

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

GLASGOW REPORT No. 52754

Computation of Freeboard for Steamer, Sailing Ship, Tugger

having on awning deck.

Port of Survey Glasgow

Date of Survey 22nd July 1932

Name of Surveyor H. Thomson

Particulars of Classification + 100A1

SS plc No 3-11.25 SS plc No 1-30

(Type of Superstructures.)

Ship's Name MOORCOT

Nationality and Port of Registry British Glasgow

Official Number 133105

Gross Tonnage 6387

Date of Build 1913-3

Moulded Dimensions: Length 409.7 Breadth 51.66 Depth 30.8/15 upper deck  
39.0/15 awning deck

Moulded displacement at moulded draught = 85 per cent. of moulded depth 15575 tons 33.15

Coefficient of fineness for use with Tables .777

Depth for Freeboard (D)

Moulded depth ... .. 39.0

Stringer plate ... .. .50 ... .. .04

Sheathing on exposed deck

$T \left( \frac{L-S}{L} \right) =$

Depth for Freeboard (D) = 39.04

Depth correction

(a) Where D is greater than Table depth  
 $(D - \text{Table depth}) R =$   
 $(39.04 - 27.31) \times 300 = +35.19$

(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) 51.66

Standard Round of Beam =  $\frac{B \times 12}{50} =$  12.4

Ship's Round of Beam = 12.5

Difference excess .1

Restricted to

Correction =  $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.1}{4} = (-).02$

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..					
" overhang ... ..					
R.Q.D. enclosed ... ..					
" overhang ... ..					
Bridge enclosed ... ..					
" overhang aft ... ..					
" overhang forward ... ..					
F'cle enclosed ... ..					
" overhang ... ..					
Trunk aft ... ..					
" forward ... ..					
Tonnage opening aft ... ..					
" forward ... ..					
Total ... ..					

Standard Height of Superstructure 7.5

" " R.Q.D. Plush

Deduction for complete superstructure 42.00

Percentage covered  $\frac{S}{L} =$

" "  $\frac{S_1}{L} =$

" "  $\frac{E}{L} =$

Percentage from Table, Line A.  
 (corrected for absence of forecastle (if required)) Plush

Percentage from Table, Line B.  
 (corrected for absence of forecastle (if required))

Interpolation for bridge less than .2L (if required)

Deduction =

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ... ..	<u>50.97</u>	1		<u>50.97</u>	<u>54</u>	<u>54.00</u>	1		<u>54.00</u>
$\frac{1}{2}$ L from A.P. ... ..	<u>22.68</u>	4		<u>90.72</u>	<u>24.5</u>	<u>24.49</u>	4		<u>97.96</u>
$\frac{2}{3}$ L " ... ..	<u>5.61</u>	2		<u>11.22</u>	<u>5.5</u>	<u>6.12</u>	2		<u>12.24</u>
Amidships ... ..		4					4		
$\frac{2}{3}$ L from F.P. ... ..	<u>11.21</u>	2		<u>22.42</u>	<u>11</u>	<u>12.20</u>	2		<u>24.40</u>
$\frac{1}{2}$ L " ... ..	<u>45.36</u>	4		<u>181.44</u>	<u>49</u>	<u>49.07</u>	4		<u>196.28</u>
F.P. ... ..	<u>101.94</u>	1		<u>101.94</u>	<u>110.5</u>	<u>110.50</u>	1		<u>110.50</u>
Total ... ..				<u>458.71</u>					<u>495.38</u>

Mean actual sheer aft = excess

Mean standard sheer aft =

Mean actual sheer forward = excess

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =

" " aft of " = Plush

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{458.71 - 495.38}{18} (.75) = -1.53$

If limited on account of midship superstructure.

