

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. 15935
(For London Office only.)

11,010

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having *poop, Raised Quarter Deck, Bridge & Forecastle*Port of Survey *Belfast*

(Type of Superstructures.)

Date of Survey *January 1933*

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

*"CORRIB"**British**115706**624**1902-9*Name of Surveyor *J.D. Shilston*Moulded Dimensions: Length *181.30'* Breadth *27.0'* Depth *13.62'*Moulded displacement at moulded draught = 85 per cent. of moulded depth *1192* tonsCoefficient of fineness for use with Tables *.736*Particulars of Classification *+100A1**S.S. Reg. No. 3-928*

Depth for Freeboard (D)

Moulded depth *13.62'*Stringer plate *.04*

Sheathing on exposed deck

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

Depth for Freeboard (D) = *13.66*

Depth correction

(a) Where D is greater than Table depth

$$(D - \text{Table depth}) R = \frac{13.66 - 12.09}{1.57} \times 1.394 = +2.19$$

(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) *27.0'*

$$\text{Standard Round of Beam} = \frac{B \times 12}{50} = \frac{27.0 \times 12}{50} = 64.8$$

$$\text{Ship's Round of Beam} = \frac{7.2}{1.02}$$

Difference *67.6*

Restricted to

$$\text{Correction} = \frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{67.6^2}{4} \times \left(1 - \frac{1.02}{181.30} \right) = 0.6$$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>.5'</i>		<i>1.0'</i>		
" overhang ...	<i>.2'</i>				
R.Q.D. enclosed ...	<i>100.33</i>	<i>100.33</i>	<i>4.0'</i>		<i>100.33</i>
" overhang ...					
Bridge enclosed...	<i>8.75' sides</i> <i>10.5' centre</i> <i>9.92</i>	<i>9.92</i>	<i>7.18'</i>		<i>9.92</i>
" overhang aft ...					
" overhang forward					
Forecastle enclosed ...	<i>33.5'</i>	<i>24.23</i>	<i>7.2'</i>		<i>24.23</i>
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward					
Total ...	<i>143.75</i>	<i>134.48</i>			<i>134.48</i>

Standard Height of Superstructure *6.00*" " R.Q.D. *3.542*Deduction for complete superstructure *24.13*

$$\text{Percentage covered } \frac{S}{L} = \frac{143.75}{181.30} = 79.28\%$$

$$\text{" " } \frac{S_1}{L} = \frac{134.48}{181.30} = 74.18\%$$

$$\text{" " } \frac{E}{L} = \frac{134.48}{181.30} = 74.18\%$$

Percentage from Table, Line A. *68.14*

(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)

$$\text{Deduction} = 24.13 \times .6814 = 16.44$$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>28.13</i>	1		<i>28.13</i>	<i>29"</i>	<i>5.50</i> <i>36.25</i>	1		<i>28.13</i>
$\frac{1}{2}$ L from A.P. ...	<i>12.52</i>	4		<i>50.08</i>	<i>41"</i>	<i>14.61</i> <i>12.52</i>	4		<i>50.08</i>
$\frac{3}{8}$ L " ...	<i>3.09</i>	2		<i>6.18</i>	<i>31"</i>	<i>3.64</i> <i>3.09</i>	2		<i>6.18</i>
Amidships ...		4					4		
$\frac{3}{8}$ L from F.P. ...	<i>6.19</i>	2		<i>12.38</i>	<i>7"</i>	<i>5.71</i> <i>5.71</i>	2		<i>11.42</i>
$\frac{1}{2}$ L " ...	<i>25.04</i>	4		<i>100.16</i>	<i>28"</i>	<i>22.91</i> <i>22.91</i>	4		<i>91.64</i>
F.P. ...	<i>56.26</i>	1		<i>56.26</i>	<i>51"</i>	<i>51.00</i> <i>51.00</i>	1		<i>51.00</i>
Total ...				<i>253.19</i>					<i>238.45</i>

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} = \frac{253.19 - 238.45}{18} = \frac{14.74}{18} = .819$$

If limited on account of midship superstructure.

