

Rpt. C.11.

Index. No. **31138**
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

23063.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having Pop. Bridge & Newcastle

(Type of Superstructures.)

Port of Survey Newport

Date of Survey 31st Oct 1932

Name of Surveyor J. Macfarlane

Particulars of Classification S.S. Off No. 28

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
"GWENTGATE"	British, Newport, Aneur.	147718	1600	1924-9.

Moulded Dimensions: Length 249.75 Breadth 39.5 Depth 19.5 ^{19.86}

Moulded displacement at moulded draught = 85 per cent. of moulded depth 3603 tons

Coefficient of fineness for use with Tables .757

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>19.5</u>	(a) Where D is greater than Table depth (D - Table depth) R = $(19.89 - 16.65) \cdot 1.221 = +6.22$	Moulded Breadth (B) <u>39.5</u>
Stringer plate <u>.03</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 9.48$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <u>.11</u>
Depth for Freeboard (D) = <u>19.89</u>		Difference <u>1.52</u>
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{1.52}{4} \times .611 = -.23$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<u>16.56</u>	<u>16.56</u>	<u>7.11</u>		<u>16.56</u>
" overhang					
R.Q.D. enclosed					
" overhang	<u>56.00</u>	<u>56.00</u>	<u>7.11</u>		<u>56.00</u>
Bridge enclosed	<u>58.00</u>	<u>56.00</u>	<u>7.11</u>		<u>56.00</u>
" overhang aft	<u>2.00</u>	<u>1.50</u>			<u>1.50</u>
" overhang forward	<u>3</u>	<u>.12</u>			<u>.12</u>
Fore enclosed	<u>22.94</u>	<u>22.94</u>	<u>7.11</u>		<u>22.94</u>
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	<u>97.75</u>	<u>97.12</u>			<u>97.12</u>

Standard Height of Superstructure 6.0

" " R.Q.D. 6.0

Deduction for complete superstructure 30.975

Percentage covered $\frac{S}{L} = 39.14$

" " $\frac{S_1}{L} = 38.89$

" " $\frac{E}{L} = 38.89$

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

Percentage from Table, Line B. 26.55
(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = $30.975 \times 26.55 = - 8.22$

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P.	<u>34.97</u>	1	<u>34.97</u>	<u>40.50</u>	<u>40.50</u>	1	<u>40.50</u>
$\frac{1}{2}$ L from A.P.	<u>15.56</u>	4	<u>62.24</u>	<u>17.38</u>	<u>17.38</u>	4	<u>69.52</u>
$\frac{2}{3}$ L "	<u>3.84</u>	2	<u>7.68</u>	<u>4.35</u>	<u>4.35</u>	2	<u>8.66</u>
Amidships		4		<u>2</u>		4	
$\frac{2}{3}$ L from F.P.	<u>7.69</u>	2	<u>15.38</u>	<u>8.07</u>	<u>8.07</u>	2	<u>16.14</u>
$\frac{1}{2}$ L "	<u>31.13</u>	4	<u>124.52</u>	<u>32.39</u>	<u>32.39</u>	4	<u>129.56</u>
F.P.	<u>69.95</u>	1	<u>69.95</u>	<u>72.00</u>	<u>72.00</u>	1	<u>72.00</u>
Total			<u>314.74</u>				<u>336.38</u>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{314.74 - 336.38}{18} \left(.75 - \frac{19.57}{39.5} \right) = -.67$

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 = 19.89 Ft.
Summer freeboard = 2.60
Moulded draught (d) = 17.29

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = $4.32 = 4\frac{1}{4}$
Addition for Winter North Atlantic Freeboard (if required) =

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 = $\frac{\Delta}{40 T}$ inches

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	<u>6.22</u>	
Deduction for superstructures		<u>8.22</u>
Sheer correction		<u>.67</u>
Round of Beam correction		<u>.23</u>
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
	<u>6.22</u>	<u>9.12</u>

