

30'-6" increased length inserted forward of amidships

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

 Index No. _____
 (For London Office only.)

Computation of Freeboard for Steamer , Sailing Ship, Tanker					Port of Survey _____	
having _____					Date of Survey <u>20. 3. 35</u>	
(Type of Superstructures.) _____					Name of Surveyor _____	
Ship's Name <u>Clydefield</u>	Nationality and Port of Registry _____	Official Number _____	Gross Tonnage _____	Date of Build _____	Particulars of Classification <u>100 M1</u> <u>Carrying petroleum in bulk</u>	
Moulded Dimensions: Length <u>449.91</u> Breadth <u>57.50</u> Depth <u>32.80</u>						
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>15244</u> <u>16464</u> tons						
Coefficient of fineness for use with Tables <u>.799</u>						

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>32.80</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>(32.86 - 29.99) × 3 = + 8.61</u>	Moulded Breadth (B) <u>57.50</u>
Stringer plate <u>.06</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <u>2.87</u>	Standard Round of Beam = $\frac{B \times 12}{50} = \underline{13.80}$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ <u>✓</u>	If restricted by superstructures <u>✓</u>	Ship's Round of Beam = <u>15.00</u>
Depth for Freeboard (D) = <u>32.86</u>		Difference <u>1.20</u>
		Restricted to
		Correction = $\frac{\text{Diff}^\circ}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{1.20}{4} \times \frac{61.57}{57.50} = \underline{- .18}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S _i)	Height	Height Correction	Effective Length (E)
Poop enclosed	<u>89.08</u>	<u>89.08</u>	<u>7.5</u>	<u>-</u>	<u>89.08</u>
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed	<u>35.50</u>	<u>35.50</u>	<u>8.0</u>	<u>-</u>	<u>35.50</u>
" overhang aft	<u>4.25</u>	<u>3.19</u>			<u>3.19</u>
" overhang forward	<u>4.25</u>	<u>2.12</u>			<u>2.12</u>
F'cle enclosed <u>open</u>	<u>45.25</u>	<u>43.03</u>	<u>2.5</u>	<u>-</u>	<u>43.03</u>
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	<u>178.33</u>	<u>172.92</u>			<u>172.92</u>

Standard Height of Superstructure 7.5 ✓
 " " R.Q.D. ✓
 Deduction for complete superstructure 42 ✓
 Percentage covered $\frac{S}{L} = \underline{39.63}$ ✓
 " " $\frac{S_1}{L} = \underline{38.43}$ ✓
 " " $\frac{E}{L} = \underline{38.43}$ ✓
 Percentage from Table, Line A. ✓
 (corrected for absence of forecastle (if required))
 Percentage from Table, Line B. Tanker 29.43 ✓
 (corrected for absence of forecastle (if required))
 Interpolation for bridge less than .2L (if required) -
 Deduction = 42 × 29.43 = - 12.36 ✓

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	<u>54.99</u>	1	<u>54.99</u>	<u>58.9</u> ✓	<u>58.9</u> ✓	1	<u>58.9</u> ✓
$\frac{1}{2}$ L from A.P.	<u>24.475</u>	4	<u>97.90</u>	<u>23.5</u> ✓	<u>23.5</u> ✓	4	<u>94.0</u> ✓
$\frac{2}{3}$ L "	<u>6.05</u>	2	<u>12.10</u>	<u>4.1</u> ✓	<u>4.1</u> ✓	2	<u>8.2</u> ✓
Amidships	<u>-</u>	4	<u>-</u>	<u>-</u>	<u>-</u>	4	<u>-</u>
$\frac{2}{3}$ L from F.P.	<u>12.10</u>	2	<u>24.20</u>	<u>8.7</u> ✓	<u>8.7</u> ✓	2	<u>17.4</u> ✓
$\frac{1}{2}$ L "	<u>48.95</u>	4	<u>195.80</u>	<u>46.7</u> ✓	<u>46.7</u> ✓	4	<u>186.8</u> ✓
F.P.	<u>109.98</u>	1	<u>109.98</u>	<u>113.4</u> ✓	<u>113.4</u> ✓	1	<u>113.4</u> ✓
Total			<u>494.97</u>				<u>478.7</u> ✓

