

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name GEMMA	Official Number	Nationality and Port of Registry DUTCH	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length 383.00' Breadth 62.50' Depth 26.25' <i>To centre of Rudder Stock</i>					Date of Survey 11.9.50.
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					Surveyor's Signature _____
Coefficient of fineness for use with Tables .836 (Calculated)					Particulars of Classification _____

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 26.25	(a) Where D is greater than Table depth (D - Table depth) R = $(26.30 - 25.53) \cdot 2.946 = +2.27$	Moulded Breadth (B) 62.50
Stringer plate .64	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = $.77$	Standard Round of Beam = $\frac{B \times 12}{50} = 15.00$
Sheathing on exposed deck	If restricted by superstructures <input checked="" type="checkbox"/>	Ship's Round of Beam = 16.00
$T \left(\frac{L-S}{L} \right) =$		Difference +1.00
Depth for Freeboard (D) = 26.30		Restricted to
		Correction = $\frac{\text{Diff}^c}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{1}{4} \times 7.626 = -1.9$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	62.16	62.16	8.25	✓	62.16
„ overhang					
R.Q.D. enclosed					
„ overhang					
Bridge enclosed					
„ overhang aft					
„ overhang forward					
F'cle enclosed	28.75	28.75	7.50	✓	28.75
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft					
„ forward					
Total	90.91	90.91			90.91

Standard Height of Superstructure **7.33**

„ „ R.Q.D. **5.773**

Deduction for complete superstructure **40.87**

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

„ „ $\frac{S_1}{L} = 23.74$

„ „ $\frac{E}{L} =$

Percentage from Table, Line A. Tanker. **16.62**

(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 = $40.87 \times .1662 = 6.79$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	48.30	1	✓	48.30	27.50	27.50	1	✓	27.50
$\frac{1}{2}L$ from A.P.	21.49	4	✓	85.96	3.00	3.00	4	✓	12.00
$\frac{3}{8}L$ „	5.315	2	✓	10.63	-	-	2	✓	-
Amidships	-	4	✓	-	-	-	4	✓	-
$\frac{3}{8}L$ from F.P.	10.63	2	✓	21.26	-	-	2	✓	-
$\frac{1}{2}L$ „	42.99	4	✓	171.96	1.50	1.50	4	✓	6.00
F.P.	96.60	1	✓	96.60	51.00	51.00	1	✓	51.00
Total				434.71					96.50

Mean actual sheer aft = *Deficient*

Mean standard sheer aft = *Deficient*

Mean actual sheer forward = *Deficient*

Mean standard sheer forward = *Deficient*

Length of enclosed superstructure forward of amidships = *Deficient*

„ „ aft of „ = *Sheers.*

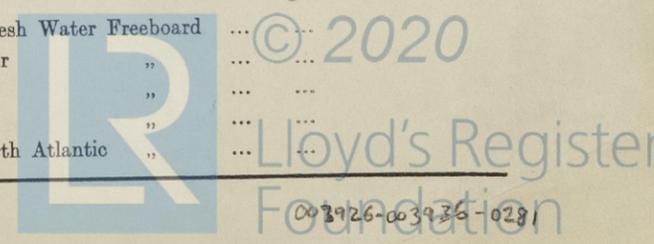
Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{338.21}{18} (75 - .1187) = +11.86$

If limited on account of midship superstructure. $\frac{.6313}{.6313} = 1$ If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

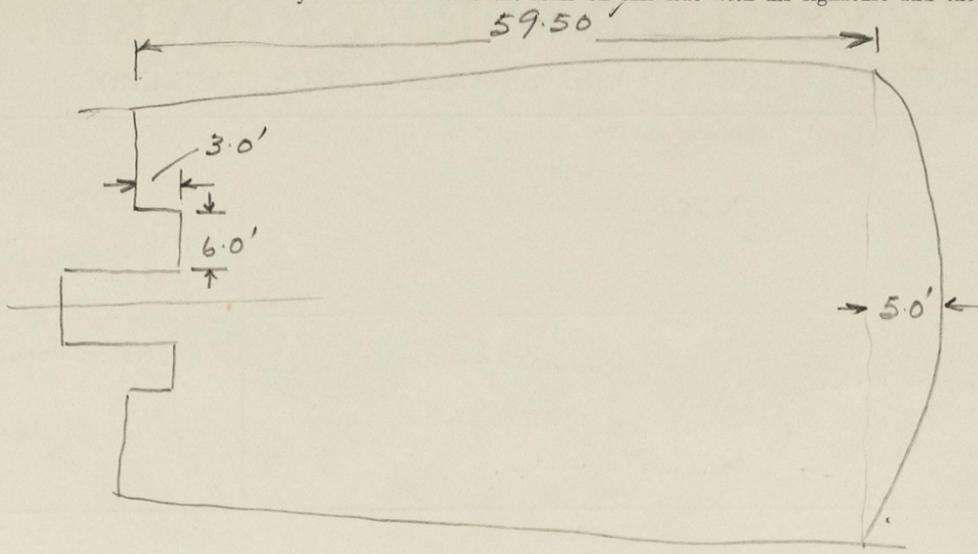
<p>Deduction for Tropical Freeboard.</p> <p>Addition for Winter and Winter North Atlantic Freeboard.</p> <p>Depth to Freeboard Deck = 26.30</p> <p>Summer freeboard = 6.04</p> <p>Moulded draught (d) = 20.26</p> <p>Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches =</p> <p>Addition for Winter North Atlantic Freeboard (if required) =</p>	<p>Deduction for Fresh Water.</p> <p>Displacement in salt water at summer load water line</p> <p>$\Delta =$</p> <p>Tons per inch immersion at summer load water line</p> <p>T =</p> <p>Deduction = $\frac{\Delta}{40 T}$ inches =</p>	<p>TABULAR FREEBOARD corrected for Flush Deck (if required)</p> <p>Correction for coefficient $\frac{.836 + .68}{1.36} = \frac{1.516}{1.36}$</p> <table border="1"> <tr> <td>Depth Correction</td> <td>2.27</td> <td>-</td> </tr> <tr> <td>Deduction for superstructures</td> <td>-</td> <td>6.79</td> </tr> <tr> <td>Sheer correction</td> <td>11.86</td> <td>-</td> </tr> <tr> <td>Round of Beam correction</td> <td>-</td> <td>1.19</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>14.13</td> <td>6.98</td> <td>+ 7.15</td> </tr> </table> <p>Summer Freeboard = 72.45</p>	Depth Correction	2.27	-	Deduction for superstructures	-	6.79	Sheer correction	11.86	-	Round of Beam correction	-	1.19	Correction for Thickness of Deck amidships	-	-	Other corrections, scantlings, etc.	-	-	14.13	6.98	+ 7.15
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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	„



A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.



40
 16
 24 @ 2.25' = 54.00'
 + 2.50' = 2.50'
 + 3.00' = 3.00'
 59.50'

$\text{Roof length at side} = 59.50'$
 $+ \frac{2}{3} \times 5.0 = \frac{3.33}{62.83}$
 $- \frac{3.0 \times 6.0}{27.0} = \frac{.67}{62.16} = \text{equivalent length incl.}$

Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____