

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD

(COMPUTATION FOR ~~STEAMER, SAILING SHIP,~~ TANKER)

BRITISH DILIGENCE
35273

Received
Index No.
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Owners C11

Ship's Name 'BRITISH RESOLUTION'	Official Number 165539	Nationality and Port of Registry British London	Gross Tonnage 8298	Date of Build 8.37	Port of Survey
Moulded Dimensions: Length 464.21 Breadth 61.75 Depth 34.04					Date of Survey 10-4-56
Freeboard Length					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth 18198 tons					Particulars of Classification + 100A1
Coefficient of fineness for use with Tables .77					'Carrying Petroleum in Bulk'

<p>DEPTH FOR FREEBOARD (D).</p> <p>Moulded depth 34.04</p> <p>Stringer plate8207</p> <p>Wood Sheathing on exposed deck</p> <p>$T \left(\frac{L-S}{L} \right) =$</p> <p>Depth for Freeboard (D) = 34.11</p>	<p>DEPTH CORRECTION.</p> <p>(a) Where D is greater than Table depth (D-Table depth) R = $(34.11 - 30.94) 3 = + 9.51$</p> <p>(b) Where D is less than Table depth (if allowed) (Table depth-D) R =</p> <p>If restricted by superstructures</p>	<p>ROUND OF BEAM CORRECTION.</p> <p>Moulded Breadth (B) 61.75</p> <p>Standard Round of Beam = $\frac{B \times 12}{50} = 14.82$</p> <p>Ship's Round of Beam = 15</p> <p>Difference .18</p> <p>Restricted to</p> <p>Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.18^2}{4} \times .5732 = .03$</p>
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DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	103.00	103.00	8.0' min.	103.00
" overhang	3.50	1.75		1.75
R.Q.D. enclosed				
" overhang				
Bridge enclosed	36.00	36.00	8.0'	36.00
" overhang aft	3.00	2.25		2.25
" overhang forward	3.50	1.75		1.75
F'cle enclosed <i>equivalent</i>	53.38	53.38	8.0'	53.38
" overhang				
Trunk aft				
" forward				
Tonnage opening aft				
" " forward				
Total	202.38	198.13		198.13

Standard Height of Superstructure	7.5
" " R.Q.D.	-
Deduction for complete superstructure	42.00
Percentage covered $\frac{S}{L} =$	43.59
" " $\frac{S_1}{L} =$	42.68
Percentage from Table, Line A. TANKER	33.68
(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 = $42.00 \times .3368 =$	14.15

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	56.42	1	56.42	38.00	38.00	1	38.00
$\frac{1}{2}L$ from A.P.	25.105	4	100.42	21.87	21.87	4	87.48
$\frac{1}{4}L$ "	6.205	2	12.41	6.00	6.00	2	12.00
Amidships	0	4	0	0	0	4	0
$\frac{3}{4}L$ from F.P.	12.41	2	24.82	12.25	12.25	2	24.50
$\frac{1}{2}L$ "	50.21	4	200.84	50.12	50.12	4	200.48
F.P.	112.84	1	112.84	113.00	113.00	1	113.00
Total			507.75				475.46

Mean actual sheer aft = *Deficient*

Mean standard sheer aft =

Mean actual sheer forward = **99.8%**

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =

" " aft of " = } *Tankers.*

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{32.29}{18} \left(\frac{.75 - .2179}{2} \right) = 1.00$

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

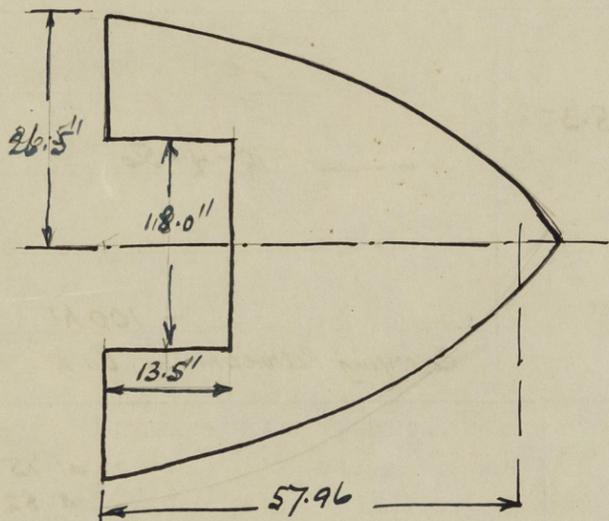
<p>Deduction for Tropical Freeboard.</p> <p>Addition for Winter and Winter North Atlantic Freeboard.</p> <p>Depth to Freeboard Deck = 34.11</p> <p>Summer freeboard = 6.69</p> <p>Moulded draught (d) = 27.42</p> <p>Keel allowance =</p> <p>Extreme draught =</p> <p>Deduction for Tropical freeboard and addition for =</p> <p>Winter freeboard = $\frac{d}{4}$ inches = 6.85 = 6$\frac{3}{4}$</p> <p>Addition for Winter North Atlantic Freeboard (if required) = 6.85 + 4.64 = 11.49 = 11$\frac{1}{2}$</p>	<p>Deduction for Fresh Water.</p> <p>Displacement in salt water at summer load water line</p> <p>$\Delta =$</p> <p>Tons per inch immersion at summer load water line</p> <p>T =</p> <p>Deduction = $\frac{\Delta}{40 T}$ inches = 7$\frac{1}{2}$</p>	<p>TABULAR FREEBOARD corrected for Flush Deck (if required)</p> <p>Correction for coefficient $\frac{.77 + .68}{1.36} = 1.45 / 1.36$</p> <table border="1"> <tr> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction</td> <td>9.51</td> </tr> <tr> <td>Deduction for superstructures</td> <td>14.15</td> </tr> <tr> <td>Sheer correction</td> <td>1.00</td> </tr> <tr> <td>Round of Beam correction</td> <td>.03</td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td>-</td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td>-</td> </tr> <tr> <td>10.58</td> <td>14.18</td> </tr> </table> <p>Summer Freeboard = 80.33</p>	+	-	Depth Correction	9.51	Deduction for superstructures	14.15	Sheer correction	1.00	Round of Beam correction03	Correction for Thickness of Deck amidships	-	Other corrections, scantlings, etc.	-	10.58	14.18
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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 ...	14$\frac{1}{4}$	Tropical Fresh Water Freeboard	5$\frac{1}{2}$ - 6$\frac{1}{4}$
Fresh Water Line " " ...	7$\frac{1}{2}$	Fresh Water " " ...	6$\frac{1}{2}$ - 0$\frac{3}{4}$
Tropical Line " " ...	6$\frac{3}{4}$	Tropical " " ...	6$\frac{1}{2}$ - 1$\frac{1}{2}$
Winter Line below " " ...	6$\frac{3}{4}$	Winter " " ...	7$\frac{1}{3}$
Winter North Atlantic Line " " ...	11$\frac{1}{2}$	Winter North Atlantic " " ...	7 - 7$\frac{3}{4}$

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A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.



Equivalent length.

$$\begin{array}{rcl}
 \text{Length at side} & = & 57.96 \\
 \text{less } \frac{9 \times 13.5}{26.5} & = & 4.58 \\
 \hline
 & & 53.38
 \end{array}$$

Trade of ship

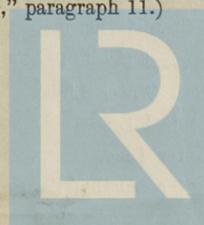
Names of sister ships

Builder's name and yard number

Owners

Fee £ : :

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950," paragraph 11.)



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