

Rpt. Q. 11.

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.Index. No. 25276
(For London Office only.)Computation of Freeboard for Steamer, Sailing Ship, Tanker
having *complete shelter deck with tonnage opening*Port of Survey *London*Date of Survey *1.4.32 2 15.2.32*

Ship's Name

(Type of Superstructures.)

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

*Port Bowen**British London**143202**8267**1919*Moulded Dimensions: Length *479.33* Breadth *62* Depth *35.67*Moulded displacement at moulded draught = 85 per cent. of moulded depth *19165* tonsCoefficient of fineness for use with Tables *.744*Name of Surveyor *C. J. Hunter*Particulars of Classification *+100 A1**Shelter Deck, with Freeboard*

Depth for Freeboard (D)				Depth correction		Round of Beam correction	
Moulded depth	...	...	...	35.67	(a) Where D is greater than Table depth (D - Table depth) R = $(35.71 - 31.96) \times 3 = +11.25$	Moulded Breadth (B)	62.0
Stringer plate	...	...	...	.04	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 14.88$	
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	...	...	...	-	If restricted by superstructures	Ship's Round of Beam = $15\frac{1}{2}$	
Depth for Freeboard (D) =	...	...	...	35.71		Difference Excess .62	
						Restricted to	
						Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.62}{4} \times .005 = \text{Nil}$	

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	74.37	74.37	8.58		74.37
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward	400.30	400.30	8.58		400.30
Fore enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...	4.66	2.33			2.33
" " forward					
Total ...	479.33	477.00			477.00

Standard Height of Superstructure	7.50
" " R.Q.D.	✓
Deduction for complete superstructure	42.00
Percentage covered $\frac{S}{L} =$	100.00
" " $\frac{S_1}{L} =$	99.50
" " $\frac{E}{L} =$	99.50
Percentage from Table, Line A.	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)	C.S.S.
Deduction =	42.00 x .9938 = -41.74 ✓

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	57.93	1		57.93	39' 11 1/4"	51.00	1		64.00
1/4 L from A.P. ...	25.78	4		103.12	37' 6 1/4"	22.12	4		113.92
1/2 L " ...	6.37	2		12.74	35' 11 3/4"	5.53	2		14.08
Amidships ...	-	4		-	35' 8"		4		-
3/4 L from F.P. ...	12.74	2		25.48	36' 7 3/4"	11.85	2		26.62
1/4 L " ...	51.56	4		206.24	39' 11 3/4"	47.39	4		215.40
F.P. ...	115.86	1		115.86	45' 0 1/4"	108.00	1		121.00
Total ...				521.37					555.02

Correction = $\frac{\text{Difference between sums of products}}{18} = \frac{33.65}{18} = 1.87$ (75 - 50) = -47

If limited on account of midship superstructure. C.S.S.

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 = 35.71
Summer freeboard = 5.81
Moulded draught (d) = 29.90

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 7.47 = 7 1/2"

Addition for Winter North Atlantic Freeboard (if required) = Nil

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 189.45$

Tons per inch immersion at summer load water line

T = 60.7

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

= 7.80

= 7 3/4"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{744 + 68}{1.36} = 1.424$

Depth Correction ... 11.25

Deduction for superstructures ... 41.74

Sheer correction ... 47

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

96.10 ✓

100.62 ✓

11.25 42.21 - 30.96 ✓

Summer Freeboard = 69.66 ✓

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

Tropical Fresh Water Line above Centre of Disc ... 15 1/4"

Fresh Water Line " " ... 7 3/4"

Tropical Line " " ... 7 1/2"

Winter Line below " " ... 7 1/2"

Winter North Atlantic Line " " ...

Tropical Fresh Water Freeboard ... 5' 1"

Fresh Water " " ... 4' 1"

Tropical " " ... 5' 1"

Winter " " ... 5' 1"

Winter North Atlantic " " ...

