

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <b>Empire Dove</b> ex <b>Hermes</b>	Official Number	Nationality and Port of Registry  LONDON	Gross Tonnage	Date of Build	Port of Survey <b>Hamburg</b>
Moulded Dimensions: Length <b>100.0 m</b> Breadth <b>14.5 m</b> Depth <b>5.90 m</b>					Date of Survey <b>7.6.49</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>(5.02m) 4690 (1000 kg) tons</b> <span style="margin-left: 150px;">4616</span>					Surveyor's Signature <i>Friedr. Ollgen</i>
Coefficient of fineness for use with Tables <b>0.68</b>					Particulars of Classification

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... .. <b>5.90 m</b>	(a) Where D is greater than Table depth (D-Table depth) R =	Moulded Breadth (B) <b>14.5</b>
Stringer plate ... .. <b>0.013 m</b>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 290 \text{mm}$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam =
Depth for Freeboard (D) = <b>5.913 m</b>		Difference
		Restricted to
		Correction = $\frac{\text{Diff}^\circ}{4} \times \left( 1 - \frac{S_1}{L} \right) =$

**DEDUCTION FOR SUPERSTRUCTURES.**

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ... ..	7.2		2.60			Standard Height of Superstructure .....
"  overhang ... ..	.53					"  "  R.Q.D. ....
R.Q.D. enclosed ... ..						Deduction for complete superstructure.....
"  overhang ... ..						Percentage covered $\frac{S}{L} =$
Bridge enclosed ... ..	91.05		2.60			"  " $\frac{S_1}{L} =$
"  overhang aft ... ..						"  " $\frac{E}{L} =$
"  overhang forward ... ..						Percentage from Table, Line A. (corrected for absence of forecastle (if required))
F'cle enclosed ... ..						Percentage from Table, Line B. (corrected for absence of forecastle (if required))
"  overhang ... ..						Interpolation for bridge less than .2L (if required)
Trunk aft ... ..						Deduction =
"  forward ... ..	1.22					
Tonnage opening aft ... ..	1.75		2.60			
"  "  forward ... ..						
Total ... ..	100.0					

**SHEER CORRECTION.**

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ... ..		1		1389		1	
$\frac{1}{8}L$ from A.P. ... ..		4		652		4	
$\frac{2}{8}L$ " ... ..		2		152		2	
Amidships ... ..		4		0		4	
$\frac{2}{8}L$ from F.P. ... ..		2		242		2	
$\frac{1}{8}L$ " ... ..		4		966		4	
F.P. ... ..		1		2274		1	
Total ... ..							

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

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 = Ft.</p> <p>Summer freeboard =</p> <p>Moulded draught (d) =</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 <math>\Delta = 5550 \text{ t (1000kg)}</math></p> <p>Tons per inch immersion at summer load water line <math>T = 11,38 \text{ t/cm}</math></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</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 50%;"></td> <td style="width: 50%; text-align: center;">+</td> <td style="width: 50%; text-align: center;">-</td> </tr> <tr> <td>Depth Correction</td> <td></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> </table> <p style="text-align: right;">Summer Freeboard =</p>		+	-	Depth Correction			Deduction for superstructures			Sheer correction			Round of Beam correction			Correction for Thickness of Deck amidships			Other corrections, scantlings, etc.		
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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 " " ... ..



