

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD. No 12705.

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey <u>Bristol</u>	
having <u>Raised Quarter Deck, Oil Trunk, and Forecastle.</u>					Date of Survey <u>2nd June 1932.</u>	
(Type of Superstructures.)						
Ship's Name <u>"PORTWAY."</u>	Nationality and Port of Registry <u>British Bristol</u>	Official Number <u>148209</u>	Gross Tonnage <u>289</u>	Date of Build <u>1927-5</u>	Name of Surveyor <u>J. Anderson</u>	
Moulded Dimensions: Length <u>122.0</u> ✓ Breadth <u>24.2</u> ✓ Depth <u>10.75</u> ✓					Particulars of Classification <u>+100 A.1.</u>	
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>558</u> ✓ tons					CARRYING OIL FUEL F.P. ABOVE 150°F	
Coefficient of fineness for use with Tables <u>.730</u> ✓					OR ALTERNATIVELY SAND, IN BULK.	

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>10.75</u> ✓	(a) Where D is greater than Table depth (D-Table depth) R = $(10.78 - 8.13) \cdot 938$ ✓ <u>2.65</u> ✓ $\times 938 = +2.49$ ✓	Moulded Breadth (B) <u>24.00</u>
Stringer plate ... <u>.30</u> ✓ <u>.03</u> ✓	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = -	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{24 \times 12}{50} = 5.76$ ✓
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$		Ship's Round of Beam = <u>6</u> ✓
Depth for Freeboard (D) = <u>10.78</u> ✓	If restricted by superstructures -	Difference <u>Less 24</u> ✓
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{24}{4} \left(1 - \frac{5163}{4837} \right)$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
" overhang					
R.Q.D. enclosed	<u>40.75</u> ✓	<u>40.75</u> ✓	<u>2.25</u> ✓	<u>2.35</u> ✓ <u>3.15</u> ✓	<u>29.11</u> ✓
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
F'cle enclosed	<u>18.25</u> ✓	<u>18.25</u> ✓	<u>2.25</u> ✓	<u>2.46</u> ✓ <u>6.00</u> ✓	<u>7.48</u> ✓
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	<u>59.00</u> ✓	<u>59.00</u> ✓			<u>36.59</u> ✓

Standard Height of Superstructure	<u>6.00</u> ✓
" R.Q.D.	<u>3.15</u> ✓
Deduction for complete superstructure	<u>18.20</u> ✓
Percentage covered $\frac{S}{L} =$	<u>48.37</u> ✓
" $\frac{S_1}{L} =$	<u>48.37</u> ✓
" $\frac{E}{L} =$	<u>29.99</u> ✓
Percentage from Table, Line A.	<u>14.99</u> ✓
(corrected for absence of forecastle (if required))	-
Percentage from Table, Line B.	-
(corrected for absence of forecastle (if required))	-
Interpolation for bridge less than 2L (if required)	-
Deduction = $18.20 \times .1499 =$	<u>2.73</u> ✓

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<u>22.20</u> ✓	1		<u>22.20</u>	<u>20.00</u>	<u>20.00</u> ✓	1		<u>20.00</u> ✓
$\frac{1}{8}L$ from A.P.	<u>9.88</u>	4		<u>39.52</u>	<u>7.90</u> ✓	<u>7.90</u> ✓	4		<u>31.60</u> ✓
$\frac{2}{8}L$ "	<u>2.44</u>	2		<u>4.88</u>	<u>1.97</u> ✓	<u>1.97</u> ✓	2		<u>3.94</u> ✓
Amidships	-	4		-	<u>.00</u>	-	4		-
$\frac{3}{8}L$ from F.P.	<u>4.88</u>	2		<u>9.76</u>	<u>4.14</u> ✓	<u>4.14</u> ✓	2		<u>8.28</u> ✓
$\frac{4}{8}L$ "	<u>19.76</u>	4		<u>79.04</u>	<u>16.59</u> ✓	<u>16.59</u> ✓	4		<u>66.36</u> ✓
F.P.	<u>44.40</u>	1		<u>44.40</u>	<u>43.00</u> ✓	<u>43.00</u> ✓	1		<u>43.00</u> ✓
Total				<u>199.80</u> ✓					<u>173.18</u> ✓