$$\text{Mean actual sheer aft} = \frac{238.45}{18} = 13.25$$

$$\text{Mean standard sheer aft} = \frac{253.19}{18} = 14.07$$

$$\text{Mean actual sheer forward} = \frac{238.45}{18} = 13.25$$

$$\text{Mean standard sheer forward} = \frac{253.19}{18} = 14.07$$

Length of enclosed superstructure forward of amidships = *> .1L*

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

Tropical Fresh Water Line above Centre of Disc
 Fresh Water Line " " " " " " " " " " " "
 Tropical Line " " " " " " " " " " " "
 Winter Line below " " " " " " " " " " " "
 Winter North Atlantic Line " " " " " " " " " " " "

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

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
		No.1	No.2	No.3.					
Description of Hatchway		Freeboard Deck	Freeboard Deck	Raised Quarter Deck	Bunker Hatch	After-peak Hatch			
Dimensions of Hatchway		5'0" x 12'8"	26'0" x 15'0"	29'6" x 15'0"	6'11" x 15'5"	24' x 18"			
COAMINGS	Height above Deck	4'3"	4'2"	4'0"	2'0"	12"			
	Thickness	.35"	.35"	.35"	.30"	.25"			
	Sides	.35"	.35"	.35"	.30"	.25"			
	Ends	.35"	.35"	.35"	.30"	.25"			
	Stiffeners	✓	✓	✓	✓	✓			
Bridges, Stays		✓	2 each side	3 each side	✓	✓			
HATCH BEAMS	Number		2	2					
	Spacing		max 10'6"	max 12'2"					
	Scantling and Sketch		min 7'0"	min 8'6"					
			plate	plate					
	Bearing Surface		3'9" x .35"	3'8" x .30"					
FORE AND AFTERS	Number	3	3	3					
	Spacing	3'2"	3'9"	3'9"					
	Unsupported Lengths	5'0"	10'6" max.	12'2"					
	Scantling* and Sketch	Centre D=6" B=6"	Centre D=6" B=6"	Centre D=6" B=6"					
	Bearing Surface	1'4" 3	1'3" 3	1'3" 3					
HATCH COVERS	Material	Canadian	Canadian	Truce	2'4"	1/2" lugged steel cover			
	Thickness	2 1/2"	2 3/4"	2 3/4"	2 1/2"	non-water tight			
	How fitted	Transverse	Transverse	Transverse	Transverse				
	Bearing Surface	3" hatch side	3" hatch side	3" hatch side	1 1/2"				
Spacing of Cleats		24" to 27"	24" to 27"	27"	28"	✓			
Number of Tarpaulins		3	3	3	1				
<p>*Are wood fore and afters steel shod at all bearing surfaces? <i>no yes.</i></p> <p>Are battens and wedges efficient and in good condition? <i>yes</i></p> <p>Are tarpaulins in good condition and in accordance with rule requirements? <i>yes</i></p> <p>Are lashings provided in accordance with rule requirements? <i>Ring bolts on cargo hatch coamings.</i></p>									

Particulars of fiddle, funnel and ventilator coamings:—

Funnel of steel, rivetted to casing *but corroded through at connection in place.*

4 fiddle ventilator of steel rivetted to casing *top. Coamings to be renewed.*

Fiddle opening protected by steel cover *permanently attached.*

Engine room skylight of wood, efficient.

Particulars of Flush Bunker Scuttles:—

none

Particulars of Companionways:—

Opening 60" x 23" (15 1/2" sill) in after end of deck house at after end of machinery casing giving access from raised quarter deck to crew space below, closed by 1 1/2" teakwood door, securing from both sides.

on freeboard deck below forecabin erection, companionway of steel, opening 58" x 23" (14" sill) closed by 1 1/2" panelled 1" thick teakwood door, securing from both sides.

