

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having Bridge and Forecastle
(Type of Superstructures.) 4 B.T. 30/10/34

Port of Survey London
Date of Survey 23, 24, 25, 26 May 1932
Name of Surveyor R. Blake
Particulars of Classification +100 A1.
Shells & P with Freeboard

Ship's Name MORETON BAY Nationality and Port of Registry British London Official Number 130169 Gross Tonnage 14193 Date of Build 1921.11

Moulded Dimensions: Length 529.8 Breadth 68.0 Depth 43.6
Moulded displacement at moulded draught = 85 per cent. of moulded depth 29540 tons
Coefficient of fineness for use with Tables .776

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth 43.50	(a) Where D is greater than Table depth (D - Table depth) R = <u>(43.70 - 35.32) 3 = +25.14</u>	Moulded Breadth (B) <u>68.00</u> Standard Round of Beam = $\frac{B \times 12}{50} = 16.32$ Ship's Round of Beam = <u>6</u> Difference = <u>10.32</u>
Stringer plate <u>.52</u>08	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Restricted to
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) = .25 \times \frac{245.13}{529.8} = .12$	If restricted by superstructures	Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{10.32}{4} \times (1 - .5241) = +1.23$
Depth for Freeboard (D) = <u>43.70</u>		

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	✓				
„ overhang	<u>206.17</u>				
Bridge enclosed... ..	<u>313.2</u>	<u>206.17</u>	<u>8.4</u>	✓	<u>206.17</u>
„ overhang aft	<u>1.9</u>		<u>8.4</u>		
„ overhang forward	<u>2.0</u>		<u>7.11</u>		
Fore enclosed (E)	<u>73.8</u>	<u>64.53</u>	<u>7.10</u>	✓	<u>64.53</u>
„ overhang	<u>4.10</u>	<u>6.98</u>		✓	<u>6.98</u>
Trunk aft	✓				
„ forward	✓				
Forecastle	✓				
„ forward	✓				
Total	<u>284.67</u>	<u>277.68</u>			<u>277.68</u>

Standard Height of Superstructure 7.5
„ „ R.Q.D. ✓
Deduction for complete superstructure 42.00
Percentage covered $\frac{S}{L} = 53.73\%$
„ „ $\frac{S_1}{L} = 52.41\%$
„ „ $\frac{E}{L} = 52.41\%$
Percentage from Table, Line A. ✓
(corrected for absence of forecastle (if required)) ✓
Percentage from Table, Line B. 38.41%
(corrected for absence of forecastle (if required)) ✓
Interpolation for bridge less than .2L (if required) ✓
Deduction = 42.00 x .3841 = -16.13

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<u>62.98</u>	1		<u>62.98</u>	<u>60.00</u>	<u>60.00</u>	1		<u>60.00</u>
$\frac{1}{2}$ L from A.P.	<u>28.03</u>	4		<u>112.12</u>	<u>27.65</u>	<u>27.65</u>	4		<u>110.60</u>
$\frac{2}{3}$ L „	<u>6.93</u>	2		<u>13.86</u>	<u>6.91</u>	<u>6.91</u>	2		<u>13.82</u>
Amidships	✓	4		✓	✓	✓	4		✓
$\frac{2}{3}$ L from F.P.	<u>13.86</u>	2		<u>27.72</u>	<u>13.08</u>	<u>13.08</u>	2		<u>26.16</u>
$\frac{1}{2}$ L „	<u>56.05</u>	4		<u>224.20</u>	<u>52.34</u>	<u>52.34</u>	4		<u>209.36</u>
F.P.	<u>25.96</u>	1		<u>25.96</u>	<u>120.00</u>	<u>120.00</u>	1		<u>120.00</u>
Total				<u>566.84</u>					<u>539.94</u>

Mean actual sheer aft = Deficient
Mean standard sheer aft

Mean actual sheer forward = Deficient
Mean standard sheer forward

Length of enclosed superstructure forward of amidships = .109
„ „ aft of „ = .280

