

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having **SHADE DECK.**Port of Survey **Calcutta.**Date of Survey **17.9.32.**Name of Surveyor **S. S. Ekma**Particulars of Classification **+ 100 A.I.**
S.S. Cal. No. 3-2.28 Shade Deck.
S.S. Cal. No. 1-32

(Type of Superstructures.)

Ship's Name **S.S. EKMA** Nationality and Port of Registry **BRITISH - GLASGOW.** Official Number **132999.** Gross Tonnage **5108.** Date of Build **1911-2.**

Moulded Dimensions: Length **409.42** Breadth **52.25** Depth **27.25** tons

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

Coefficient of fineness for use with Tables

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth	(a) Where D is greater than Table depth (D - Table depth) R =	Moulded Breadth (B)
Stringer plate	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam =
Depth for Freeboard (D) =		Difference
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
Forecastle enclosed					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total					

Standard Height of Superstructure

" " R.Q.D.

Deduction for complete superstructure

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

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

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

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

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

Interpolation for bridge less than 2L (if required)

Deduction =

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.		1					1		
$\frac{1}{8}L$ from A.P.		4					4		
$\frac{2}{8}L$ "		2					2		
Amidships		4					4		
$\frac{3}{8}L$ from F.P.		2					2		
$\frac{4}{8}L$ "		4					4		
F.P.		1					1		
Total									

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

If limited on account of midship superstructure.

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = Ft.

Summer freeboard =

Moulded draught (d) =

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches =

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

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

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	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	...	...	Nº1.	Nº2.	Nº3.								
Dimensions of Hatchway	...	...	17'5" x 12'0"	26'0" x 14'0"	25'6" x 14'0"								
COAMINGS	Height above Deck	...	30"										
	Thickness	{ Sides	44"										
		{ Ends	40"	- do -	- do -								
	Stiffeners	...	Nil										
HATCH BEAMS	Brackets, Stays	...	Nil										
	Number	...	3.	5.	5.								
	Spacing	...	4'-4"	4'-4"	4'-3 1/2"								
	Scantling and Sketch	...	7" 3x3 angles 3 1/2" x 40 plate 2 T 11 x 6 x .55	7" 3x3 angles 3 1/2" x 40 plate 2 T 11 x 6 x .55	- do -								
FORE AND AFTERS	Bearing Surface	...	7 sockets and angles - (approved in Prudential 12.9.32)										
	Number	...		Nil									
	Spacing	...											
	Unsupported Lengths	...											
HATCH COVERS	Scantling* and Sketch	...											
	Bearing Surface	...											
	Material	...	PINE										
	Thickness	...	3"	- do -	- do -								
Spacing of Cleats	How fitted	...	F&A										
	Bearing Surface	...	3"										
Number of Tarpaulins	...	...	6	- do -	- do -								

Shade main deck hatchway particulars —

Shade deck coamings 7" B.A. (above wooden deck).
Main deck coamings - flush -
Length of Nos 2 & 3 Hatchways on main deck is 28'3"
Otherwise particulars as given for upper deck -
(No. 1 hatch beam is fitted to both these hatchways)
Beams T 11 x 6 x .55 7" 3x3 angles
22' x 40 plate.

Particulars of fiddley, funnel and ventilator coamings:—
Double funnel casing. fiddley casing 7'-9" high - openings on top closed by patings - hinged steel strain covers.
Hinged steel entrance doors to fiddley on upper deck secured by handles & locks.
4 - 3'-6" diameter ventilators to Stokeloid - coamings 5'-0" } on top of casing 7'-9" high -
2 - 2'-0" " " " " " " " " " " " " 8'-6" }
2 - 2'-0" " " " " " " " " " " " " 5'-0" }

