

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Index. No. **31448**  
(For London Office only.)

19 MAY 1932

10.844

Computation of Freeboard for Steamer, ~~Sailing Ship~~, TankerLaying *Forecastle, Bridge & Raised Quarter Deck*Port of Survey *Belfast*

(Type of Superstructures.)

Date of Survey *May 1932*

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

*"ANNAGHMORE"*  
*BALLYDUFF**British*  
*BELFAST*  
*Belmont**140831**583**1924-10*Name of Surveyor *J.D. Shilston*Moulded Dimensions: Length *164.64* ✓ Breadth *26.875* ✓ Depth *13.33* ✓Moulded displacement at moulded draught = 85 per cent. of moulded depth *1030* ✓ tonsCoefficient of fineness for use with Tables *.919* ✓Particulars of Classification *+100A1*

## Depth for Freeboard (D)

Moulded depth ... *13.33* ✓Inger plate ... *.0365* ✓

Sheathing on exposed deck

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

Depth for Freeboard (D) = *13.36* ✓

## Depth correction

(a) Where D is greater than Table depth  
(D-Table depth) R =

$$(13.36 - 10.98) \cdot 266 = +3.01 \checkmark$$

(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) *26.875* ✓

$$\text{Standard Round of Beam} = \frac{B \times 12}{50} = 6.45 \checkmark$$

$$\text{Ship's Round of Beam} = 7 \checkmark$$

$$\text{Difference} = .55 \checkmark$$

Restricted to

$$\text{Correction} = \frac{\text{Diff}^n}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.55}{4} (1 - .7886) = -.03 \checkmark$$

## 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 ...	<i>94.33</i> ✓	<i>94.33</i> ✓	<i>3.5</i> ✓		<i>94.33</i> ✓
„ overhang ...	✓				
Bridge enclosed ...	<i>11.0</i> ✓	<i>11.00</i> ✓	<i>7.0</i> ✓		<i>11.00</i> ✓
„ overhang aft ...	✓		<i>+20</i>		
„ overhang forward ...	✓				
F'cle enclosed ...	<i>18.92</i> ✓	<i>20.27</i> ✓	<i>7.0</i> ✓		<i>20.27</i> ✓
„ overhang ...	<i>9.83</i> ✓	<i>4.24</i> ✓	<i>+20</i>		<i>4.24</i> ✓
Trunk aft ...	✓				
„ forward ...	✓				
Tonnage opening aft ...	✓				
„ „ forward ...	✓				
Total ...	<i>134.08</i> ✓	<i>129.84</i> ✓			<i>129.84</i> ✓

Standard Height of Superstructure *6.00* ✓„ „ R.Q.D. *3.43* ✓Deduction for complete superstructure *22.46* ✓

$$\text{Percentage covered } \frac{S}{L} = 81.44\% \checkmark$$

$$\frac{S_1}{L} = 78.86\% \checkmark$$

$$\frac{E}{L} = 78.86\% \checkmark$$

Percentage from Table, Line A.

(corrected for absence of forecastle (if required))

$$\text{Percentage from Table, Line B. } 73.89\% \checkmark$$

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

$$\text{Deduction} = 22.46 \times .7389 = -16.6 \checkmark$$

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>26.46</i> ✓	1		<i>26.46</i>	<i>42.2</i> ✓	<i>42.84</i> ✓	1		<i>42.84</i> ✓
$\frac{1}{8}$ L from A.P. ...	<i>11.78</i>	4		<i>47.12</i>	<i>19</i> ✓	<i>19.07</i> ✓	4		<i>76.28</i> ✓
$\frac{3}{8}$ L „ ...	<i>2.91</i>	2		<i>5.82</i>	<i>4.2</i> ✓	<i>4.71</i> ✓	2		<i>9.42</i> ✓
Amidships ...		4					4		
$\frac{5}{8}$ L from F.P. ...	<i>5.82</i>	2		<i>11.64</i>	<i>7.2</i> ✓	<i>7.70</i> ✓	2		<i>15.40</i> ✓
$\frac{7}{8}$ L „ ...	<i>23.55</i>	4		<i>94.20</i>	<i>30</i> ✓	<i>30.81</i> ✓	4		<i>123.24</i> ✓
F.P. ...	<i>52.92</i> ✓	1		<i>52.92</i>	<i>74</i> ✓	<i>74.00</i> ✓	1		<i>74.00</i> ✓
Total ...				<i>238.16</i> ✓					<i>340.34</i> ✓

