

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for ~~Steamer, Sailing Ship, Tanker~~having **FORECASTLE, BRIDGE AND POOP.**

(Type of Superstructures.)

Ship's Name

"BADARPUR"

Nationality and Port of Registry

BRITISH-RANGOON

Official Number

151783

Gross Tonnage

8079

Date of Build

1922-6

Port of Survey

Calcutta

Date of Survey

10th July 1932.

Name of Surveyor

F. Delu.

Particulars of Classification

+10 A1.

Moulded Dimensions: Length **440'** Breadth **56.75'** Depth **38'-11 1/2"** **39.25'**
 Moulded displacement at moulded draught = 85 per cent. of moulded depth **19300** tons
 Coefficient of fineness for use with Tables **8.7** **8.11**

Carrying petroleum in bulk.
 fitted for oil 746 ss. Cal N. 2.

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... 39.25'	(a) Where D is greater than Table depth (D - Table depth) R = (39.04 - 29.33) x 3 = 29.24	Moulded Breadth (B) 56.75
Stringer plate ... 62.5'	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = (39.30 - 29.33) x 3 = +29.91	Standard Round of Beam = $\frac{B \times 12}{50} =$ 13.62
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) = 3.5 \left(\frac{440-394}{440} \right) = 3.66'$	If restricted by superstructures	Ship's Round of Beam = 14.5
Depth for Freeboard (D) = 39.30' 39.04'		Difference .88
		Restricted to
		Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) =$ 1.53

DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	Standard Height of Superstructure
Poop enclosed ... 32.5	32.50	8'-0"	✓	32.50	7'-6"
" overhang50	.25			.25	" " R.Q.D. ✓
R.Q.D. enclosed ...					Deduction for complete superstructure 42
" overhang ...					Percentage covered $\frac{S}{L} =$.305 30.71
Bridge enclosed ... 34.37	34.37	9'-3"		34.37	" " $\frac{S_1}{L} =$.256 29.38
" overhang aft ... 4.0	3.00			3.00	" " $\frac{E}{L} =$.256 29.38
" overhang forward 54.55	54.55			54.55	Percentage from Table, Line A.
Fore enclosed ... 63.75	61.3	8'-0"		61.3	(corrected for absence of forecastle (if required))
" overhang ... 9.20	4.60			4.60	Percentage from Table, Line B. Jauber +7.92% 20.57
Trunk aft ...					(corrected for absence of forecastle (if required))
" forward ...					Interpolation for bridge less than .2L (if required)
Tonnage opening aft ...					$42.0 \times 20.57 =$
" " forward ...					Deduction = 17.92 of 42 = 7.526 - 7.53
Total ... 135.12	129.27			129.27	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean actual sheer aft
A.P. ... 54	✓	1	54	54	14.2	9.28	1	14.5	14.5	Mean standard sheer aft = 267 (Deficient) ✓
1/4 L from A.P. ... 24.03		4	96.12	96.12	6.2	1.08	4	26	26	Mean actual sheer forward = 224 (Deficient) ✓
1/2 L " ... 5.94		2	11.88	11.88	1.2	0	2	3	3	Length of enclosed superstructure forward of amidships = 49
Amidships ... 0.0		4	0.0	0.0	0.0	0	4	0	0	" " aft of " = 7.5
3/4 L from F.P. ... 11.88		2	23.76	23.76	1.2	0	2	3	3	
1/4 L " ... 48.06		4	192.24	192.24	6.2	1.08	4	26	26	
F.P. ... 108	✓	1	108.0	108.0	14.2	14.50	1	14.5	14.5	
Total ... 486.00			486.00	486.00	32.42	32.42		87.0	87.0	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{486 - 87}{18} \left(.75 - \frac{1535}{1535} \right) = 13.22$
 If limited on account of midship superstructure, $\frac{453.58}{18} \left(.75 - \frac{1535}{1535} \right) = +15.03$

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 **39.30** Ft.
 Summer freeboard **4.5**
 Moulded draught (d) = **29.54**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **7.385**
 Addition for Winter North Atlantic Freeboard (if required) = **7.385 + 4.4 = 11.785**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ **17300**

Tons per inch immersion at summer load water line

 $T =$ **53.33**Deduction = $\frac{\Delta}{40 T}$ inches $=$ **8.2****8.11****8"**

TABULAR FREEBOARD corrected for Fresh Deck (if required)

Correction for coefficient **.811 + .68 = 1.491**Depth Correction ... **29.24**Deduction for superstructures ... **13.22**Sheer correction ... **15.03**Round of Beam correction ... **1.53**Correction for Thickness of Deck amidships ... **3.66**Other corrections, scantlings, etc. ... **44.94**