Mean actual sheer aft = <u>Deficient</u>	Mean standard sheer aft =
Mean actual sheer forward = <u>Deficient</u>	Mean standard sheer forward =
Length of enclosed superstructure forward of amidships =	
" aft of " =	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \text{Deficient. } \frac{26.62}{18} \left(.75 - \frac{5081}{2419} \right) = +.75$ ✓

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. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = <u>10.78</u> ✓ Summer freeboard = <u>1.10</u> ✓ Moulded draught (d) = <u>9.68</u> ✓ Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>2.42</u> ✓ Addition for Winter North Atlantic Freeboard (if required) = <u>2</u> ✓	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 637$ Tons. Tons per inch immersion at summer load water line $T = 6.17$ Deduction = $\frac{\Delta}{40 T}$ inches = Δ at 8'0" W.L. = <u>497 Tons</u> T.P.L. " " " = <u>6</u> "	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.730 + .68}{1.36} = \frac{1.41}{1.36}$ <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction</td> <td><u>2.49</u> ✓</td> <td>-</td> </tr> <tr> <td>Deduction for superstructures</td> <td>-</td> <td><u>2.73</u> ✓</td> </tr> <tr> <td>Sheer correction</td> <td><u>.75</u> ✓</td> <td>-</td> </tr> <tr> <td>Round of Beam correction</td> <td>-</td> <td><u>.03</u> ✓</td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td>-</td> <td>-</td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td>-</td> <td>-</td> </tr> <tr> <td></td> <td><u>3.24</u></td> <td><u>2.76</u></td> </tr> <tr> <td></td> <td colspan="2">+ <u>.48</u> ✓</td> </tr> <tr> <td></td> <td colspan="2">Summer Freeboard = <u>13.13</u> ✓</td> </tr> </table>		+	-	Depth Correction	<u>2.49</u> ✓	-	Deduction for superstructures	-	<u>2.73</u> ✓	Sheer correction	<u>.75</u> ✓	-	Round of Beam correction	-	<u>.03</u> ✓	Correction for Thickness of Deck amidships	-	-	Other corrections, scantlings, etc.	-	-		<u>3.24</u>	<u>2.76</u>		+ <u>.48</u> ✓			Summer Freeboard = <u>13.13</u> ✓	
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~, Steel, Deck: - 1'-1 $\frac{1}{4}$ " ✓

Tropical Fresh Water Line above Centre of Disc	Tropical Fresh Water Freeboard
Fresh Water Line " "	Fresh Water " "
Tropical Line " " <u>2$\frac{1}{2}$"</u> ✓	Tropical " " <u>0'-10$\frac{3}{4}$"</u> ✓
Winter Line below " " <u>2$\frac{1}{2}$"</u> ✓	Winter " " <u>1'-3$\frac{3}{4}$"</u> ✓
Winter North Atlantic Line " " <u>4$\frac{1}{2}$"</u> ✓	Winter North Atlantic " " <u>1'-5$\frac{3}{4}$"</u> ✓

