

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having *Poop, Bridge & Forecastle disconnected*

Port of Survey *Antwerp*

Date of Survey *10-1-33*

Name of Surveyor *W. E. Gray*

Particulars of Classification *+100A1 9-32*
S.S.G.s. No. 30.

(Type of Superstructures.)

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<i>"MARGALAU"</i>	<i>British London</i>	<i>148748</i>	<i>4541</i>	<i>1926-4</i>

Moulded Dimensions: Length *384.0* Breadth *51.75* Depth *29.00*

Moulded displacement at moulded draught = 85 per cent. of moulded depth *11,040* tons

Coefficient of fineness for use with Tables *789*

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <i>29.00</i>	(a) Where D is greater than Table depth (D - Table depth) R = <i>(29.03 - 25.60) 2.954 = +10.13</i>	Moulded Breadth (B) <i>51.75</i> Standard Round of Beam = $\frac{B \times 12}{50} = 12.42$ Ship's Round of Beam = <i>13</i> Difference = <i>.58</i>
Stringer plate ... <i>.03</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Restricted to
Sheathing on exposed deck <i>None</i> $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.58}{4} \times .5064 = -.07$
Depth for Freeboard (D) = <i>29.03</i>		

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>33.42</i>	<i>33.42</i>	<i>7.75</i>	<i>✓</i>	<i>33.42</i>
„ overhang ...	<i>✓</i>				
R.Q.D. enclosed ...	<i>✓</i>				
„ overhang ...	<i>✓</i>				
Bridge enclosed ...	<i>112.00</i>	<i>112.00</i>	<i>7.75</i>	<i>✓</i>	<i>112.00</i>
„ overhang aft ...	<i>✓</i>				
„ overhang forward ...	<i>✓</i>				
Fore enclosed ...	<i>44.10</i>	<i>44.10</i>	<i>7.75</i>	<i>✓</i>	<i>44.10</i>
„ overhang ...	<i>✓</i>				
Trunk aft ...	<i>✓</i>				
„ forward ...	<i>✓</i>				
Tonnage opening aft ...	<i>✓</i>				
„ forward ...	<i>✓</i>				
Total ...	<i>189.52</i>	<i>189.52</i>			<i>189.52</i>

Standard Height of Superstructure *7.34*

„ „ R.Q.D. *✓*

Deduction for complete superstructure *40.93*

Percentage covered $\frac{S}{L} = 49.36\%$

„ „ $\frac{S_1}{L} = 49.36\%$

„ „ $\frac{E}{L} = 49.36\%$

Percentage from Table, Line A. *✓*
(corrected for absence of forecastle (if required)) *✓*

Percentage from Table, Line B. *35.45%*
(corrected for absence of forecastle (if required)) *✓*

Interpolation for bridge less than 2L (if required) *✓*

Deduction = *40.93* x *35.45* = *-14.51*

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ...	<i>48.40</i>	<i>1</i>	<i>48.40</i>	<i>64.00</i>	<i>64.00</i>	<i>1</i>	<i>64.00</i>
$\frac{1}{2}$ L from A.P. ...	<i>21.54</i>	<i>4</i>	<i>86.16</i>	<i>26.86</i>	<i>26.86</i>	<i>4</i>	<i>107.44</i>
$\frac{3}{4}$ L „ ...	<i>5.32</i>	<i>2</i>	<i>10.64</i>	<i>6.70</i>	<i>6.71</i>	<i>2</i>	<i>13.42</i>
Amidships ...	<i>✓</i>	<i>4</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>	<i>4</i>	<i>✓</i>
$\frac{3}{4}$ L from F.P. ...	<i>10.65</i>	<i>2</i>	<i>21.30</i>	<i>13.20</i>	<i>13.23</i>	<i>2</i>	<i>26.46</i>
$\frac{1}{2}$ L „ ...	<i>43.07</i>	<i>4</i>	<i>172.28</i>	<i>52.93</i>	<i>52.93</i>	<i>4</i>	<i>211.72</i>
F.P. ...	<i>96.80</i>	<i>1</i>	<i>96.80</i>	<i>120.00</i>	<i>120.00</i>	<i>1</i>	<i>120.00</i>
Total ...			<i>435.58</i>				<i>543.04</i>

Mean actual sheer aft = *excess*
Mean standard sheer aft = *excess*

Mean actual sheer forward = *excess*
Mean standard sheer forward = *excess*

Length of enclosed superstructure forward of amidships = *55.00*

„ „ aft of „ = *57.00*

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{107.46}{18} \times \left(\frac{75 - .2468}{2} \right) = -3.00$

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.

Ft.

