

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, ~~Sailing Ship, Tanker~~
 having *Prop. Bridge & Forecastle decks*

(Type of Superstructures.)

Ship's Name *now "Indian Importer" COMESTAN* Nationality and Port of Official Number *Registry Calcutta Indian 161119* Gross Tonnage *5191* Date of Build *1929-10M.*

Moulded Dimensions: Length *L.W.L. 393.92* Breadth *52.29* Depth *30.6" 11923*
 Moulded displacement at moulded draught = 85 per cent. of moulded depth *See list on back page.* tons
 Coefficient of fineness for use with Tables *.781*

Port of Survey *Liverpool*
 Date of Survey *OCT 1932.*
 Name of Surveyor *R.R. Ruthven*
 Particulars of Classification *100. A.1.*

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <i>30.6" .50</i>	(a) Where D is greater than Table depth (D - Table depth) R = <i>(30.54 - 26.26) 300 - + 12.84</i>	Moulded Breadth (B) <i>52.29'</i>
Stringer plate <i>.48 .04</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <i>✓</i>	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{12.56}{50} = 12.56''$
Sheathing on exposed deck <i>3" on Prop etc</i> $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures <i>✓</i>	Ship's Round of Beam = <i>13.5''</i>
Depth for Freeboard (D) = <i>30.54</i>		Difference <i>.45''</i>
		Restricted to
		Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.45}{4} \times .4844 = - .027$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<i>37.0</i>	<i>37.00</i>	<i>7-11 1/2</i>	-	<i>37.00</i>
" overhang	<i>5</i>	<i>.25</i>	-	-	<i>.25</i>
R.Q.D. enclosed					
" overhang	<i>120.70</i>	<i>120.70</i>	<i>7-11 1/2</i>	-	<i>120.70</i>
Bridge enclosed	<i>187.42</i>	<i>120.70</i>	<i>7-11 1/2</i>	-	<i>120.70</i>
" overhang aft	<i>.58</i>	<i>5.48</i>	-	-	<i>5.48</i>
" overhang forward	<i>7.30</i>		-	-	
Fore enclosed	<i>39.67</i>	<i>39.67</i>	<i>7-11 1/2</i>	-	<i>39.67</i>
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	<i>205.17</i>	<i>203.10</i>			<i>203.10</i>

Standard Height of Superstructure <i>7.44'</i>
" " R.Q.D. <i>41.59</i>
Deduction for complete superstructure <i>41.59</i>
Percentage covered $\frac{S}{L} = 52.09\%$
" " $\frac{S_1}{L} = 51.56\%$
" " $\frac{E}{L} = 51.56\%$
Percentage from Table, Line A. (corrected for absence of forecastle (if required))
Percentage from Table, Line B. <i>37.56%</i> (corrected for absence of forecastle (if required))
Interpolation for bridge less than 2L (if required)
Deduction = <i>41.59 x .3756 = -15.62"</i>

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	<i>49.39</i>	1	<i>49.39</i>	<i>53.0</i>	<i>53.00</i>	1	<i>53.00</i>
1/4 L from A.P.	<i>21.98</i>	4	<i>87.92</i>	<i>22.9</i>	<i>22.91</i>	4	<i>91.64</i>
1/2 L "	<i>5.43</i>	2	<i>10.86</i>	<i>5.7</i>	<i>5.72</i>	2	<i>11.44</i>
Amidships	<i>✓</i>	4	<i>✓</i>	<i>✓</i>	<i>✓</i>	4	<i>✓</i>
3/4 L from F.P.	<i>10.87</i>	2	<i>21.74</i>	<i>12.6</i>	<i>12.63</i>	2	<i>25.26</i>
1/4 L "	<i>43.95</i>	4	<i>175.80</i>	<i>50.6</i>	<i>50.55</i>	4	<i>202.20</i>
F.P.	<i>98.78</i>	1	<i>98.78</i>	<i>118.0</i>	<i>118.00</i>	1	<i>118.00</i>
Total			<i>444.49</i>				<i>501.54</i>