Mean actual sheer aft = *cross*  
Mean standard sheer aft = *cross*Mean actual sheer forward = *cross*  
Mean standard sheer forward = *cross*Length of enclosed superstructure forward of amidships = *.14*„ „ aft of „ = *.50*Sheer aft increased by virtue of increased R.Q.D. length actual R.Q.D. *3.50* ✓  
standard „ *3.43* ✓  
*.07 = .84* ✓

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{103.07}{18} \left( .75 - \frac{134.08}{329.28} \right) = -1.946 \checkmark$$

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.

$$\text{Depth to Freeboard Deck} = 16.86 \checkmark$$

$$\text{Summer freeboard} = 3.741 \checkmark$$

$$\text{Moulded draught (d)} = 13.165 \checkmark$$

Deduction for Tropical freeboard and addition for

$$\text{Winter freeboard} = \frac{d}{4} \text{ inches} = 3.29 = 3\frac{1}{4} \checkmark$$

Addition for Winter North Atlantic Freeboard (if required) = *+2* ✓

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

$$\Delta = 1242 \checkmark$$

Tons per inch immersion at summer load water line

$$T = .869 \checkmark$$

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

$$= 3.57 \checkmark$$

$$= 3\frac{1}{2} \checkmark$$

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

$$\text{Correction for coefficient} = \frac{.719 + .680}{1.36} \times 17.55 = 17.55 \checkmark$$

Depth Correction ... *3.01* ✓Deduction for superstructures ... *16.60* ✓Sheer correction ... *1.740* ✓Round of Beam correction ... *.03* ✓Correction for Thickness of Deck amidships ... *42.00* ✓Other corrections, scantlings, etc. ... *9* ✓

$$45.01 - 18.57 + 26.44 = 52.88 \checkmark$$

$$\text{Summer Freeboard} = 44.48 \checkmark$$

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~, Steel, Deck:Tropical Fresh Water Line above Centre of Disc ... *4* ✓Fresh Water Line „ „ „ *3\frac{1}{2}* ✓Tropical Line „ „ „ *\frac{1}{2}* ✓Winter Line below „ „ „ *3\frac{1}{4}* ✓Winter North Atlantic Line „ „ „ *5\frac{1}{2}* ✓Tropical Fresh Water Freeboard ... *3-8\frac{1}{2}* ✓Fresh Water „ „ „ *3-5* ✓Tropical „ „ „ *LIMITED 3-8* ✓Winter „ „ „ *3-11\frac{1}{4}* ✓Winter North Atlantic „ „ „ *4-1\frac{3}{4}* ✓

