

21 MAY 1932

Index. No. 31282
(For London Office only.)Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

Mod. No. 7565

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having

SHELTER DECK WITH TONNAGE OPENING AFT

Port of Survey MANCHESTER

(Type of Superstructures.)

Date of Survey 19TH MAY 1932

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build	Name of Surveyor
"AMBASSADOR"	BRITISH NEWCASTLE	148143	4450	1925 - 1mo.	A.R. Gibbs
Moulded Dimensions: Length	398.83	Breadth	52.8	Depth	27.6
Moulded displacement at moulded draught = 85 per cent. of moulded depth	10765				tons
Coefficient of fineness for use with Tables	.765				
Particulars of Classification					+100 AI. With futboard

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	27.50	(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B)	52.8
Stringer plate	4.0	(27.54 - 26.59) 3 = +2.85		Standard Round of Beam = $\frac{B \times 12}{50}$	12.67
Sheathing on exposed deck		(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Ship's Round of Beam	13.7
$T \left(\frac{L-S}{L} \right) =$				Difference	.58
Depth for Freeboard (D) =	27.54	If restricted by superstructures		Restricted to	.58
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$.0085

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed	28.69	28.69	8.0		28.69	
" overhang	2.91	1.45			1.45	
R.Q.D. enclosed						
" overhang						
Bridge enclosed						
" overhang aft						
" overhang forward	359.84	359.84	8.0		359.84	
" enclosed	2.91	2.18			2.18	
" overhang						
Trunk aft						
" forward	4.50					
Tonnage opening aft	10.55	3.38	8.0		3.34	
" forward						
Total	398.83	395.48			395.48	

Standard Height of Superstructure 7.4883

" " R.Q.D.

Deduction for complete superstructure 41.92

Percentage covered $\frac{S}{L} = 100\%$

" " $\frac{S_1}{L} = 99.15\%$

" " $\frac{E}{L} = 99.15\%$

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

Percentage from Table, Line B.
(corrected for absence of forecastle (if required)) 98.95

Interpolation for bridge less than 2L (if required) .83

Deduction = 41.92 + .9895 = 41.49

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	49.88	1		49.88	53	59.14	1		59.14
$\frac{1}{2}$ L from A.P.	22.20	4		88.80	23	26.32	4		105.28
$\frac{2}{3}$ L	5.48	2		10.96	5.5	6.50	2		13.00
Amidships		4			0		4		
$\frac{2}{3}$ L from F.P.	10.96	2		21.92	11	11.21	2		22.42
$\frac{1}{2}$ L	44.40	4		177.60	44.5	45.34	4		181.36
F.P.	99.76	1		99.76	95.5	101.89	1		101.89
Total				448.92					483.09

Correction = $\frac{\text{Difference between sums of products}}{18} \left(75 - \frac{S}{2L} \right) = \frac{34.17}{18} \times 25 = -4.7$

If limited on account of midship superstructure.

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 = .83

" " aft of " = .83

Actual Sheer 8'-0"

Standard 7.4883 - 507

12

6.14

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 27.54

Summer freeboard = 3.04

Moulded draught (d) = 24.50

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 6.125

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 11383$

Tons per inch immersion at summer load water line

 $T = 33.5$ Deduction = $\frac{\Delta}{40T}$ inches = 6.85

= 6.34

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{765+68}{136}$

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

+	-
2.85	
41.49	
4.7	
2.85	41.96
	-39.11
Summer Freeboard = 36.47	

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

Tropical Fresh Water Line above Centre of Disc	12.34
Fresh Water Line	6.34
Tropical Line	6
Winter Line below	6
Winter North Atlantic	

Tropical Fresh Water Freeboard	1-11 3/4
Fresh Water	2-5 3/4
Tropical	2-6 1/2
Winter	3-6 1/2
Winter North Atlantic	

