

AMENDED (for intact hhd. at fr. 82)

Rpt. C.11 (Comp.)

For LONDON OFFICE ONLY

# LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

## SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, ~~SAILING SHIP~~, TANKER)

Received .....  
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Ship's Name <b>ST. MAGNUS</b>	Official Number <b>144819</b>	Nationality and Port of Registry <b>BRITISH ABERDEEN</b>	Gross Tonnage	Date of Build <b>1924-7</b>	Port of Survey
Moulded Dimensions: Length	Breadth <b>36.0'</b>	Depth <b>18.04'</b>			Date of Survey <b>4-7-56</b>
Freeboard Length <b>240.33</b>					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing)					Particulars of Classification <b>+ 100 A1</b>
Coefficient of fineness for use with Tables <b>.68</b> ( <b>.625 Actual</b> )					

<b>DEPTH FOR FREEBOARD (D).</b>		<b>DEPTH CORRECTION.</b>		<b>ROUND OF BEAM CORRECTION.</b>	
Moulded depth ... ..	<b>18.04</b>	(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B)	<b>36.0'</b>
Stringer plate ... 34" ... ..	<b>.03</b>	(18.04 - 16.02) 1.848 = + 3.82		Standard Round of Beam = $\frac{B \times 12}{50}$	= <b>8.64"</b>
Wood Sheathing on exposed deck 4"		(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Ship's Round of Beam	= <b>9.00</b>
$T \left( \frac{L-S}{L} \right) = .33 \times .057$	<b>.02</b>	If restricted by superstructures		Difference	+ <b>.36</b>
Depth for Freeboard (D) =	<b>18.09</b>			Restricted to	
				Correction = $\frac{\text{Diff}^\circ}{4} \times \left( 1 - \frac{S_1}{L} \right)$	= $\frac{.36}{4} \left( 1 - \frac{1501}{1501} \right) = -.01"$

**DEDUCTION FOR SUPERSTRUCTURES.**

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ... ..	<b>55.58</b>	<b>55.58</b>	<b>7.98</b>	-	<b>55.58</b>	Standard Height of Superstructure <b>6.0</b>
" overhang ... ..						" " R.Q.D. ✓
R.Q.D. enclosed ... ..						Deduction for complete superstructure <b>30.033</b>
" overhang ... ..						Percentage covered $\frac{S}{L} = 94.30$
Bridge enclosed ... ..	<b>102.25</b>	<b>102.25</b>	<b>7.98</b>	-	<b>102.25</b>	" " $\left. \begin{matrix} S_1 \\ E \\ L \end{matrix} \right\} = 84.99$
" overhang aft ... ..						Percentage from Table, Line A. & B. <b>81.49</b>
" overhang forward ... ..						(corrected for absence of forecastle (if required))
Fore enclosed ... ..	<b>68.83</b>	<b>46.43</b>	<b>7.98</b>	-	<b>46.43</b>	Percentage from Table, Line B.
" overhang ... ..						(corrected for absence of forecastle (if required))
Trunk aft ... ..						Interpolation for bridge less than .2L (if required)
" forward ... ..						Deduction = <b>30.03 x .8149 = 24.47"</b>
Tonnage opening aft ... ..						
" " forward ... ..						
Total ... ..	<b>226.66</b>	<b>204.26</b>			<b>204.26</b>	

**SHEER CORRECTION.**

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ... ..	<b>34.03</b>	1		<b>34.03</b>			1		
$\frac{1}{2}L$ from A.P. ... ..	<b>15.14</b>	4		<b>60.56</b>			4		
$\frac{2}{5}L$ " ... ..	<b>3.74</b>	2		<b>7.48</b>			2		
Amidships ... ..	<b>0</b>	4		<b>0</b>			4		
$\frac{2}{5}L$ from F.P. ... ..	<b>7.49</b>	2		<b>14.98</b>			2		
$\frac{1}{2}L$ " ... ..	<b>30.28</b>	4		<b>121.12</b>			4		
F.P. ... ..	<b>68.06</b>	1		<b>68.06</b>			1		
Total ... ..				<b>306.23</b>					

Mean actual sheer aft =  
 Mean standard sheer aft =

Mean actual sheer forward =  
 Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = **.1567**  
 " " aft of " = **.5**

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

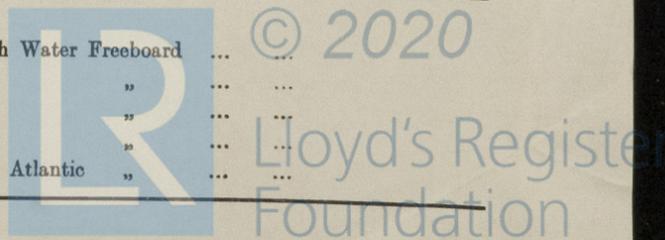
If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100ft.

<b>Deduction for Tropical Freeboard.</b>	<b>Deduction for Fresh Water.</b>	<b>TABULAR FREEBOARD corrected for Flush Deck (if required)</b>	<b>30.37</b>
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient	<b>30.37</b>
Depth to Freeboard Deck = Ft.	$\Delta =$	Depth Correction	
Summer freeboard =	Tons per inch immersion at summer load water line	Deduction for superstructures	
Moulded draught (d) =	T =	Sheer correction	
Keel allowance =	Deduction = $\frac{\Delta}{40 T}$ inches	Round of Beam correction	
Extreme draught =		Correction for Thickness of Deck amidships	
Deduction for Tropical freeboard and addition for =		Other corrections, scantlings, etc.	
Winter freeboard = $\frac{d}{4}$ inches =			
Addition for Winter North Atlantic Freeboard (if required) =			
		Summer Freeboard =	

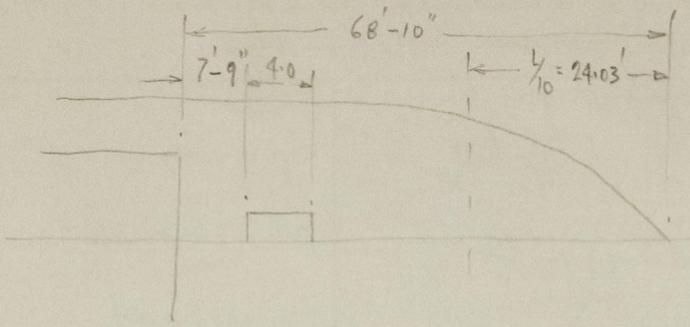
**SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-**

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

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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.



68'-10"  
11'-9"  
57'-1"

57.08  
24.03  
33.05  
7.75  
2 40.80  
20.40

L/10 = 24.03  
+ 20.40  
44.43  
Comp. 2.0  
46.43 ✓

68.83  
24.03  
44.80  
4  
40.80  
20.40

Trade of ship \_\_\_\_\_

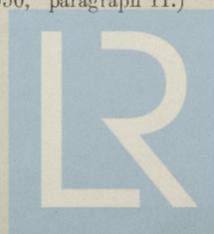
Names of sister ships \_\_\_\_\_

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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