

-2 JAN 1933

Rpt. C.11.

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index No. 30317
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker.

having Deep bridge & forecastle

Port of Survey Bombay.

(Type of Superstructures.)

Date of Survey December 8th 1932.

Name of Surveyor H. Sautwell

Particulars of Classification +100 A1.
S.S. Cal No 2-30

Ship's Name <u>Kohinur</u>	Nationality and Port of Registry <u>British London</u>	Official Number <u>146234</u>	Gross Tonnage <u>5168</u>	Date of Build <u>1922-2</u>
Moulded Dimensions: Length <u>403.7</u>	Breadth <u>52.0</u>	Depth <u>30.0</u>		
Moulded displacement at moulded draught = 85 per cent. of moulded depth <u>11,900</u> tons				
Coefficient of fineness for use with Tables <u>.78</u> <u>.778</u>				

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <u>30.0</u>	(a) Where D is greater than Table depth (D - Table depth) R = $\frac{30.14 - 26.91}{3} = 3.23 = 9.69$	Moulded Breadth (B) <u>52.0</u>
Stringer plate ... <u>.04</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 12.48$
Sheathing on exposed deck <u>2 1/2</u>		Ship's Round of Beam = <u>14.13.00</u>
T $\left(\frac{L-S}{L}\right) = .21 \times .4936$		Difference <u>.52</u>
Depth for Freeboard (D) = <u>30.14</u>	If restricted by superstructures	Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.52}{4} \times .5102 = .07$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	<u>35.17</u>	<u>35.17</u>	<u>8.0</u>		<u>36.25</u>	Standard Height of Superstructure <u>7'6"</u>
" overhang ...	<u>.67.83</u>	<u>.34.41</u>			<u>.34</u>	" " R.Q.D. <input checked="" type="checkbox"/>
R.Q.D. enclosed ...						Deduction for complete superstructure <u>42"</u>
" overhang ...	<u>108.96</u>	<u>108.96</u>	<u>8.0</u>		<u>108.96</u>	Percentage covered $\frac{S}{L} = .5064$
Bridge enclosed ...	<u>108.96</u>	<u>108.96</u>	<u>8.0</u>		<u>108.96</u>	" " $\frac{S_1}{L} = .4864898$
" overhang aft ...	<u>19.35</u>	<u>12.94</u>			<u>8.16</u>	" " $\frac{E}{L} = 48.98$
" overhang forward ...	<u>.67</u>	<u>.42.56</u>			<u>.33</u>	Percentage from Table, Line A. <u>34.8</u>
Fore enclosed <u>open</u> ...	<u>44.75</u>	<u>44.75</u>	<u>8.0</u>		<u>42.56</u>	(corrected for absence of forecastle (if required))
" overhang ...	<u>2.25</u>	<u>1.12.15</u>			<u>1.12</u>	Percentage from Table, Line B. <u>34.8 35.13</u>
Trunk aft ...						(corrected for absence of forecastle (if required))
" forward ...						Interpolation for bridge less than .2L (if required)
Tonnage opening aft ...						Deduction = <u>-14.6 .14.75</u>
" forward ...						
Total ...	<u>202.00</u>	<u>196.52</u>			<u>196.52</u>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	<u>50.31</u>	1		<u>50.31</u>	<u>64.</u>	<u>65.00</u>	1		<u>65.00</u>	Mean actual sheer aft = <u>Excess</u>
1/2 L from A.P. ...	<u>22.41</u>	4		<u>89.64</u>	<u>28.5</u>	<u>28.24</u>	4		<u>112.96</u>	Mean actual sheer forward = <u>Excess</u>
3/4 L ...	<u>5.54</u>	2		<u>11.08</u>	<u>7.5</u>	<u>7.06</u>	2		<u>14.12</u>	Mean standard sheer forward
Amidships ...		4					4			Length of enclosed superstructure forward of amidships = <u>2.1 L</u>
3/4 L from F.P. ...	<u>11.08</u>	2		<u>22.16</u>	<u>14.5</u>	<u>14.12</u>	2		<u>29.0</u>	" " aft of " = <u>2.1 L</u>
1/2 L ...	<u>44.82</u>	4		<u>179.28</u>	<u>57</u>	<u>56.49</u>	4		<u>225.96</u>	
F.P. ...	<u>100.74</u>	1		<u>100.74</u>	<u>132.</u>	<u>130.00</u>	1		<u>132.00</u>	
Total ...				<u>453.56</u>					<u>582.0</u>	
Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75 - S}{2L} \right) = \frac{576.28 - 453.56}{18} \times .4968 = -3.56$										
If limited on account of midship superstructure.										If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient
Depth to Freeboard Deck = <u>30.04</u>	$\Delta =$	Depth Correction ... <u>9.69</u>
Summer freeboard = <u>5.69</u>	Tons per inch immersion at summer load water line	Deduction for superstructures ... <u>14.75</u>
Moulded draught (d) = <u>24.35</u>	T =	Sheer correction ... <u>3.40</u>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>6.09 - 6"</u>	Deduction = $\frac{\Delta}{40T}$ inches	Round of Beam correction ... <u>.07</u>
Addition for Winter North Atlantic Freeboard (if required) =		Correction for Thickness of Deck amidships ... <u>1.20</u>
		Other corrections, scantlings, etc. ...
		Summer Freeboard = <u>68.15</u>