Mean actual sheer aft = *Excess*
 Mean standard sheer aft = *Excess*

Mean actual sheer forward = *Excess*
 Mean standard sheer forward = *Excess*

Length of enclosed superstructure forward of amidships = *.168*

" " aft of " = *.155*

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{57.05}{18} (.75 - .2605) = -1.56''$

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 = *30.54*
 Summer freeboard = *5.87*
 Moulded draught (d) = *24.67*

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = *6.17 = 6 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 = $\frac{\Delta}{40T}$ inches

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	<i>12.84</i>	-
Deduction for superstructures	-	<i>15.62</i>
Sheer correction	-	<i>1.56</i>
Round of Beam correction	-	<i>.05</i>
Correction for Thickness of Deck amidships	-	-
Other corrections, scantlings, etc.	-	-
	<i>12.84</i>	<i>17.23</i>

Summer Freeboard = *70.41"*

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck: - *5'-10 1/2"*

Tropical Fresh Water Line above Centre of Disc
 Fresh Water Line " "
 Tropical Line " "
 Winter Line below " "
 Winter North Atlantic Line " "

Tropical Fresh Water Freeboard
 Fresh Water " "
 Tropical " "
 Winter " "
 Winter North Atlantic " "

6 1/4"

1906 Freeboards re-assigned

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
UPPER DK → BRIDGE ← UPPER									
Description of Hatchway	...	...	...	1	2	3	4	5	3
Dimensions of Hatchway	...	...	...	22-6x17-0	29-3x17-0	9-0x17-0	33-3x17-0	72-6x17-0	13-3x17-0
COAMINGS	{	Height above Deck	...	30	as	30	as	as	18
		Thickness	{	55	as	44	as	as	38
		Sides	...	55	as	44	as	as	38
		Ends	...	7x3 B-4	as	as	as	as	38
Stiffeners	...	...	...	...	...	...	...	...
Brackets, Stays	...	...	...	...	...	...	...	...
HATCH BEAMS	{	Number	...	4	5	1	6	4	2
		Spacing	...	4-6	4-10 1/2	4-6	4-9	4-6	4-5
		Scantling and Sketch	...	PEI	PEI	PEI	PEI	as	as
		Bearing Surface	...	14x34 angles 4x3x40 6 1/2 x 4 x 56	15x34 angles as not	12x34 angles as not	14 1/2 x 36 angles as not	as	as
FORE AND AFTERS	{	Number	...						
		Spacing	...						
		Unsupported Lengths	...						
		Scantling* and Sketch	...						
Bearing Surface	...								
HATCH COVERS	{	Material	...	WW					
		Thickness	...	2 3/4					
		How fitted	...	7 ft					
		Bearing Surface	...	3					
Spacing of Cleats	...	...	...	24					
Number of Tarpaulins	...	...	...	3					

*Are wood fore and afters steel shod at all bearing surfaces? ☒

Are battens and wedges efficient and in good condition? ☒

Are tarpaulins in good condition and in accordance with rule requirements? ☒

Are lashings provided in accordance with rule requirements? ☒

Locking bars
bolted to No. 1 hatchway
at bulkhead.
2/4/42

Particulars of fiddley, funnel and ventilator coamings:—

Engine Room skylights, steel, strong & efficient
funnel &c. &c. &c.

Funnel & Ventilator coverings are efficient
Hinged steel covers are best

Hinged steel covers over Frierley gratings
Habit over Dunker hole

Coal Hatch Casing Top 5'-0" x 15'-0". Casing 7 x 3 B.G. w/w covers 2 3/4 H.G. Bearing 2 1/2. Cleats 2 1/4" apart.

2. *Tarpaulius*

Particulars of Flush Bunker Scuttles:—

Zone

Particulars of Companionways :—

June.

