

11 JUL 1932

31665

Rpt. C.11.

Index No.
(For London Office only.)Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.Computation of Freeboard for Steamer, Sailing Ship, Tanker
having POOP, BRIDGE & FORECASTLE -

Port of Survey CALCUTTA

(Type of Superstructures.)

Date of Survey 12.6.32.

Ship's Name
S.S. RAJPUT.Nationality and Port of
Registry
BRITISH LONDON.Official Number
148597.Gross Tonnage
5497.Date of Build
1925-5.Name of Surveyor
S. S. S. S.Moulded Dimensions: Length 404. Breadth 53.75. Depth 31.25.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 12,550. tons
Coefficient of fineness for use with Tables 1.62.Particulars of Classification +100R1.
S.S. Cal. No. 1-29

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	31.25	(a) Where D is greater than Table depth (D - Table depth) R = (31.393 - 26.933) 3 = 13.38		Moulded Breadth (B)	53.75
Stringer plate	37	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	12.381290
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) = 25 \times 44$	112			Ship's Round of Beam	13.50
Depth for Freeboard (D) =	31.393	If restricted by superstructures -		Difference	1.118
				Restricted to	1.118
				Correction = $\frac{\text{Diff}^2}{4} \times (1 - \frac{S_1}{L})$	0.07

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	40.08	40.08	4.75		40.08
" overhang					
R.Q.D. enclosed					
" overhang	128.63	128.63	4.75		128.63
Bridge enclosed	140	134.66	4.75		134.66
" overhang aft	11.37	8.53			8.53
" overhang forward	22.01	34.01	4.75		34.01
Fore enclosed	46.58	46.58	4.75		46.58
" overhang	13.57	10.48			10.48
Trunk aft	46.58	43.49			43.49
" forward					
Tonnage opening aft					
" forward					
Total	226.66	221.32			221.32

Standard Height of Superstructure	4.6
" " R.Q.D.	
Deduction for complete superstructure	42
Percentage covered $\frac{S}{L}$	5610
" " $\frac{S_1}{L}$	548 54.64
" " $\frac{E}{L}$	548 54.64
Percentage from Table, Line A. (corrected for absence of forecastle (if required))	40.64
Percentage from Table, Line B. (corrected for absence of forecastle (if required))	39.96
Interpolation for bridge less than 2L (if required)	
Deduction =	16.7 42.00 x 40.64 = 17.07

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	50.4	1		50.4	63.5	60.00	1		60.00
1/4 L from A.P.	22.43	4		89.72	28	25.67	4		102.68
1/2 L	5.54	2		11.08	8	6.42	2		12.84
Amidships	0	4		0	0		4		0
3/4 L from F.P.	11.09	2		22.18	16	12.84	2		32
1/4 L	44.86	4		179.44	56.5	51.35	4		205.40
F.P.	100.8	1		100.8	124	120.00	1		120.00
Total				453.62					526.60

Mean actual sheer aft = 12.29
Mean standard sheer aft = 12.29
Mean actual sheer forward = 12.29
Mean standard sheer forward = 12.29Length of enclosed superstructure forward of amidships = 288.165
" " aft of " = 242.153Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75 - \frac{S}{2L}}{2L} \right) = 3.33$

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 = 31.393
Summer freeboard = 5.875
Moulded draught (d) = 25.518Deduction for Tropical freeboard and addition for
Winter freeboard = $\frac{d}{4}$ inches = 6 1/2

Addition for Winter North Atlantic Freeboard (if required) = 8 1/2

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 12,255$

Tons per inch immersion at summer load water line

T = 42.7

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

= 7.18

= 7 1/4

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

1.36

Depth Correction ... 13.38

Deduction for superstructures ... 16.7

Sheer correction ... 3.33

Round of Beam correction ... 1.07

Correction for Thickness of Deck amidships ... 1.32

Other corrections, scantlings, etc. ... -6.98

Summer Freeboard = 5.10 1/2

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

Tropical Fresh Water Line above Centre of Disc	13 3/4
Fresh Water Line	7 1/4
Tropical Line	6 1/2
Winter Line below	6 1/2
Winter North Atlantic Line	8 1/2