Particulars of Flush Bunker Scuttles:—

- Nil -

Particulars of Companionways:—
Steel body hatch forward of Nº1. Hatch on shade deck fitted with double T.W. doors 5'-0" x 2'-9"
Steel companionway aft of Nº3. " " " " " " " " " " " " 5'-0" x 2'-9"
Steel companionway aft of Nº2. " " " " " " " " " " " " 5'-3" x 2'-9"
" " " " " " " " " " " " " " 5'-0" x 2'-9"
All companionways have corresponding companionways on upper deck leading to main deck.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—
24" & 25" inch diameter ventilators - coamings 3'-0" high fitted with wooden plugs and canvas covers -

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—
2 1/2" diameter air pipes - Swan neck N.1. - 2'-9" high fitted in way inwards on upper deck.
Wooden plugs supplied for closing purposes -

Particulars of Gangway Cargo and Coaling Ports:—
Cargo door on each side of upper deck amidships 3'-10" x 5'-10" secured by strongbacks -
Coaling ports " " " " " " " " " " " " 2'-0" x 2'-0"
Cargo door on each side of main deck in Nº1 & 2 hatches 2'-9" x 2'-9"

Particulars of Scuppers and Sanitary Discharge Pipes:—

5 1/2" diameter scuppers on upper deck fitted with storm valves (can be closed by steel plates)
All sanitary discharges fitted with storm valves.

Particulars of Side Scuttles:—

12 1/2" diameter side scuttles fitted with ringed C.I. covers.

Particulars of Guard Rails:—

4 bar guard rails - 3'-9" high on shade deck.

Particulars of Gangways, Lifelines, etc.:—

Lifelines can be rigged for safety of crew.

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	82'-6"	7'-9"	1'-0" x 1'-9"	4.	7'-0"	16.50 19.0
Forward Well	87'	7'-9"	1'-0" x 1'-9"	4.	7'-0"	19.2 ⁴
<p>State position of each freeing port (F. and A. position and height above deck edge) } After Well: <u>BRIDGE</u> 19' 16'-6" 13' 14'-6" 19'-6" POOP Forward Well: <u>FILE</u> 8' 11' 13' 17' 38' 84.065.</p> <p>State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:—</p> <p>Additional area where sheer is less than standard. <u>Fitted with single bar & flap - 12" above deck.</u></p>						

Particulars of Superstructures, Trunks, Casings, Deckhouses.