Depth to Freeboard Deck = *29.03*

Summer freeboard = *5.37*

Moulded draught (d) = *23.66*

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = *5.91* = *6*

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 10686$

Tons per inch immersion at summer load water line

T = *39.25*

Deduction = $\frac{\Delta}{40T}$ inches = *6.81*

= *6 $\frac{3}{4}$*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient	$\frac{789 + .68}{1.36} = \frac{1.469}{1.36}$	
Depth Correction ...	<i>10.13</i>	<i>✓</i>
Deduction for superstructures ...	<i>✓</i>	<i>14.51</i>
Sheer correction ...	<i>✓</i>	<i>3.00</i>
Round of Beam correction ...	<i>✓</i>	<i>.07</i>
Correction for Thickness of Deck amidships ...	<i>✓</i>	<i>✓</i>
Other corrections, scantlings, etc. ...	<i>✓</i>	<i>✓</i>
	<i>10.13</i>	<i>17.58</i>
		<i>-7.45</i>
		Summer Freeboard = <i>64.49</i>

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Wood~~ Steel, Deck:— *5'-4 $\frac{1}{2}$ '*

Tropical Fresh Water Line above Centre of Disc ...

Fresh Water Line „ „ ...

Tropical Line „ „ ...

Winter Line below „ „ *6* ...

Winter North Atlantic Line „ „ ...

Tropical Fresh Water Freeboard ...

Fresh Water „ „ ...

Tropical „ „ ...

Winter „ „ *5'-10 $\frac{1}{2}$ '* ...

Winter North Atlantic „ „ ...

MARGALO

Particulars of fiddley, funnel and ventilator coverings:—

2 large Ventilators to Boiler Room Mechanically worked. Boiler Room downcasts. 3" angle covering with gaskets & hinges Steel Storm Covers.

2 large Vents to Engine Room. E.R. Skylight Steel plates & Angles with hinges flaps & built up.

Saddle Back Coal Shovel Hatch 18-6 x 4-6. 9" Steel Covering. Wood Cover, Chain, Brackets & 3 trip.

Particulars of Companionways :— *None.* ✓

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

[illegible]

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

$H = 1'6''$ { Fore Deck $1\frac{1}{2}$ D.B. $H = 30''$
 $1''$ " $H = 12\frac{1}{2}''$ } { Bridge Deck $1\frac{1}{2}$ D.B. $H = 10\frac{1}{2}''$
 $1''$ " $H = 23$ } { after Deck $2\frac{1}{2}$ D.B. $H = 2'5''$
 $4''$ " $H = 2-9$ } { Pop Deck $1\frac{1}{2}$ A.P. $H = 11''$ }

$\begin{matrix} \uparrow \\ T \\ \downarrow \\ H \end{matrix}$

No means of closing provided.

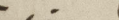
Particulars of Gangway Cargo and Coaling Ports:— *None.*


Particulars of Scuppers and Sanitary Discharge Pipes —

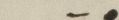
Spino. Fox DK. 2 P+S in Stgr Angle. / Crew WC + mach train in Hole Disc. Outboard below upper BX. N.R.V. fitted.
 Aff " 3 " " " " / Captain, Officer Engⁿ W's " " in Bdy T. Dns. " "
 Bage " A " Disc. Outboard in B.T. Dks. No NRV. / " " Bath Party Suite S= S= No " "
 " Thomas DK. 2 P+S. Disc " below U.DS. NRV. fitted. / Sanitary Tank outflow disc outboard " " No " "

Particulars of Side Scuttles: 6 Port + Stars in File deadlights fitted.

Particulars of Guard Rails :—


 Ständchen
 17 $\frac{1}{2}$
 5.0 apart
 21
 Felle OK.


 Ständchen
 13
 5.0 apart
 13
 Bügel OK.


 Ständchen
 18
 4-10E
 18
 Proh OK.

Top Rail $\frac{1}{4}$ "dis"
 lower = $\frac{7}{8}$ "

Particulars of Gangways, Lifelines, etc. :—

No Gangways.

Lifelines created ~~not~~ when required by Chief Officers.

No special fittings provided.

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Well	101.48 107-6	4-0	3-11½ x 1-6	4	23.8 f ✓	20.30
Forward Well	93-0	3-11½	3-11½ x 1-6	3	17.8 f ✓	18.60

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 :— *one Horizontal Rod.*

Additional area where sheer is less than standard. *At abs. deck edge. 11" Fwd well. 13" aft well.*

