

Lloyd's Register of Shipping.
now named Viset Kasabli Nawa of Pakistan
SURVEYS FOR FREEBOARD.
now named ARGOS of Tallinn

No 334

Computation of Freeboard for Steamer, Sailing Ship, Tanker
Port of Survey Stockholm
Date of Survey 12, 14, 31. March. 1932.
Name of Surveyor E. H. Knowles.
Particulars of Classification 100 A.1.
Moulded Dimensions: Length 265'-0" Breadth 38'-4" Depth 19'-9"
Moulded displacement at moulded draught = 85 per cent. of moulded depth
Coefficient of fineness for use with Tables

Depth for Freeboard (D) 19.75
Depth correction (a) Where D is greater than Table depth (D-Table depth) R = (19.79-17.67) 2.038 = +4.32
Round of Beam correction Moulded Breadth (B) 38'-4" Standard Round of Beam = B x 12 / 50 = 9.12 Ship's Round of Beam = 9.2 Difference = .38 Correction = Diff / 4 x (1 - S1 / L) = .38 / 4 x .3773 = .04

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S1)	Height	Height Correction	Effective Length (E)
Poop enclosed	14'-6"	14.50	7'-6"		14.50
" overhang					
R.Q.D. enclosed	59'-0"	59.00	4'-0"	x 40/42	56.20
" overhang					
Bridge enclosed	67'-0"	67.00	7'-6"		67.00
" overhang aft					
" overhang forward					
Fore enclosed	24'-6"	24.50	7'-6"		24.50
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	165.0	165.00			162.20

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	36.50	1		36.50	30.00	30.50	1		30.50
1/4 L from A.P.	16.24	4		64.96	11.00	13.82	4		55.28
1/2 L	4.01	2		8.02	2.75	3.45	2		6.90
Amidships		4			0		4		
3/4 L from F.P.	8.03	2		16.06	17.75	10.07	2		20.14
1/4 L	32.48	4		129.92	43.00	40.28	4		161.12
F.P.	73.00	1		73.00	96.00	91.00	1		91.00
Total	328.50			328.46					364.94

Correction = Difference between sums of products / 18 = (36.48 / 18) = 2.027
If limited on account of midship superstructure. 89 x .13 / .20 = .58

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 19.79 Summer freeboard = 2.20 Moulded draught (d) = 17.59
Deduction for Tropical freeboard and addition for Winter freeboard = d inches = 4.40 = 112 mm.
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 = 21.7 @ 16'-9" draft. Deduction = Delta / 40 T inches =
TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient 1.36 = 1.47 / 1.36 = 1.08
Depth Correction 4.32 Deduction for superstructures 15.62 Sheer correction .88 Round of Beam correction .04 Correction for Thickness of Deck amidships Other corrections, scantlings, etc. 1.32 16.24 = 11.92
Summer Freeboard = 26.42 = 671 mm.

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck: 671 mm.

Tropical Fresh Water Line above Centre of Disc		Tropical Fresh Water Freeboard	
Fresh Water Line		Fresh Water	
Tropical Line		Tropical	
Winter Line below	112 mm.	Winter	783 mm.
Winter North Atlantic Line	163 mm.	Winter North Atlantic	834 mm.