23 APR 1932

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W470-0126(112)

MARKING FORM

RECEIVED 6 JUL 1935

MARKING FORM

RECEIVED 21 SEP 1932

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
SHELTER DECK					FREEBOARD DECK					
Description of Hatchway	Nº 1	2	3	4	5	Nº 1	2	3	4	5
Dimensions of Hatchway	24'9" x 18'	28'6" x 18'	19' x 18'	26'1/2" x 18'	19' x 18'	24'9" x 18'	28'6" x 18'	19' x 18'	26'1/2" x 18'	19' x 18'
COAMINGS	Height above Deck	33'5"				12'				
	Thickness	4 1/2"				5"				
	Sides	4 1/2"				5"				
	Stiffeners	7 x 3 1/2 x 4 1/2				As No 1				
HATCH BEAMS	Brackets, Stays	2" Dia								
	Number	5	5	3	5	5	5	3	5	3
	Spacing	4'3" 10"	4'9"	4'9"	4'3" 10"	4'3" 10"	4'9"	4'9"	4'3" 10"	4'9"
	Scantling and Sketch	2 x 4'8"	4 x 3 x 4 1/2	4 x 3 x 4 1/2	2 x 4'6"	2 x 4'8"	4 x 3 x 4 1/2	4 x 3 x 4 1/2	2 x 4'6"	4 x 3 x 4 1/2
FORE AND AFTERS	Bearing Surface	16' x 34'	12' x 32'	12' x 32'	12' x 3'	12' x 32'	16' x 34'	16' x 34'	22' x 36'	16' x 34'
	Number									
	Spacing									
	Unsupported Lengths									
HATCH COVERS	Scantling* and Sketch									
	Bearing Surface	3"	3"	3"	3"	3"	3"	3"	3"	3"
	Material	Pine								
	Thickness	2 1/2"								
Spacing of Cleats	How fitted	F.A.								
	Bearing Surface	3"								
	Number of Tarpaulins	2	2	2	2	2	2	2	2	2
		24' average				24' average				
*Are wood fore and afters steel shod at all bearing surfaces?										
Are battens and wedges efficient and in good condition?										
Are tarpaulins in good condition and in accordance with rule requirements?										
Are lashings provided in accordance with rule requirements?										

Particulars of fiddley, funnel and ventilator coamings:—

Stakehold gratings covered by *strong hinged* steel plates.
Fidley and funnel vents in efficient condition.
Engine skylight of steel strongly constructed.

Particulars of Flush Bunker Scuttles:—

NONE.

Particulars of Companionways:—

Aft end of poophouse 2 steel doors 5' x 2' x 15" sill steel clamped operated from both sides, one to crew quarters & one to store on freeboard deck.
Fore end of poophouse 1 steel door 5' x 2' x 19" sill steel clamped operated from both sides access to F.D.
Aft end of E. Peering 1 steel door 5' x 2' x 3' x 20" sill and at aft end of raised forecastle 4' x 25' x 26" sill similar doors to above access to F.D.
Entrance to fidley 2 steel doors 5'6" x 2'4" x 18" sill and one at aft end of fidley 5'6" x 2'6" x 19" sill hinged operated from both sides.
Wood door inside poophouse 15" sill closed from both sides access to tunnel escape.
Six wood doors 15" sill in engine room accommodation closed from both sides access to engine room.
Wood door 16" sill in passage of raised forecastle to crew space on freeboard deck operated both sides.

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

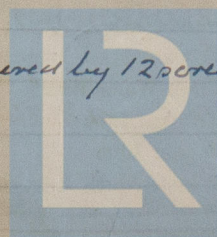
2 Vents on raised forecastle	20 Dia 34"	to N. 1 Hold	Wood plug & canvas covers
16 " " Shelter deck	20 " 37"	to Holds	" " " "
2 " " " "	24 " 37"	to ENG. Store	" " " "
3 " " " "	12 " 36 1/2"	to fan room	efficient closing appliances
2 " " " "	12 " 36 1/2"	to aft store room	Wood plug & canvas covers
1 " " " "	12 " 35"	to crew quarters	" " " "
4 " " " "	12 " 35" - 15"	to bunkers	" " " "
4 " " " "	12 " 35" - 15"	to eng. store	" " " "
4 " " " "	6 x 5 - 25"	to crew space aft	" " " "
1 " on poophouse	18"	to tunnel	efficient closing appliances

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

26 Air pipes to tanks 2 1/2" x 3" 24 legs 7 efficient closing appliances fitted.

Particulars of Gangway Cargo and Coaling Ports:—

Port & Starboard 2 double doors of steel, hinged, clamp fastened & operated both sides 5'9" x 25' x 15" sills on Shelter deck in way of cross bunker.
P.S. one W.T. door at ship's side 5'7" x 4'2" x 12" sill with 3 angles & stiffeners 4 1/2 x 3 1/2 x 5" secured by 12 screw clamps on freeboard deck in way of bunkers.
P.S. one W.T. door on ship's side 2' x 2' in way of bunkers.
P.S. 3 W.T. cargo doors 2' x 2' on Main deck in way of N. 1. 2 x 4 Holds.
These doors are efficiently constructed and well secured.