Tropical Fresh Water Freeboard	5.10 1/2
Fresh Water	5.3 1/2
Tropical	5.4
Winter	6.5
Winter North Atlantic	6.9

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Particulars of Scuppers and Sanitary Discharge Pipes:—

3" inch diameter scuppers in bridge space - shot steel leads through deck -
All sanitary discharges fitted with storm valves -

Particulars of Side Scuttles:—

12" diameter side scuttles in bridge space, poop & forecastle - fitted with C.I. covers -

Particulars of Guard Rails:—

fitted in poop, bridge & forecastle - knee bars 3'-6" high -

Particulars of Gangways, Lifelines, etc.:—

Suitable and efficient lifelines rigged for protection of crew

- H₁₂ -

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	91.88.67	3'-6"	2'-6" x 2'-0"	4.	20.	17.75 18. f.
Forward Well	89.88.67 89.6	3'-6"	2'-6" x 2'-0"	4.	20.	17.73 18. f.
State position of each freeing port } After Well: POOP, F.CLE. (F. and A. position and height above deck edge) } Forward Well: F.CLE. 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.						
8'-0" 20.9" 28.9" 25.6" 10'-0" BRIDGE 8'-6" 22.6" 18.9" 32'-0" 8'-6" BRIDGE.						
FITTED WITH TWO BARS & FLAP. - 14" ABOVE DECK.						

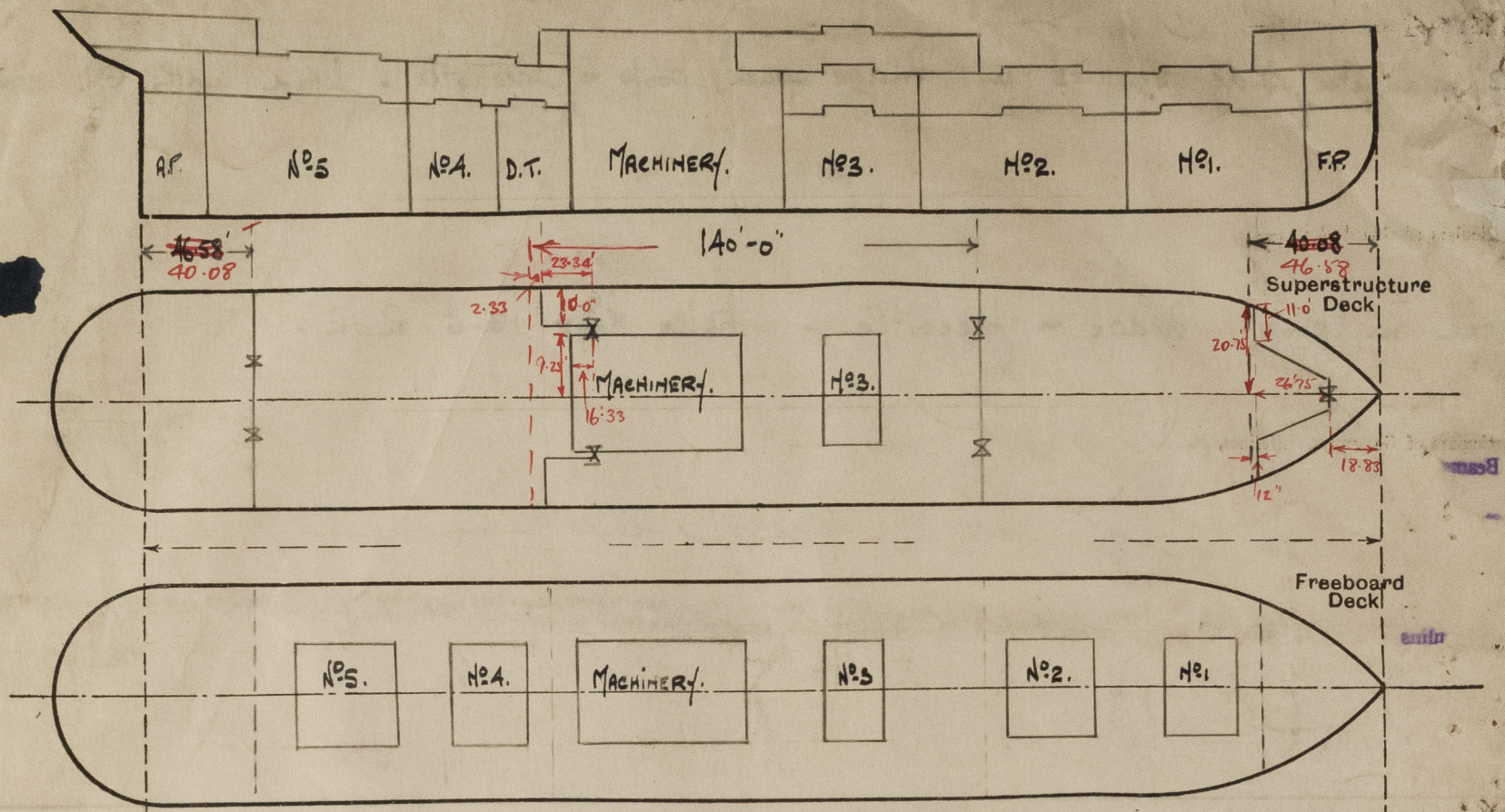
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	30"	3/8"	6 1/2 x 3 1/2 x 3/8"	30"	H ₁₂	2'-0" x 4'-9"	18"	7'-9"
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead	- do -	1/4"	3 x 3 x 3/8"	- do -	- do -	2'-0" x 6'-0"	- do -	- do -
Bridge, Forward Bulkhead	- do -	1/16"	8 x 3 x 1/2 B.R.	- do -	- do -	2'-3" x 5'-0"	- do -	- do -
Forecastle Bulkhead	- do -	1/4"	3 x 3 x 3/8"	- do -	- do -	2'-0" x 5'-0"	- do -	- do -
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super-structure Decks	36" x 3/8"	1/4"	3 x 3 x 3/8"	27"	-	1 opening 2'-2" x 4'-11"	18"	- do -
Machinery Casings within Superstruc-tures not fitted with Class I Closing Appliances	- do -	1/4"	3 x 3 x 3/8"	- do -	fractals. 2'-6" x 2'-6" x 1/2"	2'-3" x 5'-0"	- do -	- do -
Deckhouses on Flush Deck Ships ...								