Mean actual sheer aft = Deficient ✓
 Mean standard sheer aft = Deficient ✓
 Mean actual sheer forward = Deficient 95.38 ✓
 Mean standard sheer forward = Deficient ✓
 Length of enclosed superstructure forward of amidships = 3 Tanker ✓
 " " aft of " = 3 ✓
 Sheer forward. Standard Actual

12.10	3	36.30	8.7	3	26.1
48.95	3	146.85	46.7	3	140.1
109.98	1	109.98	113.4	1	113.4
		<u>293.13</u>			<u>279.6</u>

 Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{16.27}{18} \left(.75 - \frac{1981}{2 \times 449.91} \right) = \underline{+.50}$ ✓
 If limited on account of midship superstructure. ✓
 If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. ✓

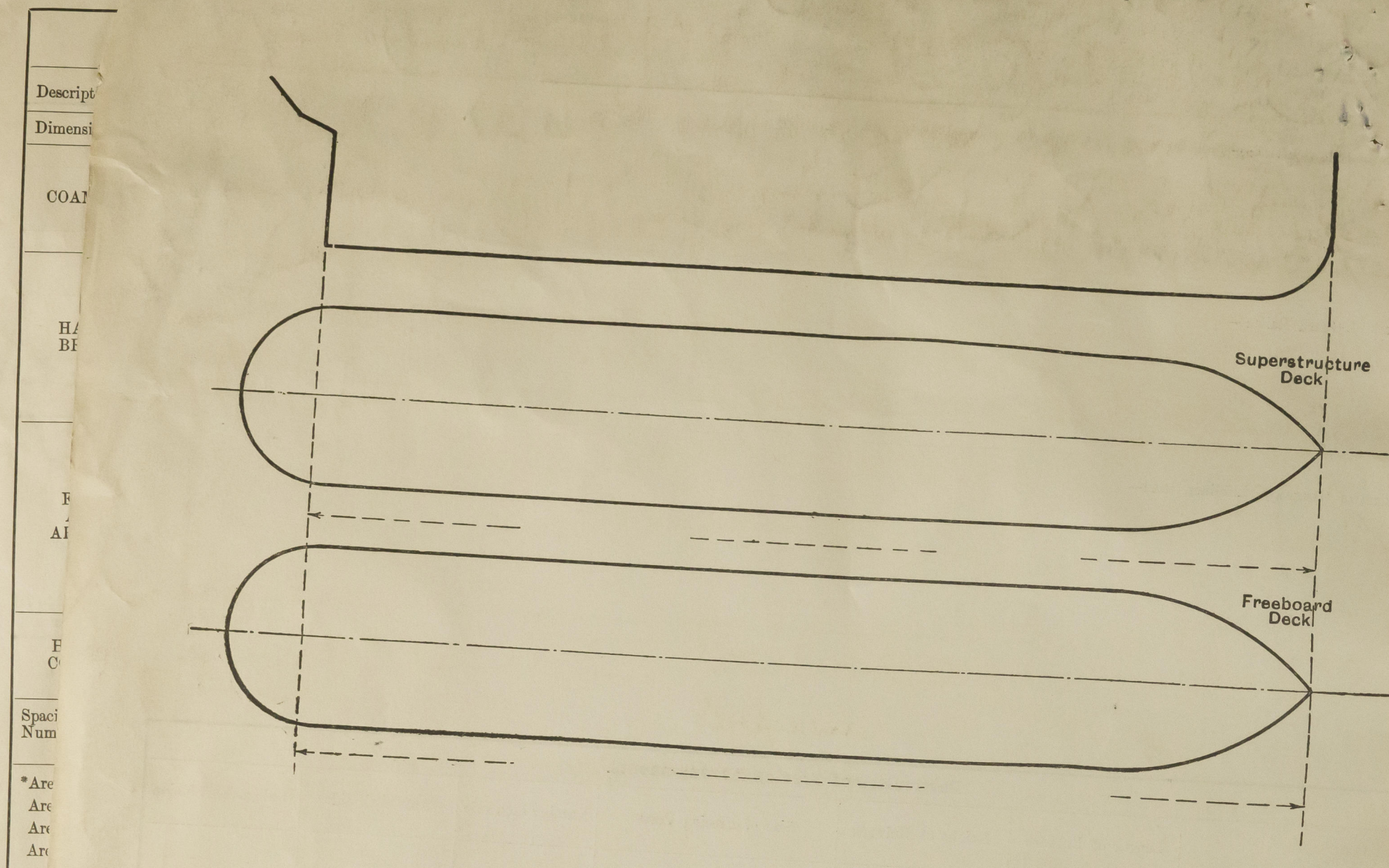
Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = <u>32.86</u> Ft. Summer freeboard = <u>6.52</u> Moulded draught (d) = <u>26.34</u> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = _____ Addition for Winter North Atlantic Freeboard (if required) = _____	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ _____ Tons per inch immersion at summer load water line $T =$ _____ Deduction = $\frac{\Delta}{40 T}$ inches = _____	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.799 + .68}{1.36} = \frac{1.479}{1.36} =$ _____ <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>+</th> <th>-</th> </tr> </thead> <tbody> <tr> <td>Depth Correction</td> <td><u>8.61</u></td> <td><u>-</u></td> </tr> <tr> <td>Deduction for superstructures</td> <td><u>-</u></td> <td><u>12.36</u></td> </tr> <tr> <td>Sheer correction</td> <td><u>0.50</u></td> <td><u>-</u></td> </tr> <tr> <td>Round of Beam