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Particulars of Scuppers and Sanitary Discharge Pipes —

Eight scuppers each side from Shelter deck. *Efficient wood plugs*
Seven scuppers each side from Upper deck, closed with metal screw plugs at inner end. *No storm valves fitted*

Particulars of Side Scuttles:

One scupper each side from upper deck closed with steel plate & strong back w.t. joint
All sanitary & bath discharges fitted with storm valves and efficient traps at inner end
All side scuttles of substantial construction & fitted with hinges & deadlights

Particulars of Guard Rails:—

On Forecastle 38" high 3 bar stanchion spaced 4'6"
On Shelter deck 46" high 4 bar stanchion spaced 4 to 5 feet
Bulwarks and side hips in way of deckhouses 45" high

Particulars of Gangways, Lifelines, etc.:—

None fitted.

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>			18" x 16"	1.	209 ft ²	
Forward Well ...						

State position of each freeing port in Tonnage opening After Well:— 14" above deck
(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.

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	3 x 3 x .30	41"	None	5'3" x 4'6"	15"	8'7"
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead ...		.25	3 x 3 x .30	41"	None	5'3" x 4'6" 5'3" x 3'2"	15" 15"	8'7"
Bridge, Forward Bulkhead ...								
Forecastle Bulkhead ...								
Trunk, Aft ...								
Trunk, Forward ...								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...		.3	3 x 2 1/2 x .30	36"	None	4'10" x 2'4" 3'11" x 2'0"	18" 49" 18" 1 1/2"	8'
Exposed Machinery Casings on Super-structure Decks ...		3/8	3 x 2 1/2 x .30	36"	None	5'6" x 2'4 1/2" 5'6" x 2'6"	20" 29" 19" 9"	8'
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...						5'6" x 2'6"	15" 6 1/2"	
Deckhouses on Flush Deck Ships ...								

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

Poop Bulkhead ...	<i>Storm boards full height in riveted channels</i> <i>Steel plates fastened by hook bolts</i>
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead ...	<i>Storm boards full height in riveted channels</i> <i>P. Steel plates fastened by hook bolts</i> <i>S. No satisfactory means of closing plates</i>
Bridge, Forward Bulkhead ...	
Forecastle Bulkhead ...	
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	<i>Steel doors clamp fastened operated from both sides</i>
Exposed Machinery Casings on Super-structure Decks ...	<i>Steel doors operated fastened operated from both sides</i>
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	<i>1 3/4" leak doors operated both sides to E.R.</i>
Deckhouses on Flush Deck Ships ...	