Summer Freeboard = 31.18

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

Tropical Fresh Water Line above Centre of Disc	<u>9.5</u>
Fresh Water Line " "	<u>5.1/2</u>
Tropical Line " "	<u>4.1/2</u>
Winter Line below " "	<u>4.1/4</u>
Winter North Atlantic Line " "	<u>6.1/4</u>

Tropical Fresh Water Freeboard	<u>1.9 3/4</u>
Fresh Water " "	<u>2.2</u>
Tropical " "	<u>2.3</u>
Winter " "	<u>2.1 1/2</u>
Winter North Atlantic " "	<u>3.1 1/2</u>

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GWENTGATE

Particulars of fiddley, funnel and ventilator coamings:—

Stokehold gratings covered by strong lugged steel covers.
Siding, funnel & ventilator coamings in good condition.
Engine room skylight of steel structure constructed.

Howe

Two Companions on Budget back of steel strongly constructed

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—			
On Prop space	500 vents	6" dia	4.0" high with screw down caps
After Hull	1 Vent	8" dia	16" x 32" stayed to tunnel.
"	3	16" dia	36" x 32"
Bridge Deck	1	15" dia	28" x 32"

Fore Hull 1 Vent 16" dia casing 36" x 32"
 Sides 1 9" 36" x 32"
 Wood plugs & canvas covers fitted

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—				
In Props	1	W	1	air pipe 3 1/2" dia. 15' 0" high, vented from F.P.T.
After Hull	1	"	"	3" " 20' " do P.B.T.
"	1	"	"	3" " 29' 22" " "
Bridge Deck	6	"	"	3" " 29' 22" " "

Fore Hull 1 C.D. air pipe 12" dia. 15' 6" high
 Aft. 1 2nd " " " 4' 0" vented
 from F.P.T.
 No snifting valves:—
 Plugs or canvas covers fitted ✓

How

All sail pipes fitted with storm hakes at Sluice side

All side smutters fitted with hinged deadlights

Guard rails on Prop. Buys & Inceste 3'3" high standard
space 4'0". Two rails.

~~Home fitted~~

Lepidocarpus fitted for the use of the
crown in the regular working of the ship

State position of each freeing port ... } After Well:—*from B.M. 15.3—40.7—63.2*
(F. and A. position and height above deck edge) } Forward Well:—*" 11.3—29.3—57.3* } *Height above deck 16"*