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{26.90}{18} \times (.75 - .2686) = +.72$

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.	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 26087$ Tons per inch immersion at summer load water line $T = 73.66$ Deduction = $\frac{\Delta}{40T}$ inches $= 8.85$ $= 8\frac{3}{4}$	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.776 + .68}{1.36} = \frac{1.456}{1.36}$ <table><tr><td></td><td>+</td><td>-</td></tr><tr><td>Depth Correction</td><td><u>25.14</u></td><td>✓</td></tr><tr><td>Deduction for superstructures</td><td><u>16.13</u></td><td>✓</td></tr><tr><td>Sheer correction</td><td><u>.72</u></td><td>✓</td></tr><tr><td>Round of Beam correction</td><td><u>1.23</u></td><td>✓</td></tr><tr><td>Correction for Thickness of Deck amidships</td><td><u>1.44</u></td><td>✓</td></tr><tr><td>Other corrections, scantlings, etc.</td><td>✓</td><td>✓</td></tr></table> <u>27.09</u> <u>17.57</u> + <u>9.52</u> Summer Freeboard = <u>128.19</u>		+	-	Depth Correction	<u>25.14</u>	✓	Deduction for superstructures	<u>16.13</u>	✓	Sheer correction	<u>.72</u>	✓	Round of Beam correction	<u>1.23</u>	✓	Correction for Thickness of Deck amidships	<u>1.44</u>	✓	Other corrections, scantlings, etc.	✓	✓
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc	<u>17</u>
Fresh Water Line „ „	<u>8 3/4</u>
Tropical Line „ „	<u>8 1/2</u>
Winter Line below „ „	<u>8 1/4</u>
Winter North Atlantic Line „ „	✓

Tropical Fresh Water Freeboard	<u>10' - 8 1/4"</u>
Fresh Water „ „	<u>9' - 3 1/4"</u>
Tropical „ „	<u>9' - 11 1/2"</u>
Winter „ „	<u>10' - 0"</u>
Winter North Atlantic „ „	<u>11' - 4 1/2"</u>

single line 3' - 2 1/4" below
line of disc - MARKING FORM

MARKING FORM

RECEIVED 1 SEP 1934

RECEIVED 26 JUN 1934

MARKING FORM

RECEIVED 18 OCT 1932

RECEIVED

2340

Bridge D^K Boat D^K
~~TRANSFER~~ ~~STRUCTURE~~ ~~TURNED~~
 to Shelter Boat D^K to Shelter

Particulars of fiddley, funnel and ventilator coamings:— No exposed fiddley gratings ✓

Fidley and funnel ventilators in an efficient condition ✓

NONE

Boat back

Freeboard deck ✓

Freeboard B.R.
Island House Low?

Particulars of Ventilators in exposed positions on freeboard and superstructure decks :					
<i>Forecastle deck</i>	<i>" 24" dia</i>	<i>Cowming</i>	<i>3-0' x 34" led to Fore Peak.</i>	<i>✓</i>	<i>2-24" Venti on Freeboard Deck aft Cowming 3-0' x 50" led to Hot</i>
" "	" " "	" "	<i>3-0' x 38" "</i>	<i>✓</i>	<i>Hold Space. 3-0' x 38" "</i>
" "	" 13" "	" "	<i>3-0' x 38" "</i>	<i>✓</i>	<i>Tween decks 1-10' " " " "</i>
" "	" 8" "	" "	<i>3-0' x 38" "</i>	<i>✓</i>	<i>4-6' " " " "</i>
<i>Freeboard Deck in Fore Well</i>	<i>24" "</i>	" "	<i>3-0' x 50" "</i>	<i>✓</i>	<i>Hold space 1-12' " " " "</i>
<i>Bridge Deck</i>	<i>24" "</i>	" "	<i>3-0' x 38" "</i>	<i>✓</i>	<i>" " " "</i>
" "	" 15" "	" "	<i>1-11' x 34" "</i>	<i>✓</i>	<i>Tween decks all ventilators constructed in accordance</i>
" "	" 6" "	" "	<i>1-6' x 34" "</i>	<i>✓</i>	<i>and cowmings closed with wood plugs &c</i>
" "	" 12" "	" "	<i>1-6' x 34" "</i>	<i>✓</i>	

