

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

- 5 DEC 1935

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having Complete Superstructure with tonnage opening aft
(Type of Superstructures.)

Port of Survey Gothenburg
Date of Survey 7th Dec. 1935
Name of Surveyor Sjöberg
Particulars of Classification 100 A1 with freeboard.

Ship's Name ÖRESUNDSVARVET N: 42143 Nationality and Port of Registry Sweden Official Number 100 Gross Tonnage 100 Date of Build 1935

Moulded Dimensions: Length 260'0" Breadth 37'75" Depth 16'33"
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons
Coefficient of fineness for use with Tables 0.71

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth <u>16.33</u>	(a) Where D is greater than Table depth (D - Table depth) R = <u>✓</u>	Moulded Breadth (B) <u>37.75'</u>
Stringer plate <u>9.05</u>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = <u>(17.33 - 16.33) 2.00</u>	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{37.75 \times 12}{50} = 9.06"$ ✓
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ <u>✓</u>	<u>- 1.94" ✓</u>	Ship's Round of Beam = <u>230 mm = 9.06"</u>
Depth for Freeboard (D) = <u>16.36</u>	If restricted by superstructures <u>✓</u>	Difference _____
		Restricted to _____
		Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L}\right) = \text{Nil.}$ ✓

DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	Standard Height of Superstructure
Poop enclosed <u>24'0"</u>	<u>24.00</u>	<u>8'0"</u>	<u>✓</u>	<u>24.00</u>	<u>6'10"</u>
„ overhang					„ „ R.Q.D. <u>✓</u>
R.Q.D. enclosed					Deduction for complete superstructure <u>32.00</u>
„ overhang					Percentage covered $\frac{S}{L} = 100\%$ ✓
Bridge enclosed... ..					„ „ $\frac{S_1}{L} = 99.22\%$ ✓
„ overhang aft					„ „ $\frac{E}{L} = 99.22\%$ ✓
„ overhang forward <u>232'0"</u>	<u>232.00</u>	<u>8'0"</u>	<u>✓</u>	<u>232.00</u>	Percentage from Table, Line A. <u>99.04%</u> ✓
F'cle enclosed					(corrected for absence of forecastle (if required))
„ overhang					Percentage from Table, Line B.
Trunk aft					(corrected for absence of forecastle (if required))
„ forward					Interpolation for bridge less than 2L (if required)
Tonnage opening aft <u>4'0"</u>	<u>2.00</u>			<u>2.00</u>	Deduction = <u>32.00 x .9904 = - 31.69"</u> ✓
„ „ forward					
Total <u>260.00</u>	<u>258.00</u>			<u>258.00</u>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<u>36.00</u>	<u>1</u>		<u>36.00</u>	<u>780 = 30.71</u>	<u>53</u>	<u>1</u>		<u>53</u>
$\frac{1}{4}$ L from A.P.	<u>16.02</u>	<u>4</u>		<u>64.08</u>	<u>330 = 12.99</u>	<u>23.81</u>	<u>4</u>		<u>95.24</u>
$\frac{2}{4}$ L "	<u>3.96</u>	<u>2</u>		<u>7.92</u>	<u>50 = 1.97</u>	<u>5.89</u>	<u>2</u>		<u>11.78</u>
Amidships	<u>✓</u>	<u>4</u>		<u>✓</u>	<u>0</u>		<u>4</u>		<u>✓</u>
$\frac{3}{4}$ L from F.P.	<u>7.92</u>	<u>2</u>		<u>15.84</u>	<u>260 = 10.24</u>	<u>10.43</u>	<u>2</u>		<u>20.86</u>
$\frac{1}{4}$ L "	<u>32.04</u>	<u>4</u>		<u>128.16</u>	<u>880 = 34.64</u>	<u>42.21</u>	<u>4</u>		<u>168.84</u>
F.P.	<u>72.00</u>	<u>1</u>		<u>72.00</u>	<u>1830 = 72.05</u>	<u>94</u>	<u>1</u>		<u>94</u>
Total				<u>324.00</u>	<u>22.80</u>	<u>121.08</u>			<u>445.08</u>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{121.08}{18} (.75 - .50) = - 1.51$