28 MAY 1932

002506-002514-0150

MARKING FORM

RECEIVED 29 JUL 1937

MARKING FORM

RECEIVED 25 OCT 1933

MARKING FORM

RECEIVED 31 JAN 1933



## PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
			No 1	No 2					
Description of Hatchway	...	...	Freeboard Deck	Altered Quarter Deck	Bunker Hatch	Trimming Hatch on Freeboard Deck	Hatch to Lower Forecastle on Forecastle Deck		
Dimensions of Hatchway	...	...	26'-9" x 13'-7"	28'-9" x 13'-7"	16'-2" x 5'-0"	26" x 23"	21" x 20"		
COAMINGS	Height above Deck	...	215"	39"	9"	19"	12"		
	Thickness	Sides	1/4"	1/4"	1/8"	3/16"	1/8"		
		Ends	1/4"	1/4"	1/8"	3/16"	1/8"		
	Stiffeners	...	7 x 3 x 1/2 B.A.	7 x 3 x 1/2 B.A.	✓	✓	✓		
	Brackets, Stays	...	3 each side	4 each side	✓	✓	✓		
HATCH BEAMS	Number	...	3	3	✓	✓	✓		
	Spacing	...	max 7'-0" min 5'-6"	max 7'-5" min 6'-6 1/2"					
	Scantling and Sketch	...	3 x 3 x 1/2 angle plate 17 x 36 centre 8 1/2 x 36 ends 3 x 1 1/2 half round solid	3 x 3 x 1/2 angle 10 plate 17 x 36 centre 8 1/2 x 36 ends 3 x 1 1/2 plate half round					
	Bearing Surface	Steel	3"	3"					
FORE AND AFTERS	Number	...	3	3	✓	✓	✓		
	Spacing	...	3'-6"	3'-6"					
	Unsupported Lengths	...	7'-0" max	7'-5" max					
	Scantling* and Sketch	...	centre D=7" B=7" sides D=6 1/2" B=6 1/2"	centre D=7" B=7" sides D=6 1/2" B=6 1/2"					
	Bearing Surface	...	3"	3"					
HATCH COVERS	Material	...	Baradian Sphumex	Baradian Sphumex					
	Thickness	...	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"		
	How fitted	...	transverse	transverse	fore & aft				
	Bearing Surface	...	2 1/4"	2 1/4"	3" x 2 1/2"	1 3/4" x 1 1/4"	2 1/4"		
Spacing of Cleats	...	...	24" sides 22" ends	24" sides 21" ends	24"	14 1/2" to 11"	10"		
Number of Tarpaulins	...	...	2	2	1	2	2		

\*Are wood fore and afters steel shod at all bearing surfaces? yes

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? Manilla rope lashings

Particulars of fiddley, funnel and ventilator coamings:—

Funnel coaming of steel, strong, rivetted to casing top.  
Two engine room & four stokehold ventilator coamings of steel, strong, rivetted to casing top.  
Engine room skylight of steel, strong, rivetted to casing top.  
Fieldley opening protected by hinged steel storm cover.

Particulars of Flush Bunker Scuttles:—

none

Particulars of Companionways :—

Particulars of Companionways :-  
Companionway formed in the after end of steel chart room on Bridge deck, <sup>leading to Bridge space.</sup> Opening  $51 \times 20\frac{1}{2}$ ", sill  $17\frac{1}{2}$ ", closed by teakwood door  $1\frac{1}{2}$ " panelled 1" thick, securing both sides.

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

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

\* On Forecastle Deck to crew space on Freeboard deck, 2 coamings of steel 6" dia x 8" high x  $\frac{1}{2}$ " thick, rivetted to deck 5 dies approx  
" " hold 1 coaming 9" dia x 36" high x  $\frac{5}{16}$ " thick, bolted to wood deck 5 dies approx.  
" " Raised Quarter Deck " 1 coaming 9" dia x 36" high x  $\frac{5}{16}$ " thick, rivetted to deck 5 dies approx.  
x With wood plugs & canvas covers.

Also 2 stove funnel coamings on Forecastle deck 4" dia x 4" high x  $\frac{5}{16}$ " thick, bolted to deck.