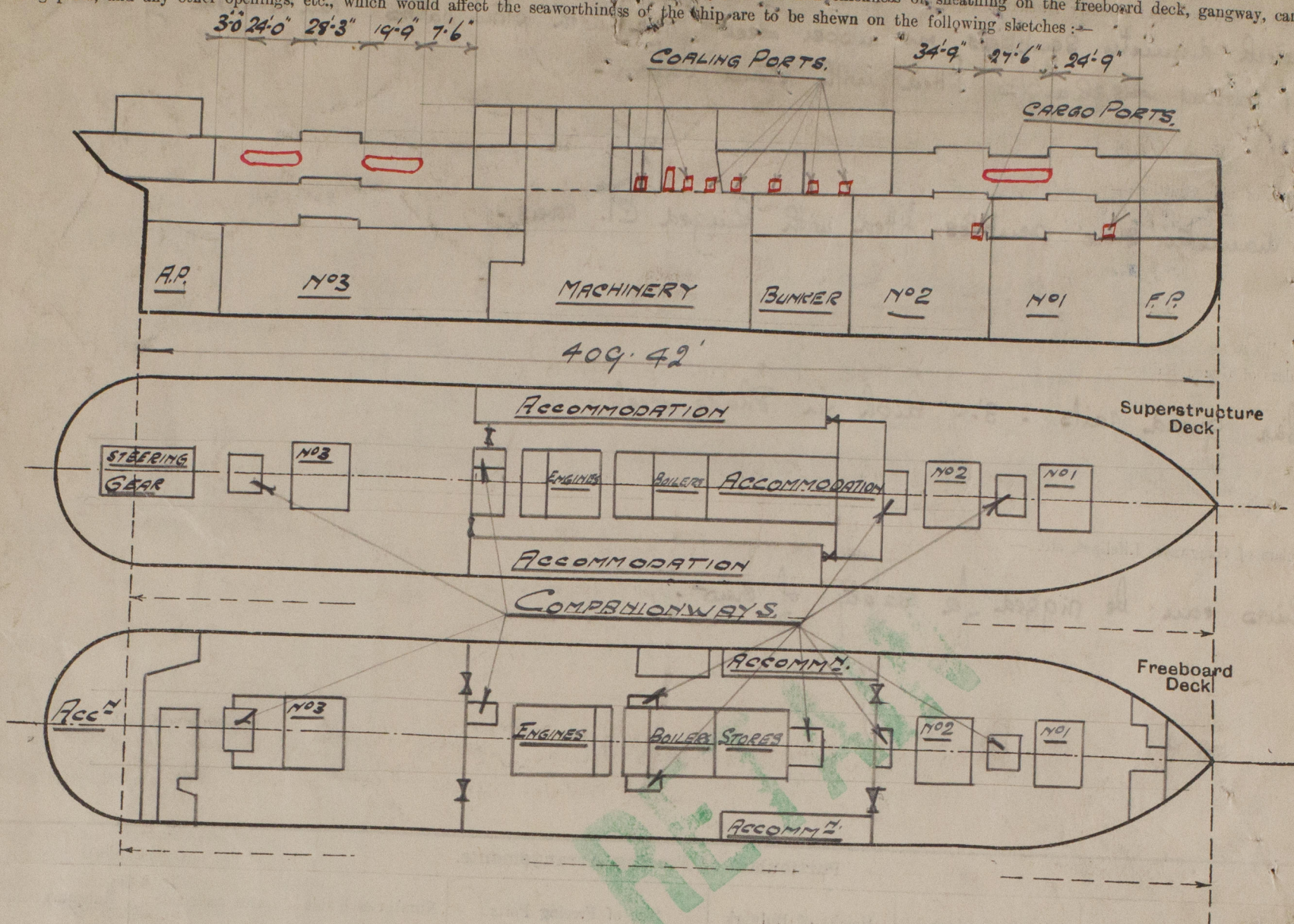
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead	3'-6" x 5/16	1/4.	Steel Bulkheads			Open alleyways -	N.L.	7'-9"
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead	3'-6" x 1/4.	1/4.	3 1/2 x 3 x 3/8	2'-9"	✓	5'-0" x 3'-6"	18"	8'-0"
Bridge, Forward Bulkhead	3'-6" x 5/16	1/4	5 x 3 1/2 x 3/8	2'-9"	✓	5'-0" x 3'-6"	18"	8'-0"
Forecastle Bulkhead	4'-0" x 5/16	1/4.	Steel Bulkheads			5'-10" x 7'-9"	N.L.	7'-9"
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super-structure Decks								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	3'-3" x 1/4	1/4.	4" x 3" x 3/8"	4'-4"	✓	5'-0" x 2'-6"	18"	8'-0"
Deckhouses on Flush Deck Ships ...								

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

Poop Bulkhead	Open alleyways - accommodation - no closing appliances -
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead	3" inch storm boards in channels full height.
Bridge, Forward Bulkhead	Ringed steel doors secured by Randles locks -
Forecastle Bulkhead	Open alleyway - no closing appliances -
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	
Exposed Machinery Casings on Super-structure Decks	Protected by accommodation
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	R.R. casing enclosed in accommodation - one T.V. entrance door to R.R.
Deckhouses on Flush Deck Ships ...	Secured by Randle lock - steel skylight hand operated -

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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 is sheathed.

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

Particulars taken when vessel was in drydock for condition survey.

Builder's name and yard number.

Names of sister ships.

Owners

British India Steam Navigation Co.

Fee Rs 6/0/-

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