

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <i>Arcla</i>	Official Number <i>115785</i>	Nationality and Port of Registry <i>British Southampton</i>	Gross Tonnage <i>1903</i>	Date of Build <i>- 8</i>	Port of Survey
Moulded Dimensions: Length <i>150.83'</i> Breadth <i>25.5'</i> Depth <i>13.25'</i> <i>on draught 11'-0" &c.</i>					Date of Survey <i>12-12-46</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					Surveyor's Signature _____
Efficient of fineness for use with Tables <i>68 (assumed)</i>					Particulars of Classification _____

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... <i>13.25'</i>	(a) Where D is greater than Table depth (D - Table depth) R = $(13.37 - 10.06) \times 1.16 = +3.84$	Moulded Breadth (B) <i>25.5'</i>
Water plate ... <i>0.35'</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 3.31	Standard Round of Beam = $\frac{B \times 12}{50} = 6.12$
Freeboard on exposed deck $\left(\frac{L-S}{L}\right) = \frac{25}{12} \times 42.55 = .09$	Depth for Freeboard (D) = <i>13.37</i>	Ship's Round of Beam = <i>9.00</i>
	If restricted by superstructures <input checked="" type="checkbox"/>	Difference = <i>2.88</i>
		Restricted to <input checked="" type="checkbox"/>
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S}{L}\right) = \frac{2.88}{4} \times \frac{47.52}{150.83} = .34$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S _i)	Height	Height Correction	Effective Length (E)	
enclosed ...	<i>61.03</i>	<i>61.03</i>	<i>7.25</i>	-	<i>61.03</i>	Standard Height of Superstructure <i>6.0</i>
overhang ...						" " R.Q.D.
enclosed ...						Deduction for complete superstructure <i>21.08</i>
overhang ...						Percentage covered $\frac{S}{L} = 57.45$
enclosed ...						" " $\frac{S_i}{L} = 52.48$
overhang ...						" " $\frac{E}{L} =$
overhang aft ...						Percentage from Table, Line A. <i>35.47</i>
overhang forward ...						(corrected for absence of forecastle (if required))
enclosed ...	<i>25.63</i>	<i>18.13</i>	<i>7.25</i>	-	<i>18.13</i>	Percentage from Table, Line B.
overhang ...						(corrected for absence of forecastle (if required))
aft ...						Interpolation for bridge less than 2L (if required)
forward ...						Deduction = $21.08 \times 35.47 = 7.48$
opening aft ...						
" forward						
Total ...	<i>86.66</i>	<i>79.16</i>			<i>79.16</i>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
...	<i>25.08</i>	1		<i>25.08</i>	<i>9.00</i>	<i>9.00</i>	1		<i>9</i>	Mean actual sheer aft =
...	<i>11.65</i>	4		<i>44.66</i>	<i>N/A</i>	-	4		-	Mean standard sheer aft =
...	<i>2.76</i>	2		<i>5.52</i>	<i>-3.00</i>	<i>-3.00</i>	2		<i>-6</i>	Mean actual sheer forward =
...	-	4		-	<i>N/A</i>	-	4		-	Mean standard sheer forward =
P. ...	<i>5.52</i>	2		<i>11.04</i>	<i>7.0</i>	<i>7.00</i>	2		<i>14</i>	Length of enclosed superstructure forward of amidships =
...	<i>22.33</i>	4		<i>89.32</i>	<i>19.0</i>	<i>19.00</i>	4		<i>76</i>	" " aft of " =
...	<i>50.17</i>	1		<i>50.17</i>	<i>36.0</i>	<i>36.00</i>	1		<i>36</i>	$\frac{55.2 \times 3}{133.72} = 1.24$
...				<i>225.79</i>					<i>129</i>	$\frac{22.33 \times 3}{133.72} = 0.50$
										$\frac{50.17 \times 1}{133.72} = 0.37$
										$\frac{114}{133.72} = 0.85$

Correction = Difference between sums of products $\left(\frac{75-S}{2L}\right) = \frac{96.79}{18} \left(\frac{75-28.72}{133.72}\right) = +2.49$
 on account of midship superstructure. If limited to maximum allowance of 1½ ins. per 100 ft.

for Tropical Freeboard. for Winter and Winter North Freeboard. Freeboard to Freeboard Deck = <i>13.49</i> Summer freeboard = <i>1.29</i> Moulded draught (d) = <i>12.20</i> for Tropical freeboard and addition for freeboard = $\frac{d}{4}$ inches = for Winter North Atlantic Freeboard (if d) =	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 = $\frac{\Delta}{40T}$ inches =	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction</td> <td><i>3.84</i></td> <td></td> </tr> <tr> <td>Deduction for superstructures</td> <td></td> <td><i>7.48</i></td> </tr> <tr> <td>Sheer correction</td> <td><i>2.49</i></td> <td></td> </tr> <tr> <td>Round of Beam correction</td> <td></td> <td><i>.34</i></td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td><i>1.42</i></td> <td></td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td></td> <td></td> </tr> <tr> <td>Summer</td> <td>7.75</td> <td></td> </tr> </table>		+	-	Depth Correction	<i>3.84</i>		Deduction for superstructures		<i>7.48</i>	Sheer correction	<i>2.49</i>		Round of Beam correction		<i>.34</i>	Correction for Thickness of Deck amidships	<i>1.42</i>		Other corrections, scantlings, etc.			Summer	7.75	
	+	-																								
Depth Correction	<i>3.84</i>																									
Deduction for superstructures		<i>7.48</i>																								
Sheer correction	<i>2.49</i>																									
Round of Beam correction		<i>.34</i>																								
Correction for Thickness of Deck amidships	<i>1.42</i>																									
Other corrections, scantlings, etc.																										
Summer	7.75																									

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 " " ...	Winter " " ...
Winter North Atlantic Line " " ...	Winter North Atlantic " " ...

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.

RETAIL

RETAIL



© 2020

Lloyd's Register
Foundation