

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

19 DEC 1932

Index No. 84  
(For London Office of)

Computation of Freeboard for Steamer, Sailing Ship, Tanker

Port *Trunk Forecastle*

Port of Survey *Aruba. S.W.I.*

Date of Survey *November 15<sup>th</sup> 1932*

Name of Surveyor *E. L. Whitham*

Particulars of Classification *+100 A1*

*carrying petroleum in bulk.*

(Type of Superstructures.)

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<i>T.S.S. MARACAY</i>	<i>British London</i>	<i>162595</i>	<i>3794</i>	<i>1931-6</i>
Moulded Dimensions: Length <i>350.0</i> Breadth <i>60.0</i> Depth <i>17.5</i>				
Moulded displacement at moulded draught = 85 per cent. of moulded depth <i>74.14</i> tons				
Coefficient of fineness for use with Tables <i>.83</i>				

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <i>17.5</i>	(a) Where D is greater than Table depth (D - Table depth) R = <i>✓</i>	Moulded Breadth (B) <i>60.00</i>
Stringer plate ... <i>0.4</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <i>(33.33 - 17.54) = 15.79</i>	Standard Round of Beam = $\frac{B \times 12}{50} = 14.40$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	<i>✓</i>	Ship's Round of Beam = <i>12.00</i>
Depth for Freeboard (D) = <i>17.54</i>	<i>✓</i> If restricted by superstructures	Difference <i>2.4 deficient</i>
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{2.4}{4} \times .3434 = +.21$

### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>72.75</i>	<i>72.75</i>	<i>8.0</i>		<i>72.75</i>
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	<i>24.0</i>		<i>17.0</i>		
" overhang aft ...					
" overhang forward ...					
Fore enclosed ...	<i>37.25</i>	<i>37.25</i>	<i>8.0</i>		<i>37.25</i>
" overhang ...	<i>4.0</i>	<i>2.00</i>	<i>8.0</i>		<i>2.00</i>
Trunk <i>236.0</i>		<i>117.80</i>	<i>8.0</i>		<i>117.80</i>
" forward ...					
Tonnage opening aft ...	<i>50.0</i>		<i>8.0</i>		
" <i>8</i> forward	<i>36.0</i>		<i>8.0</i>		
Total ...	<i>114.00</i>	<i>229.80</i>			<i>229.80</i>

Standard Height of Superstructure <i>7.00</i>
" R.Q.D. <i>✓</i>
Deduction for complete superstructure <i>38.67</i>
Percentage covered $\frac{S}{L} = 32.57\%$
" $\frac{S_1}{L} = 65.66\%$
" $\frac{E}{L} = 65.66\%$
Percentage from Table, line A. <i>Tanker</i>
(corrected for absence of forecastle (if required)) <i>58.23%</i>
Percentage from Table, Line B.
(corrected for absence of forecastle (if required))
Interpolation for bridge less than 2L (if required)
Deduction = <i>38.67</i> x <i>.5823</i> = <i>- 22.52</i>

### SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>45.00</i>	<i>1</i>		<i>45.00</i>	<i>15.00</i>	<i>15.00</i>	<i>1</i>		<i>15.00</i>
$\frac{1}{4}$ L from A.P. ...	<i>20.02</i>	<i>4</i>		<i>80.08</i>	<i>.20</i>	<i>.20</i>	<i>4</i>		<i>.80</i>
$\frac{2}{4}$ L " ...	<i>4.95</i>	<i>2</i>		<i>9.90</i>	<i>0</i>	<i>0</i>	<i>2</i>		<i>0</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>9.90</i>	<i>2</i>		<i>19.80</i>	<i>0</i>	<i>0</i>	<i>2</i>		<i>0</i>
$\frac{1}{4}$ L " ...	<i>40.04</i>	<i>4</i>		<i>160.16</i>	<i>1.50</i>	<i>1.50</i>	<i>4</i>		<i>6.00</i>
F.P. ...	<i>90.00</i>	<i>1</i>		<i>90.00</i>	<i>12.00</i>	<i>12.00</i>	<i>1</i>		<i>12.00</i>
Total ...	<i>505</i>			<i>404.94</i>					<i>33.80</i>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{371.14}{18} \left( .75 - \frac{.1628}{2} \right) = + 12.10$

If limited on account of midship superstructure.

If limited to maximum allowance of 1½ ins. per 100 ft.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Fresh Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.831 + .68}{1.36} = \frac{1.511}{1.36}$
Depth to Freeboard Deck = <i>17.54</i>	$\Delta = 7511$	Depth Correction ... <i>15.58</i>
Summer freeboard = <i>2.58</i>	Tons per inch immersion at summer load water line	Deduction for superstructures ... <i>22.52</i>
Moulded draught (d) = <i>14.96</i>	T = <i>44.90</i>	Sheer correction ... <i>12.10</i>
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40T}$ inches	Round of Beam correction ... <i>.02</i>
Winter freeboard = $\frac{d}{4}$ inches = <i>3.74</i> = <i>3¾</i>	= <i>4.18</i>	Correction for Thickness of Deck amidships ...
Addition for Winter North Atlantic Freeboard (if required) = <i>3.5</i> = <i>3½</i>	= <i>4.74</i>	Other corrections, scantlings, etc. ...
		Summer Freeboard = <i>31.02</i>