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 :—

On Forecastle deck behind stem to forepeak tank, 1 air pipe $2\frac{1}{2}$ " dia x 11" high.	} <del>no closing appliances</del>
On Freeboard deck below forecastle extension to No 1 double bottom tank, 1 air pipe $3\frac{1}{2}$ " dia x <sup>36</sup> <del>14</del> " high.	
On Raised Quarter deck to No 2 double bottom tank, 2 air pipes $2\frac{1}{2}$ " dia x <sup>30</sup> <del>12</del> " high.	
" " " " " After peak, 1 air pipe 2" dia, <sup>30</sup> <del>18</del> " high, fitted with wood plug	

Caulas covers provided for  
all air pipes

Particulars of Gangway Cargo and Coaling Ports:—

none



Particulars of Scuppers and Sanitary Discharge Pipes —

none

Particulars of Side Scuttles:

In fore-castle, efficient, fitted with deadlights.  
 " bridge space, " " " " " "

Particulars of Guard Rails:—

On Fore-castle Deck. Guard rails, 2 rows, 39" high, stanchions 52" apart.  
 " Fore-board " Bulwarks of steel, strong, 53" high.  
 " Bridge " " " " " 36" "  
 " Raised Quarter " " " " " 40" "

Particulars of Gangways, Lifelines, etc.:—

A satisfactory gangway is provided, from the Bridge to the crew's quarters forward by the top of the cargo hatchway to which there is easy access from the Bridge ladder. ~~no~~ lifelines <sup>are</sup> fitted. P13

## Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Raised Quarter Deck. After Well ... ..	94'-4"	40"	<del>34" x 20"</del> <del>28" x 15"</del>	<del>43</del>	<del>875</del> <sup>19</sup> <del>φ</del>	19 <del>φ</del>
Forward Well ... ..	30'-6½"	53"	2 @ 30" x 17½" 1 @ 28½" x 16"	3	10.46 <del>φ</del>	9.55 <del>φ</del>
State position of each freeing port ... .. } <del>Raised Quarter Deck</del> (F. and A. position and height above deck edge) } After Well:— 4" } see sketch. State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Forward Well:— 9" } Shutters hinged with brass hinge pins.						
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 ...	✓	31"	Diaphragm & Brackets		✓	✓	✓	✓
Bridge, After Bulkhead ... ..	✓	31"	2-6" x 3" x 3/8" B.A. remainder 3" x 2" x 5/16"	31"	B.A. bracketed top & bottom. Remainder not bracketed	✓	✓	✓
Bridge, Forward Bulkhead ... ..	40"	31"	6" x 3" x 3/8" B.A.	30"	2 bracketed bottom from casings taking from dished bar. All bracketed top	✓	✓	✓
Fore-castle Bulkhead ... ..	31"	31"	3" x 3" x 5/16"	28" to 42"	nil.	1 @ 52" x 27"	19"	✓
Trunk, Aft ... ..	✓							
Trunk, Forward ... ..	✓							
Exposed Machinery Casings on Fore-board or Raised Quarter Decks ...	31"	25"	3" x 3" x 1/4"	31"	Bracketed at top.	4 @ 54" x 22"	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 ...	✓							