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway	MAIN HATCH	O.T. HATCH FORWARD	2 O.T. HATCHES AMIDSHIPS	2 COAL HATCHES				
Dimensions of Hatchway	35'-0" x 13'-0"	4'-0" x 1'-9"	2'-6" x 1'-9"	5'-0" x 1'-8"				
COAMINGS	Height above Deck	...	4'-5" ✓			15" ✓				
	Thickness	Sides	30" ✓	7' x 3' x 40" ✓	7' x 3' x 40" ✓	30" ✓				
		Ends	30" ✓	ANGLE	ANGLE	30" ✓				
	Stiffeners	...	SEE SKETCH ON PAGE 4	COAMING	COAMINGS	NONE				
HATCH BEAMS	Brackets, Stays	...				NONE				
	Number	...	6	WITH 40" STEEL PLATE	WITH 40" STEEL PLATE					
	Spacing	...	5'-0" ✓							
	Scantling and Sketch	...	12" - 6" x 30" ✓ 3' x 5' x 40" ✓	O.T. COVER SECURED BY 6 TOGGLES.	O.T. COVERS SECURED BY 6 TOGGLES.	NONE				
FORE AND AFTERS	Bearing Surface	...	3 1/2" ✓							
	Number	...								
	Spacing	...								
	Unsupported Lengths	...								
HATCH COVERS	Scantling* and Sketch	...	None			NONE				
	Bearing Surface	...								
	Material	...	W.P.			W.P.				
	Thickness	...	2 1/2" ✓			2 1/2" ✓				
Spacing of Cleats	How fitted	...	F. & A.			✓				
	Bearing Surface	...	2 1/2" ✓			2 1/2" ✓				
	Number of Tarpaulins	...	3 ✓			2 ✓				
		...								
*Are wood fore and afters steel shod at all bearing surfaces? <i>None ✓</i> Are battens and wedges efficient and in good condition? <i>Yes. ✓</i> Are tarpaulins in good condition and in accordance with rule requirements? <i>Yes. ✓</i> Are lashings provided in accordance with rule requirements? <i>Yes. ✓</i>										

Particulars of fiddle, funnel and ventilator coamings:—

Stokehold gratings covered by strong steel hinged covers. ✓
Fiddle and funnel ventilators in efficient condition. ✓
Engine skylight of steel, strongly constructed. ✓

Particulars of Flush Bunker Scuttles:—

None. ✓

Particulars of Companionways:—

One steel companion 3'-2" x 2'-4" x 5'-9" high on forecastle deck, leading to enclosed forecastle. ~~2 solid wood door~~ 4'-3" x 1'-10" with 14" sill. Door operated from both sides. ✓
hinged shut. ~~XXXXXX~~

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

None. ✓

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

One C.I. air pipe on forecastle deck 1'-6" high x 3" dia. from fore peak. ✓
Two " " " " fore well " 3'-3" " x 2" " " drainage tanks. ✓
One " " " " Raised Qtr " 3'-3" " x 3 1/2" " " aft peak. ✓
One " " " " " " 2'-3" " x 2 1/2" " " " " ✓



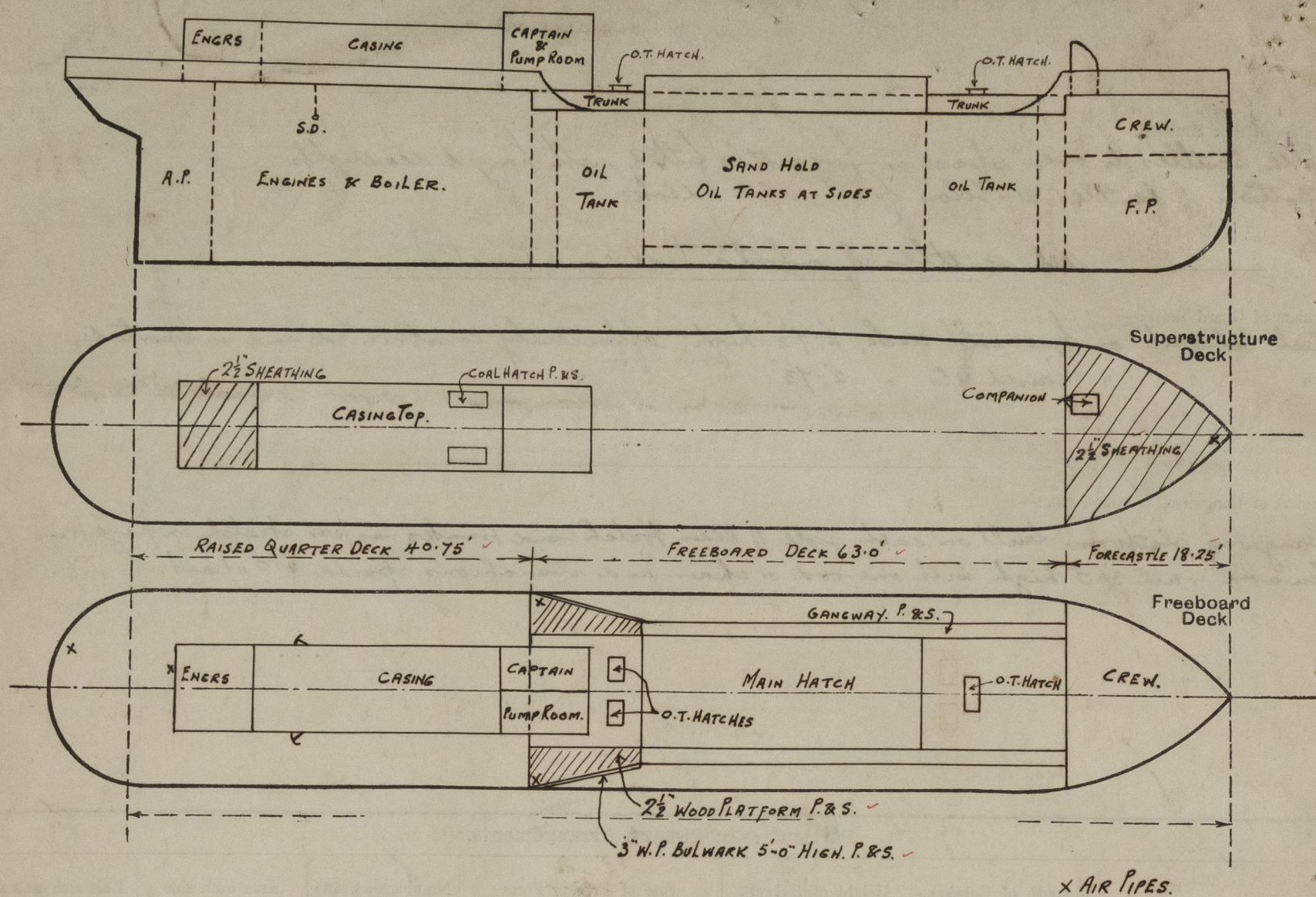
All air pipes have snifting hole in top of bend and are closed with wood plugs and canvas covers. ✓