Particulars of Air Pipes in exposed position on freeboard, raised quarter, or superstructure decks :-			
C.I. Air Pipes	on Forecastle 5" 4 1/2" high from Fore Peak (Canted out)	11. 4" Tyros Valve on Freeboard aft 9" high from deck	15" - 15" - 15"
Tyros Valves	on Foreword 5" 2" high from bubble bottom	5- 6 1/4" air pipes	10 1/2" - 15" - 15"
Air Pipes	" " 9" high from bubble bottom	1- 4" dia	5" - 5" - 5"
" "	" Bridge 5" 6" high from bubble bottom	2- 3 1/2" -	5" - 5" - 5"
" "	" " 10" -		
" "	" " 15" -		
" "	" " 10 1/2" -		
" "	" " 10 1/2" -		
		Air pipes closed with canvas	

1st Lt. G. H. G. G. G.

Same. ~~ref.~~

Same. ~~ref.~~

Scupper from Forecastle & Bowditch becks discharge on to Freeboard Beck. ✓
 " Freeboard Beck discharge thro' ship's side with G.M. Stowm Valves geared ✓
 above Freeboard Beck. efficient traps at inner end.
 Scupper on Sparrow below Freeboard Beck discharge through ship's side with G.M. ✓
 valves and with plugs at inner end geared up to above Freeboard Beck. ✓

rs of Side Scuttles:— Side Scuttles in Forecastle fitted with hinged deadlights.