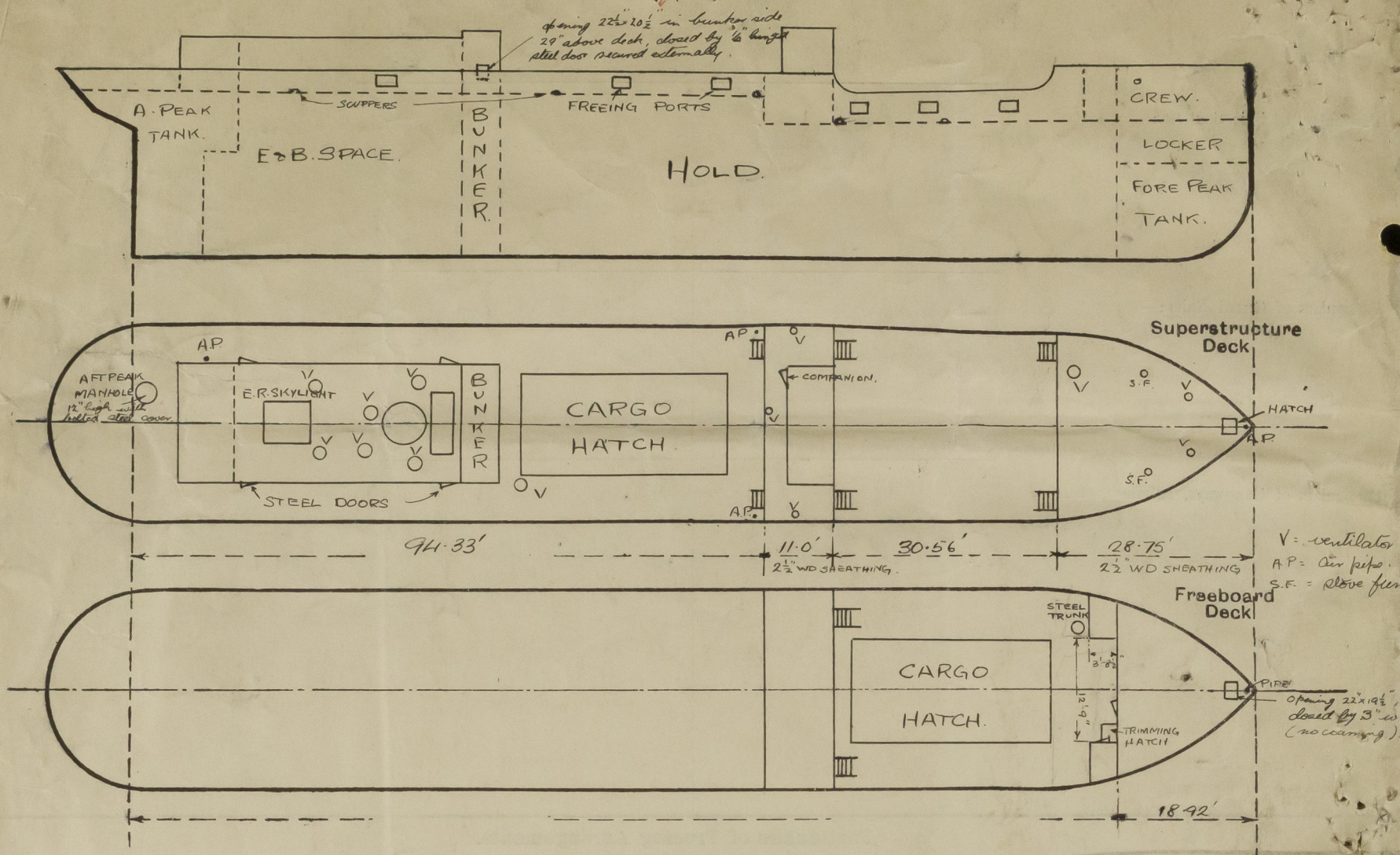
## Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead ... ..	✓
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead ... ..	✓
Bridge, Forward Bulkhead ... ..	✓
Fore-castle Bulkhead ... ..	1 hinged steel door, 1/2" thick, non watertight, <del>not</del> secured from both sides
Exposed Machinery Casings on Fore-board or Raised Quarter Decks ...	4 hinged steel doors 1/2" thick, non watertight, secured both sides
Exposed Machinery Casings on Superstructure Decks ... ..	✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	✓
Deckhouses on Flush Deck Ships ...	✓



*Annaghmore*

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:—



Eg. bld.  
 $(18.92 + 3.71) - \frac{12.75 \times 3.71}{20} = 20.47$   
 $\frac{28.75}{20.27}$   
 overhang  $8.48 \frac{1}{2}$  allowed.  $4.24$

*Memorandum of special features in the construction of the ship:—*

Builder's name and yard number *J. Lewis & Sons Ltd. Aberdeen*

Names of sister ships

Owners *St. Helen's Colliery & Brick Works Co. Ltd.*

Fee £ *6* : *16* : *0*

Received by me