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.	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 $\frac{.71 + .68}{1.36} = \frac{1.39}{1.36}$
Depth to Freeboard Deck = <u>16.36</u> Ft.	$\Delta =$	Depth Correction <u>1.94</u>
Summer freeboard = <u>.17</u>	Tons per inch immersion at summer load water line	Deduction for superstructures <u>31.69</u>
Moulded draught (d) = <u>16.19</u>	T =	Sheer correction <u>1.68</u>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u>4.04</u>	Deduction = $\frac{\Delta}{40T}$ inches	Round of Beam correction <u>-</u>
Addition for Winter North Atlantic Freeboard (if required) = <u>6"</u>	$\frac{d}{4} = 4"$	Correction for Thickness of Deck amidships <u>-</u>
		Other corrections, scantlings, etc. <u>-</u>
		Summer Freeboard = <u>35.44</u> <u>31.69</u> <u>1.68</u> <u>1.94</u> <u>35.44</u>

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

Tropical Fresh Water Line above Centre of Disc <u>4"</u>	Tropical Fresh Water Freeboard <u>MINUS 0'-2" (LIMITED)</u>
Fresh Water Line " " <u>4"</u>	Fresh Water " " <u>MINUS 0'-2"</u>
Tropical Line " " <u>4"</u>	Tropical " " <u>0'-2" (LIMITED)</u>
Winter Line below " " <u>4"</u>	Winter " " <u>0'-6"</u>
Winter North Atlantic Line " " <u>6"</u>	Winter North Atlantic " " <u>0'-8"</u>

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway	...	...	...	...	...	...	...	...	...
Dimensions of Hatchway	...	...	...	...	...	...	...	...	...
COAMINGS	Height above Deck	...	...	...	...	...	...	...	...
	Thickness	Sides	...	...	...	...	...	...	...
		Ends	...	...	...	...	...	...	...
	Stiffeners	...	...	...	...	...	...	...	...
	Brackets, Stays	...	...	...	...	...	...	...	...
HATCH BEAMS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
FORE AND AFTERS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Unsupported Lengths	...	...	...	...	...	...	...	...
	Scantling* and Sketch	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
HATCH COVERS	Material	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...
	How fitted	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
Spacing of Cleats	...	...	...	...	...	...	...	...
Number of Tarpaulins	...	...	...	...	...	...	...	...

Particulars of fiddley, funnel and ventilator coamings :—

Particulars of Flush Bunker Scuttles :—

Particulars of Companionways :—

Particulars of Ventilators in exposed positions on freeboard and superstructure decks :—