Summer Freeboard

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

Tropical Fresh Water Line above Centre of Disc ... 15 1/2"	Tropical Fresh Water Freeboard
Fresh Water Line " " ... 8"	Fresh Water
Tropical Line " " ... 7 1/2"	Tropical
Winter Line below " " ... 7 1/2"	Winter
Winter North Atlantic Line " " ... 12"	Winter North Atlantic

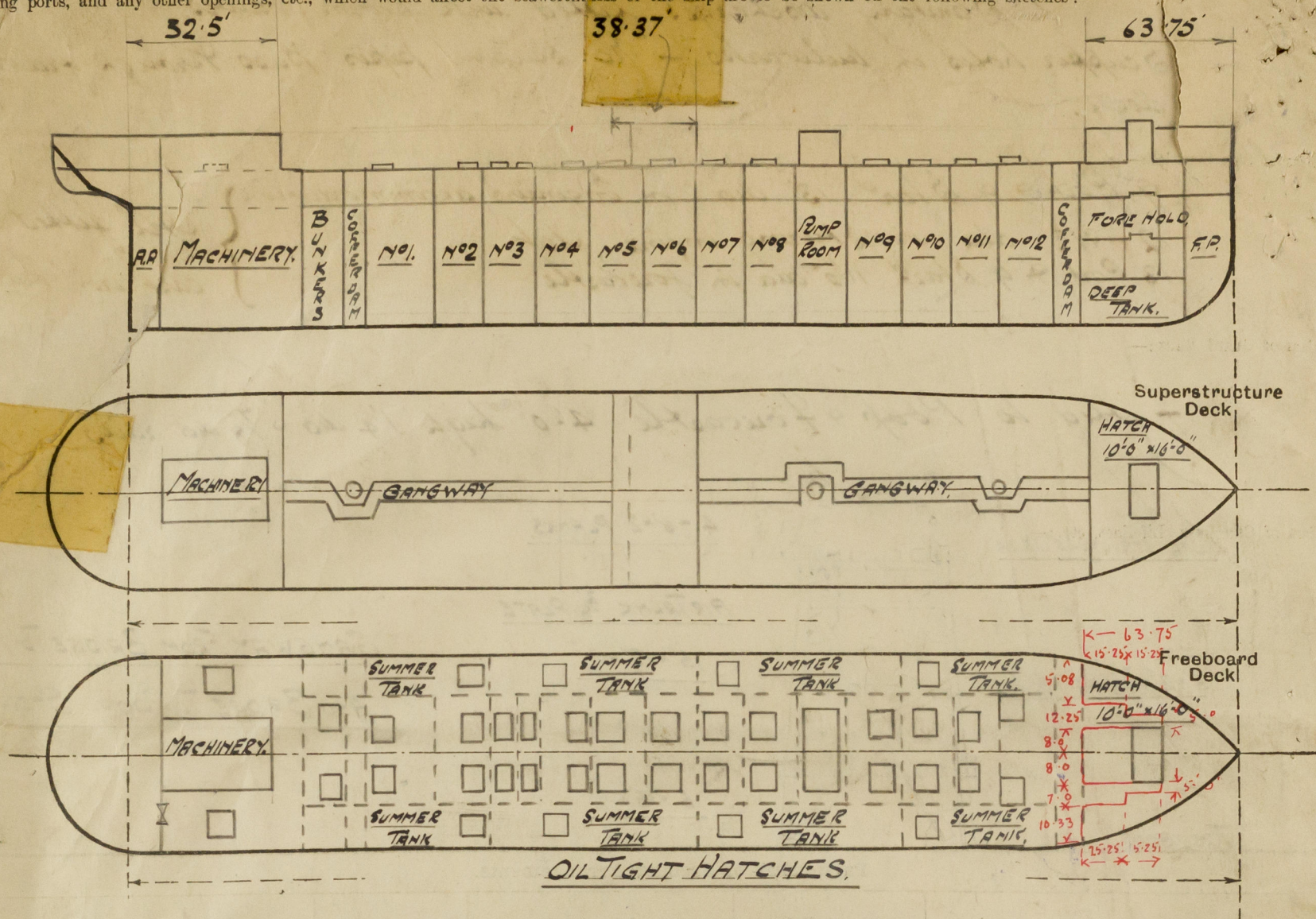
4 AUG 1932**13 AUG 1932**

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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:—



Freeboard deck unsheathed except in Engineers accommodation aft.

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

$$\begin{aligned}
 & 63.75 - (15.25 \times 12.25 + 15.25 \times 5.0 + 12.25 \times 5.0) \\
 & = 63.75 - 9.20 \\
 & = 54.55 \\
 & \frac{9.20}{63.75} \text{ OH} \\
 & 54.55 \\
 & \frac{4.60}{59.15}
 \end{aligned}$$

Particulars taken during vessels annual dry docking.

[Handwritten signature]

Builder's name and yard number

Names of sister ships — N/A —

Owners

Burmah Oil Co Ltd.

Reper 725/—

Received by me



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