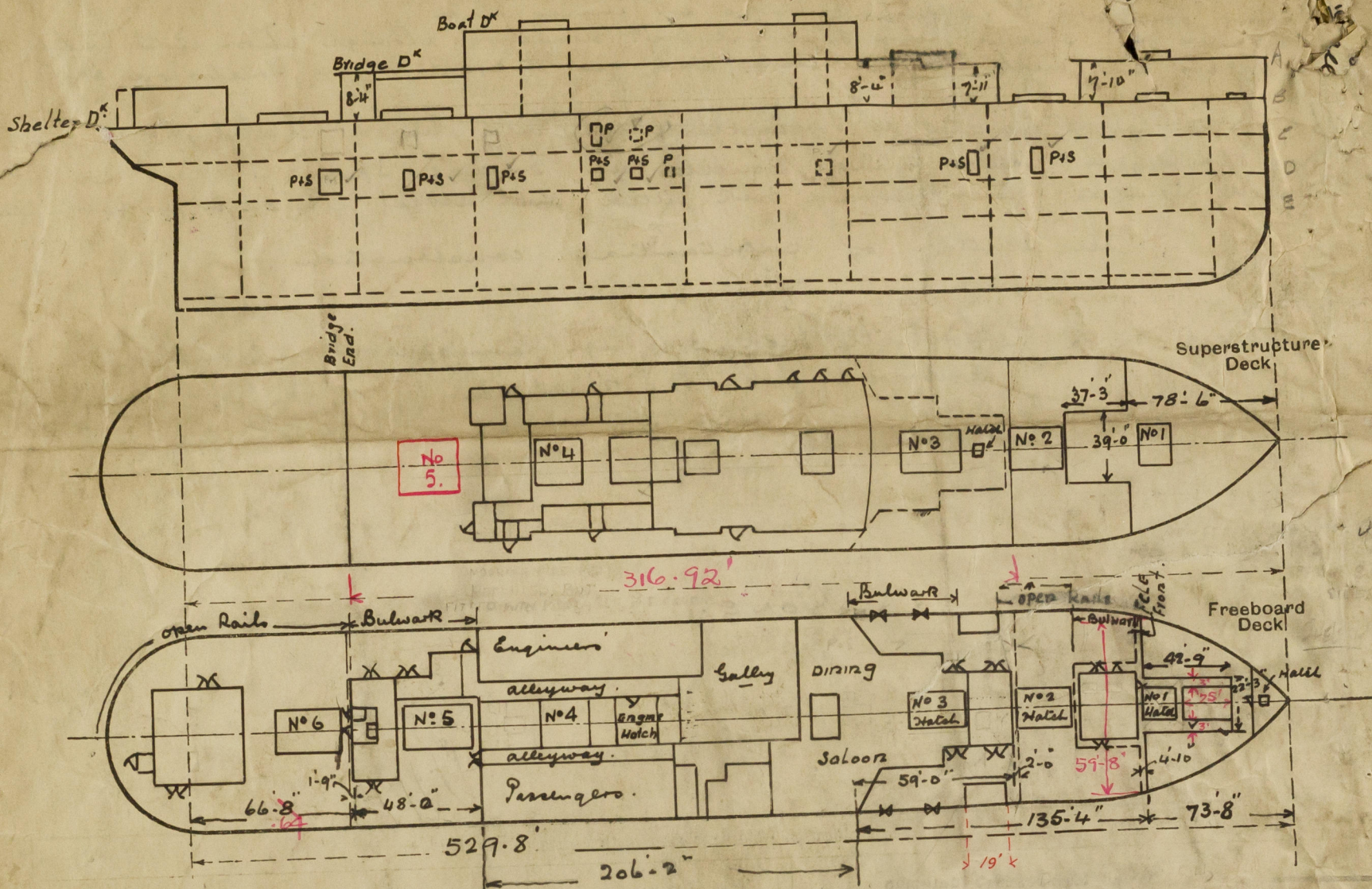
Guard Rails:—

Guard rails on Forecastle Deck	3'-6" high	having 4 rods & stanchions	4'-8" apart
" " " Freeboard Deck (Fore Well)	3'-7" high	" 5 " "	3-10 "
" " " aft	3'-7" "	" 5 " "	5-0 "

Suitable provision is made for
negging lifelines on the foreboard
~~None~~. deck

Particulars of Freeing Arrangements.Particulars of Superstructures, Trunks, Casings, Deckhouses.Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing to 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:-



$$\frac{F'CLE}{LEN} = 73.67$$

$$\frac{L}{10} = 52.98$$

$$\text{DEDUCT } \frac{17.75 \times 22.25}{59.67} = 6.62$$

$$\frac{2 \times 25 \times 3}{59.67} = 2.52$$

$$\frac{9.14}{64.53} = \text{Equi. Enc.}$$

$$\frac{78.50}{13.97} = \text{HULL}$$

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

- 1 Hatch on freeboard deck 2'-4" x 1'-11" covering 13' x 36" wood cover. no cleats. ✓
- 1 " " Bridge " 2'-5" x 1'-7 1/2" " 2'-0" x 36" steel hinged cover. ✓

33'-0"	25940	73.60
34'-0"	26825	73.96

$$\begin{aligned} \text{med.} &= 32.89 \\ &= 32' - 10 \frac{3}{4}" \\ \text{Kell} &= \frac{3 \frac{1}{4}}{34' - 2"} \\ &= \frac{2}{12} \times 885 = 147 \\ &= 26087 + \text{T.P.I.} = 73.66 \end{aligned}$$

Vessel surveyed afloat. Survey confined to Freeboard. ✓

Builder's name and yard number Vickers Limited No. 573.

Names of sister ships Hobsons Bay, Jarvis Bay.

Owners White Star Line. (J. Thompson & Co. Ltd. - Mgrs)

Fee £ 2 : 0 Received by me 2/5/32