

W. Bank  
Rpt. C.11.  
30938

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(For London Office only.)

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

-2 MAY 1932

Computation of Freeboard for M.V. Slater deck with tonnage opening aft  
(Type of Superstructures.)

Port of Survey CALCUTTA.  
Date of Survey 12<sup>th</sup> APRIL 1932.  
Name of Surveyor D. Sebek  
Particulars of Classification + 100 A.1.  
with freeboard.

Ship's Name M.V. "CLYDEBANK" Nationality and Port of Registry BRITISH - GLASGOW. Official Number 147943. Gross Tonnage 5155.28. Date of Build 1924-6.

Moulded Dimensions: Length 420 Breadth 53' 9" Depth 29' 08" 29.10  
Moulded displacement at moulded draught = 85 per cent. of moulded depth 12283. tons  
Coefficient of fineness for use with Tables 0.771

Depth for Freeboard (D) 29.10

Moulded depth ... 29.083  
Stringer plate ... 0.4 ... 0.033  
Sheathing on exposed deck ✓  
 $T \left( \frac{L-S}{L} \right) =$  29.13  
Depth for Freeboard (D) = 29.116

Depth correction  
(a) Where D is greater than Table depth  
(D-Table depth) R =  $\frac{(29.13 - 28) \times 3}{29.13 - 27.97} \times 3$   
= 3.348 = +3.48  
(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) 53.75  
Standard Round of Beam =  $\frac{B \times 12}{50} = \frac{53.75 \times 12}{50} = 12.90$   
Ship's Round of Beam = 13  
Difference 0.05  
Restricted to 0.10  
Correction =  $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{0.10}{4} \times \left( 1 - \frac{41.68}{419.50} \right) = 0.024$

### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<u>23.54</u>	<u>23.54</u>	8' 4" Wood	NIL.	<u>23.54</u>
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	<u>345</u>	<u>345</u>	8' 4" Wood	NIL.	<u>345</u>
" overhang aft ...	<u>390.71</u>	<u>390.71</u>			<u>390.71</u>
" overhang forward ...					
F'cle enclosed ...	<u>42</u>	<u>42</u>	8' 4" Wood	NIL.	<u>42</u>
" overhang ...					
Tonnage opening aft ...	<u>5.25</u>	<u>2.63</u>			<u>2.63</u>
" forward ...					
Total ...	<u>419.50</u>	<u>416.88</u>			<u>416.88</u>

Standard Height of Superstructure 4' 6" 7.50  
" " R.Q.D. ✓  
Deduction for complete superstructure 42.00  
Percentage covered  $\frac{S}{L} = \frac{415}{420} = 98.8$   $\frac{419.50}{419.50} = 100\%$   
"  $\frac{S_1}{L} = \frac{416.88}{419.50} = 99.37$   
"  $\frac{E}{L} = \frac{416.88}{419.50} = 99.37$   
Percentage from Table, Line A. 99.26 99.22  
(corrected for absence of forecastle (if required)) -  
Percentage from Table, Line B. -  
(corrected for absence of forecastle (if required)) -  
Interpolation for bridge less than 2L (if required) -  
Deduction =  $42.00 \times 0.9922 = 41.68$

### SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<u>51.95</u>	1	51.95	<u>52</u>	<u>43.48</u>	<u>43</u>	57.00	43	<u>57.00</u>
1/4 L from A.P. ...	<u>23.12</u>	4	<u>92.48</u>	<u>92.56</u>	<u>16.75</u>	<u>16.50</u>	<u>25.36</u>	<u>89</u>	<u>101.44</u>
1/2 L " ...	<u>5.71</u>	2	<u>11.42</u>	<u>11.44</u>	<u>2</u>	<u>1.00</u>	<u>6.27</u>	<u>6</u>	<u>12.54</u>
Amidships ...	<u>0</u>	4	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
3/4 L from F.P. ...	<u>11.42</u>	2	<u>22.84</u>	<u>22.88</u>	<u>18</u>	<u>18.00</u>	<u>14.79</u>	<u>38</u>	<u>28.38</u>
1/4 L " ...	<u>46.24</u>	4	<u>184.96</u>	<u>185.12</u>	<u>56</u>	<u>57.00</u>	<u>61</u>	<u>57.40</u>	<u>229.60</u>
F.P. ...	<u>103.90</u>	1	<u>103.90</u>	<u>104</u>	<u>114</u>	<u>120.00</u>	<u>120</u>	<u>55.79</u>	<u>129.00</u>
Total ...			<u>468</u>	<u>468</u>				<u>574</u>	<u>574</u>

