

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

GRK. REPORT N° 23419.

Ship's Name **EX SHAHZADA.** Official Number **181522** Nationality and Port of Registry **BRITISH INDIAN LONDON BOMBAY** Gross Tonnage **APPROX. 5400 5460** Date of Build **1946**

Port of Survey **GREENOCK**

Date of Survey **WHILE BUILDING 1946**

Surveyor's Signature **Kenneth Inglis**

Particulars of Classification **100A1. CONTEMPLATED**

Moulded Dimensions: Length **404.56** Breadth **53.75** Depth **31.25**

Moulded displacement at moulded draught = 85 per cent. of moulded depth **12296** tons

Coefficient of fineness for use with Tables **.745**

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 = (31.25-26.97) 3 = +12.96"		Moulded Breadth (B)	53.75
Stringer plate	60" .04	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	12.90
Sheathing on exposed deck				Ship's Round of Beam	13 1/2
$T \left(\frac{L-S}{L} \right) =$				Difference	+ .60
Depth for Freeboard (D) =	31.29	If restricted by superstructures	✓	Restricted to	
				Correction = $\frac{\text{Diff}^\circ}{4} \times \left(1 - \frac{S_1}{L} \right)$	$\frac{.60 \times .511}{4} = -.08"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	40.9"	40.75	7.9"	✓	40.75
" overhang	40.75				
R.Q.D. enclosed					
" overhang					
Bridge enclosed	118.00	118.00	7.9"	✓	118.00
" overhang aft	2.4"	4.88			4.88
" overhang forward	6.50				
Fore enclosed	30.40	30.40	7.6"	✓	30.40
" overhang	3.81	3.81			3.81
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	199.46	197.84			197.84

Standard Height of Superstructure **7.5'**

" " R.Q.D. **✓**

Deduction for complete superstructure **42"**

Percentage covered $\frac{S}{L} = 49.30$

" " $\frac{S_1}{L} = 48.30$

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

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

Percentage from Table, Line B. **35.06**
(corrected for absence of forecastle (if required))

Interpolation for bridge less than .2L (if required) **✓**

Deduction = $42 \times .3506 = -14.73"$

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	50.46	1	50.46	60	60.00	1	60.00
1/4 L from A.P.	22.45	4	89.80	26.75	26.75	4	107.00
3/4 L	5.55	2	11.10	6.75	6.75	2	13.50
Amidships	-	4	-	0	-	4	-
3/4 L from F.P.	11.10	2	22.20	13.5	13.50	2	27.00
1/4 L	44.90	4	179.60	53.5	53.50	4	214.00
F.P.	100.91	1	100.91	120	120.00	1	120.00
Total			454.07				541.50

Mean actual sheer aft =

Mean standard sheer aft =

Mean actual sheer forward =

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =

" " aft of " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{87.43}{18} (-.75 - .2465) = -2.45"$

If limited on account of midship superstructure. **✓**

5035 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 = **31.29** Ft.

Summer freeboard = **6.00**

Moulded draught (d) = **25.29**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **6.32 = 6 1/4"**

Addition for Winter North Atlantic Freeboard (if required)=

Deduction for Fresh Water.

Displacement in salt water at summer load water line **25 - 11516**

$\Delta = 24 = 12035$

Tons per inch immersion at summer load water line **25 - 42.92**

$T = 26 - 43.25$

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

$\frac{11755}{40 \times 43.07} = 6.82 = 6 3/4"$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction **12.96**

Deduction for superstructures **14.73**

Sheer correction **2.45**

Round of Beam correction **.08**

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

12.96 17.26 - 4.30

Summer Freeboard = **72.10**

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

Tropical Fresh Water Line above Centre of Disc **13"**

Fresh Water Line **6 3/4"**

Tropical Line **6 1/4"**

Winter Line below **6 1/4"**

Winter North Atlantic Line **✓**

Tropical Fresh Water Freeboard **6' 0"**

Fresh Water **4' 11"**

Tropical **5' 5 1/4"**

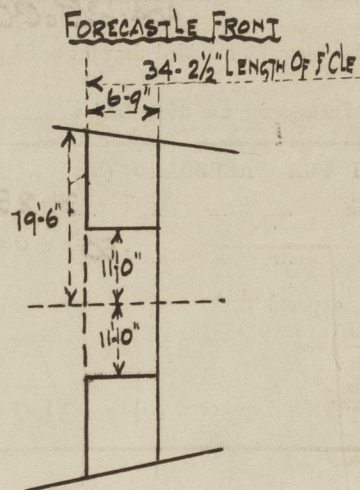
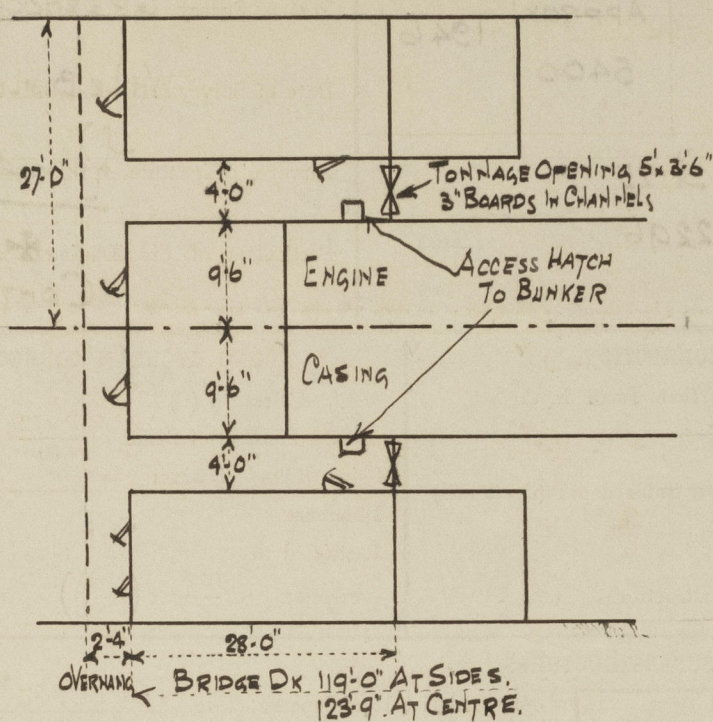
Winter **5' 5 3/4"**

Winter North Atlantic **6' 1/4"**

Shahzada.

A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

SKETCH OF ATTEND OF BRIDGE



Bridge equivalent:-

Bridge at centre	123.75	
" " side	119.00	119.00
	4.75 x 2/3	3.17
		122.17
	o'hang aft	2.33
		124.50
		6.50
		118.00'
28 x 4 x 2	4.17	
53.75	6.50'	

Forecastle:-	34.21
less 22 x 6.75	3.81
39	30.40'

o/H. aft	2.33	124.50
70 x 4	5.21	7.54
53.75	7.54	116.96

Trade of ship INTERNATIONAL

Names of sister ships SHAHJEHAN. LITHGOWS. NO 1012 GRK RPT NO 23360

Builder's name and yard number LITHGOWS LTD NO 1013

Owners ASIATIC STEAM NAVIGATION CO LTD

APPROX. Fee £ 16. 0. 0

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