

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Index. No. **243**  
(For London Office only.)Port of Survey **Goole**Date of Survey **27th April 1932.**Name of Surveyor **G. Moffatt.**Particulars of Classification **100 A1****Large battens not fitted.**Computation of Freeboard for Steamer, Sailing Ship, Tanker  
having **Raised Quarter on Bridge 1 Feb.**

(Type of Superstructures.)

Ship's Name **Galacum**  
**Sakco Refect**

Nationality and Port of Registry **Br. Workington**

Official Number **133263**  
**21463**

Gross Tonnage **585**

Date of Build **1915**

Moulded Dimensions: Length **165.7'** Breadth **26.5'** Depth **13.2'**

Moulded displacement at moulded draught = 85 per cent. of moulded depth **1043** tons

Coefficient of fineness for use with Tables **.743**

## Depth for Freeboard (D)

Moulded depth ... **13.2'**

Stringer plate ... **.36**

Sheathing on exposed deck  
 $T \left( \frac{L-S}{L} \right) =$

Depth for Freeboard (D) = **13.19**

## Depth correction

(a) Where D is greater than Table depth  
(D-Table depth) R =  
**(13.19 - 11.05) 1.275 = + 2.73**

(b) Where D is less than Table depth (if allowed)  
(Table depth-D) R =

If restricted by superstructures

## Round of Beam correction

Moulded Breadth (B) **26.5**

Standard Round of Beam =  $\frac{B \times 12}{50} = \frac{6.36}{50}$

Ship's Round of Beam = **6.4**

Difference **.11**

Restricted to

Correction =  $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.11}{4} (1 - .7755) = + .01$

## 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 ...	<b>99.6'</b>	<b>99.5'</b>	<b>4.2'</b>		<b>99.5'</b>
„ overhang ...					
Bridge enclosed ...	<b>9.2'</b>	<b>4.2'</b>	<b>6.75'</b>		<b>4.2'</b>
„ overhang aft ...					
„ overhang forward ...					
Fore enclosed ...	<b>19.12'</b>	<b>19.12'</b>	<b>6.75'</b>		<b>19.12'</b>
„ overhang ...	<b>1.38'</b>	<b>.69'</b>			<b>.69'</b>
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ forward ...					
Total ...	<b>129.30</b>	<b>128.51</b>			<b>128.51</b>

Standard Height of Superstructure **6.0'**

„ „ R.Q.D. **3.44'**

Deduction for complete superstructure **22.54**

Percentage covered  $\frac{S}{L} = \frac{78.022}{100}$

„ „  $\frac{S_1}{L} = \frac{77.552}{100}$

„ „  $\frac{E}{L} = \frac{77.552}{100}$

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

Percentage from Table, Line B. **72.292**  
(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = **22.54 x .7229 = - 16.32**

## SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ...	<b>26.54</b>	1	<b>26.54</b>	<b>35</b>	<b>35.00</b>	1	<b>26.54</b>
$\frac{1}{4}$ L from A.P. ...	<b>11.82</b>	4	<b>47.28</b>	<b>20</b>	<b>18.17</b>	4	<b>72.68</b>
$\frac{2}{4}$ L „ ...	<b>2.92</b>	2	<b>5.84</b>	<b>7</b>	<b>4.53</b>	2	<b>9.06</b>
Amidships ...	-	4	-	<b>0</b>	-	4	-
$\frac{3}{4}$ L from F.P. ...	<b>5.85</b>	2	<b>11.70</b>	<b>5</b>	<b>5.32</b>	2	<b>10.64</b>
$\frac{1}{4}$ L „ ...	<b>23.65</b>	4	<b>94.60</b>	<b>22</b>	<b>21.33</b>	4	<b>85.32</b>
F.P. ...	<b>58.14</b>	1	<b>58.14</b>	<b>46</b>	<b>46.00</b>	1	<b>46.00</b>
Total ...			<b>239.13</b>				<b>221.65</b>

Mean actual sheer aft = **excess**

Mean standard sheer aft =

Mean actual sheer forward = **deficient**

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = **.1645**

„ „ aft of „ = **.50**

**Actual Height R.Q. on 14.2'**

**Stand „ „ 3.44'**

**.46**

**= 9.12**

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{17.48}{18} (.75 - .3901) = + .35$

