

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name MARI II	Official Number 165994	Nationality and Port of Registry British Glasgow	Gross Tonnage 1372 1395	Date of Build 1918	Port of Survey Penarth Cardiff
Moulded Dimensions: Length 237.5 Breadth 37.01 Depth 20.00					Date of Survey 20-1-41
Moulded displacement at moulded draught = 85 per cent. of moulded depth 3100V tons					Surveyor's Signature C. Moffatt.
Coefficient of fineness for use with Tables .726					Particulars of Classification Class Contingent

Depth for Freeboard (D). Moulded depth ... 20.00 Stringer plate04 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ ✓ Depth for Freeboard (D) = ✓ 20.04	Depth correction. (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ $(20.04 - 15.83) 1.827 = + 7.69$ $4.21 \checkmark$ (b) Where D is less than Table depth (if allowed) $(\text{Table depth} - D) R =$ ✓ If restricted by superstructures ✓	Round of Beam correction. Moulded Breadth (B) 37.01 ✓ Standard Round of Beam = $\frac{B \times 12}{50} = 8.88$ ✓ Ship's Round of Beam = 8.86 ✓ Difference .02 ✓ Restricted to ✓ Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.02}{4} \times \frac{63.14}{237.5} = .00013$ ✓
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	57.42	57.42	7.0	-	57.42
" overhang aft ...					
" overhang forward ...					
Forecastle enclosed ...	28.52	28.52	7.0	-	28.52
" overhang ...	3.23	1.61			1.61
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	89.17	87.55			87.55

Standard Height of Superstructure **6.0** **✓**
 " " R.Q.D. **✓**
 Deduction for complete superstructure **29.75** **✓**
 Percentage covered $\frac{S}{L} = 37.54$ **✓**
 " " $\frac{S_1}{L} =$ **36.86** **✓**
 " " $\frac{E}{L} =$ **36.86** **✓**
 Percentage from Table, Line A. **✓**
 (corrected for absence of forecastle (if required))
 Percentage from Table, Line B. **24.82** **✓**
 (corrected for absence of forecastle (if required))
 Interpolation for bridge less than .2L (if required) **✓**
 Deduction = $29.75 \times .2482 = - 7.38$ **✓**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	33.75	1		33.75	31	31	1		31
$\frac{1}{4}L$ from A.P. ...	15.02	4		60.08	15	15	4		60
$\frac{2}{4}L$ " ...	3.71	2		7.42	3	3	2		6
Amidships ...	-	4		-	-	-	4		-
$\frac{3}{4}L$ from F.P. ...	7.42	2		14.84	4.5	4.5	2		9
$\frac{1}{4}L$ " ...	30.04	4		120.16	20	20	4		80
F.P. ...	67.50	1		67.50	58	58	1		58
Total ...			✓	303.75					244

Mean actual sheer aft = **✓**
 Mean standard sheer aft = **✓**
 Mean actual sheer forward = **✓**
 Mean standard sheer forward = **✓**
 Length of enclosed superstructure forward of amidships = **✓**
 " " aft of " = **✓**
 Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{.2L} \right) = \frac{59.75 - .1877}{18} = +1.87$ **✓**
 If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. **✓**

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 20.04 Summer freeboard = 2.75 Moulded draught (d) = 17.29 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 4.32 ✓ Addition for Winter North Atlantic Freeboard (if required) = 6 1/4 ✓	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ 3170 ✓ Tons per inch immersion at summer load water line $T =$ 17.93 ✓ Deduction = $\frac{\Delta}{40T}$ inches = 4.42 ✓ = 4 1/2 ✓	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{726 + .68}{1.36} = \frac{1.406}{1.36}$ ✓ <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction ...</td> <td>7.69</td> <td>-</td> </tr> <tr> <td>Deduction for superstructures ...</td> <td>-</td> <td>7.38</td> </tr> <tr> <td>Sheer correction ...</td> <td>1.87</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>9.56</td> <td>7.38</td> </tr> <tr> <td>Summer Freeboard =</td> <td>33.06</td> <td>✓</td> </tr> </table>		+	-	Depth Correction ...	7.69	-	Deduction for superstructures ...	-	7.38	Sheer correction ...	1.87	-	Round of Beam correction ...	-	-	Correction for Thickness of Deck amidships ...	-	-	Other corrections, scantlings, etc. ...	9.56	7.38	Summer Freeboard =	33.06	✓
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:

28 JAN 1941

Tropical Fresh Water Line above Centre of Disc	...	8 3/4
Fresh Water Line	"	4 1/2
Tropical Line	"	4 1/4
Winter Line below	"	4 1/4
Winter North Atlantic Line	"	6 1/4

Tropical Fresh Water Freeboard	...	2'-9"
Fresh Water	"	2'-20 1/4"
Tropical	"	2'-4 1/2"
Winter	"	2'-4 3/4"
Winter North Atlantic	"	3'-1 1/4"

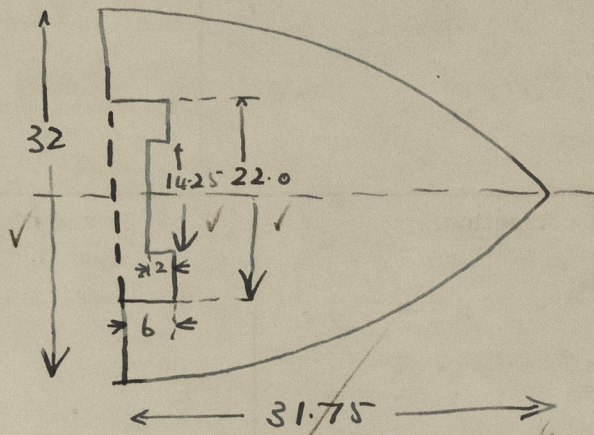
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Foundation

RECEIVED 3/2/41

MARI II

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.



File. { 31.75 ✓

$$\begin{array}{r} \text{Recess } 6 \times 22 = 132.00 \\ - 2 \times 14.25 = 28.50 \\ \hline 103.50 \\ \div 32 = 3.23 \checkmark \\ \hline 28.52 \checkmark \end{array}$$

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £



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