correction</td> <td><u>-</u></td> <td><u>0.18</u></td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td><u>-</u></td> <td><u>-</u></td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td><u>9.11</u></td> <td><u>12.54</u></td> </tr> <tr> <td style="text-align: right;">Summer Freeboard =</td> <td><u>78.23</u></td> <td><u>- 3.43</u></td> </tr> </tbody> </table>		+	-	Depth Correction	<u>8.61</u>	<u>-</u>	Deduction for superstructures	<u>-</u>	<u>12.36</u>	Sheer correction	<u>0.50</u>	<u>-</u>	Round of Beam correction	<u>-</u>	<u>0.18</u>	Correction for Thickness of Deck amidships	<u>-</u>	<u>-</u>	Other corrections, scantlings, etc.	<u>9.11</u>	<u>12.54</u>	Summer Freeboard =	<u>78.23</u>	<u>- 3.43</u>
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc	Tropical Fresh Water Freeboard
Fresh Water Line " "	Fresh Water " "
Tropical Line " "	Tropical " "
Winter Line below " "	Winter " "
Winter North Atlantic Line " "	Winter North Atlantic " "

Summer moulded draught = 26'-84" ✓

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 shewn on the following sketches:—



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

$$\text{Increase in Max Depth} = 12.84 \times \left(\frac{15.25}{69.9} \right)^2 = .61'' \checkmark$$

$$\text{Area of midship section to .85 Dn} = .85 \times 32.8 \times 57.5 \times .97 = 1555.5 \text{ sq ft}$$

$$\text{Increase in } \Delta = \frac{30.5 \times 1555}{35} = 1355 \text{ tons}$$

$$\text{Increase in increased Dn} = .6 \times .85 \times 48.3 = 25$$

$$\text{Existing } \Delta = 1380$$

$$\text{New } \Delta = 15084$$

$$\text{New } \Delta = 16464$$

Builder's name and yard number

Names of sister ships

Owners

Fee £

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