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

Poop Bulkhead	Poop bulkhead:— Two entrances with teakwood doors to crew quarters.
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead	Bridge After bulkhead:— Two louver doors - 2 1/2" storm boards full height.
Bridge, Forward Bulkhead	Bridge forward bulkhead:— Two hinged steel doors secured by dogs operated from forward side only.
Forecastle Bulkhead	Forecastle bulkhead:— Forecastle partially open - steel bulkhead is painted black fitted with hinged steel door.
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	one hinged teakwood door secured by locks and handle
Exposed Machinery Casings on Super-structure Decks	E.R. Casings:— enclosed inside accommodation - hinged steel
Machinery Casings within Superstruc-tures not fitted with Class I Closing Appliances	door on either side - steel skylight hand operated -
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:—



Bridge (140.0') Enclosed 114.33 140.00
 Sidehous (23.34 x 10') + (9.25 x 16.33) = $\frac{233.4}{26.875} + \frac{151.00}{26.875} = \frac{384.4}{26.875} = 14.30$ 128.63 11.37 arching aft
128.63 equiv

Deck sheathed with 3" teakwood in forward & after wells -

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

Particulars taken when vessel was in drydock for condition survey

~~46.58' open~~
~~46.58' enclosed 18.85~~ 46.58
 ~~$\frac{11.00 \times 26.75}{20.75} = 14.18$~~ 40.4
 ~~$\frac{33.01}{20.75} = 1.59$~~ 6.18
~~Allowed 11. = 40.4~~
 ~~$\frac{33.01}{20.75} = 1.59$~~ 7.39 overhang @ 1
 ~~$\frac{46.18}{20.75} = 2.23$~~ 10.48 overhang
 Forecastle open
 46.58
 10.40
 2 | 6.18
 3.09
 40.40
 43.49

Builder's name and yard number

Names of sister ships

Owners Asiatic Steam Nav Co.

Fee Rupees : 505/-

Received by me

J. Serkeek



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