

Lloyd's Register of Shipping. SURVEYS FOR FREEBOARD.

GLASGOW REPORT No. 53209

Computation of Freeboard for Steamer, *Swedish Ship Trucker*
having *a forecastle*

(Type of Superstructures.) *Danish Copenhagen*

Ship's Name "MANXSONA."	Nationality and Port of Registry <i>Danish Copenhagen</i>	Official Number <i>144061</i>	Gross Tonnage <i>184</i>	Date of Build <i>1922-3</i>
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Moulded Dimensions: Length *99.75* Breadth *21.0* Depth *10.5*
Moulded displacement at moulded draught = 85 per cent. of moulded depth *355* tons
Coefficient of fineness for use with Tables *665* (Lowest in Table 68)

Port of Survey *Glasgow*
Date of Survey *17th January 1933*
Name of Surveyor *H. Thomson*
Particulars of Classification *+ 100A.1.*
S.S. No 230

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	<i>10.5</i>	(a) Where D is greater than Table depth (D - Table depth) R = $(10.53 - 6.65) \cdot 767 = + 2.98$	Moulded Breadth (B)	<i>10.5 - 21.0</i>	
Stringer plate	<i>.36</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$	<i>5.04</i>	
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$		If restricted by superstructures	Ship's Round of Beam =	<i>5</i>	
Depth for Freeboard (D) =	<i>10.53</i>		Difference	<i>.04</i>	
			Restricted to		
			Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$	$\frac{.04}{4} \times .8092 = + .01$	

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Roop enclosed					
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
Fore enclosed <i>(equal to)</i>	<i>19.03</i>	<i>19.03</i>	<i>6'-10" + 3'</i>		<i>19.03</i>
" overhang	<i>3'</i>		<i>6'-10" + 3'</i>		
Funnel aft					
" forward					
Tonnage opening aft					
" forward					
Total	<i>19.03</i>	<i>19.03</i>			<i>19.03</i>

Standard Height of Superstructure *6.00'*
" " R.Q.D.
Deduction for complete superstructure *15.97*
Percentage covered $\frac{S}{L} = 19.08\%$
" " $\frac{S_1}{L} = 19.08\%$
" " $\frac{E}{L} = 19.08\%$
Percentage from Table, Line A. *9.54%*
(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 = $15.97 \times .0954 = - 1.52$

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P.	<i>19.97</i>	<i>1</i>	<i>19.97</i>	<i>18</i>	<i>18.00</i>	<i>1</i>	<i>18.00</i>
$\frac{1}{4}L$ from A.P.	<i>8.89</i>	<i>4</i>	<i>35.56</i>	<i>5</i>	<i>3.60</i>	<i>4</i>	<i>14.40</i>
$\frac{2}{4}L$ " "	<i>2.20</i>	<i>2</i>	<i>4.40</i>	<i>3/4</i>		<i>2</i>	
Amidships		<i>4</i>				<i>4</i>	
$\frac{3}{4}L$ from F.P.	<i>4.39</i>	<i>2</i>	<i>8.78</i>	<i>1</i>	<i>1.00</i>	<i>2</i>	<i>2.00</i>
$\frac{1}{4}L$ " "	<i>17.77</i>	<i>4</i>	<i>71.08</i>	<i>7</i>	<i>6.50</i>	<i>4</i>	<i>26.00</i>
F.P.	<i>39.94</i>	<i>1</i>	<i>39.94</i>	<i>25</i>	<i>25.00</i>	<i>1</i>	<i>25.00</i>
Total			<i>179.73</i>				<i>85.40</i>

Mean actual sheer aft = Deficient
Mean standard sheer aft
Mean actual sheer forward = Deficient
Mean standard sheer forward
Length of enclosed superstructure forward of amidships =
" " aft of " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{94.33}{18} \left(.75 - .0954 \right) = + 3.43$

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)	<i>9.97</i>
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient	<i>9.97</i>
Depth to Freeboard Deck = Ft.	$\Delta =$	Depth Correction	<i>2.98</i>
Summer freeboard =	Tons per inch immersion at summer load water line	Deduction for superstructures	<i>- 1.52</i>
Moulded draught (d) =	T =	Sheer correction	<i>3.43</i>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches =	Deduction = $\frac{\Delta}{40T}$ inches =	Round of Beam correction	<i>.01</i>
Addition for Winter North Atlantic Freeboard (if required) =		Correction for Thickness of Deck amidships	<i>-</i>
		Other corrections, scantlings, etc.	<i>-</i>
		Summer Freeboard =	<i>14.87</i>

