

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey
having <i>Poop, Bridge and Forecastle</i>					Date of Survey <i>20-7-32</i>
(Type of Superstructures.)					Name of Surveyor
Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build	Particulars of Classification
<i>"Atlantian"</i>					
Moulded Dimensions: Length <i>414.19'</i> Breadth <i>54.5'</i> Depth <i>36.79'</i>					
Moulded displacement at moulded draught = 85 per cent. of moulded depth <i>15300</i> tons					
Coefficient of fineness for use with Tables <i>.759</i>					

<b>Depth for Freeboard (D)</b> led depth ... stringer plate ... sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <i>36.82</i>	<b>Depth correction</b> (a) Where D is greater than Table depth (D - Table depth) R = <i>+ 27.63"</i> (b) Where D is less than Table depth (if allowed) (Table depth - D) R = <i>1</i> If restricted by superstructures <input checked="" type="checkbox"/>	<b>Round of Beam correction</b> Moulded Breadth (B) Standard Round of Beam = $\frac{B \times 12}{50} =$ Ship's Round of Beam = Difference Restricted to Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = - .05"$
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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 ...					
Bridge enclosed ...					
overhang aft ...					
overhang forward ...					
Forecastle enclosed ...					
overhang ...					
Trunk aft ...					
forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...					

  

Standard Height of Superstructure	<i>7.50</i>
" " R.Q.D.	<i>1</i>
Deduction for complete superstructure	<i>42.00</i>
Percentage covered $\frac{S}{L} =$	
" " $\frac{S_1}{L} =$	
" " $\frac{E}{L} =$	<i>55.88 %</i>
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	
Percentage from Table, Line B. <i>Timber</i>	<i>72.92 %</i>
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than .2L (if required)	
Deduction =	<i>42.00 x 72.92 = - 30.63"</i>

### SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
... ..		1					1		
L from A.P. ...		4					4		
" " ...		2					2		
amidships ...		4					4		
from F.P. ...		2					2		
" " ...		4					4		
" " ...		1					1		
Total ...									

  

Mean actual sheer aft =	
Mean standard sheer aft =	
Mean actual sheer forward =	
Mean standard sheer forward =	
Length of enclosed superstructure forward of amidships =	
" " aft of " =	

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = + .04"$

If limited on account of midship superstructure.

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

<b>Deduction for Tropical Freeboard.</b> <b>Correction for Winter and Winter North Atlantic Freeboard.</b> Depth to Freeboard Deck = <i>36.82</i> Summer freeboard = <i>6.44</i> Moulded draught (d) = <i>30.38</i> Correction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <i>7.59 = 7\frac{1}{2}"</i> Correction for Winter North Atlantic Freeboard (if required) = $\frac{d}{3} = 10.13 = 10\frac{1}{4}"$	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta = 14888$ Tons per inch immersion at summer load water line $T = 45.5$ Deduction = $\frac{\Delta}{40 T}$ inches = $\frac{14888}{40 \times 45.5} = 8.17 = 8\frac{1}{4}"$	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) Correction for coefficient <table border="1"> <tr><td>+</td><td>-</td></tr> <tr><td>Depth Correction ...</td><td><i>27.63</i></td></tr> <tr><td>Deduction for superstructures ...</td><td><i>30.63</i></td></tr> <tr><td>Sheer correction ...</td><td><i>.04</i></td></tr> <tr><td>Round of Beam correction ...</td><td><i>.05</i></td></tr> <tr><td>Correction for Thickness of Deck amidships ...</td><td><i>-</i></td></tr> <tr><td>Other corrections, scantlings, etc. ...</td><td><i>-</i></td></tr> <tr><td><b>27.67</b></td><td><b>30.68</b></td></tr> <tr><td colspan="2">Summer Freeboard = <i>77.34</i></td></tr> </table>	+	-	Depth Correction ...	<i>27.63</i>	Deduction for superstructures ...	<i>30.63</i>	Sheer correction ...	<i>.04</i>	Round of Beam correction ...	<i>.05</i>	Correction for Thickness of Deck amidships ...	<i>-</i>	Other corrections, scantlings, etc. ...	<i>-</i>	<b>27.67</b>	<b>30.68</b>	Summer Freeboard = <i>77.34</i>	
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<b>Timber SUMMER FREEBOARD</b> amidships from <b>Centre of Disc</b> to top of Deck Line, <b>Wood, Steel, Deck</b> :- Timber Tropical Fresh Water Line above Centre of Disc ... <i>29"</i> " Fresh Water Line " " ... <i>21\frac{1}{2}"</i> " Tropical Line " " ... <i>20\frac{3}{4}"</i> " Winter Line " below above ... <i>3"</i> " Winter North Atlantic Line " below " ... <i>7\frac{1}{4}"</i> " Summer line above centre of disc ... <i>13\frac{1}{4}"</i>	Timber Tropical Fresh Water Freeboard ... <i>5'-1\frac{1}{2}"</i> " Fresh Water " ... <i>5'-9"</i> " Tropical " ... <i>5'-9\frac{3}{4}"</i> " Winter " ... <i>7'-3\frac{1}{2}"</i> " Winter North Atlantic " ... <i>8'-1\frac{3}{4}"</i>
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