

DISCLOSED SECTION 22048

Rpt. C.11.

SEP 1932

Index. No. 32714
(For London Office only.)

Lloyd's Register of Shipping. SURVEYS FOR FREEBOARD.

No. 454

Computation of Freeboard for Steamer, ~~Sailing Ship, Tug~~
having *complete hull, Deck, & Forecastle.*

Port of Survey *Barry.*

Date of Survey *September 13th 1932.*

Name of Surveyor *H. J. Middlemiss.*

Particulars of Classification *100 A.1.
with Freeboard.*

Ship's Name *INNESMOOR* Nationality and Port of Registry *London British* Official Number *160474* Gross Tonnage *4392* Date of Build *1928.5*

Moulded Dimensions: Length *375.00* Breadth *52.31* Depth *28.25*
Moulded displacement at moulded draught = 85 per cent. of moulded depth *10576* tons
Coefficient of fineness for use with Tables *.781*

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	<i>28.25</i>	(a) Where D is greater than Table depth (D - Table depth) R = $(28.29 - 25.00) 2.884$ <i>= + 9.49"</i>		Moulded Breadth (B)	<i>52.31"</i>
Stringer plate	<i>.04</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <i>✓</i>		Standard Round of Beam = $\frac{B \times 12}{50}$	<i>= 12.55"</i>
Sheathing exposed deck <i>File 3"</i>	<i>✓</i>			Ship's Round of Beam	<i>= 12.75"</i>
T $\left(\frac{L-S}{L}\right) =$	<i>✓</i>			Difference	<i>.20 excess</i>
Depth for Freeboard (D) =	<i>28.29</i>	If restricted by superstructures <i>✓</i>		Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L}\right)$	<i>= \frac{.20}{4} \times .007 = .011</i>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>26.54</i>	<i>26.54</i>	<i>8.0</i>		<i>26.54</i>
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	<i>343.3</i>	<i>343.30</i>	<i>8.0</i>		<i>343.30</i>
" overhang aft ...					
" overhang forward ...					
Fore enclosed ...					
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...	<i>5.16</i>	<i>2.58</i>	<i>8.0</i>		<i>2.58</i>
" forward ...					
Total ...	<i>375.00</i>	<i>372.42</i>			<i>372.42</i>

Standard Height of Superstructure *7.25*
" " R.Q.D. *✓*
Deduction for complete superstructure *40.33*
Percentage covered $\frac{S}{L} = 100\%$
" $\frac{S_1}{L} = 99.31\%$
" $\frac{E}{L} = 99.31\%$
Percentage from Table, Line A. *99.15%*
(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)
Deduction = $40.33 \times .9915 = - 39.99"$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>47.50</i>	1		<i>47.50</i>	<i>54.0</i>	<i>63.00</i>	1		<i>63.00</i>
$\frac{1}{2}$ L from A.P. ...	<i>21.14</i>	4		<i>84.56</i>	<i>23.3</i>	<i>28.03</i>	4		<i>112.12</i>
$\frac{3}{8}$ L " ...	<i>5.22</i>	2		<i>10.44</i>	<i>5.82</i>	<i>6.93</i>	2		<i>13.86</i>
Amidships ...	<i>✓</i>	4		<i>✓</i>	<i>✓</i>	<i>✓</i>	4		<i>✓</i>
$\frac{1}{2}$ L from F.P. ...	<i>10.45</i>	2		<i>20.90</i>	<i>11.75</i>	<i>12.87</i>	2		<i>25.74</i>
$\frac{1}{8}$ L " ...	<i>42.28</i>	4		<i>169.12</i>	<i>47.0</i>	<i>52.06</i>	4		<i>208.24</i>
F.P. ...	<i>95.00</i>	1		<i>95.00</i>	<i>108.0</i>	<i>117.00</i>	1		<i>117.00</i>
Total ...				<i>427.52</i>					<i>539.96</i>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75 - S}{2L} \right) = \frac{112.44}{18} \left(\frac{75 - 50}{2} \right) = - 1.56"$

If limited on account of midship superstructure. *✓*

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 = *28.29*
Summer freeboard = *3.04*
Moulded draught (d) = *25.25*

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = $\frac{6.34}{4} = 1.585$
Addition for Winter North Atlantic Freeboard (if required) = *✓*

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 11161$
Tons per inch immersion at summer load water line
T = *40*
Deduction = $\frac{\Delta}{40T}$ inches = $\frac{11161}{1600} = 6.98 = 7"$

TABULAR FREEBOARD corrected for Flush Deck (if required)
Correction for coefficient $\frac{.781 + .68}{1.36}$

Depth Correction ... *9.49*
Deduction for superstructures ... *39.99*
Sheer correction ... *1.56*
Round of Beam correction ...
Correction for Thickness of Deck amidships ...
Other corrections, scantlings, etc. ...

