

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <b>ARGUS.</b>	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length <b>250.40'</b> Breadth <b>40.0'</b> Depth <b>18.50'</b> <i>to E of rudder stock</i>					Date of Survey <b>29/9/47.</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>2872.</b> tons					Surveyor's Signature
Coefficient of fineness for use with Tables <b>.68 (.638 actual)</b> ✓					Particulars of Classification

<p><b>DEPTH FOR FREEBOARD (D).</b></p> <p>Moulded depth ... .. <b>18.50'</b></p> <p>Stringer plate ... <b>.34</b> ... .. <b>.03'</b></p> <p>Sheathing on exposed deck</p> <p><math>T \left( \frac{L-S}{L} \right) =</math></p> <p>Depth for Freeboard (D) = <b>18.53'</b></p>	<p><b>DEPTH CORRECTION.</b></p> <p>(a) Where D is greater than Table depth (D-Table depth) R = <b>(18.53-16.69) 1.926 = +3.54'</b></p> <p>(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <b>1.824</b></p> <p>If restricted by superstructures</p>	<p><b>ROUND OF BEAM CORRECTION.</b></p> <p>Moulded Breadth (B)</p> <p>Standard Round of Beam = <math>\frac{B \times 12}{50} =</math></p> <p>Ship's Round of Beam <b>taken</b> = <b>Standard.</b></p> <p>Difference</p> <p>Restricted to</p> <p>Correction = <math>\frac{\text{Diff}^\circ}{4} \times \left( 1 - \frac{S_1}{L} \right) =</math> <b>Nik.</b> ✓</p>
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**DEDUCTION FOR SUPERSTRUCTURES.**

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..					
„ overhang ... ..					
R.Q.D. enclosed ... ..					
„ overhang ... ..	<b>C</b>				
Bridge enclosed ... ..					
„ overhang aft ... ..					
„ overhang forward ... ..	<b>S</b>				
F'cle enclosed ... ..					
„ overhang ... ..	<b>S</b>				
Trunk aft ... ..					
„ forward ... ..					
Tonnage opening aft ... ..					
„ „ forward ... ..					
Total ... ..					

Standard Height of Superstructure **6.004'**

„ „ R.Q.D. ✓

Deduction for complete superstructure **31.04'**

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

„ „  $\frac{S_1}{L} =$  } **100.** ✓

„ „  $\frac{E}{L} =$

Percentage from Table, Line A.  
(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 = **-31.04'** ✓

**SHEER CORRECTION.**

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ... ..		1		<b>S</b>		1	
$\frac{1}{8}L$ from A.P. ... ..		4		<b>T</b>		4	
$\frac{2}{8}L$ „ ... ..		2		<b>A</b>		2	
Amidships ... ..		4		<b>N</b>		4	
$\frac{2}{8}L$ from F.P. ... ..		2		<b>D</b>		2	
$\frac{1}{8}L$ „ ... ..		4		<b>A</b>		4	
F.P. ... ..		1		<b>R</b>		1	
Total ... ..				<b>D.</b>			

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) =$  **-1.50'** ✓

If limited on account of midship superstructure.

L.R. Standard Tonnage Dk 148 = 7.500'  
L.L. „ „ „ „ = 6.004'  
1.496'

<p><b>Deduction for Tropical Freeboard.</b></p> <p><b>Addition for Winter and Winter North Atlantic Freeboard.</b></p> <p>Depth to Freeboard Deck = <b>18.53'</b></p> <p>Summer freeboard = <b>.29'</b></p> <p>Moulded draught (d) = <b>18.24'</b></p> <p>Deduction for Tropical freeboard and addition for Winter freeboard = <math>\frac{d}{4}</math> inches =</p> <p>Addition for Winter North Atlantic Freeboard (if required) =</p>	<p><b>Deduction for Fresh Water.</b></p> <p>Displacement in salt water at summer load water line</p> <p><math>\Delta =</math></p> <p>Tons per inch immersion at summer load water line</p> <p>T =</p> <p>Deduction = <math>\frac{\Delta}{40 T}</math> inches =</p>	<p><b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) <b>32.38'</b></p> <p>Correction for coefficient <b>Nik.</b> <b>32.38'</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;"></td><td style="width: 50%; text-align: center;">+</td><td style="width: 50%; text-align: center;">-</td></tr> <tr><td>Depth Correction ... ..</td><td style="text-align: center;"><b>3.54</b></td><td style="text-align: center;"><b>-</b></td></tr> <tr><td>Deduction for superstructures ... ..</td><td style="text-align: center;"><b>-</b></td><td style="text-align: center;"><b>31.04</b></td></tr> <tr><td>Sheer correction ... ..</td><td style="text-align: center;"><b>-</b></td><td style="text-align: center;"><b>1.50</b></td></tr> <tr><td>Round of Beam correction ... ..</td><td style="text-align: center;"><b>-</b></td><td style="text-align: center;"><b>-</b></td></tr> <tr><td>Correction for Thickness of Deck amidships ... ..</td><td style="text-align: center;"><b>-</b></td><td style="text-align: center;"><b>-</b></td></tr> <tr><td>Other corrections, scantlings, etc. ... ..</td><td style="text-align: center;"><b>-</b></td><td style="text-align: center;"><b>-</b></td></tr> <tr><td colspan="2" style="border-top: 1px solid black;"><b>3.54</b></td><td style="border-top: 1px solid black;"><b>32.54</b></td></tr> <tr><td colspan="2"></td><td style="text-align: right;"><b>-29.00'</b></td></tr> <tr><td colspan="2"></td><td style="text-align: right;"><b>Summer Freeboard = 3.38'</b></td></tr> </table>		+	-	Depth Correction ... ..	<b>3.54</b>	<b>-</b>	Deduction for superstructures ... ..	<b>-</b>	<b>31.04</b>	Sheer correction ... ..	<b>-</b>	<b>1.50</b>	Round of Beam correction ... ..	<b>-</b>	<b>-</b>	Correction for Thickness of Deck amidships ... ..	<b>-</b>	<b>-</b>	Other corrections, scantlings, etc. ... ..	<b>-</b>	<b>-</b>	<b>3.54</b>		<b>32.54</b>			<b>-29.00'</b>			<b>Summer Freeboard = 3.38'</b>
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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 „ „ ... ..

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Freeboard will be limited to position of lowest side of double.