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 = **17.39**

Summer freeboard = **4.88**

Moulded draught (d) = **12.51**

## Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = **3.13 = 3.1**

Addition for Winter North Atlantic Freeboard (if required) = **5.4**

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$  **1228**

Tons per inch immersion at summer load water line

$T =$  **8.5**

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

= **3.61**

= **3.2**

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

Correction for coefficient  $\frac{7434.68}{1.36} = \frac{1.423}{1.36} \times 14.4$

Depth Correction ... **2.73**

Deduction for superstructures ... **16.32**

Sheer correction ... **-35**

Round of Beam correction ... **.01**

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc. ... **50.50**

Summer Freeboard = **55**

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

3 MAY 1932

Tropical Fresh Water Line above Centre of Disc ... **6.34**Fresh Water Line „ „ ... **3.2**Tropical Line „ „ ... **3.2**

below

„ „ ... **3.2**Line „ „ ... **5.4**Tropical Fresh Water Freeboard ... **4.1**Fresh Water „ „ ... **4.1**Tropical „ „ ... **4.1**Winter „ „ ... **4.1**Winter North Atlantic „ „ ... **4.1**

Lloyd's Register  
Foundation

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# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

## HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

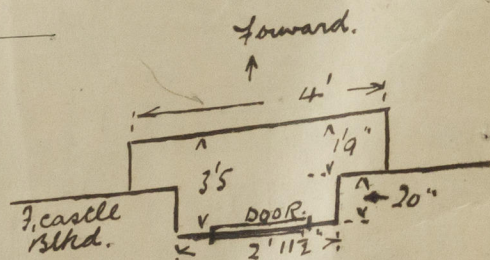
Description of Hatchway	No 1	No 2	Aft Peak Tank.
Dimensions of Hatchway	25'6" x 15'11"	30'6" x 15'11"	9' x 1'8"
COAMINGS			
Height above Deck	3'1"	3'1"	10"
Thickness	42	46	35
Sides	5" x 3/4" x 36" 8" from top	5" x 3/4" x 36" 8" from top	none
Ends	5" x 3/4" x 36" 8" from top	5" x 3/4" x 36" 8" from top	none
Stiffeners	2 Brackets	4 Brackets	none
Brackets, Stays	2 Brackets	4 Brackets	none
HATCH BEAMS			
Number	4	5	10
Spacing	even	even	even
Scantling and Sketch	19" x 3/4" DA. 3 x 3 x 42	Same as No 1.	17" x 13 1/2"
Bearing Surface	3"	3"	3"
FORE AND AFTERS			
Number	none	none	none
Spacing	none	none	none
Unsupported Lengths	none	none	none
Scantling* and Sketch	none	none	none
Bearing Surface	none	none	none
HATCH COVERS			
Material	White Wood.	White wood.	White wood.
Thickness	3"	3"	3"
How fitted	3/4" x 3"	3"	3"
Bearing Surface	3"	3"	3"
Spacing of Cleats	24"	23 1/2"	23"
Number of Tarpaulins	2	2	2

Are wood fore and afters steel shod at all bearing surfaces? none.  
 Are battens and wedges efficient and in good condition? yes.  
 Are tarpaulins in good condition and in accordance with rule requirements? yes.  
 Are lashings provided in accordance with rule requirements? yes.

Particulars of fiddle, funnel and ventilator coamings:— Stokehold gratings covered by strong steel hinged doors (and to repair on ss)

Fiddle and Funnel Vents in efficient condition.  
 Engine skylight of wood, strongly constructed.  
 Bunker Hatchway 18' x 7' with a 10" coaming - leading to Cross Bunker. Fitted with central steel fore and afters and hatches (athwart). bleats 38" apart - battens good. - 1 Tarpaulin to be removed.

Particulars of Flush Bunker Scuttles:— none.



Particulars of Companionways:— 1 Steel companionway (see sketch) 3'5" x 4' x 6'11" high on Freeboard Deck leading to Fore Peak. Door of steel with 18 1/2" sill, opening 1 side only.  
 1 Steel companion in Bridge Space accommodation, with opening in aft Bridge Blind and R.Q.D bulkhead 5' x 1'10" sill 15", leading to enc. Bridge Space accommodation.  
 Door of wood 1 1/2" Spring lock, opening both sides. Door to repair and lock to repair.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—  
 1 Vent on F. castle Deck 5 1/2" dia. boamings 7" x .25 led to Enc F. castle Space.  
 1 " " Freeboard " 10" " " 36" x .25 " " Fore Hold Space.  
 1 " " R.Q. Deck 10" " " 36" x .25 " " Main Hold Space.  
 1 " " R.Q. Deck 3" " " 18" x .3 " " Aft Peak Tank.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—  
 In Enc F. castle, 1 air pipe along deck with open end leading on to Freeboard Deck - pipe is 3" dia and leads from Fore Peak Tank: height above deck 1" - no plug.  
 1 air pipe on fore end of Freeboard Deck 9" high. 3" dia - from DB. Tank - no plug.  
 1 Flush " " " 1 1/4" dia - wood plug but no screw cap.  
 2 " " " " 1 1/4" dia from DB. Tank - no screw caps.  
 2 " " " " 1 1/4" dia - screw caps.  
 2 " " " " 4 1/2" square. 13 1/2" high from Enc Bridge Space Accom.  
 Particulars of Gangway Cargo and Coaling Ports:— none.