Particulars of Gangway Cargo and Coaling Ports:—

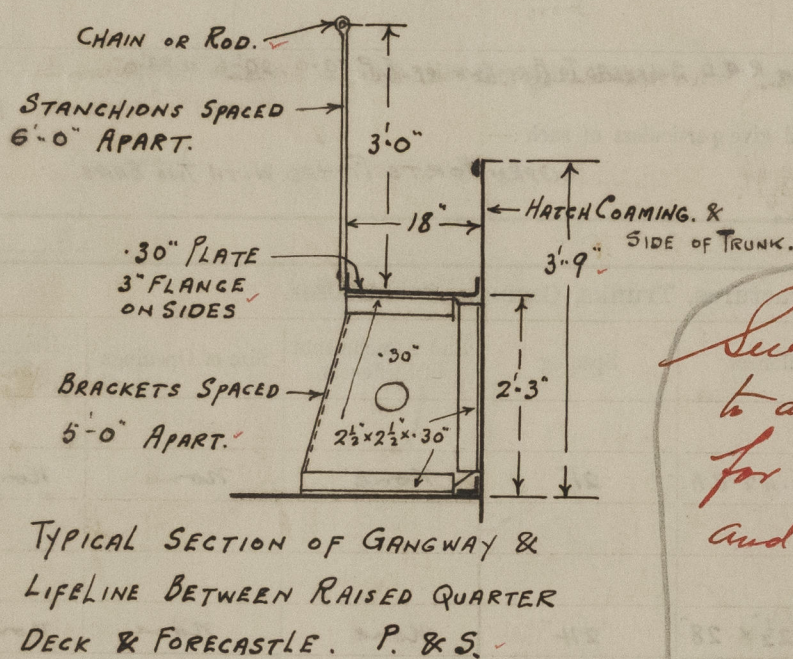
NONE. ✓



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:—



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



Security held afloat and confined to an examination of the means for closing the openings in the decks and sides of vessels.

Builder's name and yard number

C. Hill & Sons, Ltd. Bristol.

Yard No. 159.

Names of sister ships

Owners

Holms Sand and Gravel Co. Bristol.

Fee £

3 : 12 : 0
3 : 8 : 0

Received by me



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