

Lloyd's Register of Shipping.  
SURVEYS FOR FREEBOARD.Index. No. 14718  
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker

-haying

BRIDGE ERECTION

Port of Survey SOUTHAMPTON

(Type of Superstructures.)

Date of Survey

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

S. WILLIAM POOLESON  
NEATH

BRITISH

137538

215

1917 3

Name of Surveyor L.R. HORNE

Moulded Dimensions: Length 100'-0" Breadth 23'-5" Depth 13'-6"

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

Coefficient of fineness for use with Tables 0.652

Particulars of Classification +100 A1

FOR TOWING PURPOSES

## Depth for Freeboard (D)

Moulded depth ... 13.5

Stringer plate ... 3.75

Sheathing on exposed deck

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

Depth for Freeboard (D) = 13.53

## Depth correction

(a) Where D is greater than Table depth

$$(D - \text{Table depth}) R = (13.53 - 6.67) \cdot 769 = 5.28$$

(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) 23.5

$$\text{Standard Round of Beam} = \frac{B \times 12}{50} = 5.64$$

$$\text{Ship's Round of Beam} = 6$$

Difference

Restricted to

$$\text{Correction} = \frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{3.6}{4} (1 - 0.66) = 0.6$$

## 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 ...	18'-0"	18.0	7'-0"		18.0
" overhang aft ...	16'-0"	12.0			12.0
" overhang forward ...	8'				
F'cle enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	34.0	30.0			30.0

Standard Height of Superstructure 6-0

" " R.Q.D.

Deduction for complete superstructure 16.0

$$\text{Percentage covered } \frac{S}{L} = 34.0$$

$$\frac{S_1}{L} = 30.0$$

$$\frac{E}{L} = 30.0$$

Percentage from Table, Line A.

(corrected for absence of forecastle (if required))

Percentage from Table, Line B. 14.00

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = 2.24

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	20.00	1		20.00	2'-9"	30.0	1		20.0
1/8 L from A.P. ...	8.90	4		35.60	1'-2"	14.7	4		35.60
2/8 L " ...	2.20	2		4.40	4"	4.8	2		4.40
Amidships ...		4					4		
3/8 L from F.P. ...	4.40	2		8.80	1"	1.8	2		3.60
1/4 L " ...	17.80	4		71.20	6"	8.8	4		35.20
F.P. ...	40.00	1		40.00	1'-11"	19.0	1		19.00
Total ...				180.00					117.80

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left( 75 - \frac{S}{2L} \right) = \frac{62.20}{18} (75 - 17) = 12.00$$

If limited on account of midship superstructure.

Mean actual sheer aft = Excess

Mean actual sheer forward = Deficient

Length of enclosed superstructure forward of amidships =

" " aft of " =

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 13.53

Summer freeboard = 1.38

Moulded draught (d) = 12.15

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 3.05

Addition for Winter North Atlantic Freeboard (if required) = 5"

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ 

Tons per inch immersion at summer load water line

T =

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

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

Correction for coefficient

	+	-
Depth Correction ...	5.28	
Deduction for superstructures ...		2.24
Sheer correction ...	2.00	
Round of Beam correction ...		0.6
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, etc. ...		

7.28 2.30 + 4.98

Summer Freeboard = 14.98

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

Tropical Fresh Water Line above Centre of Disc ...	6
Fresh Water Line " " ...	3
Tropical Line " " ...	3
Winter Line below " " ...	3
Winter North Atlantic Line " " ...	5

Tropical Fresh Water Freeboard ...	1-3"
Fresh Water " " ...	2-9"
Tropical " " ...	1-0"
Winter " " ...	1-6"
Winter North Atlantic " " ...	1-8"



William Poulson

Particulars of hiddley, funnel and ventilator coamings:— In an efficient condition. Hiddle gratings covered with ~~portable~~ <sup>permanently attached</sup> steel plates.

Particulars of Flush Bunker Scuttles:— 17" dia substantial C.I. scuttles p. & s.