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

Position	Open to	Number	Diameter	Height	Closing appliances
Raised quarter dk.	Hold	1	9"	36 1/2"	<i>wood plug</i>
Bridge dk.	Bridge space	2	5"	18"	<i>Canvas covers. (This coaming to be renewed) with areas down mushroom.</i>
Forecastle dk.	Hold	1	9"	18"	<i>nil.</i>
" "	Forecastle space	1	12"	12 1/2"	<i>wood plug & canvas cover (this coaming to be renewed)</i>

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

Position	Open to	Number	Height	Closing appliances
Raised quarter deck	After peak tank	1	33"	<i>Steel grid (this air pipe discharge through the casing side).</i>
" "	No 2 d.b. tank	2	36"	<i>nil.</i>
Freeboard "	No 1 d.b. tank	2	11"	<i>nil.</i>
" "	Forepeak tank	1	36"	<i>Canvas covers provided</i>

Particulars of Gangway Cargo and Coaling Ports:—

none



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Particulars of Scuppers and Sanitary Discharge Pipes:—

Sanitary discharge from bridge space fitted with storm valve & inner trap. ✓

Particulars of Side Scuttles:—

In accommodation aft below raised quarter deck, efficient & fitted with deadlights. ✓
 " bridge space efficient, no deadlights. ✓
 " forecastle space, efficient. One deadlight missing on port side.

Particulars of Guard Rails:—

On raised quarter deck, steel bulwarks 38" high, efficient. ✓
 On bridge deck, steel bulwarks 36½" high, efficient. ✓
 On freeboard deck, steel bulwarks 53" high, efficient. ✓
 On forecastle deck, guard rails, 2 rows 35" high, efficient. ✓

Particulars of Gangways, Lifelines, etc.:—

A gangway from the bridge to the crew's companionway forward is provided by the top of the cargo hatchway. ~~No lifelines nor provision for fitting same are provided.~~

a lifeline supplied for the forward well capable of being fitted either side

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			30" 30" + 19"			
After Well ...	99.8'	38"	Port 1 @ 22½" x 17" Starboard 1 @ 22½" x 17" 2 @ 30" x 19"	3	1.69 sq ft 20.76 sq ft	20 sq ft
Forward Well ...	38.6"	53"	Port 1 @ 31½" x 18" - 1 @ 39" x 17" 2 @ 36" x 17½" Starboard 1 @ 31½" x 18" - 1 @ 34½" x 15" 21 @ 25" x 17½"	3	12.9 sq ft 10.97 sq ft	10.4 sq ft

State position of each freeing port (F. and A. position and height above deck edge) } Raised Quarter Deck 7" } see sketch ✓
 } After Well: 10½"
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Hinged shutters & shutters on steel axles

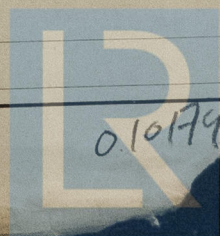
Additional area where sheer is less than standard.

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"	Bulkhead only 12" in height		✓	✓		
Raised Quarter Deck Bulkhead ...	✓	25"	Diaphragm					
Bridge, After Bulkhead ...	✓	25"	4-6" B.H. double T with 3" x 3" angles	32"	nil			
Bridge, Forward Bulkhead ...	31"	25" to 15"	intermediate 3½" x 3½" x 30" angles with 2½" x 2½" x 35" angles	27" to 32"	Lugged at top. Wing stiffeners bracketed at bottom	(Also see "special feature")		
Forecastle Bulkhead ...	✓							
Trunk, Aft ...	✓							
Trunk, Forward ...	✓							
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	30"	25"	Stitchhold 2½" x 2½" x 35" Eng. room 2½" x 1½" HR	29½" 33"	Bracketed top. Taking top bar.	11 @ 23" x 53"	19"	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 ...	✓	No openings
Raised Quarter Deck Bulkhead ...	✓	No openings
Bridge, After Bulkhead ...	✓	No openings
Bridge, Forward Bulkhead ...	✓	No openings
Forecastle Bulkhead ...	✓	Open
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	✓	4-½" hinged steel doors - 2 securing from both sides, 2 securing inside only.
Exposed Machinery Casings on Superstructure Decks ...	✓	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	✓	
Deckhouses on Flush Deck Ships ...	✓	

