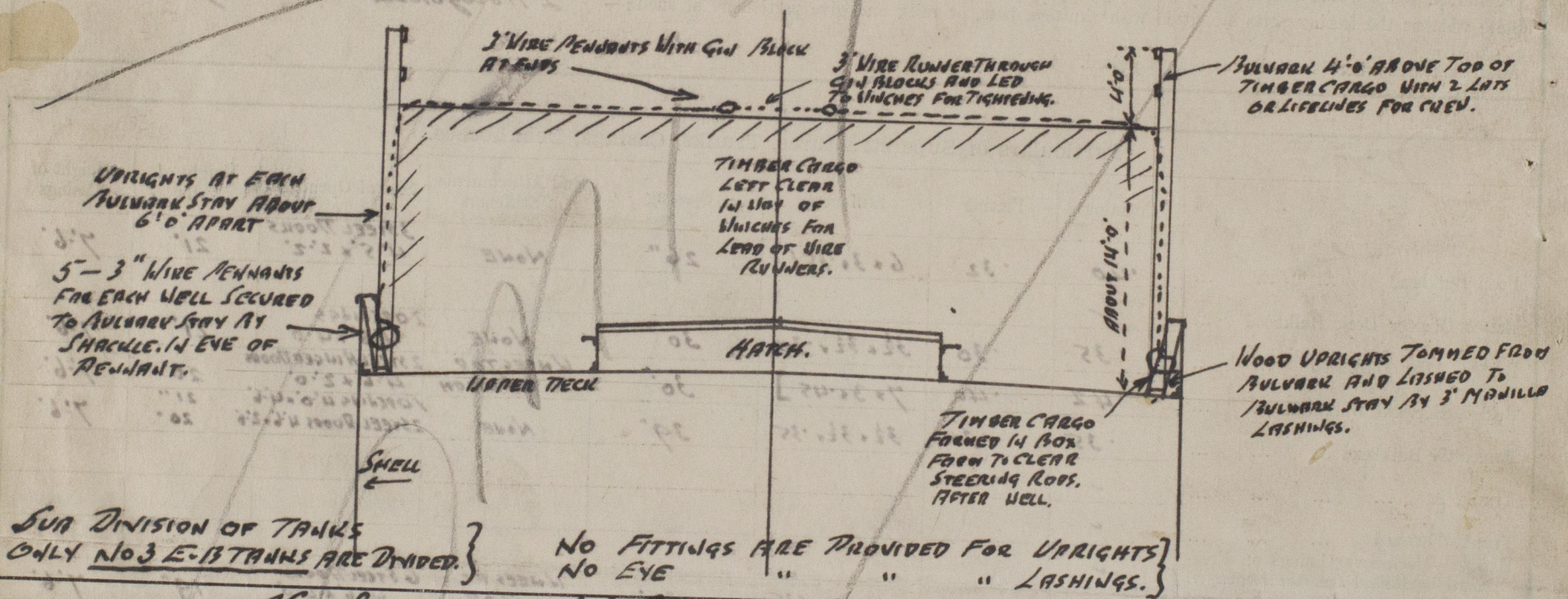
Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shown on the following sketches:—



It is observed that only one steel door in centre of transverse bulkhead gives access to crew spaces, and in the event of a timber cargo being carried in the after well and shifting taking place, it may be possible for the crew to be unable to escape. We suggest a companion be constructed on the poop deck as a second means of escape.

State any special features in the construction of the ship:—

ROUGH SKETCH OF STOWING TIMBER CARGOES IN WELLS



SUB DIVISION OF TANKS
ONLY NO. 3 E. B. TANKS ARE DIVIDED.

NO FITTINGS ARE PROVIDED FOR UPRIGHTS
NO EYE " " " LASHINGS.

Vessel damaged while lying in the Central dry dock at Hull 23/5/32.

Builder's name and yard number MONMOUTH S. B. CO. LTD. CHEPSTON.

Names of sister ships

Owners W. H. COCKERLINE & CO. HULL.

Fee £ 11 : 1 : - Received by me