

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

9 APR 1932

52292

Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having **Roop and combined bridge and fore-castle.**

Port of Survey **Glasgow.**

Date of Survey **5<sup>th</sup> April 1932.**

Name of Surveyor **James R Clark**

Particulars of Classification **100 A1.**

**LAIRD SHILL**  
**EX** **LADY LONGFORD**  
Ship's Name  
**(EX LAIRD SHILL)**

(Type of Superstructures.)

Nationality and Port of Registry  
**British Glasgow.**

Official Number  
**143,723**

Gross Tonnage  
**1776**

Date of Build  
**1921**

Moulded Dimensions: Length **273.46** Breadth **37.67** Depth **18.25**  
Moulded displacement at moulded draught = 85 per cent. of moulded depth **2840** tons  
Coefficient of fineness for use with Tables **.622**

Depth for Freeboard (D)	
Moulded depth	18.25
Stringer plate	.03
Sheathing on exposed deck	.01
$T \left( \frac{L-S}{L} \right) = .29(.042)$	
Depth for Freeboard (D) =	18.29

Depth correction	
(a) Where D is greater than Table depth (D-Table depth) R = $(18.29 - 18.23) 2.103$	4.13
(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	-
If restricted by superstructures	-

Round of Beam correction	
Moulded Breadth (B)	37.67
Standard Round of Beam = $\frac{B \times 12}{50}$	9.04
Ship's Round of Beam	9.5
Difference	.42
Restricted to	
Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right)$	$\frac{.42}{4} (.1506) = .02$

### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed	33'-1.08	33.08	7'3"		33.08
overhang	1'-4.42	.96			.96
R.Q.D. enclosed					
overhang					
Bridge enclosed	111'-4.46	111.96	7'3"		111.96
overhang aft	115'	86.25	7'3"		86.25
overhang forward					
F'cle enclosed					
overhang					
Trunk aft					
forward					
Tonnage opening aft					
forward					
Total	261'-4.2"	232.25			232.25

Standard Height of Superstructure	6.24
" " R.Q.D.	-
Deduction for complete superstructure	33.35
Percentage covered $\frac{S}{L} =$	.958
" " $\frac{S_1}{L} =$	.8192
" " $\frac{E}{L} =$	.8492
Percentage from Table, Line A. (corrected for absence of fore-castle (if required))	.8140
Percentage from Table, Line B. (corrected for absence of fore-castle (if required))	-
Interpolation for bridge less than 2L (if required)	-
Deduction = 33.35 + .8140	= 27.15

### SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	37.35	1		37.35	36"	30.00	30.00	1	30.00
1/4 L from A.P.	16.62	4		66.48	16"	13.63	13.63	4	54.52
1/2 L	4.11	2		8.22	5"	3.41	3.41	2	6.82
Amidships		4			0"			4	
3/4 L from F.P.	8.22	2		16.44	8"	7.01	7.01	2	14.02
1/4 L	33.24	4		132.96	30"	28.04	28.04	4	112.16
F.P.	74.70	1		74.70	63"	63.00	63.00	1	63.00
Total	336.15			336.15					280.52

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{55.63}{18} \left( .75 - \frac{.479}{2} \right) = 4.84$

If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

### Deduction for Tropical Freeboard.

### Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 18.57  
Summer freeboard = 1.20  
Moulded draught (d) = 17.37

### Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 4.34 4/4

Winter North Atlantic Freeboard (if

### Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 3190$

Tons per inch immersion at summer load water line

$T = 14.35$

Deduction =  $\frac{\Delta}{40T}$  inches

= 4.12 4"

### TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

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

37.26

37.26

+	-
13	-
27.15	-
84	-
3.35	-
1.32	27.17
Summer Freeboard = 14.41	

1906  
Freeboards  
Reassigned

### FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck

Tropical Fresh Water Line above Centre of Disc

" " " " " "

" " " " " "

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Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

