

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

Rpt. 3.11.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

Having Poop, Bridge & Forecastle Port of Survey Hull

(Type of Superstructures.) British 10.10.32

Ship's Name Masula Nationality and Port of Registry British Glasgow Official Number 141904 Gross Tonnage 7324 Date of Build 1919-6

Moulded Dimensions: Length 449.7 Breadth 58.0 Depth 35'-6"

Moulded displacement at moulded draught = 85 per cent. of moulded depth 17100 tons

Coefficient of fineness for use with Tables .7605

Name of Surveyor Malcolm

Particulars of Classification +100A1

Filed for oil fuel 6.19.32

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	35.5	(a) Where D is greater than Table depth (D - Table depth) R =		Moulded Breadth (B)	58.00
Stringer plate	.04	(35.54 - 29.48) 3 =	+ 16.68	Standard Round of Beam = $\frac{B \times 12}{50}$	13.92
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	none	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Ship's Round of Beam	14
Depth for Freeboard (D) =	35.54	If restricted by superstructures		Difference	.08
				Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$	$\frac{.08}{4} \times .4803 = -.01$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	43.92	43.92	7-6		43.92
„ overhang					
R.Q.D. enclosed					
„ overhang					
Bridge enclosed	148.5	148.50	8-0		148.50
„ overhang aft					
„ overhang forward					
Fore enclosed	41.3	41.30	7-3	7.25/7.50	39.42
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft					
„ forward					
Total	233.72	233.72			232.34

Standard Height of Superstructure	7.50
„ „ R.Q.D.	
Deduction for complete superstructure	42.00
Percentage covered $\frac{S}{L} =$	51.97
„ „ $\frac{S_1}{L} =$	51.97
„ „ $\frac{E}{L} =$	51.67
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	
Percentage from Table, Line B.	37.67
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than .2L (if required)	
Deduction =	37.67 x 42 = 15.82

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	54.97	1		54.97	51.0	51.00	1		51.00
1/2 L from A.P.	24.46	4		97.84	22.1	21.92	4		87.68
3/4 L	6.05	2		12.10	5.9	5.48	2		10.96
Amidships		4			0		4		
3/4 L from F.P.	12.10	2		24.20	12.1	11.26	2		22.52
1/2 L	48.92	4		195.68	44.0	45.03	4		180.12
F.P.	109.94	1		109.94	102.0	102.0	1		102.00
Total				444.73					454.28

Mean actual sheer aft =	Deficient
Mean standard sheer aft =	
Mean actual sheer forward =	Deficient
Mean standard sheer forward =	
Length of enclosed superstructure forward of amidships =	.16 L
„ „ aft of „ =	.17 L

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{40.45}{18} (.75 - .2598) = +1.10$

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	=	35.54
Summer freeboard	=	7.83
Moulded draught (d)	=	27.71

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.93 = 7
Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line	$\Delta = 15875$
Tons per inch immersion at summer load water line	T = 51
Deduction = $\frac{\Delta}{40T}$ inches	= 7.78 = 7 3/4

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction	16.68
Deduction for superstructures	15.82
Sheer correction	1.10
Round of Beam correction	.01
Correction for Thickness of Deck amidships	
Other corrections, scantlings, etc.	
17.78	15.83

Summer Freeboard = 94.11

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

Tropical Fresh Water Line above Centre of Disc	14 3/4
Fresh Water Line	7 3/4
Tropical Line	7
Winter Line below	7
Winter North Atlantic Line	

Tropical Fresh Water Freeboard	6.7 1/4
Fresh Water	7.2 1/4
Tropical	7.3
Winter	8.5
Winter North Atlantic	