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Particulars of Scuppers and Sanitary Discharge Pipes —

Freeboard Deck - Fore Well, 1 scupper each side 6"x4½" in gunwall bar. ✓  
" R.Q. Deck 3 " " " 10"x6" " " " ✓  
2 Sanitary Discharges from Forecastle Accommodation 4½" square. - above Freeboard Deck. ✓  
no valves or traps. ✓

Particulars of Side Scuttles:

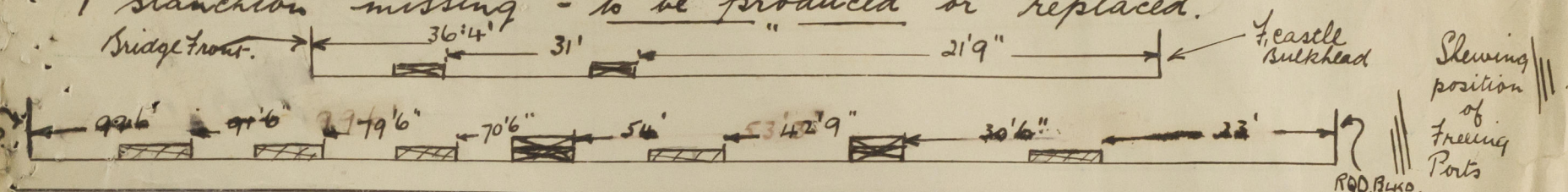
Side scuttles in Enc. Forecastle Accommodation, of strong construction.  
no deadlights fitted.  
all side scuttles to be made watertight.

Particulars of Guard Rails:—

Guard rails on Forecastle Deck 2'10" high having 2 rods + stanchions spaced 4'6" apart. ✓  
Steel bulwarks on Freeboard Deck 3'10" high, efficiently constructed + supported. ✓  
" " " R.Q. Deck 3'1" " " " " ✓  
" " " Bridge Deck 3' " " " " no supports. ✓

Particulars of Gangways, Lifelines, etc.:—

One row of stanchions (P.S.) fitted in hole sockets along hatch stiffener, 1'8" apart. from Bridge to Forecastle. A single rope with stanchions 3ft above hatch top, which is used as gangway. and lifelines provided  
1 Stanchion missing - to be produced or replaced.



Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Fore Well R.Q.D. ...	99.6'	3'1"	2'3" x 1'10" 3' x 10"	2	20.73	19.92
Forward Well ...	36.4'	3'10"	2'10" x 2'	2	11.32	10.14

State position of each freeing port (F. and A. position and height above deck edge) } Fore Well: — R.Q.D. 3' } See sketch above.  
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Swivel Shutters.  
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 ...	3'	3'	not accessible			5' x 1'10"	15"	9'3"
Bridge, After Bulkhead ...								
Bridge, Forward Bulkhead ...	26	26	not accessible			none	none	6'9"
Forecastle Bulkhead ...	26	26	none	none	none	(3) 4'9" x 1'9" (2) 5' x 1'7½"	18" 15"	6'11"
Trunk, Aft ...								
Trunk, Forward ...								
Exposed Machinery Casings on Freeboard Raised Quarter Decks ...	35'	35'	3x3x36'	39"	Brackets at top	(6) 3'5" x 1'9"	2'3½"	6'
Exposed Machinery Casings on Superstructure Decks ...								
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).