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway	N ^o 1	N ^o 2	N ^o 3	N ^o 4	N ^o 5	Poort to Store	Bridge Deck	Bridge Deck	Upper Deck	Upper Deck
Dimensions of Hatchway	16'3" x 17'0"	30'5" x 18'6"	16'0" x 18'6"	16'0" x 18'6"	17'0" x 18'3"	35' x 49'	75' x 32'3"	96' x 44'	22' x 23'	15'3" dia.
COAMINGS	Height above Deck	4'8"	5'0"	5'0"	5'0"	4'2"	4'2"	4'2"	4'2"	4'2"
	Thickness	3'0"	3'0"	3'0"	3'0"	3'0"	3'0"	3'0"	3'0"	3'0"
	Stiffeners	2'5"	2'5"	2'5"	2'5"	2'5"	2'5"	2'5"	2'5"	2'5"
	Brackets, Stays	6' x 3' x 4'0" angle	6' x 3' x 4'0" angle	6' x 3' x 4'0" angle	6' x 3' x 4'0" angle	6' x 3' x 4'0" angle	6' x 3' x 4'0" angle	6' x 3' x 4'0" angle	6' x 3' x 4'0" angle	6' x 3' x 4'0" angle
HATCH BEAMS	Number	1	2	1	1	1	1	1	1	1
	Spacing	Centre	Centre	Centre	Centre	Centre	Centre	Centre	Centre	Centre
	Scantling and Sketch	3' plate 12' x 9/16"	3' x 3' angle	3' x 3' angle	3' x 3' angle	3' x 3' angle	3' x 3' angle	3' x 3' angle	3' x 3' angle	3' x 3' angle
	Bearing Surface	Plan view	Plan view	Plan view	Plan view	Plan view	Plan view	Plan view	Plan view	Plan view
FORE AND AFTERS (WOOD)	Number	3	3	3	3	3	3	3	3	3
	Spacing	5'2"	5'5"	5'5"	5'5"	5'2"	5'2"	5'2"	5'2"	5'2"
	Unsuported Lengths	8'0"	11'8"	10'0"	8'0"	8'3"	8'3"	8'3"	8'3"	8'3"
	Scantling and Sketch	2' x 11' x 7'2"	2' x 11' x 7'2"	2' x 11' x 7'2"	2' x 11' x 7'2"	2' x 11' x 7'2"	2' x 11' x 7'2"	2' x 11' x 7'2"	2' x 11' x 7'2"	2' x 11' x 7'2"
HATCH COVERS	Material	Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood	Wood
	Thickness	2'2"	2'3"	2'3"	2'3"	2'2"	2'2"	2'2"	2'2"	2'2"
	How fitted	2"	2"	2"	2"	2"	2"	2"	2"	2"
	Bearing Surface	2"	2"	2"	2"	2"	2"	2"	2"	2"
Spacing of Cleats	18"	18"	18"	18"	18"	18"	18"	18"	18"	18"
Number of Tarpaulins	3	3	3	3	3	2	2	2	2	2

*Are wood fore and afters steel shod at all bearing surfaces? *yes*
 Are battens and wedges efficient and in good condition? *yes*
 Are tarpaulins in good condition and in accordance with rule requirements? *yes*
 Are lashings provided in accordance with rule requirements? *Ring bolts & angles on top of hatch covers with tightening screws.*

Particulars of fiddle, funnel and ventilator coamings:—
Fiddle Gratings. 4 @ 4'3" x 2'3" & 1 @ 5'9" x 2'3". All having steel hinged doors with catches inside.
Vents. 2 @ 2'4" dia. Coaming 13". Hinged. Bolts spaced 9" apart in bottom flange.
2 @ 9" dia. x 1/4" thick. Coaming 9" high - measured from Bridge Deck.

Particulars of Flush Bunker Scuttles:— *none.*

Particulars of Companionways:—
Poort to Store. Steel, with wood door 24" x 44". Sill 27".

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—
Fore. 2 @ 7" dia. x 18" high x 1/8" - to Crew space.
Fore Deck. 5 @ 12" x 36 1/2" x 1/4" - to Holds
Midships. 2 @ 12" dia. x 36" x 1/4" - to Engine Room.
2 @ 14 1/2" x 26" x 1/4" - Holds
1 @ 12" x 24" x 1/4" - Holds
Aft deck. 3 @ 12" x 36" x 1/4" -