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 = 39.04

Summer freeboard = 11.04

Moulded draught (d) = 28.00

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 7.00 = 7"

Addition for Winter North Atlantic Freeboard (if required) =

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$  12953

Tons per inch immersion at summer load water line

T = 44.2

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

= 7.86 = 7 $\frac{3}{4}$ "

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

Correction for coefficient

74.5 + 6.15 = 80.66

77.7 + 6.8 = 84.57

1.36 = 1.457

1.36

Depth Correction ... .. 35.19

Deduction for superstructures ... .. -

Sheer correction ... .. -

Round of Beam correction ... .. .02

Correction for Thickness of Deck amidships ... .. -

Other corrections, scantlings, etc. to conform with 12.45

47.64 1.55 + 46.09

Summer Freeboard = 132.50

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

Tropical Fresh Water Line above Centre of Disc ... 14 $\frac{3}{4}$ "

Fresh Water Line " " ... 7 $\frac{3}{4}$ "

Tropical Line " " ... 7 $\frac{3}{4}$ "

Winter Line below " " ... 7 $\frac{3}{4}$ "

Winter North Atlantic Line " " ... -

Tropical Fresh Water Freeboard ... .. 9' 9 $\frac{3}{4}$ "

Fresh Water " " ... .. 10' 4 $\frac{3}{4}$ "

Tropical " " ... .. 10' 5 $\frac{3}{4}$ "

Winter " " ... .. 11' 2 $\frac{3}{4}$ "

Winter North Atlantic " " ... .. -

MARKING FORM  
26 JAN 1937  
RECEIVED

MARKING FORM  
30 JUL 1934  
RECEIVED

MARKING FORM  
6-AUG 1932  
RECEIVED

W531-0200/12



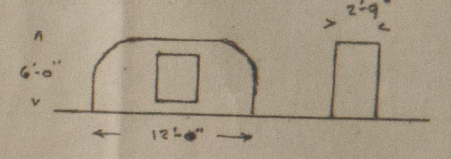
PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS												
Description of Hatchway	Nº 1	Nº 2	Nº 3	Nº 4	Nº 5	Nº 6	COALING HATCH	COALING HATCH	COALING HATCH	COALING HATCH	COALING HATCH	COALING HATCH
Dimensions of Hatchway	28'-2" x 16'-0"	28'-2" x 16'-0"	19'-6" x 18'-0"	15'-2" x 14'-0"	26'-0" x 16'-0"	26'-0" x 16'-0"	8'-0" x 6'-0"	8'-0" x 6'-0"	8'-0" x 6'-0"	8'-0" x 6'-0"	8'-0" x 6'-0"	8'-0" x 6'-0"
COAMINGS	Height above Deck	42	42	42	42	42	30	30	30	30	30	30
	Thickness Sides	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
	Thickness Ends	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
	Stiffeners	2	2	2	2	2	2	2	2	2	2	2
HATCH BEAMS	Number	5	5	3	2	4	4	4	4	4	4	4
	Spacing	4'-8 1/2"	4'-8 1/2"	4'-10 1/2"	5'-0 1/4"	5'-2 1/2"	5'-2 1/2"	5'-2 1/2"	5'-2 1/2"	5'-2 1/2"	5'-2 1/2"	5'-2 1/2"
	Scantling and Sketch	26 x 34	26 x 34	26 x 34	26 x 34	26 x 34	26 x 34	26 x 34	26 x 34	26 x 34	26 x 34	26 x 34
	Bearing Surface	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"	3 1/2"
FORE AND AFTERS	Number	1	1	1	1	1	1	1	1	1	1	1
	Spacing	7'-6"	7'-6"	7'-6"	7'-6"	7'-6"	7'-6"	7'-6"	7'-6"	7'-6"	7'-6"	7'-6"
	Unsupported Lengths	7'-6"	7'-6"	7'-6"	7'-6"	7'-6"	7'-6"	7'-6"	7'-6"	7'-6"	7'-6"	7'-6"
	Scantling and Sketch	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4	6 x 4
HATCH COVERS	Material	WP	WP	WP	WP	WP	WP	WP	WP	WP	WP	WP
	Thickness	3	3	3	3	3	3	3	3	3	3	3
	How fitted	F + A	F + A	F + A	F + A	F + A	F + A	F + A	F + A	F + A	F + A	F + A
	Bearing Surface	3	3	3	3	3	3	3	3	3	3	3
Spacing of Cleats	24	24	24	24	24	24	27	27	27	27	27	27
Number of Tarpaulins	2	2	2	2	2	2	2	2	2	2	2	2

Particulars of fiddle, funnel and ventilator coamings:—  
Engine skylight on casing top of steel strongly constructed /  
Fiddle openings protected by strong hinged plate covers /  
Ventilators on casing top in good condition /

Particulars of Flush Bunker Scuttles:—  
none /

Particulars of Companionways:—  
to crew space on after deck.  
Plating .32 stiffeners 3/4 x 3 x .32 sp. 36"  
over 4'-5" x 2'-10" with 1/2" sill.  
Hinged work doors 1 1/2" thick manipulated from both sides.



Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—  
8 Ventilators on fore deck to hold. coaming 36" high x 20" dia x .32  
2 " " midships - bulkhead - 36" " x 18" " x .32  
8 " " aft - bulkhead - 36" " x 20" " x .32  
4 " " " " crew space - 24" " x 9" " x .28  
2 " " " " " " 24" " x 5" " x .26  
Ventilator casings constructed in accordance with the Rules and closed with wood plugs and canvas covers.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—  
1 air pipe on fore deck to f.p. tank. 10" high x 2 1/2" dia /  
1 " " " " " " 17" " x 1 1/2" " /  
2 " " " " " " 19" " x 2 1/2" " /  
1 " " " " " " 17" " x 2 1/2" " /  
2 " " " " " " 19" " x 2 1/2" " /  
no anything holes fitted means of closing air pipes provided.

Particulars of Gangway Cargo and Coaling Ports:—  
none /

Particulars of Scuppers and Sanitary Discharge Pipes:—  
There are no scupper pipes discharging below the freeboard deck /  
Sanitary pipes discharging below the freeboard deck where shown in sketch and have stone valves at ship's side.

Particulars of Side Scuttles:—  
There are no side scuttles fitted below the upper deck. /  
Side scuttles in running timber decks 10" dia fitted with hinged iron deadlights. /  
Distance from running deck to bottom of scuttle = 26" /

Particulars of Guard Rails:—  
Guard rails are fitted on running deck where shown in sketch 3'-4" high with 3 rails. /  
Stanchions 4'-0" apart. /  
A bulwark 4'-0" high is fitted amidships.

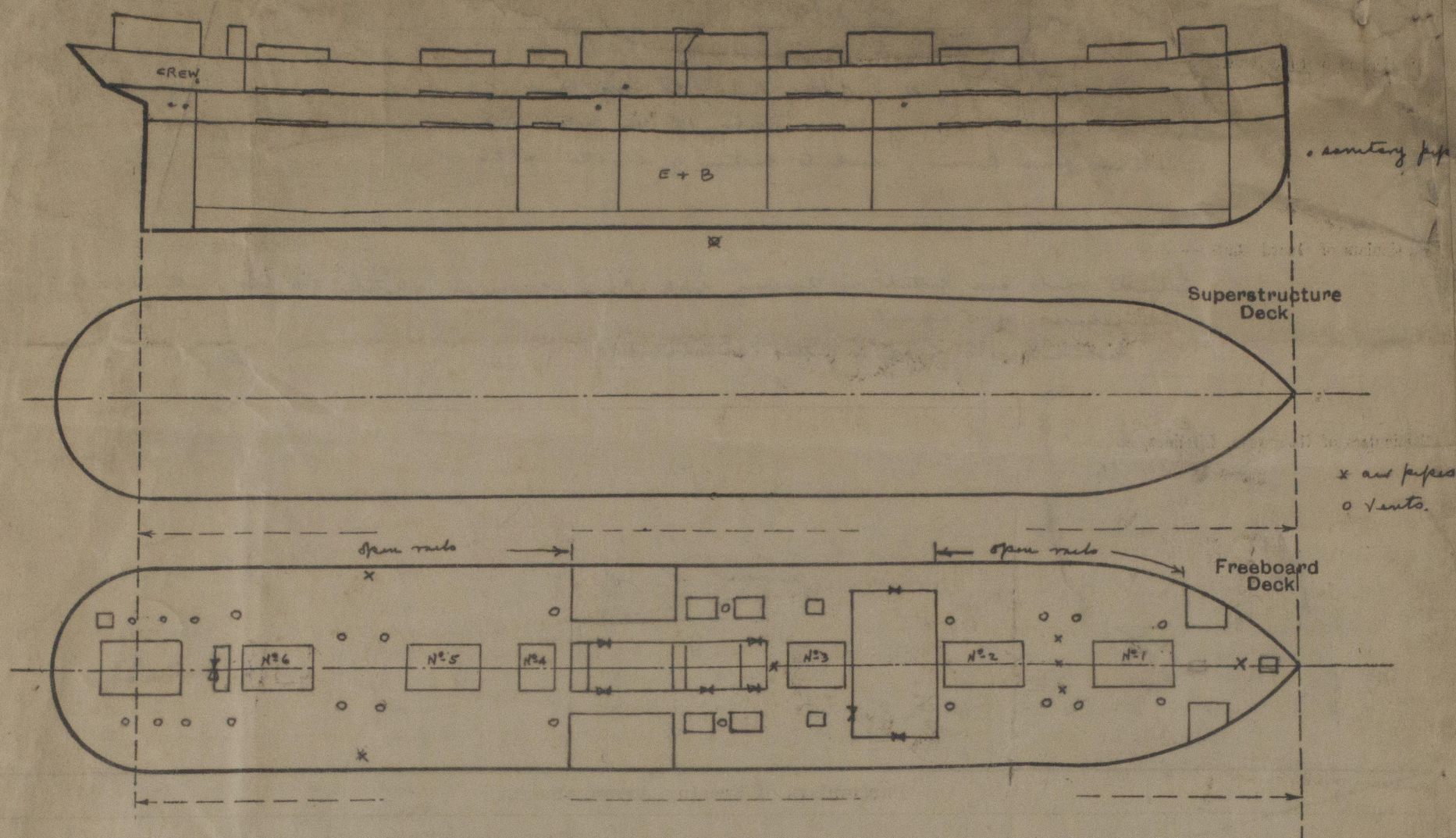
Particulars of Gangways, Lifelines, etc.:—  
Suitable provision made for rigging lifelines available for use in any part of the ship which might have to be used by the crew in the regular working of the ship.