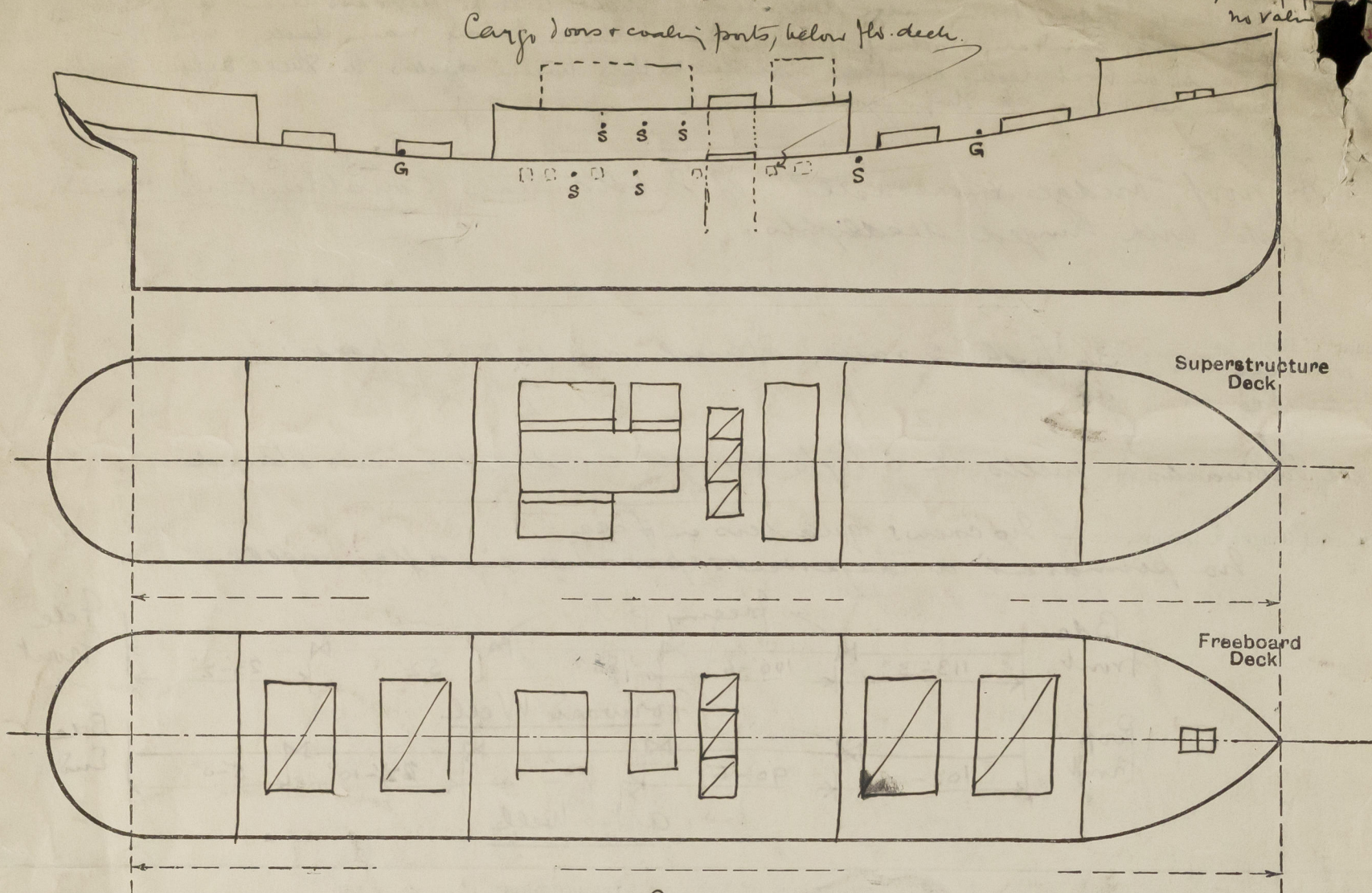
MARKING FORM

RECEIVED 5 DEC 1935

RECEIVED 23 JUN 1932

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

G: Gunnel or Scupper
S: plain pit
no valve



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

Survey held in Dry Dock. and complete Condition
Survey held. (Hull Report No 42823)

Builder's name and yard number B Barclay, Curle & Co. Ltd.

Names of sister ships

Owners British India Steam Nav. Co. Ltd.

Fee £ 15 : 6 : -

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