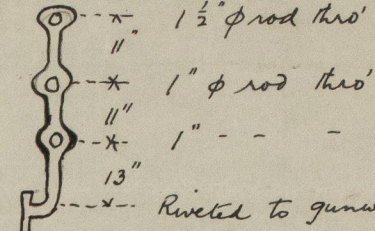
Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—
Fore. 1 @ 3 1/2" dia. x 32" high. - Foredeck.
1 @ 4 1/2" x 12" - no goose-necks but wood plugs in head.
2 @ 1 1/2" x 50" high. - each side. - goose-necks.
For Deck. 6 @ 2" x 34 1/2" -
R. Q. D. 4 @ 2" x 12 1/2" -
Poort. 2 @ 2" x 12 1/2" -

Particulars of Gangway Cargo and Coaling Ports:— *none.*

Particulars of Closing Appliances (state if capable of being manipulated from both sides):—
Means of closing provided

Particulars of Scuppers and Sanitary Discharge Pipes —
Sanitary pipes from Accom., Saloon, etc. (P.S.) discharging above freeboard deck.

Particulars of Side Scuttles:—
3 @ 8 1/2" dia. with deadlights inside. 64" above freeboard deck. (Port side only.)

Particulars of Guard Rails:— *On Forecastle*

Stanchions spaced about 5-3" apart.

Particulars of Gangways, Lifelines, etc.:— *none.*
Lifelines provided in forward well

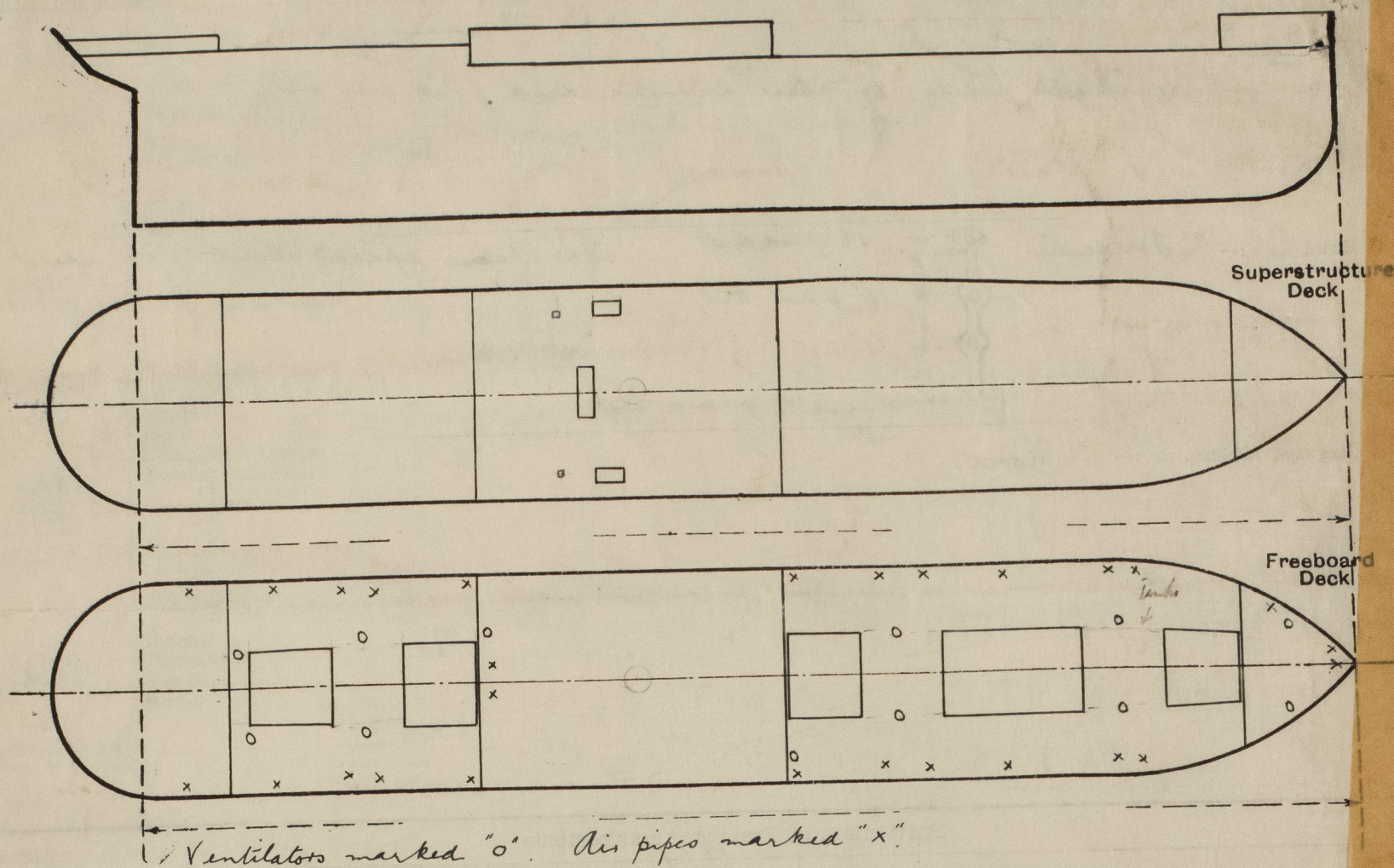
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	58'-4"	4'2"	31" x 22"	4	18.9 sq. ft.	
Forward Well	100'	5'2"	1' off @ 30" x 20" 5' off @ 32" x 21"	6	27.5 sq. ft.	