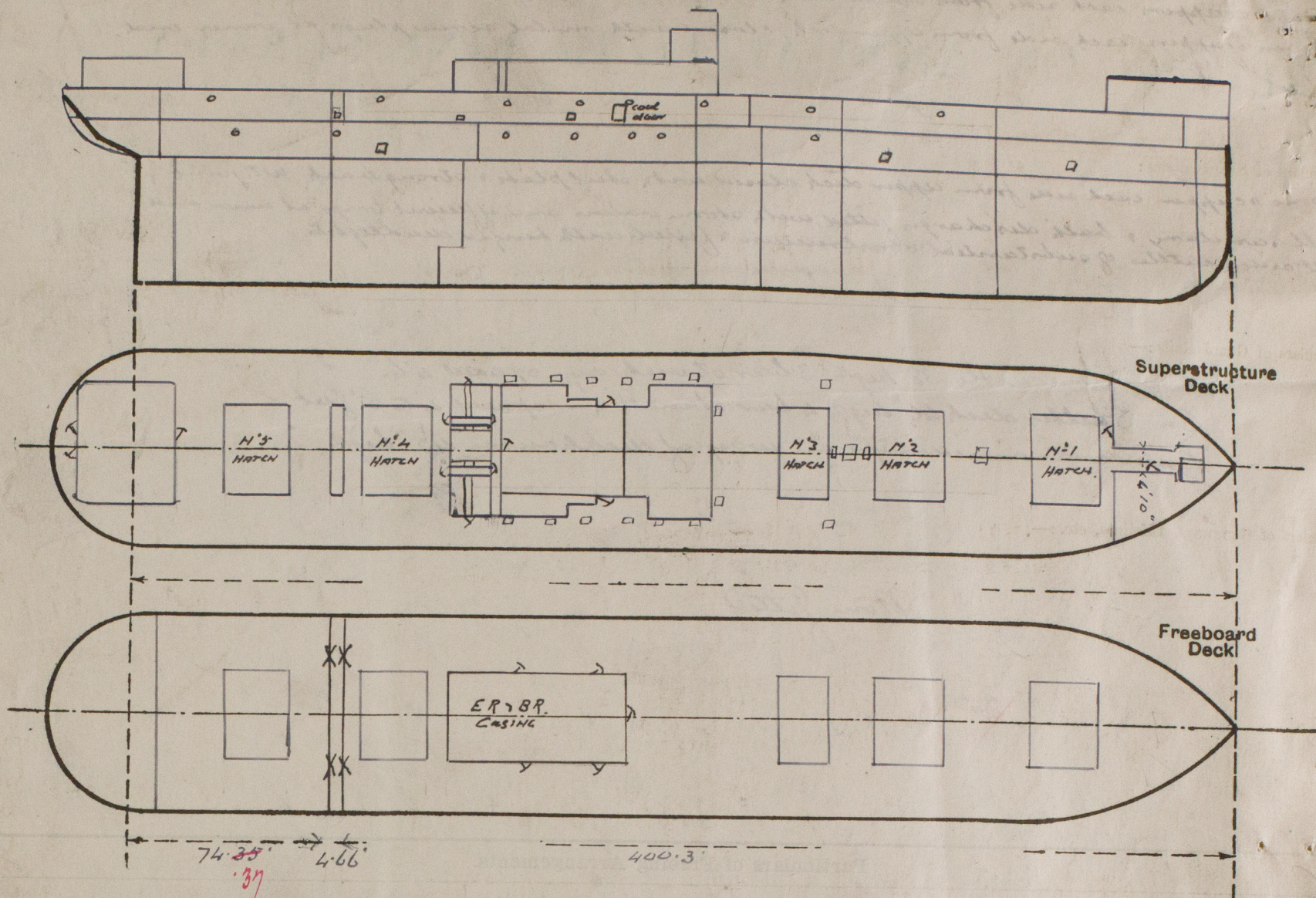


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Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the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



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

SMALL HATCHWAYS

Position	N° of	Size	Coaming	Battening down arrangements
On shelter deck under upper forecable	1	4' x 3' 6"	18" x 4"	2 tarpaulins none fitted + efficient battening ^{arrangements}
On shelter deck midships, trunked to bulkheads with .25 steel plates stiffened with angles 4' x 2 3/4' x .25 26" spacing	12	5' 7" x 3' 6"	21" x 4"	{ wood ^{covers} 3" thick cleats battens and tarpaulins }
	2	2' 4" x 3' 6"	21" x 4"	
On shelter deck between N°1 & 2 Holds to fan room.	1	2' 4" x 3' 0"	31" x 4"	Hinged steel cover W.T. secured with clamps.
On shelter deck to Freeboard deck	2	3' x 4' 4"	21" x 4"	{ wood covers 3" thick, cleats battens and tarpaulins }
	2	2' x 3'	24" x 4"	
	1	4' 4" x 4'	21" x 4"	
On shelter deck to Freeboard deck	1	20" Dia.	18" x 4"	Steel cover W.T. secured with clamps
On Freeboard deck to holds				
Fore of N°1 Hatch	1	2' x 3' 10"	9' 3" x 4"	N°1 2 x 4" insulated plugs & wood covers cleats & battens. 2 tarpaulins
Aft of N°2 "	1	2' 5" x 3' 9"		
Fore of N°3 "	1	2' 0" x 3' 6"		
Aft of N°4 "	1	2' 5" x 3' 9"		
Aft of N°5 "	1	2' 5" x 3' 6"	12' 3" x 4"	N°3 & 5 wood covers, cleats & battens. Wood planking No battening down ^{arrangements fitted}
Fore of N°5 "	1	4' 6" x 18"		

Builder's name and yard number Workman Clark & Co. Ltd. N° 356. Belfast N° 8126.

Names of sister ships "Port Caroline" "Port Auckland" "Port Campbell" "Port Brisbane"

Owners Commonwealth & Dominion Line Ltd.

Fee £ 16 : 3 : 0

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