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well						
Forward Well						
State position of each freeing port (F. and A. position and height above deck edge) After Well:— Forward Well:— State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Additional area where sheer is less than standard.						

Particulars of Superstructures, Trunks, Casings, Deckhouses.									
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings	
Roop Bulkhead									
Raised Quarter Deck Bulkhead									
Bridge, After Bulkhead									
Bridge, Forward Bulkhead									
Forecastle Bulkhead									
Trunk, Aft									
Trunk, Forward									
Exposed Machinery Casings on Freeboard or Raised Quarter Deck	18 x 38	.34	5 x 3 x .40	48	brackets at top	4'-6" x 2'-0"	18	7'-0"	
Exposed Machinery Casings on Superstructure Decks									
Machinery Casings within Superstructures not fitted with Class I Closing Appliances									
Deckhouses on Flush Deck Ships	none	.34	4 x 3 x .40	36	none	4'-9" x 2'-0"	18	8'-0"	
Particulars of Closing Appliances (state if capable of being manipulated from both sides).									
Roop Bulkhead									
Raised Quarter Deck Bulkhead									
Bridge, After Bulkhead									
Bridge, Forward Bulkhead									
Forecastle Bulkhead									
Exposed Machinery Casings on Freeboard or Raised Quarter Deck									
Exposed Machinery Casings on Superstructure Decks									
Machinery Casings within Superstructures not fitted with Class I Closing Appliances									
Deckhouses on Flush Deck Ships									



Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, 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:—



State any special features in the construction of the ship:— This vessel is engaged in the Indian, African & Australian Trade.  
Tender's foreboard not required.

Full displacement at 27'-0" full draft = 12315 tons. Tons per inch = 41.1 tons } From displacement  
" " " 28'-0" " = 12850 " " " = 41.2 " } scales.

The survey on this vessel has been held in dry dock and confined to an examination of the bottom and the means for closing the openings in the decks and sides of the ship.  
No part of a special survey has been held at this time.

Builder's name and yard number Northumberland S. B. Co Ltd No 208

Names of sister ships not known

Owners The Clan Line Steamers Ltd. (Cayzer, Irvine & Co Ltd)

Fee £ 14 : 9 : 0 Received by me