

*For Scupper*

Index No. 39008  
(For London Office only.)

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
					Date of Survey <u>29.11.47</u>
Moulded Dimensions: Length <u>464</u> Breadth <u>61.5</u> Depth <u>34</u>					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth					Particulars of Classification <u>Taubert</u>
Coefficient of fineness for use with Tables <u>.72</u>					

<p><b>DEPTH FOR FREEBOARD (D).</b></p> <p>Moulded depth ... .. <u>34.0</u></p> <p>Stringer plate ... .. <u>.08</u></p> <p>Sheathing on exposed deck</p> <p><math>T \left( \frac{L-S}{L} \right) =</math></p> <p>Depth for Freeboard (D) = <u>34.08</u></p>	<p><b>DEPTH CORRECTION.</b></p> <p>(a) Where D is greater than Table depth</p> <p><math>\left( \frac{D - \text{Table depth}}{3} \right) \times 3 = +9.45</math></p> <p>(b) Where D is less than Table depth (if allowed)</p> <p>(Table depth - D) R =</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 <u>Key</u> = <u>Common</u></p> <p>Difference</p> <p>Restricted to</p> <p>Correction = <math>\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) =</math> <u>Nil</u></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 ... ..	<u>98</u>				
„ overhang ... ..					
R.Q.D. enclosed ... ..					
„ overhang ... ..					
Bridge enclosed ... ..	<u>42</u>				
„ overhang aft ... ..					
„ overhang forward ... ..					
F'cle enclosed <u>Equ.</u> ... ..	<u>52</u>				
„ overhang ... ..					
Trunk aft ... ..					
„ forward ... ..					
Tonnage opening aft ... ..					
„ „ forward ... ..					
Total ... ..	<u>192</u>				

Standard Height of Superstructure	<u>7.5</u>
„ „ R.Q.D.	
Deduction for complete superstructure	<u>42</u>
Percentage covered $\frac{S}{L} =$	
„ „ $\frac{S_1}{L} =$	<u>+1.37</u>
„ „ $\frac{E}{L} =$	
Percentage from Table, Line A.	<u>32.37</u>
(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 =	<u>42 x .3237 = 13.6</u>

**SHEER CORRECTION.**

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ... ..	<u>56.4</u>	1		<u>56.4</u>		1	
$\frac{1}{8}L$ from A.P. ... ..		4				4	
$\frac{2}{8}L$ „ ... ..		2				2	
Amidships ... ..		4				4	
$\frac{2}{8}L$ from F.P. ... ..		2				2	
$\frac{1}{8}L$ „ ... ..		4				4	
F.P. ... ..		1		<u>108</u>		1	
Total ... ..			<u>507.6</u>				<u>486</u>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{21.6}{18} \times \frac{.75 - \frac{2069}{5431}}{2} = +.65$

If limited on account of midship superstructure.

Mean actual sheer aft =  
Mean standard sheer aft =

Mean actual sheer forward =  
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =  
L

„ „ aft of „ =

<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 = <u>34.0</u> Ft.</p> <p>Summer freeboard = <u>6.46</u></p> <p>Moulded draught (d) = <u>27.54</u></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)</p> <p>Correction for coefficient <u>1.40/1.31</u></p> <table border="1"> <tr> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction ... ..</td> <td><u>9.45</u></td> </tr> <tr> <td>Deduction for superstructures ... ..</td> <td><u>13.6</u></td> </tr> <tr> <td>Sheer correction ... ..</td> <td><u>.65</u></td> </tr> <tr> <td>Round of Beam correction ... ..</td> <td></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></td> <td><u>10.10</u></td> </tr> <tr> <td></td> <td><u>13.6</u></td> </tr> <tr> <td></td> <td><u>- 3.50</u></td> </tr> <tr> <td>Summer Freeboard =</td> <td><u>79.52</u></td> </tr> </table>	+	-	Depth Correction ... ..	<u>9.45</u>	Deduction for superstructures ... ..	<u>13.6</u>	Sheer correction ... ..	<u>.65</u>	Round of Beam correction ... ..		Correction for Thickness of Deck amidships ... ..		Other corrections, scantlings, etc. ... ..			<u>10.10</u>		<u>13.6</u>		<u>- 3.50</u>	Summer Freeboard =	<u>79.52</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 „ „ ... ..