

-3 FEB 1933

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

Having

*Poop, Bridge and Forecastle*Port of Survey *Bahia, A.S.*Date of Survey *January 18th, 1933*Name of Surveyor *J. Moon*Particulars of Classification *F100A1*
S.S. St. J. No. 2-27.

(Type of Superstructures.)

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

*Magister ex Canadian Volunteer**British*
*Kingston, Jamaica**141424**3188**1919-6*

Moulded Dimensions: Length *320'-0"* Breadth *44'-0"* Depth *25'-0"*
 Moulded displacement at moulded draught = 85 per cent. of moulded depth *6525* tons
 Coefficient of fineness for use with Tables *.764*

Depth for Freeboard (D)

Moulded depth ... *25.00*
 Stringer plate ... *.04*
 Sheathing on exposed deck *.50*
 $T \left(\frac{L-S}{L} \right) =$
 Depth for Freeboard (D) = *25.04*

Depth correction

(a) Where D is greater than Table depth
 (D-Table depth) R = $(25.04 - 21.31) 2.459 = + 9.17$
 (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) *44.00*
 Standard Round of Beam = $\frac{B \times 12}{50} = 10.56$
 Ship's Round of Beam = *11*
 Difference *.44*
 Restricted to
 Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.44}{4} \times .5074 = -$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>28.70</i>	<i>28.70</i>	<i>7'-6"</i>		<i>28.70</i>
„ overhang ...					
R.Q.D. enclosed ...					
„ overhang ...					
Bridge enclosed ...	<i>96.00</i>	<i>96.00</i>	<i>7'-6"</i>		<i>96.00</i>
„ overhang aft ...					
„ overhang forward ...	<i>31.62</i>				
F'ole enclosed ...	<i>33.62</i>	<i>31.62</i>	<i>7'-6"</i>		<i>31.62</i>
„ overhang ...	<i>2.00</i>	<i>1.17</i>			<i>1.17</i>
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward					
Total ...	<i>158.32</i>	<i>157.49</i>			<i>157.49</i>

Standard Height of Superstructure *7'-6"* *6.70*„ „ R.Q.D. *36.65*Deduction for complete superstructure *36.65*Percentage covered $\frac{S}{L} = 49.52$ „ $\frac{S_1}{L} = 49.26$ „ $\frac{E}{L} = 49.26$ Percentage from Table, Line A.
(corrected for absence of forecastle (if required))Percentage from Table, Line B. *35.37*

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = *12.96*

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>41.97</i>	1		<i>41.97</i>	<i>49.5</i>	<i>49.5</i>	1		<i>49.50</i>
$\frac{1}{8}L$ from A.P. ...	<i>18.68</i>	4		<i>74.72</i>	<i>21</i>	<i>20.75</i>	4		<i>83.00</i>
$\frac{3}{8}L$ „ ...	<i>4.61</i>	2		<i>9.22</i>	<i>5.4</i>	<i>3.60</i>	2		<i>7.20</i>
Amidships ...		4					4		
$\frac{5}{8}L$ from F.P. ...	<i>9.23</i>	2		<i>18.46</i>	<i>11.4</i>	<i>13.00</i>	2		<i>26.00</i>
$\frac{7}{8}L$ „ ...	<i>37.36</i>	4		<i>149.44</i>	<i>45</i>	<i>46.00</i>	4		<i>184.00</i>
F.P. ...	<i>83.95</i>	1		<i>83.95</i>	<i>103.5</i>	<i>103.5</i>	1		<i>103.50</i>
Total ...				<i>377.76</i>					<i>453.20</i>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{377.76}{18} \left(.75 - \frac{.2476}{.5024} \right) = - 2.11$

If limited on account of midship superstructure.

