

PROPOSED LENGTHENING.

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

For LONDON OFFICE ONLY

Received
 Index No.
 Govt. Copy
 Owners C11

24.384
 6.934
 31.318

Ship's Name MOEARA.	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length 31.318 ✓ Breadth 6.096 ✓ Depth 2.896 ✓					Date of Survey 21/9/56
Freeboard Length					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) 357.6 m³ tons					Particulars of Classification +100A1
Coefficient of fineness for use with Tables .761 ✓					

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 2.896	(a) Where D is greater than Table depth (D-Table depth) R = 8.33(2.904-2.088)7.909 = +54%	Moulded Breadth (B) 6.096 ✓
Stringer plate008	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 122 \frac{1}{2} \%$ ✓
Wood Sheathing on exposed deck		Ship's Round of Beam = NIL ✓
$T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Difference 122 ✓
Depth for Freeboard (D) = 2.904		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{122}{4} \times .6300 = +19 \frac{1}{2} \%$ ✓

DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	Standard Height of Superstructure
Poop enclosed					1.830 M ✓
" overhang					" " R.Q.D. .916 ✓
R.Q.D. enclosed 7.315	7.315	.914	$\frac{.914}{.916}$	7.299	Deduction for complete superstructure .414 ✓
" overhang					Percentage covered $\frac{S}{L} = 37.00$ ✓
Bridge enclosed					" " $\frac{S_1}{L} =$
" overhang aft					" " $\frac{E}{L} = 36.93$ ✓
" overhang forward					Percentage from Table, Line A. 20.89 ✓
F'cle enclosed 4.267	4.267	2.134	—	4.267	(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 = 414 x .2089 = -86% ✓
" " forward					
Total 11.582	11.582			11.566	

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P.	515	1	515			1	
$\frac{1}{4}L$ from A.P.	229	4	916			4	
$\frac{2}{4}L$ "	57	2	114			2	
Amidships	0	4	0	0 NIL		4	0
$\frac{3}{4}L$ from F.P.	114	2	228			2	
$\frac{1}{4}L$ "	458	4	1832			4	
F.P.	1030	1	1030			1	
Total			4635				

Mean actual shear aft =
 Mean standard shear aft = } **nil**

Mean actual shear forward =
 Mean standard shear forward = }

Length of enclosed superstructure forward of amidships =
 " " aft of " = } **Deficient shear.**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{4635 - 1856}{18} \left(.75 - \frac{.5650}{2} \right) = +12.5 \%$ ✓
 If limited on account of midship superstructure. If limited to maximum allowance of 1 1/2 ins. per 100ft.

<p>Deduction for Tropical Freeboard.</p> <p>Addition for Winter and Winter North Atlantic Freeboard.</p> <p>Depth to Freeboard Deck = 2.904</p> <p>Summer freeboard = 410</p> <p>Moulded draught (d) = 2.494</p> <p>Keel allowance =</p> <p>Extreme draught =</p> <p>Deduction for Tropical freeboard and addition for =</p> <p>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 $\frac{.761 + .68}{1.36} = 1.441$</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td style="text-align: center;">+</td> <td style="text-align: center;">-</td> </tr> <tr> <td>Depth Correction</td> <td style="text-align: center;">54</td> <td style="text-align: center;">—</td> </tr> <tr> <td>Deduction for superstructures</td> <td style="text-align: center;">—</td> <td style="text-align: center;">86</td> </tr> <tr> <td>Sheer correction</td> <td style="text-align: center;">145</td> <td style="text-align: center;">—</td> </tr> <tr> <td>Round of Beam correction</td> <td style="text-align: center;">19</td> <td style="text-align: center;">—</td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td style="text-align: center;">—</td> <td style="text-align: center;">—</td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td style="text-align: center;">—</td> <td style="text-align: center;">—</td> </tr> <tr> <td></td> <td style="text-align: center;">218</td> <td style="text-align: center;">86</td> </tr> <tr> <td></td> <td colspan="2" style="text-align: right;">+ 132</td> </tr> <tr> <td></td> <td colspan="2" style="text-align: right;">Summer Freeboard = 409</td> </tr> </table>		+	-	Depth Correction	54	—	Deduction for superstructures	—	86	Sheer correction	145	—	Round of Beam correction	19	—	Correction for Thickness of Deck amidships	—	—	Other corrections, scantlings, etc.	—	—		218	86		+ 132			Summer Freeboard = 409	
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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.

Volume of Δ . before lengthening = $\frac{260}{1.009}$ ✓ = 257.7 M³ ✓ at 85% Med D ✓
Added volume = $6.934 \times 6.096 \times 2.896 \times .85 \times .96$ ✓ = ~~99.9~~ ^{93.7} M³ ✓
Vol of Δ . after lengthening = 357.6 M³ ✓

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £ : :

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950," paragraph 11.)



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Foundation