

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <b>TEDDY</b>	Official Number	Nationality and Port of Registry <b>DANISH COPENHAGEN</b>	Gross Tonnage	Date of Build	Port of Survey <b>GREENOCK</b>
Moulded Dimensions: Length <b>58.07 m</b> Breadth <b>9.906 m</b> Depth <b>3.968 m</b> To CENTRE RUDDER STOCK					Date of Survey <b>NOVEMBER 1946 (WHILST BUILDING)</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>1290 m<sup>3</sup></b> tons					Surveyor's Signature <b>W. MACMILLAN</b>
Coefficient of fineness for use with Tables <b>.68</b>					Particulars of Classification <b>+100 A.I. (CONTEMPLATED)</b>

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... .. <b>3.968</b>	(a) Where D is greater than Table depth (D-Table depth) R = <b>+ 13 mms</b>	Moulded Breadth (B)
Stringer plate ... .. <b>10</b>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = <b>✓</b>	Standard Round of Beam = $\frac{B \times 12}{50} =$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures <b>✓</b>	Ship's Round of Beam =
Depth for Freeboard (D) = <b>3.978</b>		Difference
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) =$ <b>- 2 mms</b>

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 ... ..					
F'cle enclosed ... ..					
" overhang ... ..					
Trunk aft ... ..					
" forward ... ..					
Tonnage opening aft ... ..					
" " forward ... ..					
Total ... ..					

Standard Height of Superstructure .....

" " R.Q.D. ....

Deduction for complete superstructure **636 mms**

Percentage covered  $\frac{S}{L} =$  **75.84**

" "  $\frac{S_1}{L} =$  **75.06**

" "  $\frac{E}{L} =$  **84.54**

Percentage from Table, Line **TIMBER** **84.54**  
(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 = **636 x .8454 = - 538 mms**

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ... ..		1				1	
$\frac{1}{4}L$ from A.P. ... ..		4				4	
$\frac{2}{4}L$ " ... ..		2				2	
Amidships ... ..		4				4	
$\frac{2}{4}L$ from F.P. ... ..		2				2	
$\frac{1}{4}L$ " ... ..		4				4	
F.P. ... ..		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 =  
L

" " aft of " =

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) =$   
If limited on account of midship superstructure. **✓**

**+ 11 mms**

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

<p><b>Deduction for Tropical Freeboard.</b></p> <p><b>Addition for Winter and Winter North Atlantic Freeboard.</b></p> <p>RAISED QUARTER Depth to Freeboard Deck = <b>5.096</b> Ft. m</p> <p>Summer freeboard = <b>1.168</b></p> <p>Moulded draught (d) = <b>3.928</b></p> <p>Deduction for Tropical freeboard and addition for Winter freeboard = <math>\frac{d, \text{ mms}}{48} =</math> <b>82 mms</b></p> <p>Addition for Winter North Atlantic Freeboard (if required) = <math>\frac{2}{36} =</math> <b>109 mms</b></p>	<p><b>Deduction for Fresh Water.</b></p> <p>Displacement in salt water at summer load water line <math>\Delta =</math> <b>1584</b></p> <p>Tons per inch immersion at summer load water line T = <b>12.93</b></p> <p>Deduction = <math>\frac{\Delta}{40 T}</math> inches = <b>3.06</b> = <b>78 mms</b></p>	<p><b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required)</p> <p>Correction for coefficient <b>✓</b></p> <table border="1"> <tr><td>+</td><td>-</td></tr> <tr><td>13</td><td>-</td></tr> <tr><td>-</td><td>538</td></tr> <tr><td>11</td><td>-</td></tr> <tr><td>-</td><td>2</td></tr> <tr><td>1118</td><td>-</td></tr> <tr><td>-</td><td>-</td></tr> <tr><td>1142</td><td>540</td></tr> </table> <p>Summer Freeboard = <b>1148 mms</b></p>	+	-	13	-	-	538	11	-	-	2	1118	-	-	-	1142	540	<p><b>546</b></p> <p><b>546</b></p> <p><b>82.8</b> <b>16.12.46</b></p> <p><b>+ 602</b></p> <p><b>1168 mms (LIMITED)</b></p> <p><b>1090</b></p> <p><b>1090</b></p> <p><b>1168</b> " (LIMITED)</p> <p><b>1277</b></p> <p><b>1377</b></p>
+	-																		
13	-																		
-	538																		
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TIMBER SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

18.12.1946	TIMBER	Tropical Fresh Water Line above Centre of Disc ... ..	<b>156 mms</b>	Tropical Fresh Water Freeboard ... ..	<b>1090</b>
	"	Fresh Water Line " " ... ..	<b>156</b>	Fresh Water " " ... ..	<b>1090</b>
	"	Tropical Line " " (LIMITED) ... ..	<b>78</b>	Tropical " " ... ..	<b>1168</b> " (LIMITED)
	"	Winter Line below " " ... ..	<b>31</b>	Winter " " ... ..	<b>1277</b>
	"	Winter North Atlantic Line " " ... ..	<b>131</b>	Winter North Atlantic " " ... ..	<b>1377</b>