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

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

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway		1 and 5	2	3	4	5	6	7	8
Dimensions of Hatchway		21-8x16	30-4x16	13x16	34-8x16	13x16	15-0x2-0	4-6x2-0	8-0x2-10
COAMINGS	Height above Deck	30"	30"	30"	30"	9"	9"	9"	30"
	Thickness	.45"	.45"	.45"	.45"	.5"	9x3x.5ba.	.45"	.45"
	Stiffeners	7x3x.4 BA.	on sides ends	on sides ends	on sides ends	None	None	None	None
	Brackets, Stays	2" dia	on sides ends	on sides ends	on sides ends	None	None	None	None
HATCH BEAMS	Number	4	5	2	6	2			
	Spacing	52"	60"	52"	54"	52"			
	Scantling and Sketch	3 1/2 x 3 1/2 x .4"	Same	Same	Same	7 1/2 x 3 x .4 BA.	None	None	None
	Bearing Surface	3"	3"	3"	3"	3"			
FORE AND AFTERS	Number								
	Spacing								
	Unsupported Lengths								
	Scantling and Sketch								
Peak hatches have 7 1/2 x 3 x .4 BA. coamings. 3" bearing surfaces + 3" wood covers.									
HATCH COVERS	Material	Wood					Wood	Wood	
	Thickness	3"					2 1/2"	3"	
	How fitted	thruft.	Same as No 1				thruft.	thruft.	
	Bearing Surface	3"					3"	3"	
Spacing of Cleats		23-25"					20-24"	23-24"	
Number of Tarpaulins		3					1	3	
*Are wood fore and afters steel shod at all bearing surfaces? <input checked="" type="checkbox"/> Are battens and wedges efficient and in good condition? <input checked="" type="checkbox"/> Are tarpaulins in good condition and in accordance with rule requirements? <input checked="" type="checkbox"/> Are lashings provided in accordance with rule requirements? <input checked="" type="checkbox"/>									

Particulars of fiddle, funnel and ventilator coamings:— Fiddle coamings - 3". Ventilator coamings - 3".
 Funnel - 3". Steel covers permanently attached on all gratings. 8-0" high wood casing round all openings.
 Skylights are all steel.

Particulars of Flush Bunker Scuttles:— One each side on bridge deck.
 18" dia. - Cast iron lid with bayonet joint and chain fastening.

Particulars of Companionways:— None.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:— 30" - 36" high x .75".
 Wood plugs & canvas covers fitted.

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:— 30" - 36" high.
 Wood plugs or canvas covers being prepared.

Particulars of Gangway Cargo and Coaling Ports:— 34" x 34" - 1 each side in bridge space.
 Bunkers & two each side in tween deck bunkers.
 Hinged steel watertight doors with efficient fastenings.

Particulars of Scuppers and Sanitary Discharge Pipes —

Single storm valves fitted ball discharges.
all scuppers led over side above main deck.

Particulars of Side Scuttles:

Hinged dead lights fitted in all cases.

Particulars of Guard Rails:—

On poop sidge & forecastle.
3'-6" high of substantial construction
in good order.

Particulars of Gangways, Lifelines, etc.:—

No permanent fittings.
Lifelines can be satisfactorily
rigged by using existing fittings.

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	100.9' 104'	46"	29" x 21" 7 1/2" x 5" Scupper	3 2	12.7 # .8 #	20.18 21 #
Forward Well	99.75' 99'	46"	29" x 21" 7 1/2" x 5" Scupper	3 3	12.7 # 1.2 #	19.8 20 #
State position of each freeing port { After Well:— Equidistant. — 10" above deck (F. and A. position and height above deck edge) { Forward Well:— State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Bars & shutters. Additional area where sheer is less than standard.						

