

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

 Index No. **24885**
 (For London Office only.)

20 MAY 1932

Computation of Freeboard for Steamer, Sailing Ship, Tanker

 having *RAISED QUARTER DECK WITH BRIDGE HOUSE ON TOP AND FORECASTLE.*
Port of Survey *HULL*Date of Survey *18th May 1932*Name of Surveyor *A. B. Bledsoe*Particulars of Classification *+100 A.1.**DEEDON*

(Type of Superstructures.)

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

*S.S. MAGRIK**BRITISH HULL**139306**314**1916-129*

Moulded Dimensions: Length

Breadth

Depth

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

Coefficient of fineness for use with Tables

Depth for Freeboard (D)

Moulded depth ... *10.5*Stringer plate ... *26.03*

Sheathing on exposed deck

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

Depth for Freeboard (D) =

10.53

Depth correction

(a) Where D is greater than Table depth
(D-Table depth) R =*(10.53 - 9.00) 1.038 = + 1.59*(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)

*23.0*Standard Round of Beam = $\frac{B \times 12}{50} =$ *5.52*

Ship's Round of Beam =

6

Difference

.48

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.48}{4} \times .36 = -.04$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
• Poop enclosed ...					
„ overhang ...					
R.Q.D. enclosed ...	<i>67.5</i>	<i>67.50</i>	<i>3.6</i>		<i>67.50</i>
„ overhang ...					
Bridge enclosed ...	<i>8.75</i>		<i>7.0</i>		
„ overhang aft ...					
„ overhang forward ...	<i>18.29</i>	<i>18.29</i>	<i>6.6</i>		<i>18.29</i>
Fore enclosed ...	<i>20.25</i>	<i>0.98</i>			<i>0.98</i>
„ overhang ...	<i>3.5</i>	<i>1.96</i>			
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward ...					
Total ...	<i>87.75</i>	<i>86.77</i>			<i>86.77</i>

Standard Height of Superstructure *6.00*„ „ R.Q.D. *3.24*Deduction for complete superstructure *19.50*Percentage covered $\frac{S}{L} =$ *65.00%*„ „ $\frac{S_1}{L} =$ *64.27%*„ „ $\frac{E}{L} =$ *64.27%*

Percentage from Table, Line A.

(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 = *19.50 x .5326 = - 10.38*

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	<i>23.50</i>	1	<i>23.50</i>	<i>26.5</i>	<i>23.50</i>	1	<i>23.50</i>
$\frac{1}{8}$ L from A.P. ...	<i>10.46</i>	4	<i>41.84</i>	<i>10.5</i>	<i>10.46</i>	4	<i>41.84</i>
$\frac{3}{8}$ L „ ...	<i>2.58</i>	2	<i>5.16</i>	<i>2.5</i>	<i>2.58</i>	2	<i>5.16</i>
Amidships ...	<i>✓</i>	4	<i>✓</i>	<i>✓</i>	<i>✓</i>	4	<i>✓</i>
$\frac{3}{8}$ L from F.P. ...	<i>5.17</i>	2	<i>10.34</i>	<i>5</i>	<i>5.03</i>	2	<i>10.06</i>
$\frac{1}{8}$ L „ ...	<i>20.91</i>	4	<i>83.64</i>	<i>20</i>	<i>20.14</i>	4	<i>80.56</i>
F.P. ...	<i>47.00</i>	1	<i>47.00</i>	<i>48</i>	<i>48.00</i>	1	<i>48.00</i>
Total ...			<i>211.48</i>				<i>209.12</i>

 Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{2.36}{18} (.75 - .325) = + .06$

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 = *10.53*Summer freeboard = *.42*Moulded draught (d) = *10.11*

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = *2.53 = 2\frac{1}{2}*Addition for Winter North Atlantic Freeboard (if required) = *2*

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ *640*

Tons per inch immersion at summer load water line

T = *6.22*Deduction = $\frac{\Delta}{40 T}$ inches= *2.56 = 2\frac{1}{2}*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc. ...

*13.60**✓**13.72**✓**1.59**10.38**.06**.04**1.65**10.42**- 8.77**4.95**✓*

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									
UPPER DECK									
Description of Hatchway	...	...	...	N ^o 1 HATCH.					
Dimensions of Hatchway	...	...	...	39'0" x 13'6"					
COAMINGS	Height above Deck	...	...	36"					
	Thickness	Sides	...	41"					
	Stiffeners	Ends	...	38"					
	Brackets, Stays	...	...	8 x 3.50 at ends and fore and aft.					
HATCH BEAMS	Number	...	...	4					
	Spacing	...	...	AS PER SKETCH.					
	Scantling and Sketch	...	...	3.3 x 4.0 16 x 32 36 x 37					
	Bearing Surface	...	...	3"					
FORE AND AFTERS	Number	...	...	3					
	Spacing	...	...	EQUAL					
	Unsupported Lengths	...	...	PER SKETCH.					
	Scantling* and Sketch	...	...	CENTRE 6 1/2 x 6 1/2 SIDES 6 x 6					
HATCH COVERS	Material	...	...	W.P.					
	Thickness	...	...	2 1/2"					
	How fitted	...	...	TOWARDS SHIPS					
	Bearing Surface	...	...	2 1/2"					
Spacing of Cleats	...	...	...	24"					
Number of Tarpaulins	...	...	...	3					

*Are wood fore and afters steel shod at all bearing surfaces? Yes ~~For to be repaired and iron shod to be repaired~~ Cover to repair
 Are battens and wedges efficient and in good condition? Yes ~~Rebattening bails to new steel~~
 Are tarpaulins in good condition and in accordance with rule requirements? Yes
 Are lashings provided in accordance with rule requirements? Manilla lashing supplied with iron plates on 7 longitudinal stiffeners