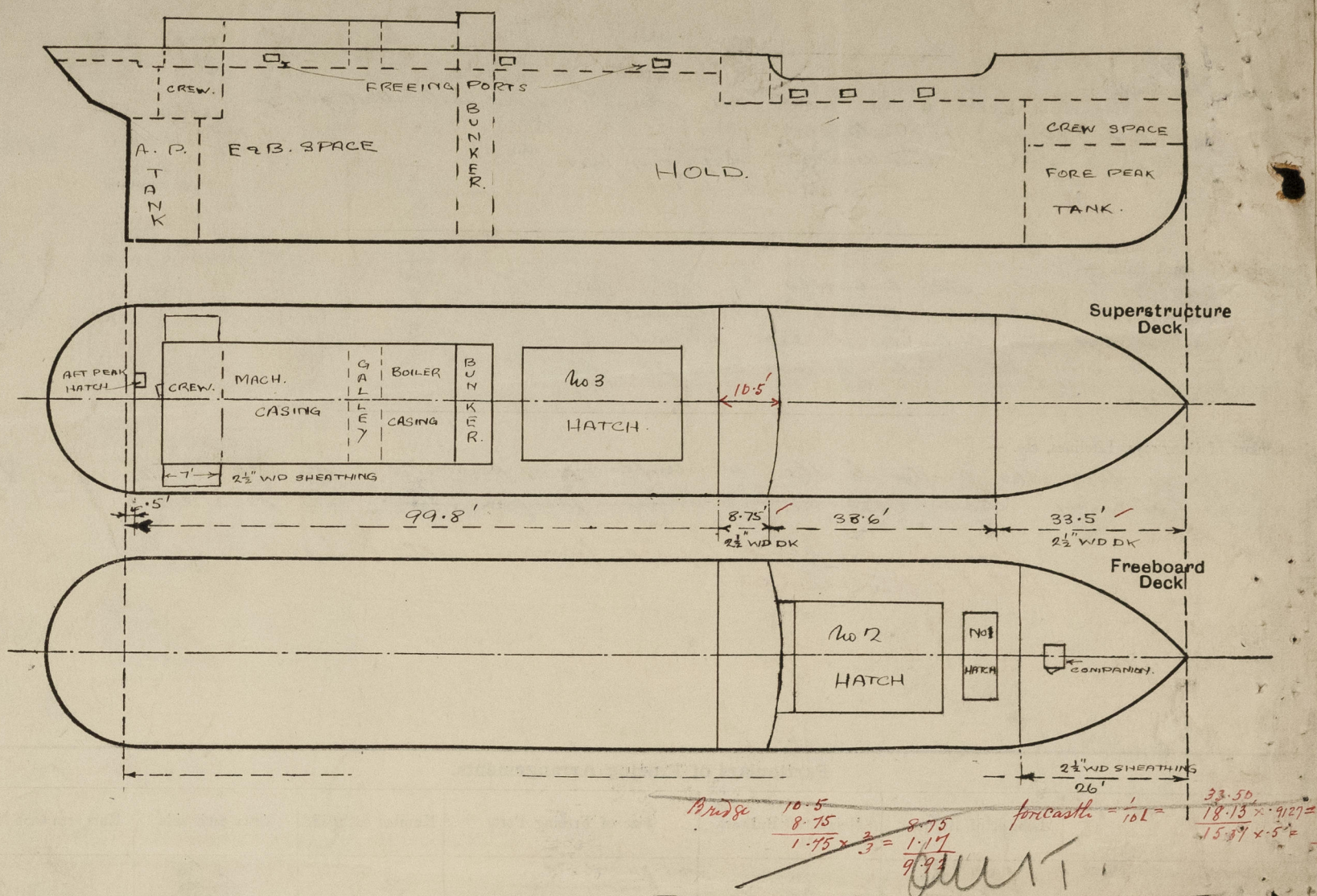


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Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the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



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

The bridge front is also stiffened by an extension of the after end of the cargo hatch across the bulkhead for the width of the hatch, 20" above the freeboard deck.

$$\begin{aligned}
 &85\% \text{ net depth} = 11.58' \\
 &+ \text{Kul} = .65' \\
 &12.23' \\
 &\text{Ext } \Delta C \text{ 75\% of } 14.77 = 10.70' = 1020 \\
 &1.53 \times 12.23 = 178 \\
 &1198 \text{ tons} \\
 &+ \text{Kul} = .6 \\
 &1192 \text{ tons held at 85\% net depth.}
 \end{aligned}$$

TPI = 9.7

Builder's name and yard number Ailsa S.B. Co. Ltd. Troon

Names of sister ships

Owners John Kelly & Co.

Fee £ 6 : 16 : 0

Received by me



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