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, *1'-2 3/4"*

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		CARGO HATCH	HATCH FORWARD	COAL HATCH	
Dimensions of Hatchway		25'5" x 13'0"	2'3" x 2'6"	5'5" x 10'0"	
COAMINGS	Height above Deck	30	18		8 x 3 x 40
	Thickness	44	30		
	Stiffeners	44	30		
	Brackets, Stays	7 x 3 x 40	none	none	
HATCH BEAMS	Number	5			
	Spacing	4'3"			
	Scantling and Sketch	11 x 30	none	none	
	Bearing Surface	3 1/2			
FORE AND AFTERS	Number				
	Spacing				
	Unsupported Lengths				
	Scantling* and Sketch		← none →		
HATCH COVERS	Material	WP	WP	WP	
	Thickness	2 1/2	2 1/2	2 1/2	
	How fitted	F + B	F	F + B	
	Bearing Surface	3	2	3	
Spacing of Cleats		24	24	24	
Number of Tarpaulins		2	2	2	
*Are wood fore and afters steel shod at all bearing surfaces?		none			
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?		Ringshots for lashings provided			

Particulars of fiddle, funnel and ventilator coamings:—

Engine skylight on casing top of steel - strongly constructed
 Fiddle openings protected by strong hinged plate covers
 Ventilators on casing top in good condition

Particulars of Flush Bunker Scuttles:—

none

Particulars of Companionways:—

none

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

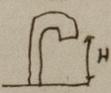
2 Ventilators on fore and aft decks. Casings 36 x 6 x 28 Ventilator casings constructed
 1 " " upper - to hold - 42 x 9 x 32 in accordance with the Rules.

~~no means of closing vent casings provided.~~
 Efficient closing provided

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

1 air pipe on fore and aft deck to f. p. tank 9" high x 3" dia
 1 " " " afters " " a. p. - 25" x 2 1/2"

~~no means of closing air pipes provided.~~
 Efficient closing provided.



Particulars of Gangway Cargo and Coaling Ports:—

none



Particulars of Scuppers and Sanitary Discharge Pipes:—

There are no scupper pipes discharging below the foredeck deck.
Sanitary pipes discharge below the foredeck deck where shown on sketch and have
no storm valves at ship's side.

Particulars of Side Scuttles:—

There are no side scuttles below the foredeck deck.
Side scuttles in forecabin 10" dia. no deadlights fitted

Particulars of Guard Rails:—

Guard rails on forecabin deck 2'-9" high with 2 rods. Stanchions 3'-9" apart.

Particulars of Gangways, Lifelines, etc.:—

Suitable provision made for rigging lifelines which will be available for use in any part of the ship which might have to be used by the crew in the regular working of the ship.

Particulars of Freeing Arrangements.

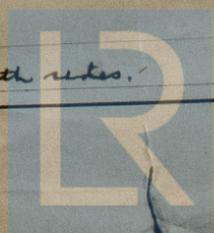
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	78.81	3'-3"	21" x 12"	5	8.75	0.76
Forward Well						SEE SUPPLEMENTARY REPORT
State position of each freeing port } After Well:— } from fore bulkhead. 18'-5", 29'-6", 36'-5", 44'-4", 55'-0". no sill. (F. and A. position and height above deck edge) } Forward Well:— } fitted with 1 rod. 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.

