

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having *Raised Quarter Deck, Bridge & Forecastle*

Port of Survey *London*

Date of Survey *9th Jan. 1933*

Name of Surveyor *L. Young*

Particulars of Classification *+100 A1*
S.S. Yarn No. 2-30

(Type of Superstructures.)

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<i>GLEN-MARY</i>	<i>British London</i>	<i>145-864</i>	<i>394</i>	<i>1921-8</i>

Moulded Dimensions: Length *143.0* Breadth *24.6* Depth *11.6*

Moulded displacement at moulded draught = 85 per cent. of moulded depth *709* tons

Coefficient of fineness for use with Tables *.724*

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <i>11.50</i>	(a) Where D is greater than Table depth (D-Table depth) R = <i>(11.54 - 9.53) 1.100 = 2.21</i>	Moulded Breadth (B) <i>24.50</i>
Stringer plate <i>.04</i>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$ <i>5.88</i>
Sheathing on exposed deck <i>3" on Forecastle Deck 3 1/4" on Bridge</i>		Ship's Round of Beam <i>6 1/2</i> = <i>6.50</i>
$T \left(\frac{L-S}{L} \right) =$		Difference <i>.62</i>
Depth for Freeboard (D) = <i>11.54</i>	If restricted by superstructures	Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) =$ <i>62 x .4347 / 4 = -0.07</i>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	✓					Standard Height of Superstructure <i>6.00</i>
„ overhang ...	✓					„ „ R.Q.D. <i>3.287</i>
R.Q.D. enclosed ...	<i>57'-0"</i>	<i>51.00</i>	<i>3'-0"</i>	<i>30/3.287</i>	<i>46.55</i>	Deduction for complete superstructure <i>20.30</i>
„ overhang ...	<i>9.66</i>					Percentage covered $\frac{S}{L} =$ <i>56.53</i>
Bridge enclosed ...	<i>2.20</i>	<i>9.66</i>	<i>6'-9"</i>		<i>9.66</i>	„ „ $\frac{S_1}{L} =$ <i>56.53</i>
„ overhang aft ...	✓					„ „ $\frac{E}{L} =$ <i>53.42</i>
„ overhang forward ...	<i>12" round of frame</i>					Percentage from Table, Line A. <i>36.79</i>
F'cle enclosed <i>equivalent</i> ...	<i>19'-0"</i>	<i>20.18</i>	<i>6'-9"</i>		<i>20.18</i>	(corrected for absence of forecastle (if required))
„ overhang ...	<i>20.18</i>					Percentage from Table, Line B.
Trunk aft ...	✓					(corrected for absence of forecastle (if required))
„ forward ...	✓					Interpolation for bridge less than .2L (if required)
Tonnage opening aft ...	✓					Deduction = <i>-7.47</i>
„ „ forward ...	✓					
Total ...	<i>80.84</i>	<i>80.84</i>			<i>76.39</i>	

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product	
A.P. ... <i>24.30</i>	<i>25.5</i>	1	<i>24.30</i>	<i>25.50</i>	<i>24.30</i>	1	<i>24.30</i>	Mean actual sheer aft = <i>Excess</i>
1/4 L from A.P. <i>10.81</i>	<i>10.5</i>	4	<i>43.24</i>	<i>10.66</i>	<i>10.81</i>	4	<i>43.24</i>	Mean actual sheer forward = <i>Deficient</i>
3/8 L " <i>2.67</i>	<i>2.5</i>	2	<i>5.34</i>	<i>2.66</i>	<i>2.67</i>	2	<i>5.34</i>	Mean standard sheer aft =
Amidships ...	<i>0</i>	4				4		Mean standard sheer forward =
3/8 L from F.P. <i>5.35</i>	<i>5.0</i>	2	<i>10.70</i>	<i>5.03</i>	<i>5.03</i>	2	<i>10.06</i>	Length of enclosed superstructure forward of amidships =
1/4 L " <i>21.63</i>	<i>20.0</i>	4	<i>86.52</i>	<i>20.14</i>	<i>20.14</i>	4	<i>80.56</i>	„ „ aft of „ = <i>Sheer deficient</i>
F.P. ... <i>48.60</i>	<i>42.5</i>	1	<i>48.60</i>	<i>42.50</i>	<i>42.50</i>	1	<i>42.50</i>	
Total ...			<i>218.70</i>				<i>206.00</i>	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ *12.70 / 18 (.75 - .2827) = +.33*

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.

Ft.