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
SUPERSTRUCTURE DECK					FREEBOARD DECK			SUPERSTRUCTURE DECK		
Description of Hatchway	No 1	Nos 2, 4, 5	No 3	No 6	No 1	Nos 2, 4, 5	No 3	HATCH TO F.E. SPACE ON F.E. DECK	2 COAL HATCHES ON S.E. DECK	F.O. HATCH
Dimensions of Hatchway	29'-8" x 20'-0"	30'-6" x 20'-0"	15'-3" x 19'-0"	10'-0" x 10'-0"	29'-8" x 20'-0"	30'-6" x 20'-0"	15'-3" x 19'-0"	4'-2" x 2'-10"	10'-1" x 3'-0"	6'-1" x 20'-0"
COAMINGS	Height above Deck ... 30 1/2" Thickness ... 4 1/4" Stiffeners ... 4 x 3 x 40 L Brackets, Stays ... 2-2 Rivets SAME AS NO 1 HATCH.									
HATCH BEAMS	Number ... 5 Spacing ... 4'-9 1/2" Scantling and Sketch ... 4 x 3 x 44 Bearing Surface ... 3 1/2"									
FORE AND AFTERS	Number ... Spacing ... Unsupported Lengths ... Scantling* and Sketch ... Bearing Surface ...									
HATCH COVERS	Material ... Thickness ... How fitted ... Bearing Surface ... SAME AS NO 1 HATCH.									
Spacing of Cleats	3'-4"									
Number of Tarpaulins	2									
*Are wood fore and afters steel shod at all bearing surfaces? YES - EXCEPT WHERE STATED Are battens and wedges efficient and in good condition? YES - EXCEPT WHERE STATED Are tarpaulins in good condition and in accordance with rule requirements? YES - EXCEPT WHERE STATED Are lashings provided in accordance with rule requirements? RING BOLTS FOR LASHINGS ARE FITTED TO NOS 1, 2, 3, 4, 5 HATCHES ON SUPERSTRUCTURE DECK										

Particulars of fiddley, funnel and ventilator coamings :—

Stakehold Gratings covered by Strong Hinged Steel Covers ✓
Tunnel and Fiddley Ventilators in excellent condition ✓
E. R. Sky light of Steel Strongly constructed ✓

ONE HATCHES
FREEBOARD IN.
HATCH TO FORE PEAK S. 4'0" x 2'9" 10'0"
Coaming: 3" H.C. Cleats 21 BATTENS 2.
TRIMMING HATCHES TO HOLD. 2'9" x 2'0"
9'0" E Coamings:- 2 1/2" longer work done
secured by Butterfly nuts and bolts.
TRIMMING HATCHES TO BURNERS: { 3'-5 1/2" x 3'-6"
 { 3'-6" x 3'-9"
3" wood covers: cleats 20-26" apart: ~~20~~ battens
4" Tarpaulins.

Particulars of Flush Bunker Scuttles :—

None /

Particulars of Companionways :—

NONE.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks :—

Particulars or Ventulators in exposed position	Area	Volume	Weight
2 Ventilation to Motor	23 dia x 36	35	35
3	20 " x 36 "	35	35
6	17 " x 36 "	35	35
1	T.W.D. 14 " x 36 "	30	30
1	12 " x 36 "	30	30
1	Tunnel 6, 8 1/2 " x 36 "	30	30
1	Stone 8 1/2 " x 36 "	25	25

SUPERSTRUCTURE
DECK

All ventilators are strongly constructed and are closed by galvanised iron covers. ✓

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

Particulars	Material	Quantity
1 air pipe to Fore Peak Tank 4" dia. x 6½' To Mouth in Forecastle Alleyway.	After " 4" " x 6½' 18"	on Superstructure 103

All other air pipes on Superstructure Deck to Double Bottom Tanks are straight pipes which extend through deck 7" and are closed by brass stem caps. ✓

Particulars of Gangway Cargo and Coaling Ports:—

NONE.