Particulars of fiddle, funnel and ventilator coamings:—

Coal hatch 4'6" x 7'6". Coaming 7 1/2", 2 1/2" Corn, BEARING SURFACE 1 1/2" To inner bar. Plats 36' apart.
 2 Tarpaulins, ~~Battening bar to inner~~
 Engine room skylight steel. ~~Guadant fittings on flaps to repair.~~
 Gallery skylight ~~top to repair and glass to renew~~
 Fiddle grating storm cover ~~missing to renew~~ steel permanently attached

Particulars of Flush Bunker Scuttles:—

Height of Coaming	None
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Particulars of Companionways:—

None

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

On Forecastle deck to crew 2 Vents 5 1/2' dia, 24" Coaming to thick. inefficient closing appliances
 upper : on well to hold 9 1/2' 36' Wood plug to supply
 RQ : at bottom point hold 9 1/2' 36' 27' Iron corn.
Corn supplied.

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

On Forecastle deck below low water to fore peak
 2' dia iron pipe 16' high open top. Efficient closing appliances provided
No plug supplied

Particulars of Gangway Cargo and Coaling Ports:—

None.

Particulars of Scuppers and Sanitary Discharge Pipes

Crew W.C. ~~Staircase~~ ~~with~~ ~~down~~ ~~found~~ ~~Not~~ ~~Trapped~~ ~~discharge~~ ~~through~~
4 1/2 V. ~~down~~ ~~upper~~ ~~deck~~.
Officer W.C. ~~port~~ ~~with~~ ~~midship~~ ~~body~~ ~~down~~ ~~discharge~~ ~~along~~ ~~R.Q. Deck~~
4 1/2 V. ~~Value~~ ~~Staircase~~ ~~W.C.~~ ~~to~~ ~~S.V.~~ ~~down~~ ~~to~~ ~~be~~ ~~removed~~.

Scupper on well 2 each side cut through gunnel angle
after 3
3 pipe scupper

7200K 1/2 shell
1 3/4 pipe

Particulars of Side Scuttles:

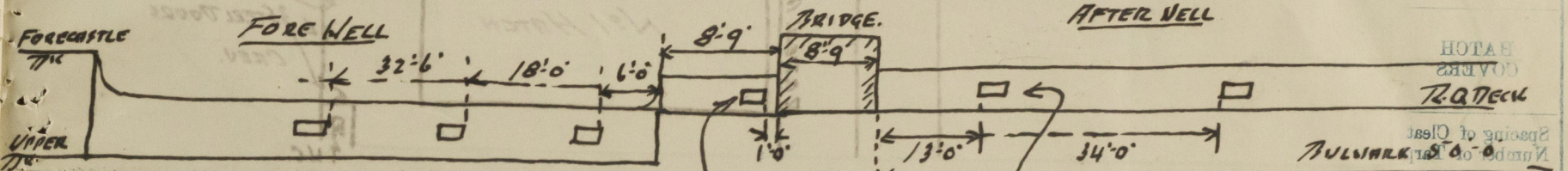
None fitted at ship's sides.

Particulars of Guard Rails:—

On Forecastle deck 3'-0" high, stanchions spaced 3'-6" apart, 2-7/8 Rods.
Stanchions and rails to be repaired.
Stanchions at Forewell, R.Q. Deck and bridge down top.

Particulars of Gangways, Lifelines, etc.:—

None fitted
Lifelines with stanchions are provided in the forewell for the protection of the crew



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 ...	50'-0" 8'-9"	3'-0" 3'-0"	20 2'-6" x 1'-6" 2'-0" x 1'-3"	about 10 2	about 10 5 1/2	11.5 1/2
Forward Well ...	47'-3"	3'-6"	10 2'-0" x 1'-3" 2'-6" x 1'-6"	3	11.25	11 1/4

State position of each freeing port ... { After Well:—
(F. and A. position and height above deck edge) { Forward Well:—
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:—
Additional area where sheer is less than standard.

Height above deck fore and after well 9"
Stanchions shutters
to be repaired

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 ...	32	32	4 x 3 x 40	26"	Run of top	NONE	✓	3'-6"
Bridge, After Bulkhead ...	25	25		all wood shutters		NONE	✓	7'-0"
Bridge, Forward Bulkhead ...	35	30	5 1/2 x 7 x 30	all wood shutters		NONE	✓	7'-0"
Forecastle Bulkhead ...	25	25	3 1/2 x 2 1/2 x 40	28"	Knees at top	3 STEEL DOORS 3'-10" x 1'-10"	22"	6'-6"
Trunk, Aft ...	✓							
Trunk, Forward ...	✓							
Exposed Machinery Casings on Fore-board or Raised Quarter Decks ...	25	25	3 x 3 x 25	30"	Knees at top	STEEL DOORS 3'-10" x 1'-10"	20"	6'-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 ...	✓ No openings
Bridge, After Bulkhead ...	✓
Bridge, Forward Bulkhead ...	✓
Forecastle Bulkhead ...	3 shut down Run/Stanchions to be repaired and made suitable from both sides
Exposed Machinery Casings on Fore-board or Raised Quarter Decks ...	7 shut down Run/Stanchions to be repaired
Exposed Machinery Casings on Superstructure Decks ...	2 Wood at aft and spring lock and handle both sides
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ...	✓
Deckhouses on Flush Deck Ships ...	✓