Winter North Atlantic

Lloyd's Register  
Foundation

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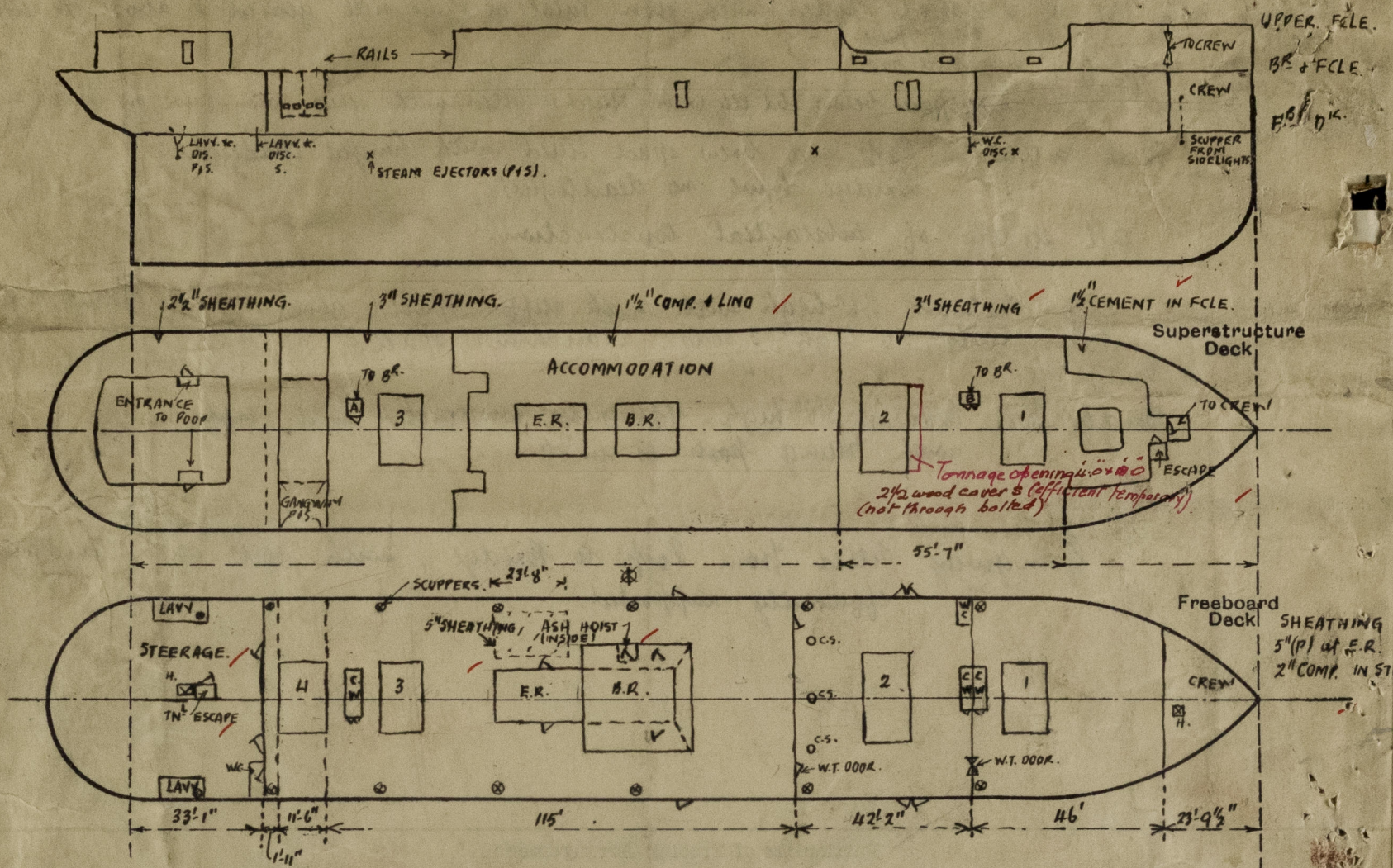
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Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling ways, extent and thickness of sheathing on the freeboard deck, gangway coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shown on the following sketches:—



State any special features in the construction of the ship:—

Owners desire head line to be assigned on basis of 1906 Regulations.

Usual trade: Glasgow to Dublin.

The following information was obtained from the Builder:

Mod. displacement at 85% mod depth

2840 tons

	$\Delta$	T.P.I.
16'	2960	19.08
17'	3190	19.35
18'	3420	19.59

DM 17

Builder's name and yard number

Messrs Anderson & B. Gray No 308

Names of sister ships

Kennmare.

Owners

Burns and Laird Lines.

Fee £

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Received by me



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