

*Emergency Shipbuilding B.T. COPY*

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~  
having FLUSH DECK Port of Survey LONDON

(Type of Superstructures.)

Date of Survey 17/5/39

Name of Surveyor A.T.S.S.

Particulars of Classification

Ship's Name <u>Dorford's No 640 - Lady Glenelg</u>	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
Moulded Dimensions: Length <u>422.21</u> Breadth <u>57.46</u> Depth <u>37.08</u>				
Moulded displacement at moulded draught = 85 per cent. of moulded depth				
Coefficient of fineness for use with Tables <u>.77</u>				

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... .. <u>37.08</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>✓</u> $(37.13 - 28.14) 3 = +26.97$ <u>8.99</u>	Moulded Breadth (B)
Stringer plate ... .. <u>.05</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <u>✓</u>	Standard Round of Beam = $\frac{B \times 12}{50} =$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures <u>✓</u>	Ship's Round of Beam =
Depth for Freeboard (D) = <u>37.13</u>		Difference
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) =$ <u>Standard</u> ✓

### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ... ..						Standard Height of Superstructure
„ overhang ... ..						„ „ R.Q.D.
R.Q.D. enclosed ... ..						Deduction for complete superstructure
„ overhang ... ..						Percentage covered $\frac{S}{L} =$
Bridge enclosed ... ..						„ „ $\frac{S_1}{L} =$ } <u>Flush Deck</u> ✓
„ overhang aft ... ..						„ „ $\frac{E}{L} =$
„ overhang forward						Percentage from Table, Line A.
F'cle enclosed ... ..						(corrected for absence of forecastle (if required))
„ overhang ... ..						Percentage from Table, Line B.
Trunk aft ... ..						(corrected for absence of forecastle (if required))
„ forward ... ..						Interpolation for bridge less than .2L (if required)
Tonnage opening aft ...						Deduction = <u>nil</u> ✓
„ „ forward						
Total ... ..						

### SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ... ..		1					1			Mean actual sheer aft =
$\frac{1}{8}L$ from A.P. ... ..		4					4			Mean standard sheer aft =
$\frac{3}{8}L$ „ ... ..		2					2			Mean actual sheer forward =
Amidships ... ..		4					4			Mean standard sheer forward =
$\frac{3}{8}L$ from F.P. ... ..		2					2			Length of enclosed superstructure forward of amidships =
$\frac{1}{8}L$ „ ... ..		4					4			„ „ aft of „ =
F.P. ... ..		1					1			
Total ... ..										

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

If limited on account of midship superstructure. 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>Depth to Freeboard Deck = <u>37.13</u> ✓</p> <p>Summer freeboard = <u>9.22</u> ✓</p> <p>Moulded draught (d) = <u>27.91</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><math>T =</math></p> <p>Deduction = <math>\frac{\Delta}{40T}</math> inches</p> <p>=</p>	<p><b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required)</p> <p>Correction for coefficient <math>\frac{.77 + .68}{1.36} = \frac{1.45}{1.36}</math> ✓</p> <table border="1"> <tr> <td></td> <td>+</td> <td>-</td> </tr> <tr> <td>Depth Correction ... ..</td> <td><u>26.97</u></td> <td></td> </tr> <tr> <td>Deduction for superstructures ... ..</td> <td></td> <td></td> </tr> <tr> <td>Sheer correction ... ..</td> <td></td> <td></td> </tr> <tr> <td>Round of Beam correction ... ..</td> <td></td> <td></td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td></td> <td></td> </tr> <tr> <td>Other corrections, scantlings, etc. ... ..</td> <td></td> <td></td> </tr> <tr> <td></td> <td><u>26.97</u></td> <td><u>26.97</u> ✓</td> </tr> </table> <p>Summer Freeboard = <u>110.66</u> ✓</p>		+	-	Depth Correction ... ..	<u>26.97</u>		Deduction for superstructures ... ..			Sheer correction ... ..			Round of Beam correction ... ..			Correction for Thickness of Deck amidships			Other corrections, scantlings, etc. ... ..				<u>26.97</u>	<u>26.97</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 „ „ ... ..