Particulars of Scuppers and Sanitary Discharge Pipes —

Scuppers draining Freeboard Deck and Tonnage Well are led overboard 15' below deck and are closed by steel screw-down plates at inner ends.
W.C. and Sanitary discharges are situated above Freeboard Deck.

Particulars of Side Scuttles:

All accommodation is situated above Superstructure Deck.
Side Scuttles to Crew Quarters in Forecastle are fitted with permanent hinged deadlights.

Particulars of Guard Rails:—

3 Iron Guard Rails are fitted at Forward and After Ends of Superstructure decks and are 3'-3" high with Stanchions 4'-3" apart.
Strong Steel Bulwarks are fitted on Superstructure decks amidships and are supported by 7x3 L stays spaced 5'-9" apart.

Particulars of Gangways, Lifelines, etc.:—

NONE

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 <i>Tonnage Well</i>	10.33		2 x 1'-6"	1		
Forward Well						

State position of each freeing port ... After Well:—
(F. and A. position and height above deck edge) 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.

2 Strong King's Steel doors are fitted in Tonnage Well (I.P. & 15) with angle strongbacks and secured by drawbolt. 15' above deck.

Particulars of Superstructures, Trunks, Casings, Deckhouses.

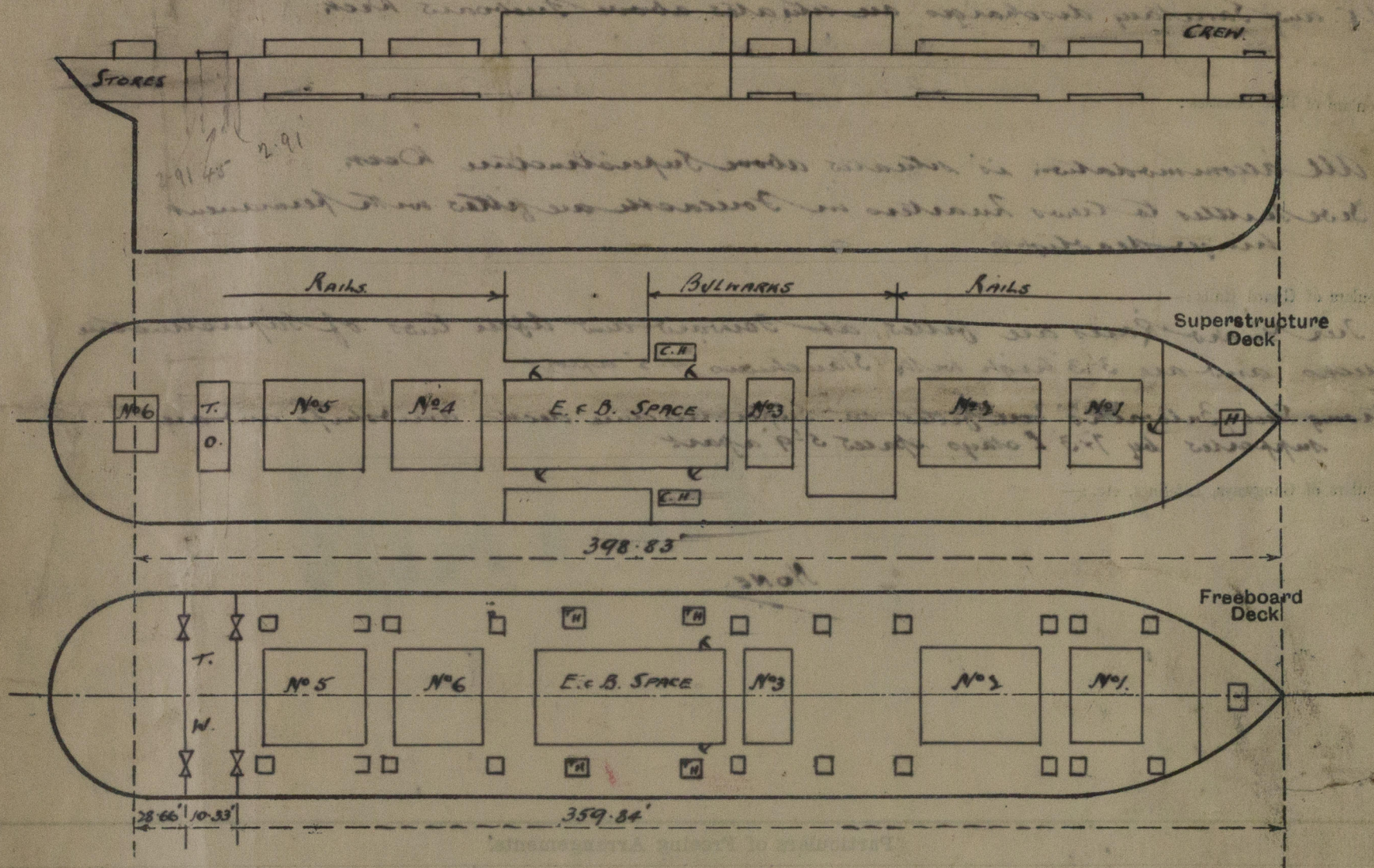
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	✓	.25	BULK PLATING FLANGED 4"	30"	NONE	4'-6" x 3'-1"	3"	8'-0" ✓
Raised Quarter Deck Bulkhead	✓	.25	BULK PLATING FLANGED 4"	30"	NONE	4'-6" x 3'-1"	3"	8'-0" ✓
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead	✓	.25	BULK PLATING FLANGED 4"	34"	NONE	4'-6" x 2'-4"	20"	4'-6" ✓
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	40	.35	5 x 3 x .35	37" E.R. 33" B.R.	NONE TOP E.R. NONE B.R.	4'-11" x 2'-7"	19"	8'-0" ✓
