

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

GRK. REPORT N° 23549

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build
"ARGUS"	181821	BRITISH LONDON.	1917.97	1947
Moulded Dimensions: Length ^{250'-40} 250'-0" ✓ <i>To centre of Rudder Stock.</i>	Breadth 40'-0" ✓	Depth 18'-6" To Main Deck ✓ 26'-3½" "Upper"	Moulded displacement at moulded draught = 85 per cent. of moulded depth (15,725) 2872 4396 tons	
Coefficient of fineness for use with Tables .687				

GRK. REPORT N° 253A

Port of Survey PORT GLASGOW

Date of Survey WHILEST BUILDING.

Surveyor's Signature J. A. Jameson

Particulars of Classification +100 A.I.
"WITH FREEBOARD"
(CONTEMPLATED)

<p>Depth for Freeboard (D).</p> <p>Moulded depth 26.3</p> <p>Stringer plate 34"</p> <p>Sheathing on exposed deck 1 1/2" WOOD AFF.</p> <p>$T \left(\frac{L-S}{L} \right) = \frac{21}{1} \times \frac{156.50}{250.40} = 13.$</p> <p>Depth for Freeboard (D) = 26.45</p>	<p>Depth correction.</p> <p>(a) Where D is greater than Table depth (D-Table depth) R = (26.45 - 16.69) 1.926 = +18.80"</p> <p>(b) Where D is less than Table depth (if allowed) (Table depth-D) R = 9.76</p> <p>If restricted by superstructures</p>	<p>Round of Beam correction.</p> <p>Moulded Breadth (B) 40.0</p> <p>Standard Round of Beam = $\frac{B \times 12}{50} = 9.60"$</p> <p>Ship's Round of Beam = 10"</p> <p>Difference Excess = 40</p> <p>Restricted to</p> <p>Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{40}{4} = -10"$</p>
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[illegible]

Standard Height of Superstructure..... 6.004 ✓

" " R.Q.D. ✓

Deduction for complete superstructure 31.04 ✓

Percentage covered $\frac{S}{L} =$

" " $\frac{S_1}{L} =$

" " $\frac{E}{L} =$

Percentage from Table, Line A.
(corrected for absence of forecaste (if required))

Percentage from Table, Line B.
(corrected for absence of forecaste (if required))

Interpolation for bridge less than $\cdot 2L$ (if required)

Deduction = Nil ✓

Station	Standard Ordnate	S M	Product	Actual Ordnate	Effective Ordnate	S M	Product
A.P. ...	35.04	1	35.04	32"	32.00	1	32.00
$\frac{1}{8}$ L from A.P. ...	15.59	4	62.36	13.5"	13.50	4	54.00
$\frac{3}{8}$ L ..	3.855	2	7.71	3.25"	3.25	2	6.50
Amidships ...	-	4	-	0	-	4	-
$\frac{3}{8}$ L from F.P. ...	7.71	2	15.42	9"	9.00	2	18.00
$\frac{1}{8}$ L ..	31.185	4	124.74	34.25"	34.25	4	137.00
F.P. ...	70.08	1	70.08	75.5"	75.50	1	75.50
Total ...			315.35				323.00

Mean actual sheer aft = $> .75$
 Mean standard sheer aft
 Mean actual sheer forward = *Excess*
 Mean standard sheer forward
 Length of enclosed superstructure forward of amidships =
 1. } *Flush Deck*
 " aft " =
Sheer" aft

<i>Std.</i>			<i>Red</i>		
35.04	1	35.04	32.0	1	32.00
15.59	3	46.77	13.5	3	40.50
3.855	3	11.565	3.25	3	9.75
	1			1	
		93.375			82.25

 $\frac{82.25}{93.375} = 88.09$

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{7.65}{18} \times .75 = -.32"$ If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

<p>Deduction for Tropical Freeboard.</p> <p>Addition for Winter and Winter North Atlantic Freeboard.</p> <p><i>Top of 2 1/2" Wood Pl.</i></p> <p>Depth to Freeboard Deck = <u>26.53</u> Ft.</p> <p>Summer freeboard = <u>10.79</u></p> <p>Moulded draught (d) = <u>15.74</u></p> <p>Deduction for Tropical freeboard and addition for</p> <p>Winter freeboard = $\frac{d}{4}$ inches = <u>3.95" = 4"</u></p> <p>Addition for Winter North Atlantic Freeboard (if required) = <u>4" + 2" = 6"</u></p>	<p>Deduction for Fresh Water.</p> <p>Displacement in salt water at summer load water line</p> <p>$\Delta = 16.3" = 3024$</p> <p>$\Delta = 15.3" = 2797$</p> <p>Tons per inch immersion at summer load water line</p> <p>$T = 16.3" = 19.3$</p> <p>$T = 15.3" = 18.9$</p> <p>Deduction = $\frac{\Delta}{40T}$ inches</p> <p>= <u>3.83</u></p> <p>= <u>3 3/4"</u></p>	<p>TABULAR FREEBOARD corrected for Flush Deck (if required)</p> <p>Correction for coefficient</p> <p>$\frac{.687 + .68}{1.36} = \frac{1.367}{1.36}$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">+</th> <th style="text-align: center;">-</th> </tr> </thead> <tbody> <tr> <td>Depth Correction</td> <td style="text-align: center;">18.80</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Deduction for superstructures</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Sheer correction</td> <td style="text-align: center;">-</td> <td style="text-align: center;">32</td> </tr> <tr> <td>Round of Beam correction</td> <td style="text-align: center;">-</td> <td style="text-align: center;">10</td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td style="text-align: center;">.96</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Other corrections, scantlings, etc. <i>to correspond with the position of the lowest side scullie</i></td> <td style="text-align: center;">73.83</td> <td style="text-align: center;">-</td> </tr> <tr> <td></td> <td style="text-align: center;">93.59</td> <td style="text-align: center;">42</td> </tr> </tbody> </table> <p style="text-align: right;">Summer Freeboard = <u>129.50</u></p>		+	-	Depth Correction	18.80	-	Deduction for superstructures	-	-	Sheer correction	-	32	Round of Beam correction	-	10	Correction for Thickness of Deck amidships96	-	Other corrections, scantlings, etc. <i>to correspond with the position of the lowest side scullie</i>	73.83	-		93.59	42
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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	...	33 1/4
Fresh Water Line	" "	33 1/4
Tropical Line	" "	Nik
Winter Line	below "	Nik
Winter North Atlantic Line	" "	Nik

Tropical Fresh Water Freeboard	10'-5 3/4" ✓
Fresh Water	"	...	10'-5 3/4" ✓
Tropical	10'-9 1/2" ✓
Winter	"	...	10'-9 1/2" ✓
Winter North Atlantic	"	...	10'-9 1/2" ✓

Argus.

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.

Height of side of main-deck scuttle above top of keel. $16'-3''$

Summer and Tropical draught limited to $\frac{6}{15'-9''}$

Trade of ship LIGHTHOUSE TENDER.

Names of sister ships —

Builder's name and yard number FERGUSON BROS (PORT GLASGOW) LR.

Owners CORPORATION OF TRINITY HOUSE.

Fee £ 11-0-0.

MLD



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