6.190
68.65
g. m. m.
14-Sine-32
9.49 *4.55* *= 32.06*
Summer Freeboard = *36.59*

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

Tropical Fresh Water Line above Centre of Disc ... *13 1/4"*
Fresh Water Line " " ... *7"*
Tropical Line " " ... *6 1/4"*
Winter Line below " " ... *6 1/4"*
Winter North Atlantic Line " " ... *✓*

Tropical Fresh Water Freeboard ...
Fresh Water " ...
Tropical " ...
Winter " ...
Winter North Atlantic " ...

15 SEP 1932

009702-009710-0328 1/2

RECEIVED 22 JUL 1936

RECEIVED

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	...	...	...	...	...	...	...	...	...
Dimensions of Hatchway	...	...	...	...	...	...	...	...	...
COAMINGS	Height above Deck	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...
	Sides	...	...	...	...	...	...	...	...
	Ends	...	...	...	...	...	...	...	...
HATCH BEAMS	Stiffeners	...	...	...	...	...	...	...	...
	Brackets, Stays	...	...	...	...	...	...	...	...
	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
FORE AND AFTERS	Unsupported Lengths	...	...	...	...	...	...	...	...
	Scantling* and Sketch	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
	Material	...	...	...	...	...	...	...	...
HATCH COVERS	Thickness	...	...	...	...	...	...	...	...
	How fitted	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
	Spacing of Cleats	...	...	...	...	...	...	...	...
Number of Tarpaulins	...	...	...	...	...	...	...	...	...

Particulars of fiddle, funnel and ventilator coamings:—

Engine skylight strongly constructed of steel with steel flaps and bellows.

Funnel and ventilator coamings of good sound construction.

No fiddle gratings.

Particulars of Flush Bunker Scuttles:—

Particulars of Companionways:—

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

all ventilators supplied with wood plugs + canvas covers.

Forecastle deck: 2-19" dia x .36 x 36" high, 1-12" dia x .32 x 36" high to peaks.

Shellin deck fwd: 4-19" dia x .36 x 36" high;

Amidships: 2-19" dia x .36 x 30" high, 2-12" dia x .26 x 31" high to deep tanks.

Aft: 6-19" dia x .36 x 33", 1-9" dia x .30 x 36" high to tunnel.

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

Forecastle deck: 1-2 1/2" Swan neck 20" high, with Canvas covers.

Shellin deck fwd: 2-3" Swan necks 15" high, 2-2 1/2" Swan necks 21" high.

Amidships: 2-3" Swan necks 19" high, 4-3" Swan necks 15" high.

Forward: 6-3" Swan necks 20" high, 2-3" Swan necks 27" high.

The 3" Swan necks are to fuel tanks and have gauge caps fitted.

Particulars of Gangway Cargo and Coaling Ports:—



© 2020
Lloyd's Register
Foundation

Particulars of Scuppers and Sanitary Discharge Pipes —

5-2" Scuppers each side of shelter tween decks and 1 each side in tomage space, discharging on board, fitted with storm valves on ship's side.

Particulars of Side Scuttles:

In forecabin crew space, of good sound construction and fitted with hinged deadlights.

Particulars of Guard Rails:—

On Forecastle & Shelter decks. 3-3" high. 3 Rails & stanchions 4-6" apart. Steel bulwark on shelter deck amidships. 3-3" high. full length of accommodation, strongly constructed & efficiently stayed. Two freeing ports each side 30" x 18".

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>tomage</i>	5-2"	8-0"	30" x 18"	1	3.75 sq.	
Forward Well						
State position of each freeing port (F. and A. position and height above deck edge) { After Well:— In centre of tomage space, 9" above deck edge. Forward Well:—						
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Hinged shutters.						
Additional area where sheer is less than standard.						

Particulars of Superstructures, Trunks, Casings, Deckhouses.