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

Tropical Fresh Water Line above Centre of Disc ...	<i>8"</i>	Tropical Fresh Water Freeboard ...	<i>2' - 7"</i>
Fresh Water Line " " ...	<i>4¾"</i>	Fresh Water " " ...	<i>2' - 2¾"</i>
Tropical Line " " ...	<i>3¾"</i>	Tropical " " ...	<i>2' - 3¾"</i>
Winter Line below " " ...	<i>3¾"</i>	Winter " " ...	<i>2' - 10¾"</i>
Winter North Atlantic Line " " ...	<i>7¾"</i>	Winter North Atlantic " " ...	<i>3' - 2¾"</i>

22 DEC 1932

MARKING FORM

MARKING FORM

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4 APR 1940

4 NOV 1935

85 MAY 1933

RECEIVED

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## HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Particulars of fiddley, funnel and ventilator coamings:—

Particulars of Flush Bunker Scuttles:—

None

Particulars of Companionways :—

none.

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

Particulars of Gangway Cargo and Coaling Ports :-

Drunk Log

7-4 inch vents with gauge on Main Cargo Hatch	30 ins above
2-2 inch vents to Cofferdam under milkship acc.	48 ins "
14-2½ inch sound to Main Cargo Holds.	36 ins "
1-2 inch sound to Cofferdam aft	18 ins "

Prop Deck

2-2x4 down neck vents to Engine Room bathrooms,	21 ins "
2-3 inch air & filling to after Peak Tank	10 ins "
1-2 inch air & sound to after Peak tank	12 ins "
2-2½ inch air & filling to Feed Tanks	12 ins "

Effluent dosing appliances provided

all side scuttles fitted with efficient hinged covers and hinged dead-lights permanently attached.

Forecastle. Bulwark. 4' 6" at stem to 3' 10" after end.  
 Trunk Top. 2 Rails. 3' 6" high stations spaced 5 ft.  
 Freeboard Deck. 2 Rails. " " " " "  
 Poop Deck. Bulwark 3' 6" high.

Particulars of Gangways, Lifelines, etc. :—

The Trunk Top forms a gangway between the Poop and the Forecastle.  
(Crew accomodation aft)

## Particulars of Freeing Arrangements.

Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings <i>no openings</i>	Height of Sills	Height of Casings
Poop Bulkhead ... ..	✓	<i>5/16 top 7/16 bottom</i>	6 X 3 X 1/2 BA	23 1/2	Bkt ✓	<i>3' x 6' 6" cannage spaces</i>	15"	✓
Raised Quarter Deck Bulkhead ...	✓	✓	✓	✓	✓	✓	✓	✓
Bridge, After Bulkhead ... ..	<i>3 1/4 13 1/2 8 1/2</i>	<i>2 1/2 32</i>	"	33	Bkt	<i>two 2' 3" x 6' 6" magnolia #8A to cofferdam</i>	2' 4"	14' 0"
Bridge, Forward Bulkhead ... ..	"	"	"	"	<i>Att tied by one in Cham Locker</i>	✓	✓	"
Forecastle Bulkhead <i>Fore and Pump R.</i>	✓	<i>top .32 bottom .42</i>	6 X 3 X 3/8 A	30	Bkt ✓	✓	✓	✓
Trunk, Aft " aft " " "	✓	<i>top .38 bottom .44</i>	"	23 1/2	Bkt ✓	✓	✓	✓
Trunk, Forward <i>and aft</i> ... ..	<i>6 X 6 X 5</i>	<i>top .62 bottom .63</i>	6 X 3 X 3/8 BA	24"	Bkt ✓	✓	✓	8' 0"
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...	✓	✓	✓	✓	✓	✓	✓	✓
Exposed Machinery Casings on Super- structure Decks <i>Fladdy casing</i>	<i>5 X 5 X 1/2</i>	<i>28 X 30</i>	3 X 3 X 3/2 A	23 1/2	<i>Bkt Tied to deck Beams</i>	✓	✓	4' 6"
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances ... ..	✓	✓	✓	✓	✓	✓	✓	✓
Deckhouses on Flush Deck Ships ...	✓	✓	✓	✓	✓	✓	✓	✓