Mean actual sheer aft = *Excess*
Mean standard sheer aftMean actual sheer forward = *Excess*
Mean standard sheer forwardLength of enclosed superstructure forward of amidships = *> .1*„ „ aft of „ = *> .1*

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *25.04*
 Summer freeboard = *3.77*
 Moulded draught (d) = *21.27*

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = *5.32 = 5 1/4*

Addition for Winter North Atlantic Freeboard (if

limited = *2*

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 = $\frac{\Delta}{40T}$ inches $=$ *5/4*

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.764 + .68}{1.36} = \frac{1.444}{1.36}$

+ -

Depth Correction ... *9.17*Deduction for superstructures ... *12.96*Sheer correction ... *2.11*Round of Beam correction ... *.06*

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

*9.17 15.13 - 5.96*Summer Freeboard = *45.3*

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

Tropical Fresh Water Line above Centre of Disc ... *10 1/2*
 Fresh Water „ „ „ *5 1/4*
 Tropical „ „ „ *5 1/4*
 Winter „ „ „ *5 1/4*
 Winter North Atlantic Line „ „ „ *7 1/4*

Tropical Fresh Water Freeboard ...
 Fresh Water „ „ „
 Tropical „ „ „
 Winter „ „ „
 Winter North Atlantic „ „ „

*3 - 9 1/4**2 - 10 1/4**1 - 11 1/4**1 - 12 1/4**1 - 13 1/4**1 - 14 1/4**1 - 15 1/4**1 - 16 1/4**1 - 17 1/4**1 - 18 1/4*

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
<div> <div>Free Deck</div> <div>Bridge Deck</div> <div>After Deck</div> </div>									
Description of Hatchway	No 1	No 2	No 3	No 4	No 5	No 6	No 7	No 8	No 9
Dimensions of Hatchway	22' x 22'	26' x 22'	12' x 18'	26' x 22'	26' x 22'				
COAMINGS	Height above Deck	37	37	37					
	Thickness	50	50	44					
	Sides	44	44	44					
	Ends	44	44	44					
COAMINGS	Stiffeners	BA 8x3x.5	BA 8x3x.5	BA 8x3x.5					
	Brackets, Stays	18x.38	18x.38	18x.38					
HATCH BEAMS	Number	4	5	2					
	Spacing	51"	51"	48"					
	Scantling and Sketch	18x.36 and dble angles 4x3x.44	18x.36 and dble angles 4x3x.44	14x.34 and dble angles 4x3x.44					
	Bearing Surface	3 1/2	3 1/2	3 1/2					
FORE AND AFTERS	Number								
	Spacing								
	Unsupported Lengths								
	Scantling* and Sketch	✓	✓	✓					
HATCH COVERS	Material	Wood							
	Thickness	3							
	How fitted	7x1							
	Bearing Surface	2 1/2							
Spacing of Cleats	24"								
Number of Tarpaulins	3								

*Are wood fore and afters steel shod at all bearing surfaces? ☒
 Are battens and wedges efficient and in good condition? ☒
 Are tarpaulins in good condition and in accordance with rule requirements? ☒
 Are lashings provided in accordance with rule requirements? ☒

Particulars of fiddle, funnel and ventilator coamings:—

2 stakehold ventilators, coamings 9', dia 30" fitted with canvas covers
 2 E.R. " " 36", dia 18" "
 2 funnel deck " " 36", dia 12" "
 Funnel coaming 3x3x.38, riveted to coaming top.

Fiddle opening protected by hinged steel cover

Particulars of Flush Bunker Scuttles:—

Particulars of Companionways:—

Steel house on poop 11'-2" square, coaming 3 1/2 x 3 1/2 x .38, plating .38
 Side openings and stairway in house to poop, openings 72" x 24", sill 12" + wood doors.