Depth to Freeboard Deck = *11.54*

Summer freeboard = *.83*

Moulded draught (d) = *10.71*

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = *2.68* *2 3/4*

Addition for Winter North Atlantic Freeboard (if required) =

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

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.724 + .68}{1.36} = \frac{1.404}{1.36}$

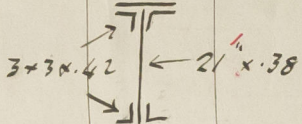
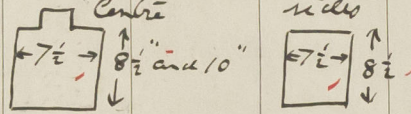
	+	-
Depth Correction ...	<i>2.21</i>	
Deduction for superstructures ...		<i>7.47</i>
Sheer correction ...	<i>.33</i>	
Round of Beam correction ...		<i>.07</i>
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, etc. ...		
	<i>2.54</i>	<i>7.54</i>

Summer Freeboard = *10.06*

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

Tropical Fresh Water Line above Centre of Disc ...		Tropical Fresh Water Freeboard ...	
Fresh Water Line " " ...		Fresh Water " " ...	
Tropical Line " " ...		Tropical " " ...	
Winter Line below " " ...	<i>2 3/4</i>	Winter " " ...	
Winter North Atlantic Line " " ...		Winter North Atlantic " " ...	

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS												
Description of Hatchway			Cargo Hatch					Bunker Hatch on casing 1/2				
Dimensions of Hatchway			44'-9" x 13'-0"					3'-8" x 14'-0"				
COAMINGS	{	Height above Deck	3'-3"					Flush				
		Thickness	Sides	.44					.32			
			Ends									
		Stiffeners	7 x 3 x .4 B.A.							✓		
		Brackets, Stays	None					✓				
HATCH BEAMS	{	Number	3					None				
		Spacing	10'-0" and 12'-6"									
		Scantling and Sketch										
			Bearing Surface	3"								
FORE AND AFTERS	{	Number	3					None				
		Spacing	3'-3"									
		Unsupported Lengths	10'-0" and 12'-6"									
		Scantling* and Sketch										
		Bearing Surface	3"									
HATCH COVERS	{	Material	Fir					Fir				
		Thickness	2 1/2					2 1/2				
		How fitted	all round					F.O.A.				
		Bearing Surface	2					2 1/2				
Spacing of Cleats			24"					16'				
Number of Tarpaulins			2					1				
<p>*Are wood fore and afters steel shod at all bearing surfaces? <i>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>Yes</i></p>												

Particulars of fiddle, funnel and ventilator coamings:— St. Keohold grating closed by steel hinged plate.
Funnel & fiddle vents in efficient condition.
Engine Room Spigola steel.

Particulars of Flush Bunker Scuttles:— Two 20" dia. cast-steel with bayonet joint.
One in Bridge House, steel casing, with hatch panel door 4'-0" x 22" or 20" dia.

Particulars of Companionways:—

One 6" dia. vent- or Freiburg Deck forward, to hold, with 9'3" coaming clepped to
width
" 6" " " " aft- " " " 8'6" " -
Bridge

Efficient closing appliances provided

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

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

One a Locust from F.P.T. $\frac{1}{2}$ "
 " " R. P. Sh. " A.P.T. $\frac{1}{3}$ " supplied with wooden plug & canvas
 over.

Particulars of Gangway Cargo and Coaling Ports :—

None

Particulars of Scuppers and Sanitary Discharge Pipes:— One forward, passing through Foreward Deck and fitted with C.I. stem valve, at ships side in hold.
One aft, passing through R.P. St. and fitted with C.I. stem valve at ships side in engine A.P. Tank.

Particulars of Side Scuttles:— Side scuttles to crew spaces in Forecastle provided with hinged deadlights.

Particulars of Guard Rails:— 2 Rails on Forecastle 3'-0" high; Manholes fitted 4'-6" Steel Bulwarks on Bridge, 3'-0" x 32'.

Particulars of Gangways, Lifelines, etc.:— Suitable arrangements for lifelines between Bridge and Forecastle.

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	51'-0"	3'-2"	2'-8" x 19"	2	8.44 sq. ft.	11.6 ϕ
Forward Well	59'-2" 60'-5"	3'-5"	3'-0" x 20"	3	15.0 sq. ft.	12.5 ϕ
State position of each freeing port { After Well:— 12 and 40 ft. from aft-end of Bridge (F. and A. position and height above deck edge) { Forward Well:— 7, 29 and 50 ft. from forward end of Bridge. State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Shutters						
Additional area where sheer is less than standard.						

Particulars of Superstructures, Trunks, Casings, Deckhouses.

