

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

Index. No. 16414
(For London Office only.)

25 AUG 1932

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having forecastle, bridge & poop
(Type of Superstructures.)
Port of Survey Helsingfors
Date of Survey 19 Aug. 1932
Name of Surveyor Ottian Tybäck
Particulars of Classification * 100 A1
S.S. 2403-9.29

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
"INGA"	Finnish Lousa (LOUSA)	✓	2050	1903-6

Moulded Dimensions: Length 88.15 m Breadth 12.8 m Depth 6.7 m.
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons
Coefficient of fineness for use with Tables _____

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

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	8.83 m		2.1 m		
„ overhang					
R.Q.D. enclosed					
„ overhang					
Bridge enclosed... ..	24.19		2.1		
„ overhang aft					
„ overhang forward					
F'cle enclosed	9.6		2.1		
„ 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	
$\frac{1}{4}$ L from A.P.		4				4	
$\frac{2}{4}$ L „		2				2	
Amidships		4				4	
$\frac{3}{4}$ L from F.P.		2				2	
$\frac{1}{4}$ 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. _____

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 „ = _____

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Ft. Depth to Freeboard Deck = _____ 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 = $\frac{\Delta}{40 T}$ inches = _____ $\frac{18.81}{4} = 4.70$ $= 4\frac{3}{4}$	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient <table><tr><th></th><th>+</th><th>-</th></tr><tr><td>Depth Correction</td><td></td><td></td></tr><tr><td>Deduction for superstructures</td><td></td><td></td></tr><tr><td>Sheer correction</td><td></td><td></td></tr><tr><td>Round of Beam correction</td><td></td><td></td></tr><tr><td>Correction for Thickness of Deck amidships</td><td></td><td></td></tr><tr><td>Other corrections, scantlings, etc.</td><td></td><td></td></tr></table> Summer Freeboard = _____		+	-	Depth Correction			Deduction for superstructures			Sheer correction			Round of Beam correction			Correction for Thickness of Deck amidships			Other corrections, scantlings, etc.		
	+	-																					
Depth Correction																							
Deduction for superstructures																							
Sheer correction																							
Round of Beam correction																							
Correction for Thickness of Deck amidships																							
Other corrections, scantlings, etc.																							

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	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9
Dimensions of Hatchway	6.1 x 4.57	7.32 x 4.57	7.32 x 4.57	6.1 x 4.57	2.44 x 2.44	1.0 x 0.76			
COAMINGS									
Height above Deck	610	610	610	610	460	540			
Thickness	10	10	10	10	10	10			
Stiffeners	210 x 75	210 x 75	210 x 75	210 x 75	210 x 75	210 x 75			
Brackets, Stays									
HATCH BEAMS									
Number	3.05	2.44	2.44	3.05	—	—			
Spacing	980	1000	1000	980	—	—			
Scantling and Sketch									
Bearing Surface	70	70	70	70	—	—			
FORE AND AFTERS									
Number	3	3	3	3	1.22	—			
Spacing	1.14	1.14	1.14	1.14	2.44	—			
Unsupported Lengths	3.05	2.44	2.44	3.05	2.44	—			
Scantling and Sketch									
Bearing Surface	80	80	80	80	75	—			
HATCH COVERS									
Material	wood	wood	wood	wood	wood	wood			
Thickness	75	75	75	75	75	75			
How fitted	60	60	60	60	60	60			
Bearing Surface	60	60	60	60	60	60			
Spacing of Cleats	3	3	3	3	3	2			
Number of Tarpaulins	3	3	3	3	3	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? *Yes.*

Particulars of fiddle, funnel and ventilator coamings: *Funnel protected by a steel casing 2.2 m. high above bridge deck. Fiddle covers of steel plates. Two vent. coamings $\phi=600$ in boiler space 3 m. above top of casing and two vent. in engine space $\phi=300$ in with coamings 2.15 m. above top of casing.*

Particulars of Flush Bunker Scuttles: *None fitted.*

Particulars of Companionways: *Steel door 1370 x 600 in f.c. bulkhead, side 460*

Particulars of Ventilators in exposed positions on freeboard and superstructure decks: *3 on f.c. deck, $\phi=210$, $h=600$ in. 4 on freeboard deck forward, $\phi=370$, $h=950$ in. 2 " " aft, $\phi=370$, $h=950$ in. 1 " poops " $\phi=210$, $h=600$ in. 4 " bridge " $\phi=210$, $h=600$ in. All ventilators fitted with wood covers and tarpaulins.*

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks: *All air pipes fitted with screwed covers on the deck.*

Particulars of Gangway Cargo and Coaling Ports: *None fitted.*

Inga

Particulars of Scuppers and Sanitary Discharge Pipes: *All scuppers of common type and ^{on} freeboard deck in wells ^{made} of pipes in bridge and poops spaces. Two W.C. in forecabin, one in bridge space and one in the deckhouse on bridge deck, all fitted with one non-return valve.*

Particulars of Side Scuttles: *The side scuttles in forecabin and poops fitted with permanent dead lights but in bridge tween deck dead lights are not fitted.*