State position of each freeing port ... { After Well: 7'-9", 18'-3", 34'-3", 50'-9" from Bridge Aft Bulkhead. All 9" 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:— 1 bar in centre of each freeing port, & 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
Poort Bulkhead								
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead	15 1/2"	30"	6' x 3" B.A.	30"	Brackets Top & Bottom	36" x 49"	18 1/2"	90"
Forecastle Bulkhead	14"	25"	Unobtainable owing to wood sheathing			24" x 59"	14"	90"
Trunk, 4' x 5' Hatch	—	25"	Tanks closed.			—	—	37" for 3 1/2" Aft.
Trunk, Forward & Aft								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks	14 1/2"	30"				23" x 58"	17"	7'-3"
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):—
no opening.
2 steel doors, each having 20 hook bolts 5/8" x 7" spaced 7" apart. Closing from outside only.
1 wood outer door leading to deck - handle both sides.
1 steel door, each side to Boiler Room - catch each side. 1 steel door thro' B.R. casing to ventilator for ash discharge. (P. & S.) 17" x 32". Sill 16". 3/4" thick. Bolt inside only.

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:—



State any special features in the construction of the ship:— Particulars for timber load line:—

No Deck house or Hood at aft end of R.O. Deck.

Nos 3, 4, 5 D.B. Tanks watertight & division.

Bulwark stiffeners:— For? 8" x 50" B. plate. Single angles to deck with 2 rivets. Stiffeners spaced 63" apart.

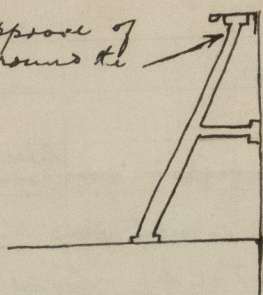
Aft. 2" dia. forged stiffeners. 2 rivets in each to deck. Stiffeners spaced 63" apart.

Fittings for Uprights. None existing at present, but double angles will be riveted to deck with regulations.

Eyeplates for Lashings For? Hole for shackle provided in each bulwark stiffener, near to top.

Aft. See sketch below.

Kommerskollegium approve of a wire being passed round the stiffeners here.



Builder's name and yard number Schiffswerft von Henry Koch. Vessel N° 149.

Names of sister ships

Owners Rederiaktietäget Fredrika Stockholm.

Fee & Kr. 170:—

Received by me