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:—*2 Bars each*

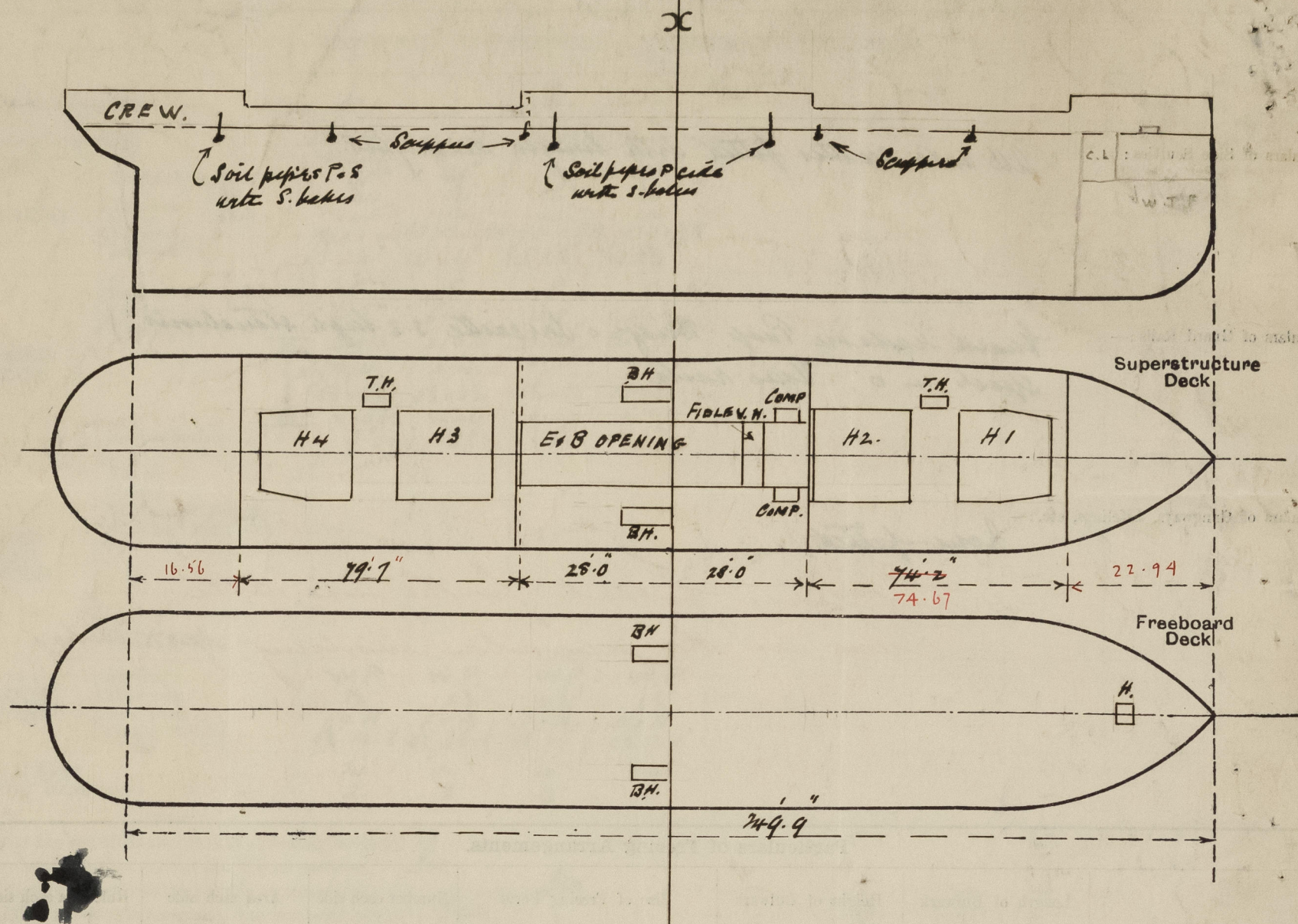
Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Raised Quarter Deck Bulkhead	...	✓	
Bridge, After Bulkhead	Roller Steel plates ^{with light bolts} + clamps . plates not stiffened

board of raised Quarter Decks ...
Exposed Machinery Casings on Super-
structure Decks
Machinery Casings within Superstruc-

Deckhouses on Flush Deck Ships ...

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:— *Wood examined afloat for condition*
Silly hatch 7.10 x 14.0" wide casing 10" x 38" Bunker hatch in Bridge deck 12.6 x 2.9" casing 18" x 38. 3 1/2" Rest has. Bunker hatch in Bridge space 5.6 x 3.0" casing 9 x 8 x 40" B.H. Trummy or escape hatch in Hulls 12.0 x 2.0" casing 19" x 38. Rest angles 3".
All the above hatches fitted with battens cleats, 2 1/2" x 10" corner & two transverse.
Scatch in side space 3.0 x 3.0" casing 9 x 8 x 40" B.H. No cleats or battens fitted.
3" Sheathing at corners of Bridge deck over beam: Forward 12.0 x 9.3" aft 15.0 x 10.0". Pops sheathed

2600 tons DW at 17.6 draught	Displacement 3720 tons
2250 " " 16.0 "	3400 "
2000 " " 15.0 "	3140 "
1800 " " 14.0 "	2900 "
1560 " " 13.0 "	2670 "

85% DS = 16.88
 16.88
 17.04
 3720 = 17.0
 99
 3621
 18
 3603

Builder's name and yard number *Burday Curk & Co Ltd.*

Names of sister ships

Owners *Monday Ltd. & Co Ltd.*

Fee £ *9 : 9 : 0*

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