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

	Vent on Side Sk	in bow	10' dia.	Cwaming	18 x .32	To Peak staves
1 -	" "	"	Oti	"	38 x .40	- Hold etc.
1 -	" "	Pts	14	"	30 x .36	- Side Turn SK
4 Vents upper SK fwd	"	"	18	"	48 x .40	- Hold etc.
2 - Bridge	"	"	18	"	30 x .40	- Hold etc.
2 -	"	"	14	"	30 x .40	- Bulkhead
1 Vent upper SK aft	Oti	"	18	"	48 x .40	- Turn STS.
4 Vents	Pts	"	18	"	48 x .40	- Hold etc

Particulars of Air Pipes in exposed positions on freeboard and superstructure de

1 Vent upper Deck aft	Ch	12" dia. spanning	48' x 34'	To shaft Tunnel
1 " Prop "	Pts.	14 "	" "	15' x 36' - Prop Turn Dcs.
3 M.T.V's	"	8 "	" "	12' x 50' - " "
Vent on Deck house Top	Ch	20 "	" "	30' x 40' - Hold &c
" " " "	Pts	15 "	" "	30' x 36' - Deck house
" " " "	Ch	11 "	" "	30' x 32' - Lazybait
" " " "	"	13 "	" "	30' x 34' - Steering gear
Vent	"	12 "	" "	30' x 34' - Tunnel escape
ure decks: - 4 Vents	"	6 "	" "	12' x 30' - Deck house room

wood boxes & canvas boxes to all
cont. Vent. coverings -

1-Pys 18 dia derrick post + vent. Bridge 5x, strongly instructed to bunk
1- " 18 " " " " upper 5x aft " " " Sept 10

1-2 dia on Fitch St in bow 9' high to forepeak tank

1	2 1/2	-	-	-	P.	16	-	-	D. B. Tausk
2	2 1/2	-	-	-	approx 5 ft of Pts	27	-	-	
2	2 1/2	-	-	-	Bridge Sk	27	-	-	
1	2 1/2	-	-	-	-	27	-	-	
1	2	-	-	-	-	27	-	-	
3	2 1/2	-	-	-	approx 5 ft of	27	-	-	

} Screw
plugs.

Particulars of Gangway Cargo and Coaling Ports:—

1-22 " " " P 26 " " "
1-4 " " " Prs 43 " - Scep Tank
1-2 " Poop SK P. 20 " - aft PK Tank.

up inside
down port

wood plugs fitted.

None

Particulars of Scuppers and Sanitary Discharge Pipes :—

Sambar discharge pipes, fitted with storm valve about 9" above upper St. from apices above upper Buck
Scupper - - - - - 3.0 below - - - Prop. bridge & Life Sts
pipes from W. 3 Bridge Turn Sts lead to bilge, permanently closed -
- Bridge Sts not fitted with storm valve about 3.0 below Bridge St.

Particulars of Side Scuttles :—

Side Scuttles in Prop, Bridge & Fore Turn EXS fitted with dead lights


Particulars of Guard Rails :—

Guards rails on Pier, & Life 5x5 42" high, 4 wks, stanchions spaced about 54" apart.
Steel bulwark on Bridge deck. 42" " Portable rails & stanchions about No. 3. Hatch 4 wks.

particulars of Gangways, Lifelines, etc. :—

Crews accommodations in Prop two Sacks.
Efficient Lifelines with suitable supports provided
in forward & after well, on Port & Starboard side
of the vessel.

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
Well	99'-6"	49"	41 x 16" 	5	20.83 $\frac{1}{4}$ ϕ	20 ϕ
Forward Well	90-4	49"	36 x 16 41 x 16 ~	$\left. \begin{matrix} 3 \\ 3 \end{matrix} \right\} 5$	19 $\frac{3}{4}$ ϕ	18 ϕ

Date position of each freeing port ... } After Well :—
 (F. and A. position and height above deck edge) 12 } 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.

ulars of such:—
 1 Steel hinged shutter & 1 wrought rail
 others. openings & 2 " rails

