

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

17 AUG 1932

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having *Complete superstructure deck without tonnage opening with raised superstructure deck at fore end, half height fore.*

(Type of Superstructures.)

Port of Survey *Mahar*Date of Survey *12th Aug, 1932*Name of Surveyor *Asunden*

Particulars of Classification *100A1*
Shelter dke. w. freeboard.
S.S. for No 2-31

Ship's Name

M/S "LUOSSA"

Nationality and Port of Registry

Swedish Stockholm

Official Number

6955

Gross Tonnage

5578

Date of Build

*1923-3 mo.*Moulded Dimensions: Length *385'* Breadth *53.42'* Depth *34.06'*Moulded displacement at moulded draught *85* per cent. of moulded depth *13530* tonsCoefficient of fineness for use with Tables *.795*

Depth for Freeboard (D)

Moulded depth ... *34.06*Stringer plate ... *.05*

Sheathing on exposed deck

$$T \left(\frac{L-S}{L} \right) =$$

Depth for Freeboard (D) = *34.11*

Depth correction

(a) Where D is greater than Table depth
(D - Table depth) R =

$$(34.11 - 25.67) 2.962 = + 25.00$$

(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) *53.42*Standard Round of Beam = $\frac{B \times 12}{50} =$ *12.82*Ship's Round of Beam = *13"*Difference *.18*

Restricted to

$$\text{Correction} = \frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.18^2}{4} (1) = .0081$$

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 ...					
Fore enclosed ...	<i>40.0</i>	<i>40.0</i>	<i>4'-3"</i>	<i>4.25/7.35</i>	<i>23.13</i>
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<i>40.0</i>	<i>40.0</i>			<i>23.13</i>

Standard Height of Superstructure *7.35*" " R.Q.D. *41.00*Deduction for complete superstructure *41.00*Percentage covered $\frac{S}{L} =$ *10.39*" $\frac{S_1}{L} =$ *10.39*" $\frac{E}{L} =$ *6.01*Percentage from Table, Line A. *3.01*
(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 = *41 + 3.01% = 1.23*

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ...	<i>48.50</i>	1	<i>48.50</i>	<i>49.5</i>	<i>44.0</i>	1	<i>44.00</i>
$\frac{1}{2}$ L from A.P. ...	<i>21.58</i>	4	<i>86.32</i>	<i>14.44</i>	<i>15.5</i>	4	<i>62.00</i>
$\frac{3}{4}$ L " ...	<i>5.33</i>	2	<i>10.66</i>	<i>1.97</i>	<i>2.0</i>	2	<i>4.00</i>
Amidships ...		4		<i>0</i>		4	
$\frac{3}{4}$ L from F.P. ...	<i>10.67</i>	2	<i>21.34</i>	<i>12.75</i>	<i>13.0</i>	2	<i>25.94</i>
$\frac{1}{2}$ L " ...	<i>43.16</i>	4	<i>172.64</i>	<i>45.94</i>	<i>44.24</i>	4	<i>176.92</i>
F.P. ...	<i>97.00</i>	1	<i>97.00</i>	<i>107.69</i>	<i>108.0</i>	1	<i>107.86</i>
Total ...			<i>436.46</i>				<i>420.72</i>

Mean actual sheer aft = *deficient 74.68%*Mean actual sheer forward = *Excess.*

Length of enclosed superstructure forward of amidships =

" " aft of " =

Shaft			S	A	for:-		S	A
48.50	44.0	1	48.50	44.00	10.67	13.0	3 32.01	39.00
21.58	15.5	3	64.74	46.50	43.16	44.24	3 29.48	132.73
5.33	2.0	3	15.99	6.00	47.00	108.00	1 127.00	108.00
			129.23	96.5			258.49	279.73

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

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

*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? *5 ring bolts each side and 3 ditto each end.*

Particulars of fiddle, funnel and ventilator coamings:— *6" room vents— diam. 24". Thickn. of coam. 32". Hgt. above casing top 7".*

Particulars of Companionways:—

*At after end of jete.— Steel. Opening 4'x3'. Hgt. of sill above shelter deck 24".
 Steel doors capable of being manipulated from both sides.
 Steel house aft.— Plating 30. Stiff. 4'x3'x32 spaced 36" apart. 10" top.
 Openings 5'-2"x2'-2". Hgt. of sill 13". Steel doors, capable of being manip. from both sides.*

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

*Forecastle.— diam. 6" & 11". Thickn. of coam. 36" & 36". Hgt. 36"
 Shelter deck.— " 12" " " 38" " 36"
 " " 12" " " 36" " 8" stayed.
 Accom. aft.— " 11" " " 36" " 36"
 Covers and canvas for closing vent. coamings onboard.*

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

*Opening above deck.— Jete. 12" & 26" } All with means for closing ends.
 " " " 30" & 34" }*

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

Particulars of Scuppers and Sanitary Discharge Pipes:—

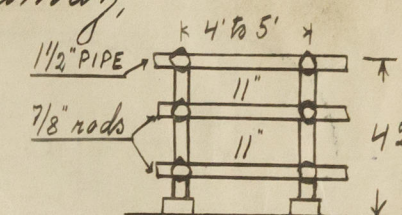
*Shelter deck is composed of 3" steel pipes with discharge ends about 12" below deck.
 Sanitary discharge pipes led overboard just above main deck and are fitted with storm valves.*

Particulars of Side Scuttles:—

All side scuttles fitted with permanently attached inside deadlights.