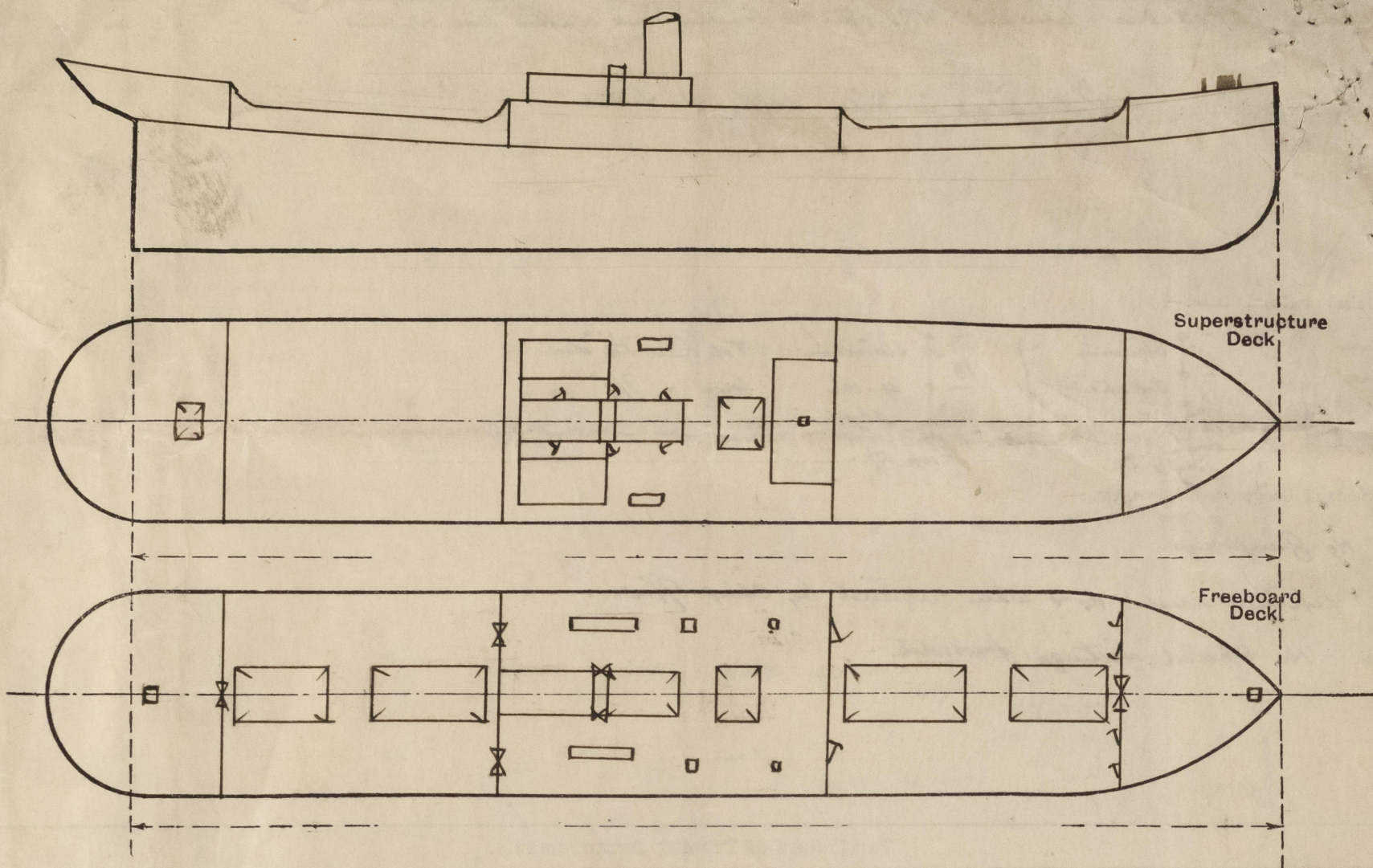
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..	.42	.36	6x3x.40 OA	30	Lug. T+B.	5-8x4'-0"	1'-7"	✓
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ... ..	.30	.26	3x3x.34	30	none	5-8x4'-1	1'-7	
Bridge, Forward Bulkhead ... ..	.44	.38	9x3x.52 BA	30	Lug. T+B	4-9½x2-6	1'-7	
Forecastle Bulkhead ... ..	.32	.26	3x3x.32	26	none	5-0x2-0 5-11x5-6	1-6	
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	✓							
Exposed Machinery Casings on Super-structure Decks ... ..	.36	.36	3x3x.38	32	Blk. h _h	5-0x2-0	1-5	7-3
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	.32	.36	30	30	Blk. bottom	one 4-0x4-0 6 one short	2'-5"	✓
Deckhouses on Flush Deck Ships ...	✓							

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

Pop Bulkhead	...	...	2 openings with Storm board full height in riveted channels.	No openings
Raised Quarter Deck Bulkhead	...	✓		
Bridge, After Bulkhead	...	...	2 openings with Storm board full height in riveted channels.	
Bridge, Forward Bulkhead	...	...	2 Hinges Steel Watertight doors Seams with 11 clips. Open well deck only.	
Forecastle Bulkhead	...	...	2 Hinges Steel doors to launch room etc. 2 Hinges wood doors to water. Open both sides. + one opening with Storm board full height in riveted channels.	
Exposed Machinery Casings on Free-board or Raised Quarter Decks	...	✓		
Exposed Machinery Casings on Super-structure Decks	...	...	Hinges Steel door P.S. to Boiler Room; Open both sides	
Machinery Casings within Superstructures not fitted with Class I Closing appliances	...	...	" Wood " " " Engine " in Alleyway. Open both sides.	
Deckhouses on Flush Deck Ships	...	✓	Opening in Casings not added to Coal shoot, with Steel bolted Cover. Open from T. Deck only.	

Margalan.

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



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

Vessel examined afloat. Survey confined to Openings &c.

*A Small Scale Capacity plan loaned from the Captain is forwarded herewith which please return
DMT.*

Builder's name and yard number

Names of sister ships

Owners

Kay, Son & Co Ltd Mers.

Fee *£* 3000 — 10.1.33 Received by me

DMT



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