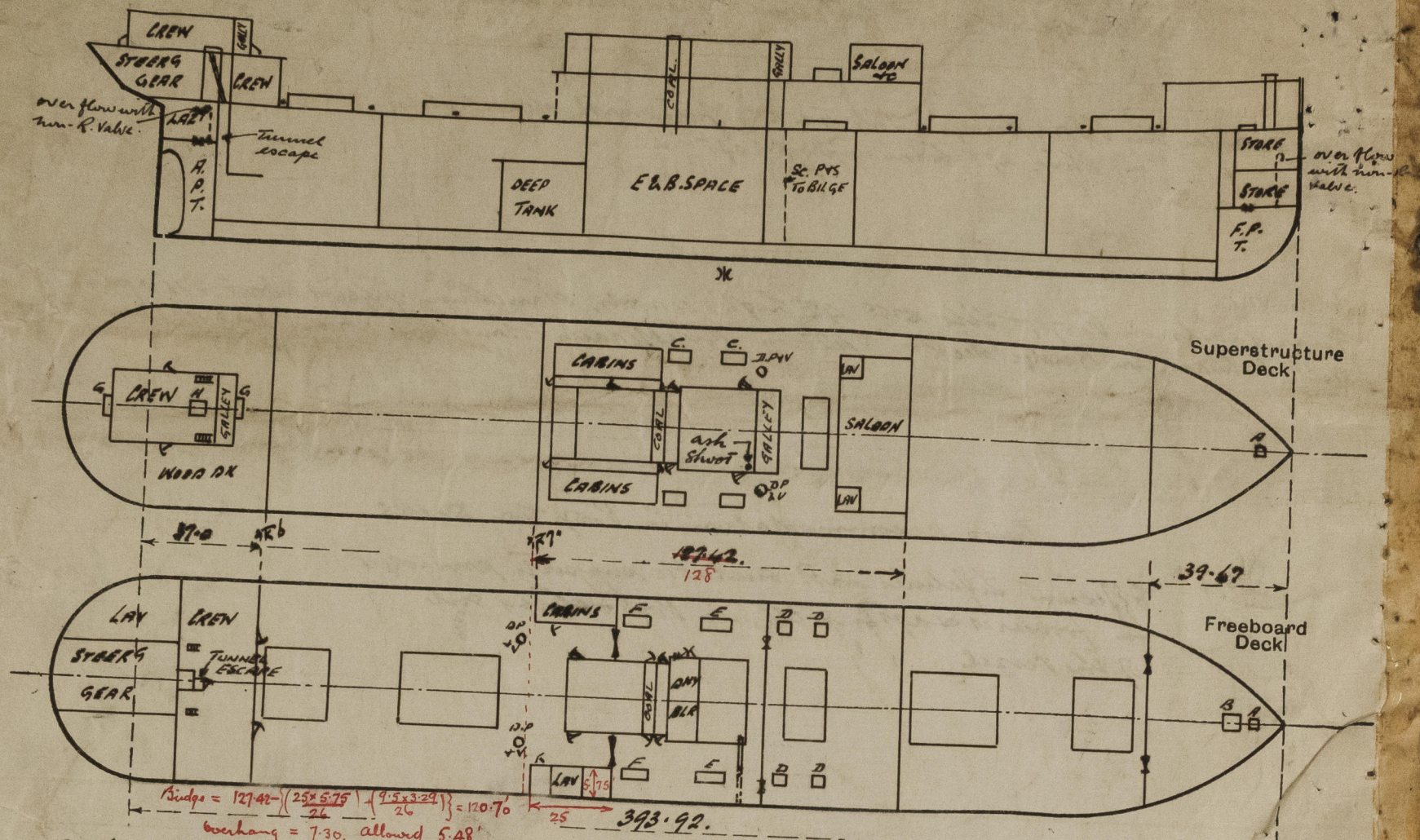
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
poop Bulkhead ... ..	.44 ✓	.44	6 x 3½ x 44 A	30	✓	59 x 25	19	7-11½
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ... ..	.32	.32	3 x 3 x 36	30	✓	69 x 64	19	7-11½
Bridge, Forward Bulkhead ... ..	.44	.44	9 x 3½ x 54 B A	30			✓	7-11½
Forecastle Bulkhead ... ..	.32	.32	3 x 3 x 38 6 x 3 A A OPENING	30	Knees T & Bar thru ✓	66 x 51	13	7-11½
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free- board or Raised Quarter Decks ...	vert plating .32		5 x 3 x 44 on outside	54	attached to beams over	57 x 36.5 57 x 30. P.	19	7-11½
Exposed Machinery Casings on Super- structure Decks ... ..	.38	.32	3 x 3 x 36	36	Knees at Top	57 x 30	18	7-9
Machinery Casings within Superstruc- tures not fitted with Class I Closing Appliances	vert plating .32		5 x 3 x 44 on outside	54	attached to beams over	57 x 30 full 50 x 46 coal short 50 x 60 OK Bk 18 x 18 vert shading over OK Bk	18	7-11½
Deckhouses on Flush Deck Ships ...								