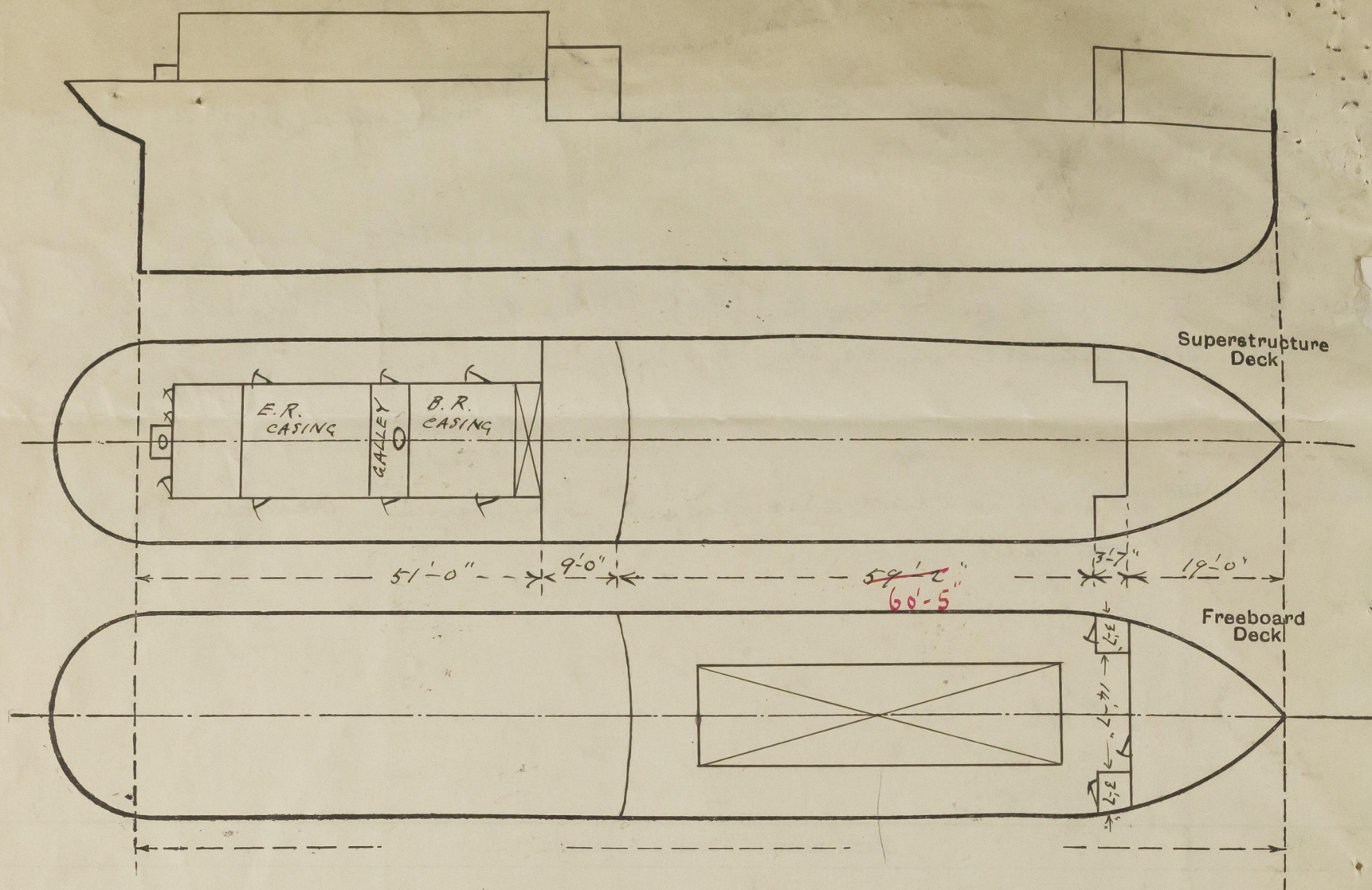
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	✓							
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead	✓	.32		30"		None	✓	3'-8"
Bridge, Forward Bulkhead ... ..	.32	.32	6 x 3 x 36 } 3 1/2 x 3 x 30 }	30"	Bracket top & bottom	None	✓	6'-9"
Forecastle Bulkhead	✓	.32	3 x 3 x 32 A.	29"	Free T.O.B.	4'-2" x 20"	21"	6'-9"
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	.32	.32	3 1/2 x 3 x 28	31"	Bracket top, & coaming bottom	4'-2" x 20"	21"	6'-9"
Exposed Machinery Casings on Super-structure 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	✓ no openings
Bridge, Forward Bulkhead	✓ no openings
Forecastle Bulkhead ... ..	.28 hinged steel door, operable from both sides
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	.28 hinged steel double doors, " " "
Exposed Machinery Casings on Super-structure Decks	✓
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	✓
Deckhouses on Flush Deck Ships ...	✓

Glen Mary

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 shown on the following sketches:—



$$\begin{aligned} \text{Tons} &= 19.0 \\ + 3.58 \times 3.58 &= 12.81 \\ \hline &= 31.81 \end{aligned}$$

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

Vessel examined afloat.

Jan 17

Builder's name and yard number *Crabtree & Co. Ltd. No. 183*

Names of sister ships

Owners *F. J. Everard & Sons, Ltd.*

Fee £

5 : 2 : 0

Received by me

Exp.

5 : 0

10 JAN 1933



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Foundation