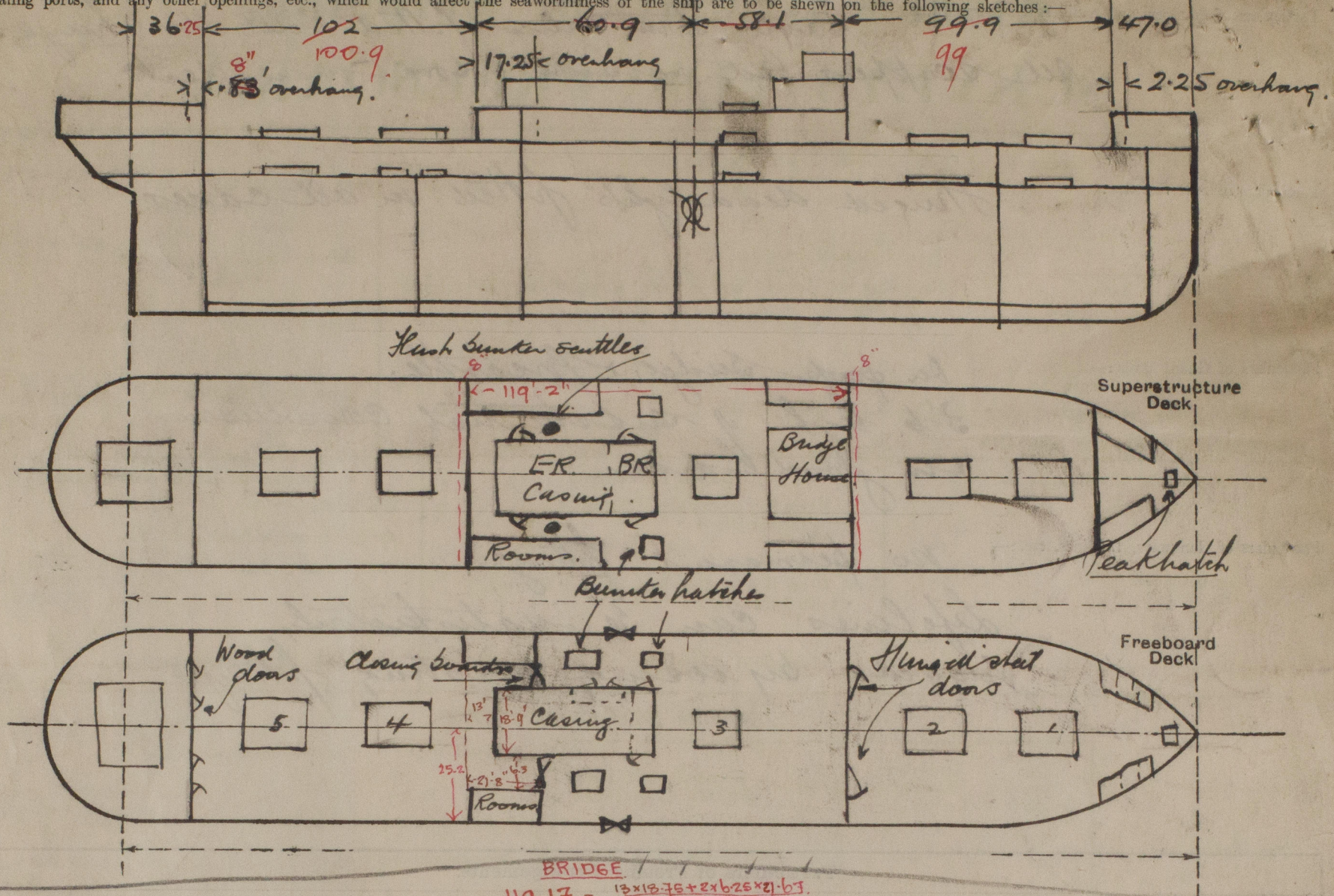
Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..	.5	.4	6 x 3 1/2 x .35	24"-26"	24" x 24" x .5	24"	16"	8'0"
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ... ..	.35	.35	3 x 3 x .5	30"	None	30"	15"	8'0"
Bridge, Forward Bulkhead ... ..	.5	.4	8 x 3 1/2 x .5	30"	24" x 24" x .5	30"	20"	8'0"
Forecastle Bulkhead ... <i>open</i> ...	.4	.3	3 x 3 x .3	24"	None.	24"	18"	8'0"
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	.5	.35	3 x 3 x .5	30"	None	24"	15"	—
Exposed Machinery Casings on Super-structure Decks ... ..	.35	.3	3 1/2 x 3 1/2 x .35	22"	46" x 46" x .4 at top.	24"	15"	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances								
Deckhouses on Flush Deck Ships ...								

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

Poop Bulkhead	Wood doors — 1 3/4" thick
Raised Quarter Deck Bulkhead ...	✓
Bridge, After Bulkhead	blowing boards in riveted channels for full height. Steel door to E.R.
Bridge, Forward Bulkhead	Hinged steel W.T. doors with clips outside only.
Forecastle Bulkhead	Wood doors — 1 3/4" thick. <i>Open.</i>
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Wood doors — 1 3/4" thick to E.R. Steel doors to stokehold.
Exposed Machinery Casings on Super-structure Decks	Hinged steel doors to B.R. and Sky boiler recess.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships ...	✓

Kobunur

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:—



BRIDGE
 $119.17 - 13 \times 12.75 + 2 \times 6.25 \times 21.67$
 $\quad \quad \quad 50.4$
 $\quad \quad \quad 2 \times 3.8 + 132.4 \times 2$
 $\quad \quad \quad 50.4$
 $\quad \quad \quad 10.21$
 $\quad \quad \quad = 108.96$
 $\text{overhang aft} = 10.21 + 67 = 108.8$

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

Vessel examined in dry dock.
 Original keelson particulars
 not available here, having been
 forwarded from Calcutta to
 Sourabaya in anticipation of
 docking at that port.

Builder's name and yard number

Names of sister ships

Owners

Asiatic S.N. Co. Ltd.

Fee

£ 610/-

Received by me



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