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

Poop Bulkhead	... ..	Hinged wood doors, operated from both sides.
Raised Quarter Deck Bulkhead	... ✓	
Bridge, After Bulkhead	... ..	openings Riveted Channels. 3 Plank Boards, full height. Vertical Stiff at 6" 4x3x38 Bolted Top & Bottom
Bridge, Forward Bulkhead	... ..	✓ No openings
Forecastle Bulkhead	... ..	openings. Portable steel cover plate. 2 Vert stiffns. Hooked Bolts at 13" apart.
Exposed Machinery Casings on Free-board or Raised Quarter Decks	... ..	Hinged steel doors operated from both sides. Starboard. Bolt on inside Port. _____
Exposed Machinery Casings on Super-structure Decks	... ..	" " " " " " " " Port. " " " Starboard. _____
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	... ..	" " " " " " " " clips on outside. Coal shoot + Bolts on inside, 50 key holes space. _____
Deckhouses on Flush Deck Ships	... ..	Vert sliding - door (coal door), chain + hook - - - - -

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:—



A: Trunk Hatch, Side 2-4 x 2-0
 Laming 15 x 36
 Steel cover 36. Jointed
 Bolts 7/8 dia. spaced 4 1/2 ft.

B: Hatch, upper SK, 3-6 x 3-6
 Laming 7 x 3. B. h.
 W.W. covers 2 3/4 Thwart.
 Bearing 2"
 Chais 22" apart. Locking bar.
 2 Tarpanlins.

C: Hatch, Bridge SK, 6-3 x 3-10
 Laming 18 x 38
 W.W. covers 2 3/4 Thwart.
 Bearing 2 1/2"
 Chais 22" apart
 2 Tarpanlins

E: Hatch, upper SK, 8-3 x 5-0
 F: Hatch, lower SK, 6-3 x 5-0
 Laming 30 x 38
 W.W. covers 2 3/4 Thwart.
 Bearing 2"
 Chais 24" apart
 2 Tarpanlins

State any special features in the construction of the ship:—
 G: Skylights on Prop SK, 5-2 x 2-2
 Steel Laming 12 x 32.
 W.W. covers with hinged flaps
 Bulb eye lights in flaps &
 at sides in front skylight

H: Hatch, inside SK, 4-2 x 4-2
 Laming 16 x 36
 W.W. covers 2 1/2 Thwart
 Locking bar
 No Chais, no Tarpanlins

Ash shoot, Bridge SK, started
 from about 2-0" above deck
 led down to ship's side to
 about 6-0" below upper SK
 Steel plates 1/4" dia. spaced
 as 5" fitted with hinged steel
 cover & clips

Manhole to fore & aft
 Tank, fitted with bolted
 jointed steel plate cover

Tunnel escape in Prop Turn SKs
 Steel trunk, fitted with wood
 cover, operated from both sides

LOAD	DRAFTS.	DEADWEIGHT TONS	
	24-10 3/4	8000	LIGHT DRAFT = 8'-4"
	24-0	7540	displ = 3388 Tons.
	23-0	7040	
	22-0	6545	
	21-0	6050	

Survey when vessel afloat for
 Freeboard Assignment only.

Builder's name and yard number C. Connell & Co Ltd Glasgow. No 415
 Names of sister ships Contractor, Custodian, Designer, Observer, Planter, Rancher, Recorder, Tactician, Logistician
 Owners Phasente, S.S. Co Ltd
 Fee £ 13 : 12 : 0
 Received by me [Signature]