

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

GLASGOW REPORT No. 53209

Computation of Freeboard for Steamer, *Swedish Ship* *Tanker*
having *a forecastle* *Danish* *Copenhagen*
(Type of Superstructures.)

Ship's Name "MANXSONA."	Nationality and Port of Registry <i>Danish</i> <i>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 *49.75* 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.*
5.5. Rm No 30

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 = <i>(10.53 - 6.65) . 767 = + 2.98</i>		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 = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right)$	<i>.04</i> \times <i>.8092</i> = <i>+ .01</i>

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	M	Product	Actual Ordinate	Effective Ordinate	S	M	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>

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

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.
Addition for Winter and Winter North Atlantic Freeboard.

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.

Δ =
Tons per inch immersion at summer load water line

T =

Deduction = $\frac{\Delta}{40T}$ inches

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction ...
Deduction for superstructures ...
Sheer correction ...
Round of Beam correction ...
Correction for Thickness of Deck amidships ...
Other corrections, scantlings, etc. ...

+	-
<i>2.98</i>	
	<i>1.52</i>
<i>3.43</i>	
<i>.01</i>	
<i>6.42</i>	<i>1.52</i>
	<i>+ 4.90</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 ...
Fresh Water Line " " ...
Tropical Line " " ...
Winter Line below " " ...
Winter North Atlantic Line " " ...

Tropical Fresh Water Freeboard ...
Fresh Water " " ...
Tropical " " ...
Winter " " ...
Winter North Atlantic " " ...

1906 Flds.

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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	{	8'3" x 4'0"			
		Thickness	44	30					
		Sides	44	30					
		Stiffeners	7 x 3 x 40	none			none		
		Brackets, Stays	1	none			none		
HATCH BEAMS	{	Number	5						
		Spacing	4'3"						
		Scantling and Sketch							
			11 x 30	none	none				
			3 x 3 x 40						
	Bearing Surface	3/4"							
FORE AND AFTERS	{	Number							
		Spacing							
		Unsupported Lengths							
		Scantling* and Sketch							
		Bearing Surface							
HATCH COVERS	{	Material	WP	WP	WP				
		Thickness	2 1/2"	2 1/2"	2 1/2"				
		How fitted	F & B	F & B	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?			Rings 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
 1 " " upper - to hold - 42 x 9 x 32

Ventilator casings constructed in accordance with the Rules.

~~no means of closing vent casings provided~~

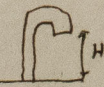
Efficient closing provided

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 " " after " " 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



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Particulars of Scuppers and Sanitary Discharge Pipes:—

There are no scupper pipes discharging below the foreward deck.
Sanitary pipes discharge below the foreward 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 foreward deck.
Side scuttles in foreward 10" dia. no deadlights fitted


Particulars of Guard Rails:—

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

Particulars of Gangways, Lifelines, etc.:—

*Quitable 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.

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	15.75
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:— } State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— fitted with 1 rod.						
Additional area where sheer is less than standard.						

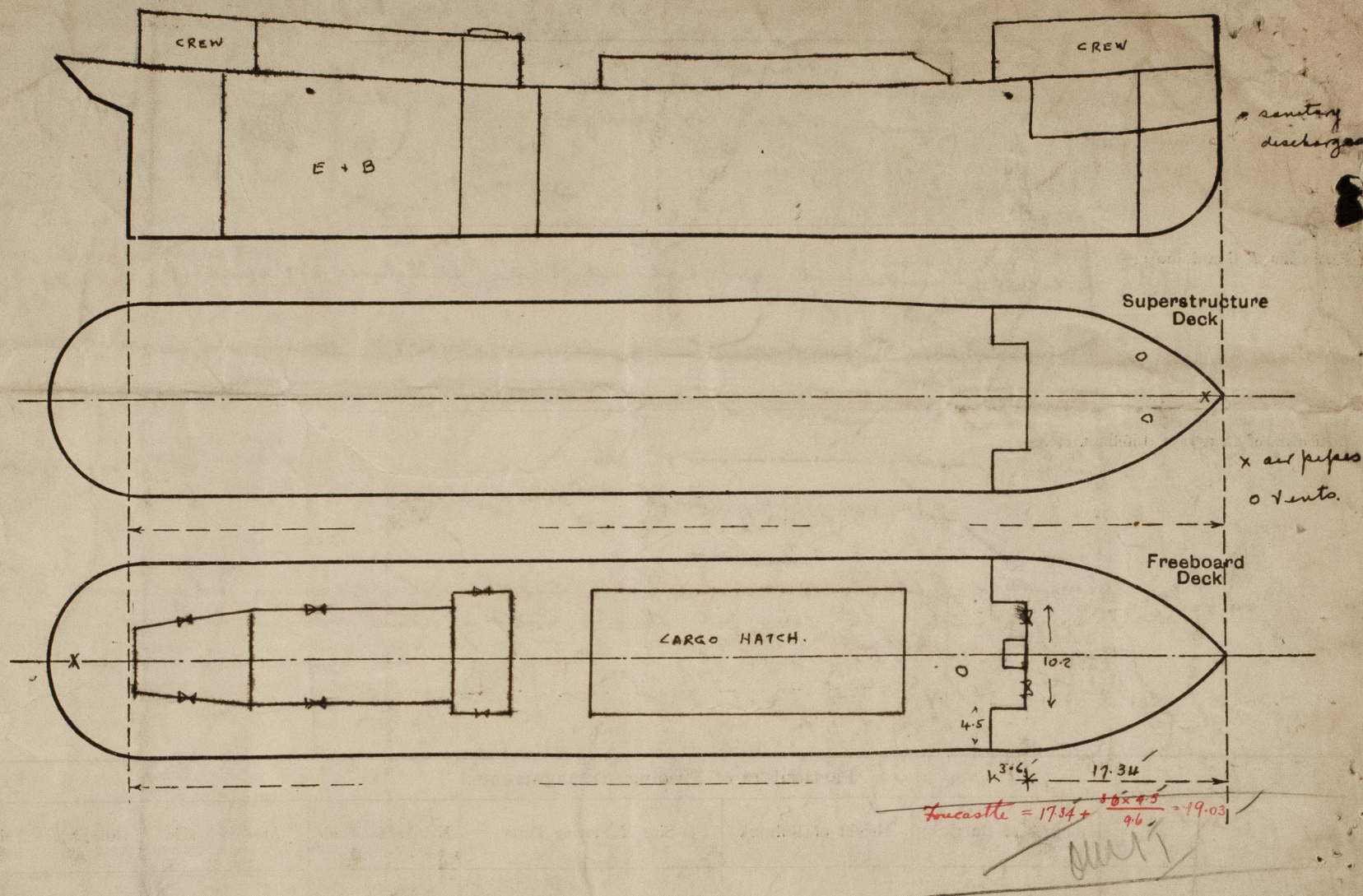
Particulars of Superstructures, Trunks, Casings, Deckhouses.

	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 Free-board 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 ...	
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Hinged wood doors manipulated from both sides
Exposed Machinery Casings on Superstructure Decks ...	Hinged steel doors manipulated from both sides
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 shewn on the following sketches:—



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

This vessel was examined on 12th February and the survey was confined to an examination of the bottom and the means of closing the openings in the decks & 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 & Aikens Ltd (J. Laid)

Fee £ 3 : 8 : 0

Received by me



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