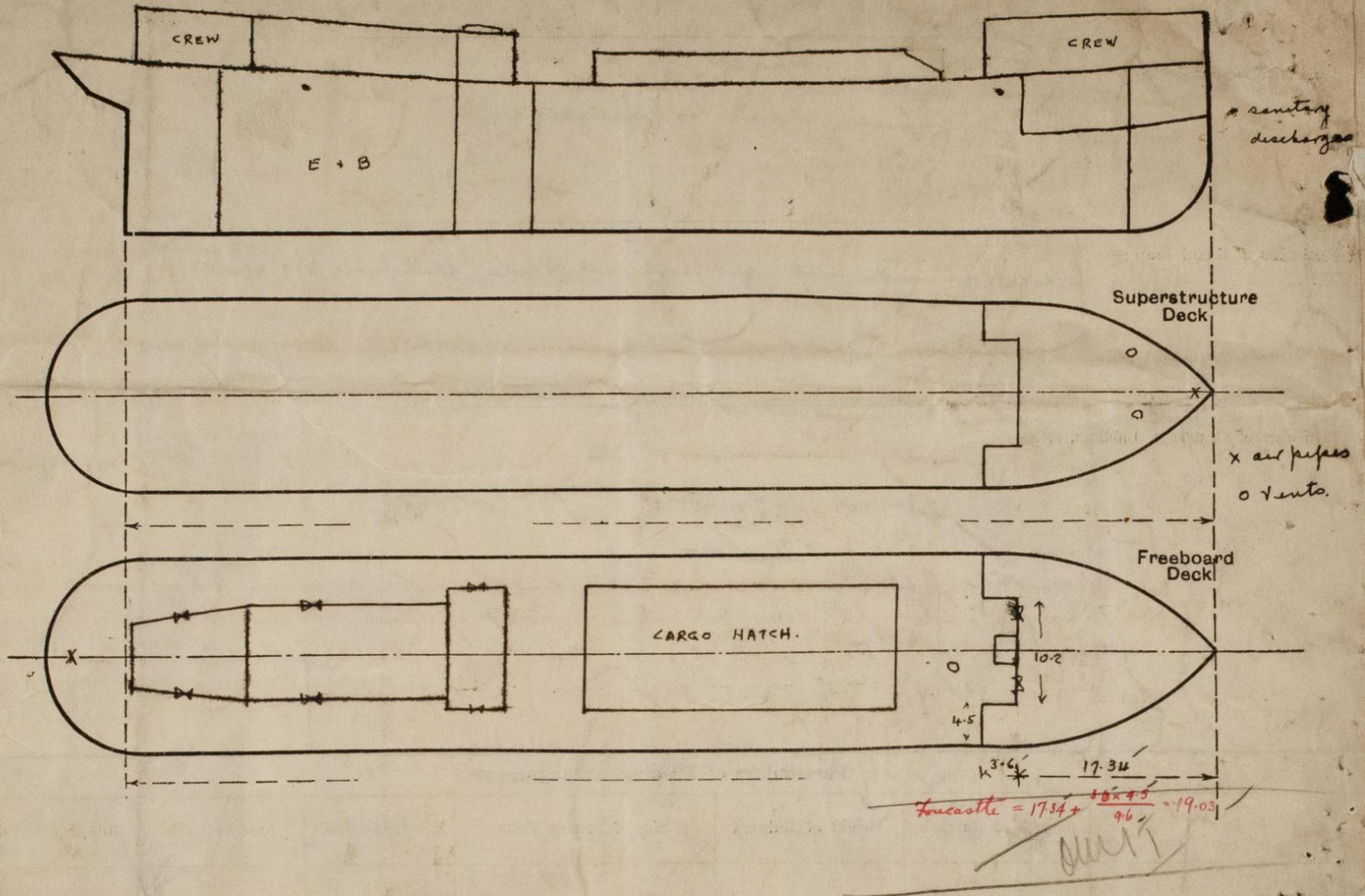
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Roop Bulkhead								
Raised Quarter Deck Bulkhead ...								
Bridge, After Bulkhead								
Bridge, Forward Bulkhead								
Forecastle Bulkhead	none	.28'	3 x 3 x .30'	28"	none	4'-6" x 2'-0"	15"	
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	18 x .34	.30'	3 x 3 x .30'	24"	brackets at top	4'-6" x 2'-1"	18"	6'-9"
Exposed Machinery Casings on Superstructure Decks								
Machinery Casings within Superstructures not fitted with Class I Closing Appliances								
Deckhouses on Flush Deck Ships ...	18 x .34	.30'	3 x 3 x .30'	36"	none	4'-6" x 2'-0"	21"	6'-9"

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

Roop Bulkhead	
Raised Quarter Deck Bulkhead ...	
Bridge, After Bulkhead	
Bridge, Forward Bulkhead	
Forecastle Bulkhead	Hinged wood doors manipulated from both sides
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	Hinged steel doors manipulated from both sides
Exposed Machinery Casings on Superstructure Decks	
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships ...	Hinged wood doors manipulated from both sides.



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:—



State any special features in the construction of the ship:— This vessel is engaged in the Irish Sea coasting trade. Lumber foreboard not required.

This vessel was examined on 12/11/1911 and the survey was confined to an examination of the bottom and the means of closing the openings in the deck & sides of the vessel. No part of a special survey has been held at this time.

Builder's name and yard number: Carter Construction Co Ltd No 101.

Names of sister ships: not known

Owners: Messrs Salt & Alkali Co Ltd (G. Ltd)

Fee £ 3 : 8 : 0 Received by me