Mean actual sheer aft =  $\frac{15.4}{17.82} = 82$  Success.  
Mean standard sheer aft =  $\frac{15.4}{17.82} = 82$   
Mean actual sheer forward =  $\frac{43.55}{34.64} = 126$  Success.  
Mean standard sheer forward =  $\frac{43.55}{34.64} = 126$   
Length of enclosed superstructure forward of amidships = 5  
" " aft of " = 49 } C.S.S.  
DIFF =  $\frac{90.41}{18} \times (.75 - .50) = \frac{90.41}{72.00} = -1.256$   
Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{544 - 468}{18} \left( .75 - \frac{415}{2 \times 420} \right) = 1.08$   
If limited on account of midship superstructure. -  
If limited to maximum allowance of 1 1/2 ins. per 100 ft. -

Deduction for Tropical Freeboard.  
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 29.13  
Summer freeboard = 3.60  
Moulded draught (d) = 25.49

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = 6.37  
Addition for Winter North Atlantic Freeboard (if required) = 6.37 + 2 = 8.34

Deduction for Fresh Water.

Displacement in salt water at summer load water line 12800  
 $\Delta =$  12800  
Tons per inch immersion at summer load water line 45.85  
 $T =$  45.85  
Deduction =  $\frac{\Delta}{40 T}$  inches = 12800  
 $40 \times 45.85$   
6.98 = 7

TABULAR FREEBOARD corrected for Flush Deck (if required)  
Correction for coefficient 36 1.065 1.785

	+	-
Depth Correction ...	<u>3.48</u>	<u>41.68</u>
Deduction for superstructures ...	<u>-</u>	<u>41.68</u>
Sheer correction ...	<u>-</u>	<u>1.26</u>
Round of Beam correction ...	<u>-</u>	<u>-</u>
Correction for Thickness of Deck amidships ...	<u>-</u>	<u>-</u>
Other corrections, scantlings, etc. ...	<u>3.48</u>	<u>42.94</u>
Summer Freeboard =	<u>53.48</u>	<u>42.94</u>

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

Tropical Fresh Water Line above Centre of Disc ...	<u>13 1/2</u>	Tropical Fresh Water Freeboard ...
Fresh Water Line " " ...	<u>7</u>	Fresh Water " " ...
Tropical Line " " ...	<u>6 1/4</u>	Tropical " " ...
Winter Line below " " ...	<u>6 1/4</u>	Winter " " ...
Winter North Atlantic Line " " ...	<u>8 1/4</u>	Winter North Atlantic " " ...

6 MAY 32

17 FEB 1937

MARKING FORM  
12 FEB 1934

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

SUPERSTRUCTURE DECK - HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS					FREEBOARD DECK				
Description of Hatchway	No. 1.	No. 2.	No. 3.	No. 4, 5, 6.	No. 1.	No. 2.	No. 3.	DEEP TANK	No. 4, 5, 6.
Dimensions of Hatchway	27'-0" x 22'-0"	31'-6" x 22'-0"	28'-0" x 22'-0"	26'-3" x 22'-0"	27'-0" x 22'-0"	31'-6" x 22'-0"	13'-1 1/2" x 22'-0"	10'-0" x 9'-0"	26'-3" x 22'-0"
COAMINGS	Height above Deck	3'-0"	ditto	ditto	3'-0"	ditto	ditto	14"	3'-0"
	Thickness	3/16"	ditto	ditto	3/16"	ditto	ditto	5/16" steel	3/16"
	Stiffeners	4" x 3" x 1/2" L	ditto	ditto	4" x 3" x 1/2" L	ditto	ditto	ditto	ditto
	Brackets, Stays	2-2 1/2" dia stays	ditto	ditto	ditto	ditto	ditto	ditto	ditto
HATCH BEAMS	Number	5	5	5	4	5	5	ditto	4
	Spacing	4'-6"	5'-3"	4'-9"	6'-6"	4'-6"	5'-3"	4'-5"	6'-6"
	Scantling and Sketch	3" x 4 1/2" x 3/8" angle	ditto	ditto	ditto	ditto	ditto	ditto	3" x 4 1/2" x 3/8" angle
	Bearing Surface	3 1/2" x 1 1/2"	ditto	ditto	ditto	ditto	ditto	ditto	ditto
FORE AND AFTERS	Number								
	Spacing								
	Unsupported Lengths								
	Scantling and Sketch								
HATCH COVERS	Material	Deck Plating	ditto	ditto	ditto	ditto	ditto	5/8" steel	Deck Plating
	Thickness	3/16"	ditto	ditto	ditto	ditto	ditto	ditto	ditto
	How fitted	Angled	ditto	ditto	ditto	ditto	ditto	ditto	ditto
	Bearing Surface	4'-5" x 2'-0"	4'-5" x 2'-0"	4'-5" x 2'-0"	6'-5" x 2'-0"	4'-5" x 2'-0"	4'-5" x 2'-0"	4'-5" x 2'-0"	6'-5" x 2'-0"
Spacing of Cleats	2'-0"	ditto	ditto	ditto	ditto	ditto	ditto	ditto	2'-0"
Number of Tarpaulins	3	ditto	ditto	ditto	ditto	ditto	ditto	ditto	3