Particulars of Guard Rails:—

Open rails, except abreast deckhouses and No. 3 hatchway, where bulwarks 40" in height are fitted.



Particulars of Gangways, Lifelines, etc.:— *None.*

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		32	5'x3'x36" L	36"	—	See companion way	24"	4'-3"
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								

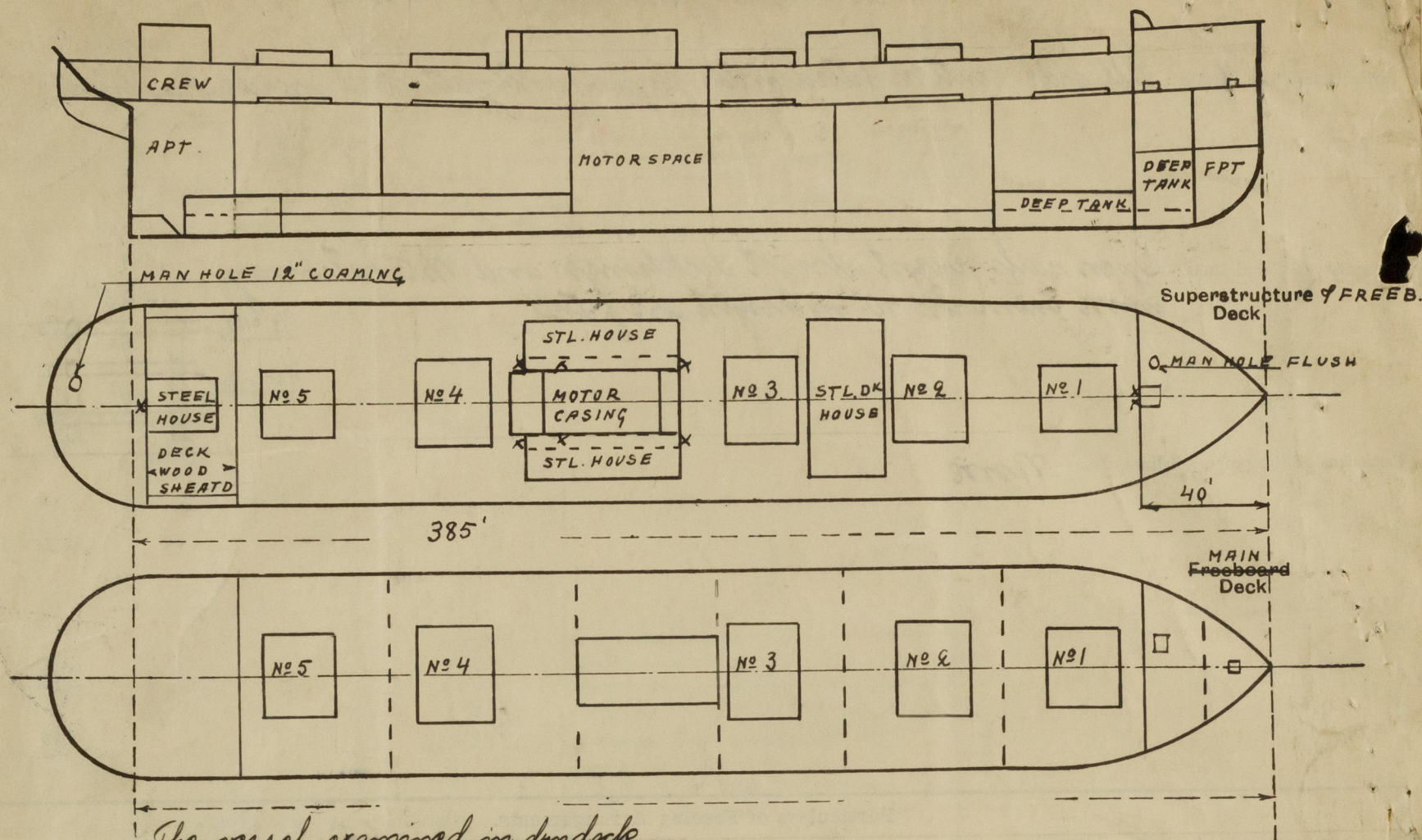
There are no exposed mchry casings (see sketch)

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	

See companion way at after end of jete.

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:—



The vessel examined in drydock.
 Timber deck cargo freeboards are not required.
 Displacement in salt water at 19.7' draught. 8940 tons. Tons per inch immersion. 40.4 tons.
 " " " " 22.3' " " " " 41.0 "
 " " " " 24.9' " " " " 41.5 "

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

$$\begin{array}{r} \text{Sheer aft} = 74.68 \\ - 50.00 \\ \hline 24.68 \\ \div 25 = 98.72\% \end{array}$$

Actual	13.00	44.24	109
Standard	10.67	43.16	97
	2.33	1.08	11.00
	2.30	1.07	10.86
	10.67	43.16	97.00
	12.97	44.23	107.86

26.04
17
26.21
24.90
1.31
12
15.72
42
31.44
6288
60.24

11520
 660
 12180

Builder's name and yard number Aktief. Götaverken, Gøteborg. Yard no 359.

Names of sister ships M/s 'LULEÅ', Yard no 358.

Owners Trafikaktiebolaget Grängsberg-Oxelösund, Stockholm.

Fee £ Kr. 390.00

Received by me ☒



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