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

4 on fore well deck, coamings 36", dia 18" and fitted with canvas covers.
 4 on aft well deck, coamings 36", dia 18" " " " "
 2 on forecabin deck, coamings 36", dia 18" " " " "
 4 on poop deck, coamings 36", dia 6" " " " "
 1 on forecabin deck, coaming 36", dia 6" " " " "

wood plugs & canvas covers provided

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

1 on forecabin deck 36" high
 2 " " 12" "
 2 on fore well deck 40" high
 1 on aft well deck 40" high
 1 on aft well deck 24" high

Wood plugs & canvas covers provided

Particulars of Gangway Cargo and Coaling Ports:—



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Foundation

Particulars of Scuppers and Sanitary Discharge Pipes

2 open scuppers, each side, on fore well deck
2 " " " " " " on aft well deck
2 sanitary discharge pipes on Bridge deck, discharging above foreward deck

Particulars of Side Scuttles :

Particulars of Guard Rails :—

Particulars of Gangways, Lifelines, etc. :—

Steel wire life lines and attachments to bulkheads and rigging cross bars are being fitted between fore end of Bridge and Forecastle, and between aft end of Bridge and Prop.

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	86'	3'-6"	40" x 15"	4	16.5	17.2
Forward Well	76 75.43	3'-6"	36" x 15"	4	15	15.2

State position of each freeing port } After Well:— *from aft No 1-13 ft. No 2-32', No 3-53', No 4-71'*
(F. and A. position and height above deck edge) } Forward Well:— " " *No 1-13', No 2-25', No 3-42', No 4-54'*
State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:—

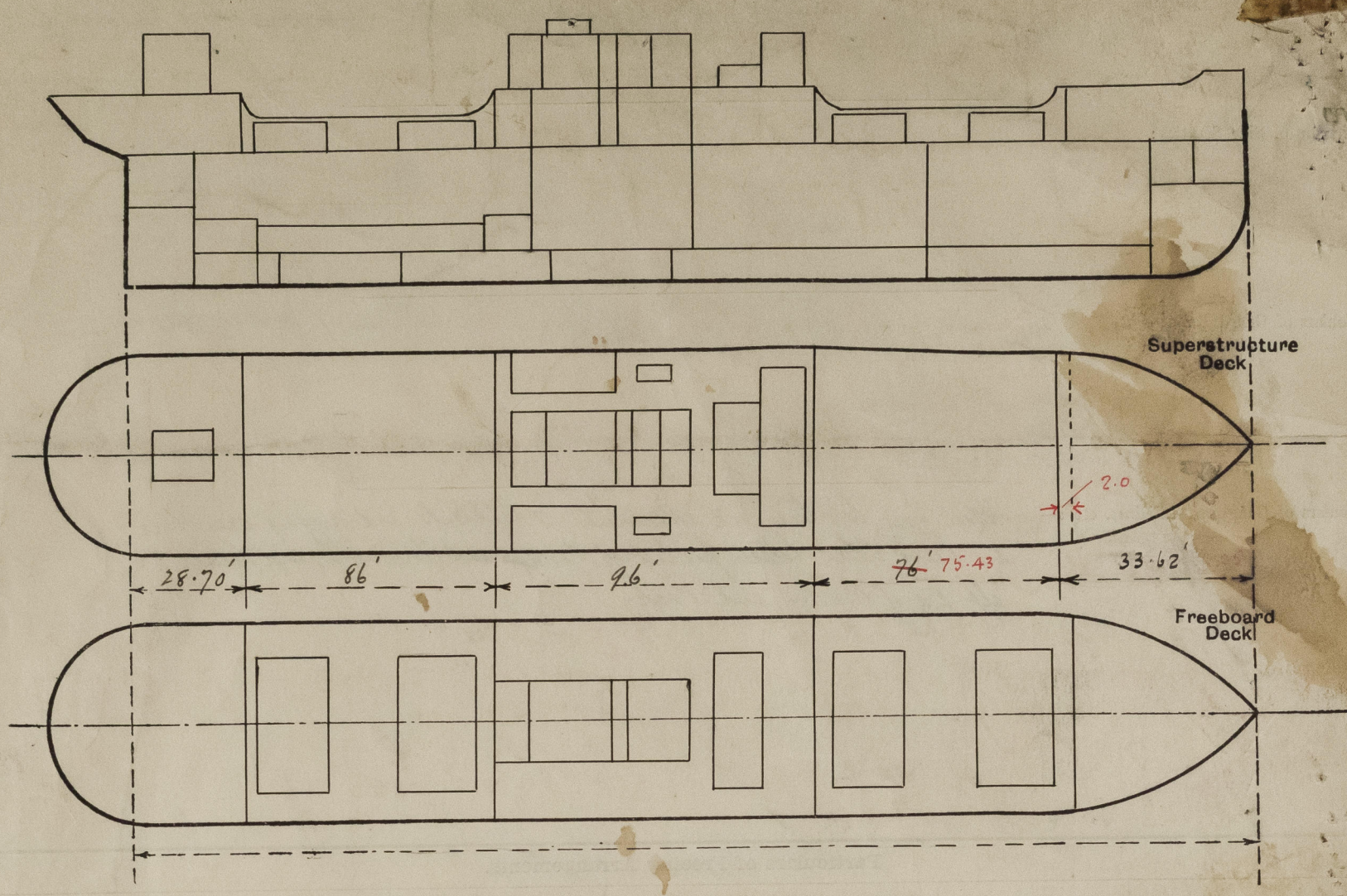
Additional area where sheer is less than standard.