Particulars of Companionways:—

Stell companion 5'-0" high riveted to original hatch  
3'-7" x 3'-0" (18" coaming). Double stell hinged doors 3'-4" x 1'-2". Sill 18".  
Doors can be operated from both sides.

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

Loc.	Particulars
Ford.	P. one 18" dia. mushroom vent. to crane's quarters, glass top, coaming 2'-11"
	S. one 6" " vent. " " " coaming 21".
Bridge	P. one 6" dia. mushroom vent. 10" coaming. S. side one 6" dia vent. 10" coaming.
Aft.	Eng. Rm. one 9" vent. 21" coaming.
	No. 5. C.E. Javelock vents. 5" dia. 8½" high. P. mushroom vent. C.E. 7" dia. 6" high.

Efficient closing appliances provided

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

Air pipe aft. Peak fitted with flush screwed brass plug	
---	--

Particulars of Gangway Cargo and Coaling Ports :—

Pipes —

Pipes —

R.S. I.P. 4<sup>th</sup> Sanitary discharge pipes (leak) fitted with C.T. Storm valves on shell ✓

Particulars of Side Scuttles :

Side scuttles, in owner's accommodation, below fore board deck fitted with hinged dead lights.

Particulars of Guard Rails :—

on Bridge deck: 4 rails, stanchions 3'-6" apart 3'-3" high.

Particulars of Gangways, Lifelines, etc. :—

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 ... ..	70' <i>see sketch.</i>	3'-3"	26" x 11"	4	7.95	7.0 ✓
Forward Well ... ..	18'-4"	3'-3"	26" x 11"	1	1.99.	

State position of each freeing port ... .. { After Well:—  
 (F. and A. position and height above deck edge) { Forward Well:— *see sketch.* *height above deck 7"*  
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— *hinged flaps fitted.*

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 ... ..								
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead ... .. <i>after side bunkers coaming</i>	<i>5/16</i>	<i>5/16</i>	<i>7"x3" b.a.</i>	<i>4'-6"</i>	<i>✓</i>	<i>none</i>	<i>none</i>	<i>7'-0"</i>
Bridge, Forward Bulkhead ... ..	<i>1/4</i>	<i>1/4</i>	<i>not available</i>	<i>30"</i>	<i>brackets</i>	<i>none</i>	<i>none</i>	<i>7'-0"</i>
Forecastle Bulkhead ... ..								
Trunk, Aft ... ..								
Trunk, Forward ... ..								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	<i>5/16</i>	<i>5/16</i>	<i>2 1/2" x 2 1/2"</i>	<i>32"</i>	<i>brackets at top</i>	<i>36" x 24" doors</i>	<i>17</i>	<i>4'-6"</i>
Exposed Machinery Casings on Superstructure Decks ... ..								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..								
Deckhouses on <i>Bridge plating</i> Main Deck Slips ...			<i>wood frame 7'-0" (per) x 8'-0" x 7'-0" light</i>			<i>1 door 6'-0" x 8'-0" 1 door 6'-9" x 2'-0"</i>	<i>6"</i>	<i>7'-0"</i>