Particulars of fiddle, funnel and ventilator coamings: - *Motor vessel - no fiddle. - Single funnel containing silencers - funnel foundation bar 3" x 4" x 5/8" - E.R. ventilators on Goat deck: - 3 - 25" dia. coamings 8'-0" high. 1 - 30" in coaming 6'-6" high.*

Particulars of Flush Bunker Scuttles: -

*Nil.*

Particulars of Companionways: -

*one hatch to fore peak 3'-2" x 3'-2" x 30" in high. - hatch boards - tarpaulin fitted. one 2'-0" companionway to steering gear space from shelter deck. 2" thick teakwood door. one 30" hatch to crew space forward steel plated with teakwood doors - 2 1/2" thick 15" in. S. capable of being manipulated from both sides.*

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

*fore deck vents: - 2 - 18" dia coaming 12'-0" x 2 - 21" dia coaming 10'-0" 2 - 10" dia 2'-6" in coaming 2 - 12" dia coaming 3'-0" 2 - 24" dia coaming 7'-0" Amidship Vents: - 2 - 12" dia coaming 11'-6" x 2 - 24" dia coaming 3'-0" 2 - 15" dia coaming 5'-0" After deck Vents: - 2 - 24" dia coaming 7'-6" x 2 - 20" dia coaming 8'-6" 2 - 24" dia coaming 10'-0" all coaming 25" thick attached to deck by angles. closed by wooden plugs & canvas covers.*

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

*Swan-neck 4 1/2" N.I. pipes fitted with perforated covers - placed in upper deck waterways.*

Particulars of Scuppers and Sanitary Discharge Pipes: -

*8 - 3/4" inch scuppers cut in each side of shelter deck space with non-return valves 2 - freeing ports in damage opening 2'-0" x 1'-3" fitted with bar.*

Particulars of Side Scuttles: -

*Nil.*

Particulars of Guard Rails: -

*Short bulwarks in way of accommodation - four bar rails 3'-9" high fitted round rest of vessel.*

Particulars of Gangways, Lifelines, etc.: -

*Nil.*

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			<i>Rails fitted.</i>			
Forward Well						

State position of each freeing port (F. and A. position and height above deck edge) After Well: - Forward Well: -  
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 Bulkheads
Poop Bulkhead	✓	.25	<i>Rails Hauged with 4" x 2 1/2" L</i>	2'-0"	nil.	3'-6" x 5'-0"	1'-6"	8'-0"
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead	3'-0"	.25	5" x 3" x 3/8"	3'-0"	12" x 12" x 1/2" brackets	2'-0" x 6'-0"	1'-3"	8'-0"
Bridge, Forward Bulkhead	- do -	- do -	- do -	- do -	- do -	Nil	✓	do.
Forecastle Bulkhead	✓	- do -	4 1/2" x 3" x 3/8"	2'-0"	nil	nil	nil	do.
Trunk, Aft	✓	.25	4" x 2 1/2" x 5/16" L	28"	none	6'-0" x 3'-6"	18"	8'-0"
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks	3'-3"	.25	5" x 3" x 3/8"	3'-0"	12" x 12" x 1/2" brackets	6'-0" x 2'-0"	1'-3"	9'-0"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances		.30	3" x 3" x 7/16"	2'-7"	Bkts	none		
Deckhouses on Flush Deck Ships								