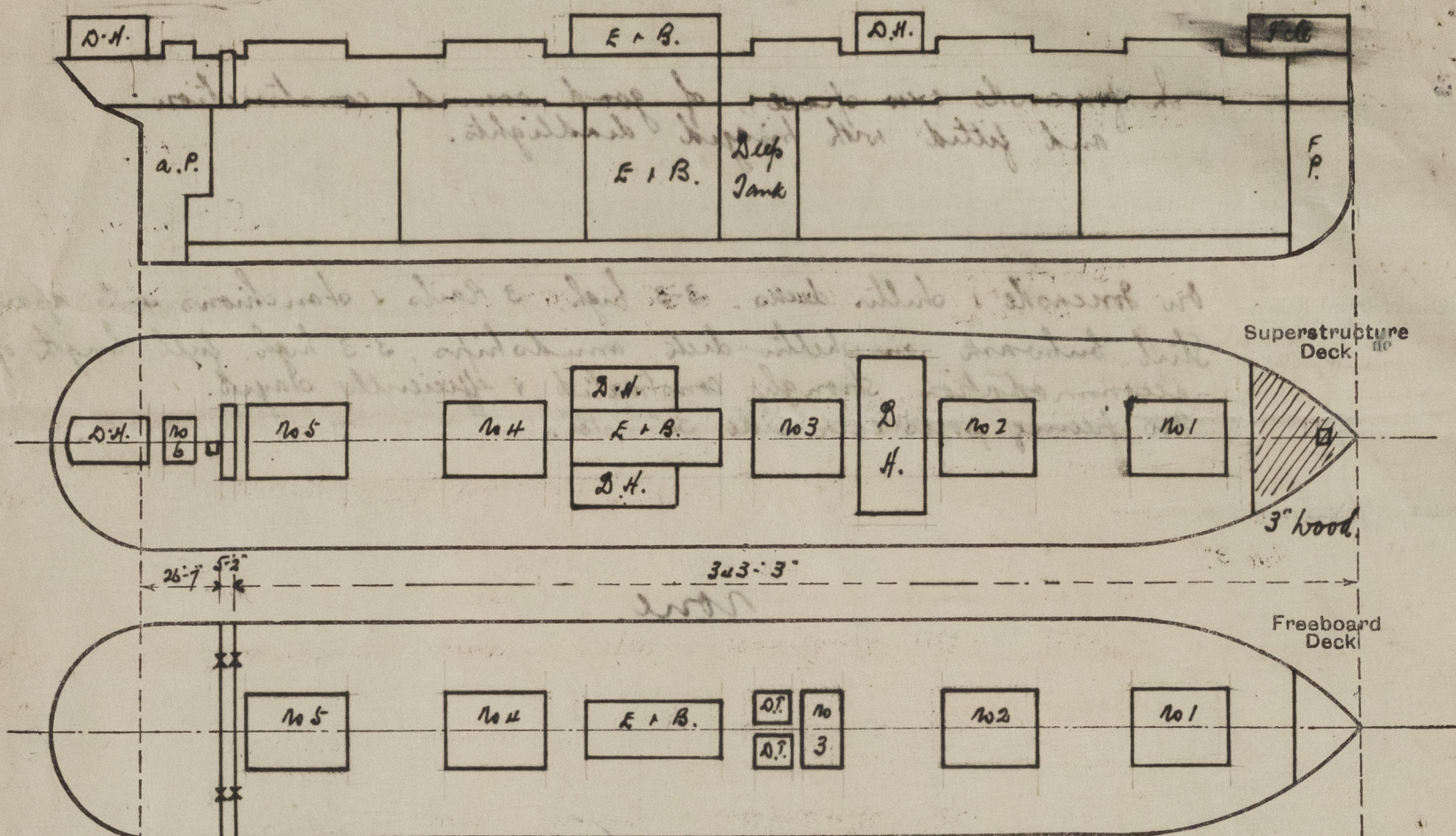
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ...	.28	.28	3 1/2 x 3 x .32	27"	none	2-5-6" x 3-1"	18"	8-0"
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead ...	.28	.28	3 1/2 x 3 x .32	27"	none	2-5-6" x 3-1"	18"	8-0"
Bridge, Forward Bulkhead ...								
Forecastle Bulkhead ...	.34	.34	3 x 3 x .32	27"	none	1-4-6" x 24"	20"	8-6"
Trunk, Aft ...								
Trunk, Forward ...								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super-structure Decks ...	.40	.34	3 1/2 x 3 x .32	24"	Brackets at top	2-4-6" x 22"	19"	7-6"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	.26	.26	3 1/2 x 3 x .32	31"	none	none	none	8-0"
Deckhouses on Flush Deck Ships ...								

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

Poop Bulkhead ...	3" beather boards in riveted channels full height.
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead ...	3" beather boards in riveted channels full height.
Bridge, Forward Bulkhead ...	
Forecastle Bulkhead ...	Hinged tank door with lock & handle manipulated both sides.
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	
Exposed Machinery Casings on Super-structure Decks ...	Hinged steel doors with snibs manipulated both sides.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	
Deckhouses on Flush Deck Ships ...	

innesmoor

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:—



Trimming escape hatch 33" x 30" x 9" coaming, having hinged wood cover 23", cleats 20" apart, battens and tarpaulins.

Fore hatch 4'-6" x 22'-0" x 12" coaming, cover 23" huts 2", cover secured by ringbolts and lashings.

Escape hatch on shelter dks. 4'-9" x 3'-0" x 32" huts 2", cover 3" cleats 20" apart. Battens and tarpaulins.

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

Immole escape hatch aft, 2'-0" x 2'-6" x 12" coaming - jambed steel cover & toggles.

hull measured in dry dock during survey.

Store hatch on forecastle deck, 3'-0" x 3'-0" x 28" coaming huts 2" cover 3" cleats 20" apart. Battens and tarpaulins.

Drafts	Deadweight	Tons & inch.
25'-7 1/8"	8330	40.
24'-8 1/8"	7870	
21'-0"	6130	39.
19'-0"	5180	
16'-0"	3800	38.

MIT

Builder's name and yard number

W. Doreford & Sons Ltd. Sunderland

Names of sister ships

innesmoor

Owners

Moore Line Ltd (W. Runciman & Co Ltd)

Fee £

12 : 15 : 0.

Received by me

[Signature]



© 2020

Lloyd's Register
Foundation