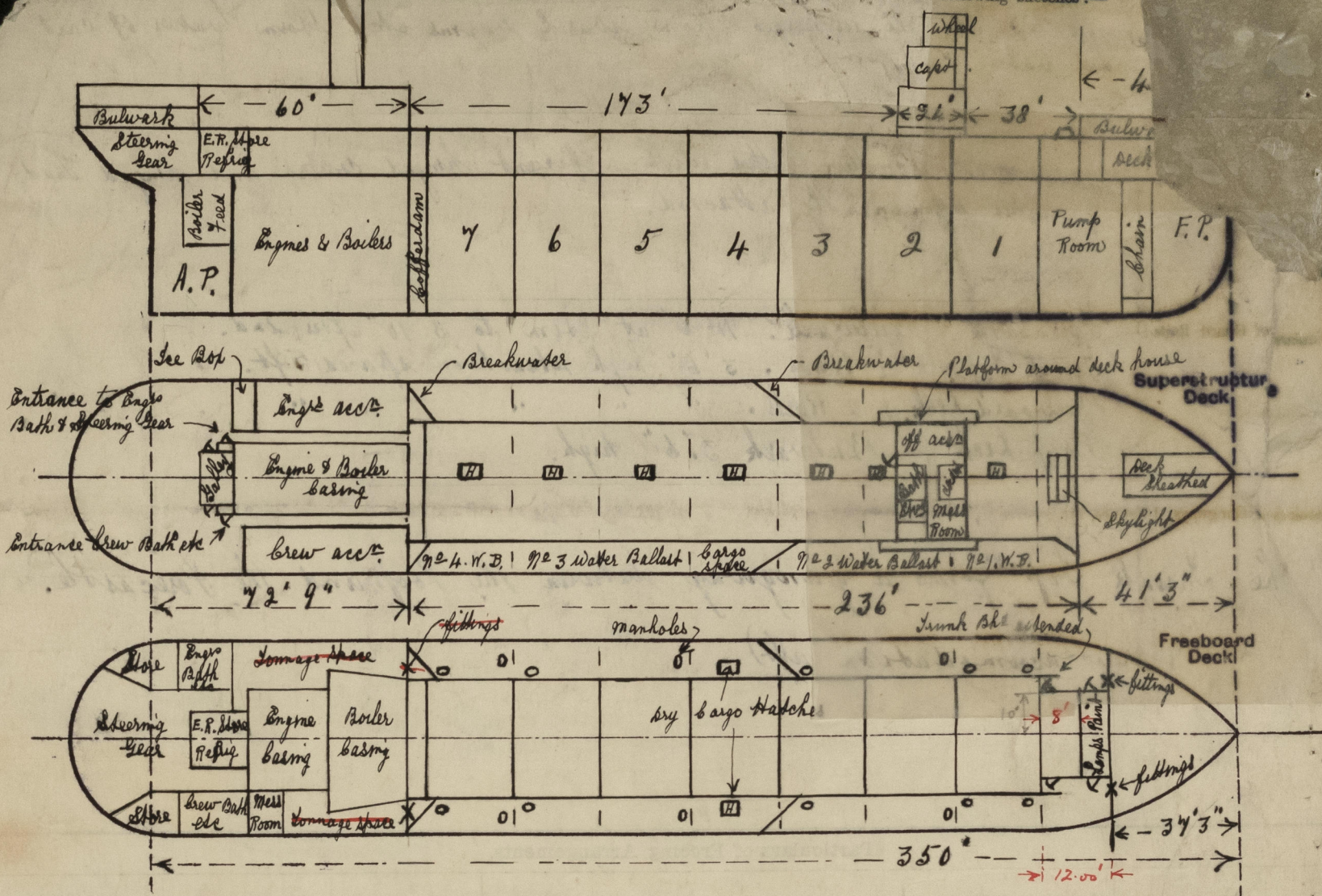
## Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Particulars of Closing Appliances (State in separate column the nature of the appliance)	
Poop Bulkhead ... ..	<del>openings to Tonnage spaces 3'x6' P &amp; S on after end of Freeboard Deck.</del>
Raised Quarter Deck Bulkhead ... ..	<del>openings stiffened by channel bars for weather boards. Breachwater in way same so</del>
Bridge, After Bulkhead ... ..	<del>one wooden door to officers B'd capable of being opened both sides.</del>
Bridge, Forward Bulkhead ... ..	<del>4 15" mesh port lights. Manhole doors &amp; 4 B'ds to Officers.</del>
Forecastle Bulkhead ... ..	<del>Steel doors P &amp; S with 15" mesh sill to Paint and Lamp Rooms. Steel doors with</del>
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ... ..	<del>15" mesh sill to Pump Room &amp; B'd of trunk extended in way of doors. Doors capable</del>
Exposed Machinery Casings on Superstructure Decks ... ..	<del>of being manipulated from both sides. Fiddle Casing no openings.</del>
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	<del>openings 3'x6' to Fore Peak &amp; 1st P &amp; S with 15" sill. openings stiffened by</del>
Deckhouses on Flush Deck Ships ... ..	<del>channel bars for securing weather boards. full height</del>



# Maracay

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



The opening in the poop  
front closed by riveted plates  
Access to spaces made from aft

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

This vessel measured while afloat and not gas free

## Displacements

85% 7,414 tons  
omit

15 ft. 7,461 tons 44.89  
16 ft. 8,000 " 45.00

From Celler Cks

7461  
44.89  
5.6  
7311

Builder's name and yard number

Harland & Wolff Ltd

Hull No 915

Names of sister ships

Owners

Lago Shipping Co Ltd omit

Mrs a. Weir & Co

Fee £ 150.00

Received by me



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