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks :—

Particulars of Gangway Cargo and Coaling Ports :—

Particulars of Scuppers and Sanitary Discharge Pipes :—

Particulars of Side Scuttles :—

Particulars of Guard Rails :—

Particulars of Gangways, Lifelines, etc. :—

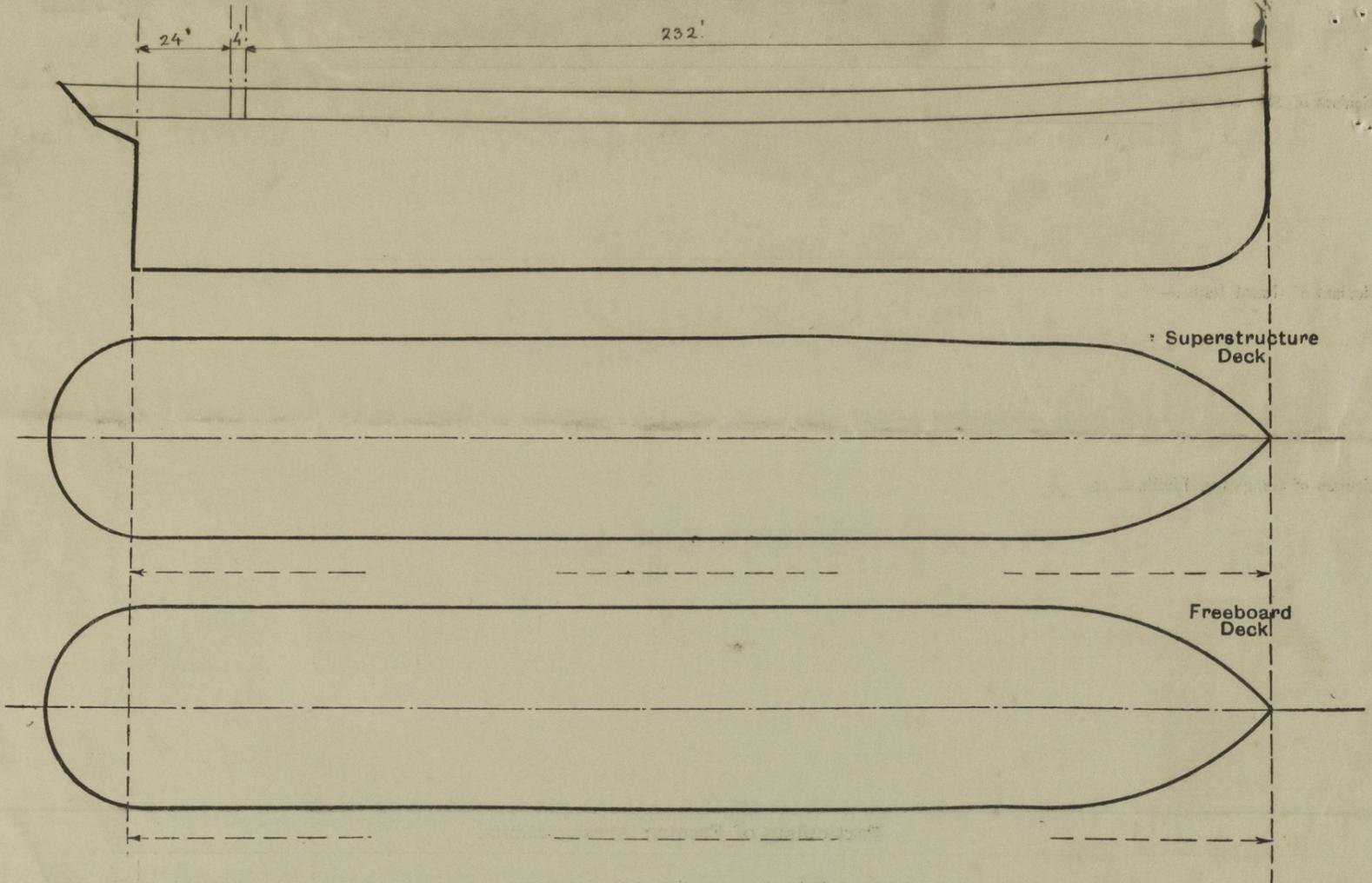
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well
Forward Well

State position of each freeing port ... } After Well :—
(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 :—
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
Raised Quarter Deck Bulkhead
Bridge, After Bulkhead
Bridge, Forward Bulkhead
Forecastle Bulkhead
Trunk, Aft
Trunk, Forward
Exposed Machinery Casings on Freeboard or Raised Quarter Decks
Exposed Machinery Casings on Superstructure Decks
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	...
Raised Quarter Deck Bulkhead	...
Bridge, After Bulkhead	...
Bridge, Forward Bulkhead	...
Forecastle Bulkhead	...
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...
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:—

Builder's name and yard number *Oresundvarvet yard nos 42 & 43.*

Names of sister ships

Owners *Stockholms Rederiaktiebolag Lda.*

Fee £ : : Received by me



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Foundation