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

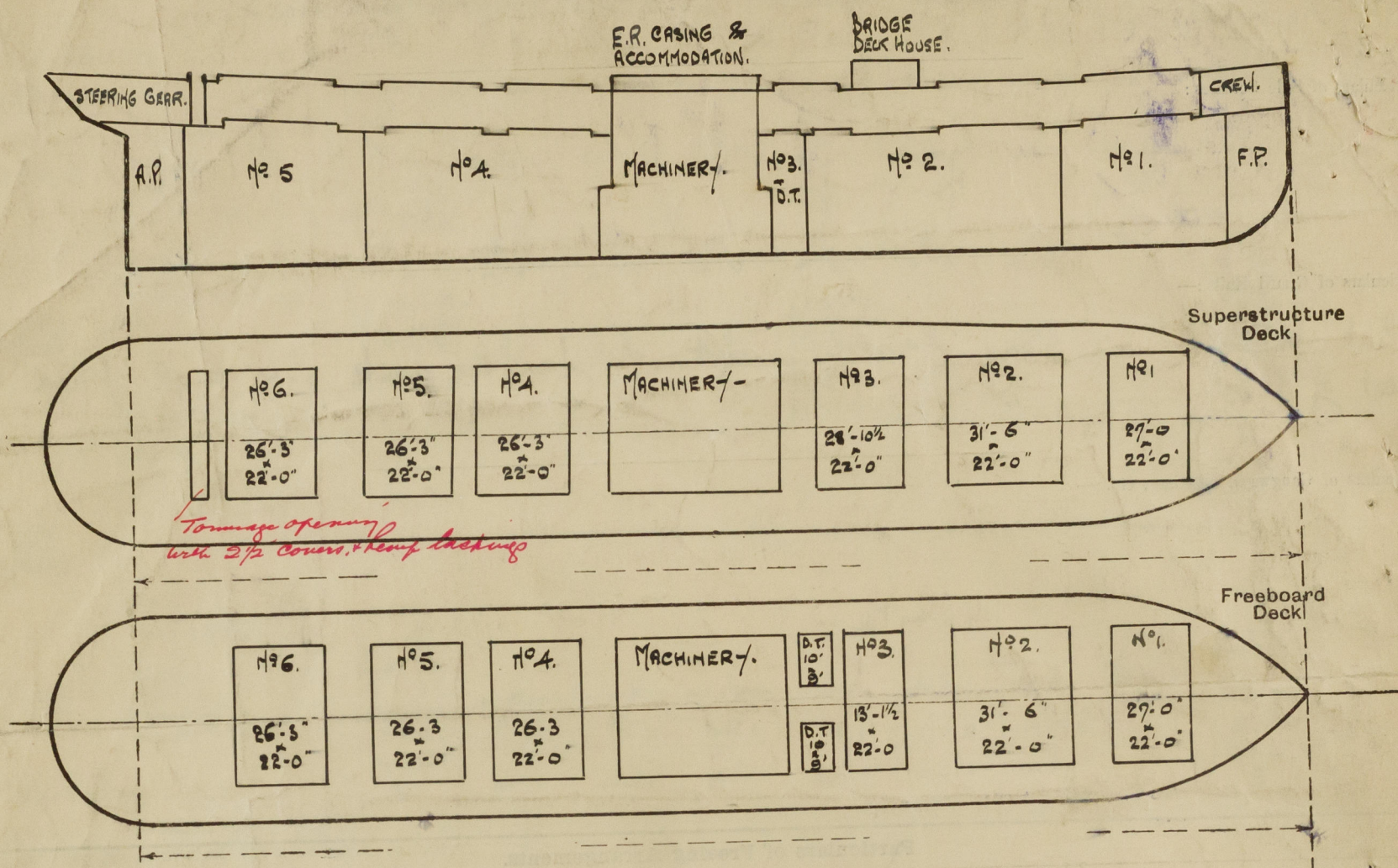
Poop Bulkhead	<i>Storm board in riveted channels.</i>
Raised Quarter Deck Bulkhead	<i>Bridge deckhouse: - completely plated forward &amp; at sides with two entrances at aft end, closed by 2" teakwood doors.</i>
Bridge, After Bulkhead	<i>Storm boards in riveted channels</i>
Bridge, Forward Bulkhead	<i>Amidship accommodation &amp; E.R. casing: - ditto -</i>
Forecastle Bulkhead	<i>E.R. casing: - closed by steel skylights with glass ports mechanically operated from engine room. Two entrances to engine room in amidship accommodation 6'-0" x 2'-0" closed by steel doors, and manipulated from both sides.</i>
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships	

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Clydebank.

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 shown on the following sketches:—



Freeboard deck unsheathed. Tonnage opening 22'-0" x 5'-3"  
Drumming hatchways on freeboard deck felled with 9" beamings  
covers. Battering arrangements and tarpaulins in  
accordance with Convention.

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

Builder's name and yard number

Names of sister ships

MASTERS

Fee £

Received by me

*In not changed in Calcutta.*

*D. S. Sarkar*



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