

Amended assignment due to alteration to  
closing appliances in forecastle bulkhead

# Lloyd's Register of Shipping.

Index No. **35262**  
(For London Office only)

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <b>MISOA</b>	Official Number <b>165526</b>	Nationality and Port of Registry <b>British London</b>	Gross Tonnage <b>4800.35</b> <del>4890</del> <i>approx.</i>	Date of Build <b>1937</b>	Port of Survey
Moulded Dimensions: Length <b>365.25</b> Breadth <b>64.00</b> Depth <b>18.00</b>					Date of Survey <b>30-6-37</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>8575</b> tons					Surveyor's Signature
Coefficient of fineness for use with Tables <b>.839</b>					Particulars of Classification <b>+100A1</b> <i>carrying petroleum in bulk.</i>

<b>Depth for Freeboard (D).</b> Moulded depth ... <b>18.00</b> Stringer plate ... <b>.04</b> Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <b>18.04</b>	<b>Depth correction.</b> (a) Where D is greater than Table depth (D-Table depth) R = <b>-</b> (b) Where D is less than Table depth (if allowed) (Table depth-D) R = <b>(24.35 - 18.04) x 2.809 = -17.72</b> If restricted by superstructures <b>Yes Nil</b>	<b>Round of Beam correction.</b> Moulded Breadth (B) <b>64</b> Standard Round of Beam = $\frac{B \times 12}{50} =$ <b>15.36</b> Ship's Round of Beam = <b>15.375</b> Difference <b>.015</b> Restricted to Correction = $\frac{\text{Diff}^*}{4} \times \left( 1 - \frac{S_1}{L} \right) =$ <b>.015 x 2.682 = .040</b>
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### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>i</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	88.75	88.75	8.0	-	88.75	Standard Height of Superstructure <b>7.15</b>
" overhang ...	.50	.25			.25	" " R.Q.D. <b>-</b>
R.Q.D. enclosed ...						Deduction for complete superstructure <b>39.68</b>
" overhang ...						Percentage covered $\frac{S}{L} =$ <b>44.49</b>
Bridge enclosed ...	36.00	36.00	8.0	- x.9	32.40	" $\frac{S_1}{L} =$ <b>73.18</b>
" overhang aft ...	.25	.19			.19	" $\frac{E}{L} =$ <b>70.25</b>
" overhang forward ...	.25	.12			.12	Percentage from Table, Line A <b>Tanker 63.31</b>
F'cle enclosed ...	36.50	36.50	8.0	-	36.50	(corrected for absence of forecastle (if required))
" overhang ...	.25	.12			.12	Percentage from Table, Line B <b>-</b>
Trunk aft ...		70.64	8.0	x.9	63.57	(corrected for absence of forecastle (if required))
" forward ...		34.69	8.0	-	34.69	Interpolation for bridge less than .2L (if required)
Tonnage opening aft ...						Deduction = <b>39.68 x 63.31 = -25.12</b>
" " forward ...						
Total ...	162.50	267.26			256.59	

### SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	46.52	1		46.52	47.625	47.625	1		47.625	Mean actual sheer aft = <b>Deficient but &gt; .78 standard</b>
1/4 L from A.P. ...	20.70	4		82.80	20.25	20.25	4		81.000	Mean actual sheer forward = <b>Excess.</b>
1/2 L " ...	5.12	2		10.24	4.625	4.625	2		9.250	Mean standard sheer forward
Amidships ...	-	4		-	-	-	4		-	Length of enclosed superstructure forward of amidships = <b>1</b>
3/4 L from F.P. ...	10.24	2		20.48	10.25	10.25	2		20.500	" " aft of " = <b>3/4 Tanker.</b>
1/4 L " ...	41.41	4		165.64	41.625	41.625	4		166.500	
F.P. ...	93.05	1		93.05	98.75	98.75	1		98.750	
Total ...				418.73					423.625	

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{4.895}{18} (.75 - .2225) = -.14$   
 If limited on account of midship superstructure. **Yes** If limited to maximum allowance of 1 1/2 ins. per 100 ft.

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> Depth to Freeboard Deck = <b>18.04</b> Summer freeboard = <b>2.98</b> Moulded draught (d) = <b>15.06</b> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>3.76 = 3 3/4</b> Addition for Winter North Atlantic Freeboard (if required) = <b>3.76 + 3.65 = 7.41</b> <b>= 7 1/2</b>	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta =$ Tons per inch immersion at summer load water line $T =$ Deduction = $\frac{\Delta}{40T}$ inches <b>d/4 = 3 3/4</b>	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) Correction for coefficient $\frac{.839 + .68}{1.36} = \frac{1.519}{1.36} =$ <table border="1"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction ...</td> <td>-</td> <td>-</td> </tr> <tr> <td>Deduction for superstructures ...</td> <td>-</td> <td>25.12</td> </tr> <tr> <td>Sheer correction ...</td> <td>-</td> <td>.14</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>-</td> <td>25.26</td> </tr> </table> Summer Freeboard = <b>35.79</b>		+	-	Depth Correction ...	-	-	Deduction for superstructures ...	-	25.12	Sheer correction ...	-	.14	Round of Beam correction ...	-	-	Correction for Thickness of Deck amidships ...	-	-	Other corrections, scantlings, etc. ...	-	-		-	25.26
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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 ...	7 1/2	Tropical Fresh Water Freeboard ...	2 - 11 3/4
Fresh Water Line " " ...	3 3/4	Fresh Water " " ...	2 - 4 1/4
Tropical Line " " ...	3 3/4	Tropical " " ...	2 - 8
Winter Line below " " ...	3 3/4	Winter " " ...	3 - 3 1/2
Winter North Atlantic Line " " ...	7 1/2	Winter North Atlantic " " ...	3 - 7 1/4