

OPEN SHELTER DECK.

4 MAR 1957

Rpt. C.11 (Comp.)

For LONDON OFFICE ONLY

# LLOYD'S REGISTER OF SHIPPING

## SURVEYS FOR FREEBOARD

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

Received .....  
 Index No. ....  
 Govt. Copy .....  
 Owners C11 .....

Ship's Name <b>"HYRSHIRE"</b>	Official Number <b>300171</b>	Nationality and Port of Registry <b>BRITISH GLASGOW</b>	Gross Tonnage <b>9360.09</b>	Date of Build <b>1957</b>	Port of Survey <b>GREENOCK</b>
Moulded Dimensions: Length <b>497'-0"</b> Breadth <b>69'-0"</b> Depth <b>41'-7" TO UPPER DECK. 33'-0 3/4" TO SECOND DECK.</b>					Date of Survey <b>DURING CONSTRUCTION.</b>
Freeboard Length <b>497.875'</b>					Surveyor's Signature <i>Alfred J. Moor</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) <b>CRUISER STERN.</b> <b>18434</b> tons					Particulars of Classification <b>* 100 H.1.</b>
Coefficient of fineness for use with Tables <b>.6708 Use .68.</b>					

**DEPTH FOR FREEBOARD (D).**  
 Moulded depth **(33'-0 3/4")** ... **33.063'**  
 Stringer plate **(.39")** ... **.032'**  
 Wood Sheathing on exposed deck  
 $T \left( \frac{L-S}{L} \right) = \text{NONE.}$   
 Depth for Freeboard (D) = **33.09**

**DEPTH CORRECTION.**  
 (a) Where D is greater than Table depth (D-Table depth) R =  
 (b) Where D is less than Table depth (if allowed) (Table depth-D) R =  
**(33.19 - 33.09) 3 = - .30"**  
 If restricted by superstructures

**ROUND OF BEAM CORRECTION.**  
 Moulded Breadth (B) **69.00'**  
 Standard Round of Beam =  $\frac{B \times 12}{50} =$  **16.56**  
 Ship's Round of Beam = **17.25'**  
 Difference **.69**  
 Restricted to  
 Correction =  $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S}{L} \right) = \frac{.69^2}{4} \times .005 = \text{NIL}$

**DEDUCTION FOR SUPERSTRUCTURES.**

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed	31.29'	31.29	8'-6 3/4"	-	31.29
" overhang	.33'	.17	8'-6 3/4"	-	.17
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
F'cle enclosed	461.335'	461.335	8'-6 3/4"	-	461.335
" overhang					
Trunk aft					
" forward		1/2 DIFF			
Tonnage opening aft	4.92'	2.54	8'-6 3/4"	-	
" forward					2.54
Total	497.875	495.335			495.335

Standard Height of Superstructure **7.50'**  
 " " R.Q.D. ....  
 Deduction for complete superstructure **42.00"**  
 Percentage covered  $\frac{S}{L} = 100$   
 " "  $\frac{S_1}{L} =$  } **99.50**  
 " "  $\frac{E}{L} =$   
 Percentage from Table, Line A. & B **99.38**  
 (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 = **42.00 x .9938 = -41.74"**

**SHEER CORRECTION.**

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P.	59.79	1	59.79	65.50	77.75	1	77.75
1/4 L from A.P.	26.605	4	106.42	28.89	34.60	4	138.40
1/2 L	6.575	2	13.15	7.32	8.55	2	17.10
Amidships	0	4	0	0	0	4	0
3/4 L from F.P.	13.15	2	26.30	14.30	15.70	2	31.40
1/4 L	53.21	4	212.84	57.88	63.52	4	254.08
F.P.	119.58	1	119.58	130.50	142.75	1	142.75
Total			538.08	+12.25"			661.48

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{123.40}{18} \times .25 = -1.71"$   
 If limited on account of midship superstructure.

Mean actual sheer aft = *Even*  
 Mean standard sheer aft =  
 Mean actual sheer forward = *Even*  
 Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =  
 " " aft of " = } **C.S.S./T.O.**

Actual T. D. height **8'-6 1/4"**  
 Standard **7'-6"**  
**1'-0 1/4"**  
**= 12.25"**

**Deduction for Tropical Freeboard.****Addition for Winter and Winter North Atlantic Freeboard.**

Depth to Freeboard Deck = **33.09**  
 Summer freeboard = **4.83**  
 Moulded draught (d) = **28.26**  
 Keel allowance =  
 Extreme draught =  
 Deduction for Tropical freeboard and addition for =  
 Winter freeboard =  $\frac{d}{4}$  inches = **7.06 = 7"**  
 Addition for Winter North Atlantic Freeboard (if required) =

**Deduction for Fresh Water. (SEE OVER)**

Displacement in salt water at summer load water line  
 $\Delta = 18730$   
 Tons per inch immersion at summer load water line  
 $T = 65.10$   
 Deduction =  $\frac{\Delta}{40 T}$  inches  
**= 7.19 = 7 1/4"**

**TABULAR FREEBOARD corrected for Flush Deck (if required)**Correction for coefficient **NIL**

Depth Correction ...  
 Deduction for superstructures ...  
 Sheer correction ...  
 Round of Beam correction ...  
 Correction for Thickness of Deck amidships ...  
 Other corrections, scantlings, etc. ...

+	-
	.30
	41.74
	1.71

**101.66**  
**101.66**

**22.3.57**

Summer Freeboard = **57.91**

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

Tropical Fresh Water Line above Centre of Disc ... **4 1/4"**  
 Fresh Water Line " " ... **7 1/4"**  
 Tropical Line " " ... **7"**  
 Winter Line below " " ... **7"**  
 Winter North Atlantic Line " " ... **7"**

Tropical Fresh Water Freeboard **4'-10"**  
 Fresh Water **3'-7 3/4"**  
 Tropical **4'-2 3/4"**  
 Winter **4'-3"**  
 Winter North Atlantic **4'-5"**



Ayrshire.

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.

$$\frac{B_1 - b}{B_1} = \frac{27.17 - 11}{27.17} = \frac{16.17}{27.17} = .595.$$

THIS VESSEL WILL SAIL AS OPEN SHELTER DECK VESSEL.

<u>EXT. DRAFT.</u>	<u>Full Δ</u>	<u>T.P.I.</u>
29'-0"	19250	65.55
28'-0"	18470	64.88
27'-0"	17700	64.5

Trade of ship INTERNATIONAL.

Names of sister ships FRGYLLSHIRE. GREENOCK DOCKYARD YARD NO 486. REPORT NO. 25720.

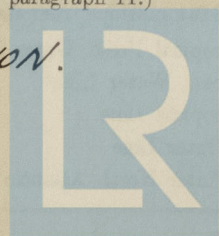
Builder's name and yard number GREENOCK DOCKYARD CO., LTD. YARD NO 488. 44876.

Owners THE CLAN LINE STEAMERS LTD.

Fee £ 50 : 0 : 0

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

PROFILE & DECK'S - MIDSHIP SECTION.



© 2021

Lloyd's Register  
Foundation