Exposed Machinery Casings on Superstructure Decks	45	.35	5 x 3 x .35	37" E.R. 35" B.R.	NONE TOP E.R. NONE B.R.	4'-6" x 2'-4"	20"	4'-0" ✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances								
Deckhouses on Flush Deck Ships								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	3" Storm Boards full height in inches channels
Raised Quarter Deck Bulkhead	3" Storm Boards full height in inches channels
Bridge, After Bulkhead	
Bridge, Forward Bulkhead	
Forecastle Bulkhead	Hinged Wood Door operates from both sides
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	Hinged Steel Doors operate from inside only
Exposed Machinery Casings on Superstructure Decks	Hinged Steel Doors operate from both sides
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships	

Ambassador

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 shewn on the following sketches:—



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

VESSEL SURVEYED AFLOAT FOR CONVENTION FREEBOARD PURPOSES ONLY.

Particulars of Superstructure, Trunks, Casings, Deckhouses									
No.	Position	Height	Width	Length	Area	Volume	Remarks	Remarks	Remarks
1	Fore	10.0	10.0	10.0	100.0	1000.0			
2	Fore	10.0	10.0	10.0	100.0	1000.0			
3	Fore	10.0	10.0	10.0	100.0	1000.0			
4	Fore	10.0	10.0	10.0	100.0	1000.0			
5	Fore	10.0	10.0	10.0	100.0	1000.0			
6	Fore	10.0	10.0	10.0	100.0	1000.0			
7	Fore	10.0	10.0	10.0	100.0	1000.0			
8	Fore	10.0	10.0	10.0	100.0	1000.0			
9	Fore	10.0	10.0	10.0	100.0	1000.0			
10	Fore	10.0	10.0	10.0	100.0	1000.0			

Builder's name and yard number *ROPER S.B. & REYNOLDS CO. LTD. STOCKTON.*

Names of sister ships

Owners *HALL BROS. STEAMSHIP CO. LTD.*

Fee £ *17 : 15 : 0*

Received by me