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	$3\frac{1}{2} \times 3\frac{1}{2} \times .44$	.38	$6 \times 3\frac{1}{2} \times .5$	30"	✓	58×24	18	7'-6"
Raised Quarter Deck Bulkhead ...									
Bridge, After Bulkhead	$3\frac{1}{2} \times 3 \times .44$	.38	$4 \times 3\frac{1}{2} \times .44$	26	✓	58×39	18	7'-6"
Bridge, Forward Bulkhead	$3\frac{1}{2} \times 3\frac{1}{2} \times .5$	.38	$8 \times 3 \times .5$ BA	30	Brackets T & B $18 \times .5$	60×42	18	7'-6"
Forecastle Bulkhead	$3\frac{1}{2} \times 3\frac{1}{2} \times .44$	.38	$4 \times 3 \times .38$	30	✓	50×30	18	7'-6"
Trunk, Aft									
Trunk, Forward									
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...									
Exposed Machinery Casings on Super- structure Decks ... ..	.38	.25	$3 \times 2\frac{1}{2} \times .40$	24	Top only $12 \times .40$	59×24	18	7'-6"
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances	$18 \times 1\frac{1}{2}$	$\frac{5}{16}$	$4" \times 3"$	27"		$28" \times 60"$	18	7'-6"	
Deckhouses on Flush Deck Ships ...									

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	1 steel hinged door, manipulated from both sides
Raised Quarter Deck Bulkhead	
Bridge, After Bulkhead	2 steel plate doors, fitted with bolts hooked round stiffeners
Bridge, Forward Bulkhead	2 hinged steel W.T. doors, screw bolted on lugs.
Forecastle Bulkhead	1 hinged steel door, manipulated from both sides
Exposed Machinery Casings on Free-board or Raised Quarter Decks	
Exposed Machinery Casings on Super-structure Decks	2 hinged steel doors, manipulated from both sides, 6 E.R. skylight lids, hinged, locked from inside.
Machinery Casings within Super-structures not fitted with Class I Closing Appliances	Hinged steel door
Deckhouses on Flush Deck Ships	

Magister

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:—

This vessel is constructed with a Prop, Bridge and Incasable deck Transverse Frames, B.A., 4 1/2" depth of girder. The vessel has been in dry dock and afloat and found to be in efficient condition.

Builder's name and yard number *Wallace Shipyards Ltd., Vancouver B.C. No 100.*

Names of sister ships

Owners *Register not yet completed for charge, Owners J. S. Webster & Sons, Kingston, Jamaica.*

Fee £ *\$60⁰⁰*
Exp. N.Y 3.00

Received by me