Particulars of Guard Rails: *—*

950 on forec. deck

950 on bridge & poops deck

Particulars of Gangways, Lifelines, etc.: *—*

none fitted. Suitable provision is made for rigging lifelines

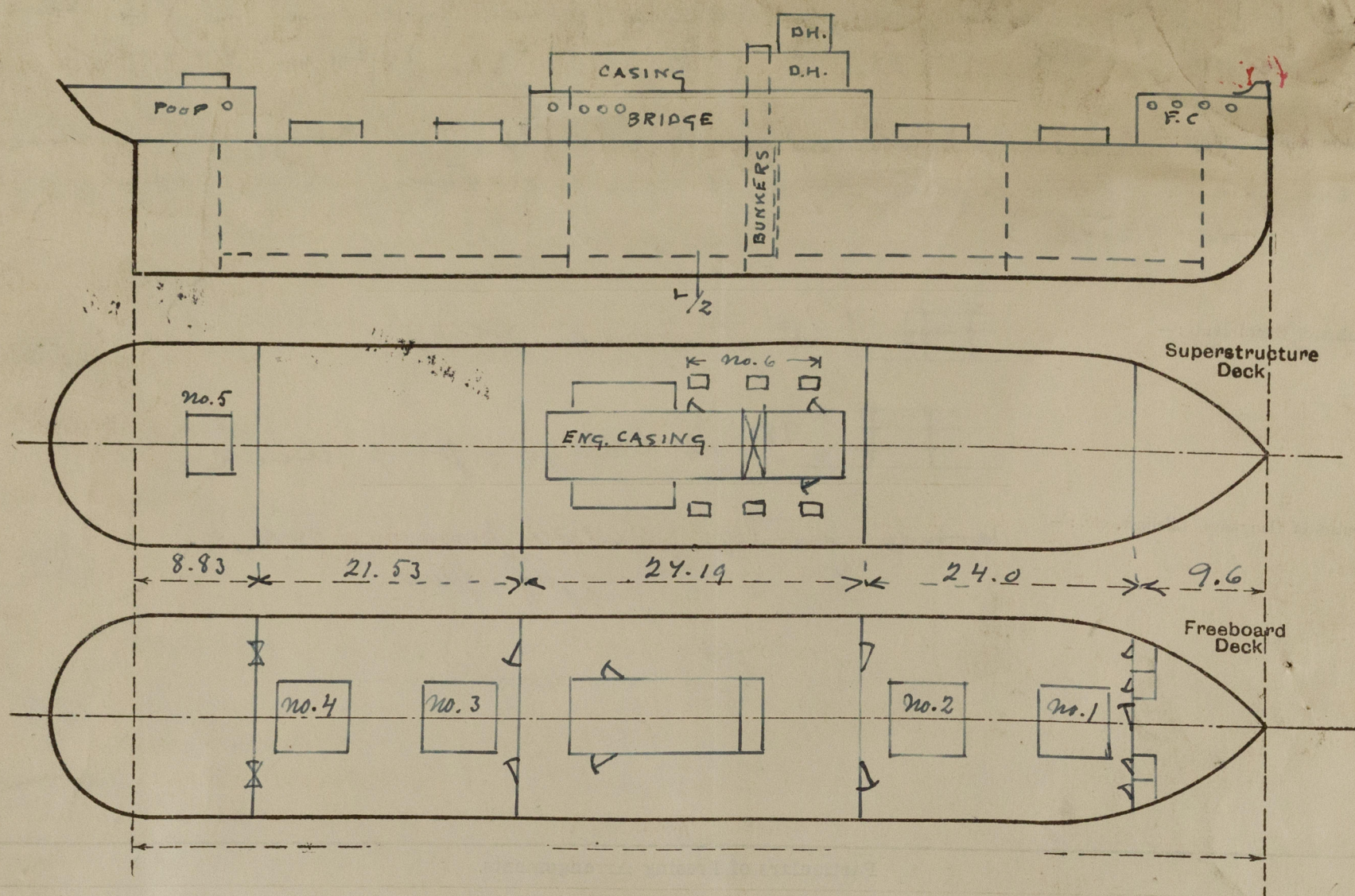
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	21.54	1100	910 x 540	3	1.53	1.31
Forward Well	24.0	1100	910 x 540	3	1.71	1.46

State position of each freeing port: *After Well: 2 in way of No. 4 hatchway } 300 in above deck*
Forward Well: 2 in way of No. 2 " }
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: *The freeing ports are fitted with 3 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	102	82	125 x 85 x 10	760	—	2 x 910 x 1900	none	
Raised Quarter Deck Bulkhead								
Bridge, After Bulkhead	102	72	75 x 60 x 10	1210	—	2 x 1070 x 1900	none	
Bridge, Forward Bulkhead	102	72	125 x 85 x 10	760	—	2 x 900 x 1350	460	
Forecabin Bulkhead	82	72	75 x 60 x 10	800	—	600 x 1370	460	
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks								
Exposed Machinery Casings on Superstructure Decks		7.52	75 x 60 x 10	1370	on top 500 x 500 x 10	3 x 1500 x 580	460	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	92	6.52	75 x 60 x 10	810	—	2 x 1500 x 580	460	
Deckhouses on Flush Deck Ships								

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead	<i>Wood planks 75 mm thick</i>
Raised Quarter Deck Bulkhead	<i>Wood planks and wood door permanently attached.</i>
Bridge, After Bulkhead	<i>Steel doors with hinges, being closed with screws from outside.</i>
Bridge, Forward Bulkhead	<i>Steel hinged doors.</i>
Forecabin Bulkhead	<i>Two steel doors and one door of teak being closed from both sides.</i>
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	<i>Two teak doors being closed from both sides.</i>
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships	

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:—

The Owners wishes to have the old freeboard retained according to Article 5 of the International Load Line Convention

Builder's name and yard number

Blyde S. B. & E. Co. Ltd.

Names of sister ships

Owners

Lovisa Rederi A/S

Fee £

Received by me



© 2020

Lloyd's Register Foundation