

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 Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>1290 m<sup>3</sup></b> tons Coefficient of fineness for use with Tables <b>.68</b>					Date of Survey <b>NOVEMBER 1946</b> <b>(WHILST BUILDING)</b> Surveyor's Signature <b>W. MACMILLAN</b> Particulars of Classification <b>+100 A1</b> <b>(CONTEMPLATED)</b>

<b>DEPTH FOR FREEBOARD (D).</b> Moulded depth ... .. <b>3.968</b> Stringer plate ... .. <b>10</b> Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <b>3.978</b>	<b>DEPTH CORRECTION.</b> (a) Where D is greater than Table depth (D—Table depth) R = <b>+ 13 mms</b> (b) Where D is less than Table depth (if allowed) (Table depth—D) R = <b>✓</b> If restricted by superstructures <b>✓</b>	<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 = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) =$ <b>- 2 mms</b>
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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 ... ..					
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 **A** **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	
$\frac{1}{8}L$ 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				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 „ =  
**+ 11 mms**  
If limited to maximum allowance of 1½ ins. per 100 ft. **✓**

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

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> RAISED QUARTER Depth to Freeboard Deck = <b>5.096</b> Summer freeboard = <b>1.168</b> Moulded draught (d) = <b>3.928</b> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d \text{ mms}}{48 \text{ inches}} =$ <b>82 mms</b> Addition for Winter North Atlantic Freeboard (if required) = $\frac{2}{36} =$ <b>109 mms</b>	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line Δ = <b>1584</b> Tons per inch immersion at summer load water line T = <b>12.93</b> Deduction = $\frac{\Delta}{40 T}$ inches = <b>3.06</b> = <b>78 mms</b>	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) Correction for coefficient <b>✓</b> <table> <tr><td>Depth Correction</td><td>...</td><td>...</td><td>...</td><td>...</td><td>13</td><td>-</td></tr> <tr><td>Deduction for superstructures</td><td>...</td><td>...</td><td>...</td><td>...</td><td>-</td><td>538</td></tr> <tr><td>Sheer correction</td><td>...</td><td>...</td><td>...</td><td>...</td><td>11</td><td>-</td></tr> <tr><td>Round of Beam correction</td><td>...</td><td>...</td><td>...</td><td>...</td><td>-</td><td>2</td></tr> <tr><td>Correction for Thickness of Deck amidships</td><td>...</td><td>...</td><td>...</td><td>...</td><td>1118</td><td>-</td></tr> <tr><td>Other corrections, scantlings, etc.</td><td>...</td><td>...</td><td>...</td><td>...</td><td>-</td><td>-</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td>1142</td><td>540</td></tr> </table> Summer Freeboard = <b>1148 mms</b>	Depth Correction	...	...	...	...	13	-	Deduction for superstructures	...	...	...	...	-	538	Sheer correction	...	...	...	...	11	-	Round of Beam correction	...	...	...	...	-	2	Correction for Thickness of Deck amidships	...	...	...	...	1118	-	Other corrections, scantlings, etc.	...	...	...	...	-	-						1142	540	<b>546</b> <b>546</b> <b>82.8</b> <b>16.12.46</b>
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**TIMBER SUMMER FREEBOARD** amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

<b>TIMBER</b> Tropical Fresh Water Line above Centre of Disc ... .. <b>156 mms</b> „ Fresh Water Line „ „ ... .. <b>156</b> „ Tropical Line „ „ (LIMITED) <b>78</b> „ Winter Line below „ „ ... .. <b>31</b> „ Winter North Atlantic Line „ „ ... .. <b>131</b>	Tropical Fresh Water Freeboard ... .. <b>1168 mms (LIMITED)</b> Fresh Water „ „ ... .. <b>1090</b> Tropical „ „ ... .. <b>1168</b> (LIMITED) Winter „ „ ... .. <b>1277</b> Winter North Atlantic „ „ ... .. <b>1377</b>
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5m T 11/41. M°C. „ SUMMER ABOVE „ **78**

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