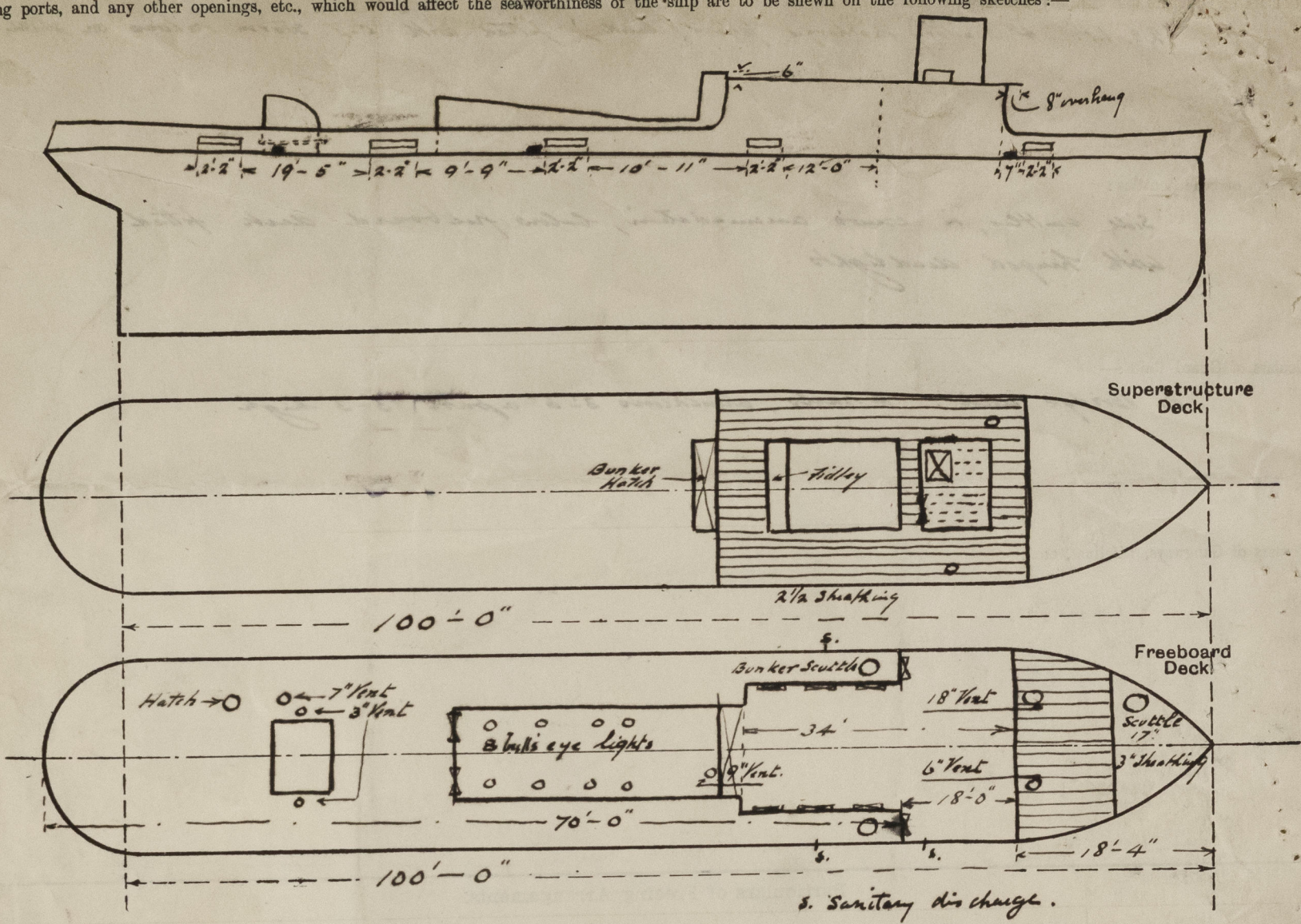
Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	...	...	
Raised Quarter Deck Bulkhead	...	...	
Bridge, After Bulkhead	1/2" curved	allway	String hinged tank doors 22 1/2" x 4' 9". Sills 17". Operated both sides.
Bridge, Forward Bulkhead	...	none	
Forecastle Bulkhead	...		
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...		Manually constructed steel doors operated from both sides. 3'-0" x 2'-0". Sills 17" high.
Exposed Machinery Casings on Superstructure Decks	...		
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	...		
Deckhouses on Bridge	...		
Deckhouses on Flash Deck Ships	...	one door	off (hinged) 5'-9" x 18". one door P. side (sliding) 5'-9" x 24".



William Bullman

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:—

Shears taken afloat.

*[Handwritten signature]*

Builder's name and yard number John Cran & Co. No 109

Names of sister ships s.s. Alexandra s.s. Gladstone.

Owners ALEXANDRA TOWING Co. Ltd.

Fee £ 3 : 8 : 0 Received by me *[Signature]*