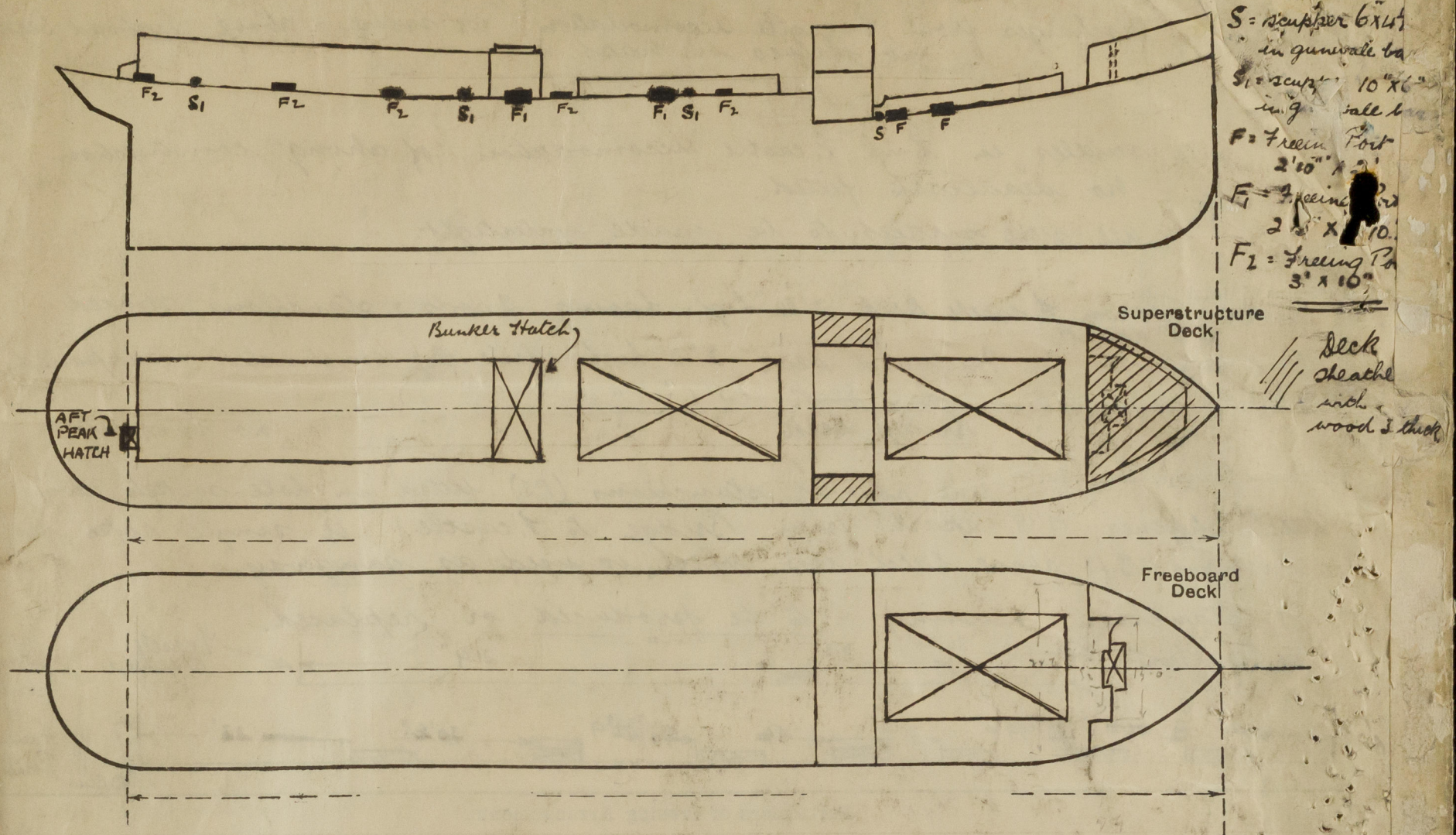
Poop Bulkhead ...	
Raised Quarter Deck Bulkhead ...	1 Wood door, 1½" thick, Spring lock opening both sides: (See companionway) door lock to repair
Bridge, After Bulkhead ...	
Bridge, Forward Bulkhead ...	no openings ✓
Forecastle Bulkhead ...	6 Steel doors closing 1 side only ✓
Exposed Machinery Casings on Freeboard Raised Quarter Decks ...	4 " " with slide bolt opening 1 side only
Exposed Machinery Casings on Superstructure Decks ...	2 " " (in halves) with slide bolt opening 1 side only
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	
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 shewn on the following sketches:—

*Vessel measured in dry dock.*



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

*none*

Builder's name and yard number R. Williamson & Son, Workington.

Names of sister ships \_\_\_\_\_

Owners Northwest Shipping Co. Ltd. R. Williamson (Mgr.)

Fee £ 8 Received by me \_\_\_\_\_

15% £ 6:16:0 not yet applied for