

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. 34235
(For London Office only.)

33252

Dpt No 9710
19 SEP 1932

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having forecastle & bridge

(Type of Superstructures.)

Ship's Name <u>"CONTE DI SAVOIA"</u>	Nationality and Port of Registry <u>Italian GENOA</u>	Official Number <u>48502.18</u>	Gross Tonnage <u>Building</u>	Date of Build
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Moulded Dimensions: Length 778.56 Breadth 95.8 Depth 53.31
Moulded displacement at moulded draught = 85 per cent. of moulded depth 64120 tons
Coefficient of fineness for use with Tables 664 (6.8 - Lowest in Table)

Port of Survey Trieste
Date of Survey During construction
Name of Surveyor G. H. Balfour & H. G. G. G.
Particulars of Classification 100 A.1.
and freeboard
Class contemplated

<p>Depth for Freeboard (D)</p> <p>Moulded depth ... <u>53.31</u></p> <p>Stringer plate <u>39.</u> ... <u>03</u></p> <p>Sheathing on exposed deck <u>03</u></p> <p>$T \left(\frac{L-S}{L} \right) =$</p> <p>Depth for Freeboard (D) = <u>53.37</u></p>	<p>Depth correction</p> <p>(a) Where D is greater than Table depth (D - Table depth) R = <u>(53.37 - 51.91) 3 = 4.38</u></p> <p>(b) Where D is less than Table depth (if allowed) (Table depth - D) R =</p> <p>If restricted by superstructures</p>	<p>Round of Beam correction</p> <p>Moulded Breadth (B) <u>95.8</u></p> <p>Standard Round of Beam = $\frac{B \times 12}{50} = \frac{22.99}{50} = 22.99$</p> <p>Ship's Round of Beam <u>4"</u> = <u>4</u></p> <p>Difference <u>18.99</u></p> <p>Restricted to</p> <p>Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L_1} \right) = \frac{18.99 \times 53.77}{4} = 4 + 2.55$</p>
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
" overhang <u>B</u> ...	<u>17</u>	<u>8.5</u>			<u>8.5</u>
R.Q.D. enclosed <u>B</u> ...	<u>17</u>	<u>8.5</u>			<u>8.5</u>
" overhang <u>B</u> ...	<u>17</u>	<u>8.5</u>			<u>8.5</u>
Bridge enclosed <u>open</u> ...	<u>409.9</u>	<u>204.95</u>	<u>9.5</u>		<u>204.95</u>
" overhang aft ...					
" overhang forward ...					
F'cle enclosed <u>open</u> ...	<u>192</u>	<u>129.51</u>	<u>9.5</u>		<u>129.51</u>
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	<u>652.9</u>	<u>359.96</u>			<u>359.96</u>

Standard Height of Superstructure 7.5
" " R.Q.D.
Deduction for complete superstructure 42
Percentage covered $\frac{S}{L} = \frac{83.85}{L} = 83.85$
" " $\frac{S_1}{L} = \frac{46.23}{L} = 46.23$
" " $\frac{E}{L} = \frac{46.23}{L} = 46.23$
Percentage from Table, Line A.
(corrected for absence of forecastle (if required))
Percentage from Table, Line B. 32.79
(corrected for absence of forecastle (if required))
Interpolation for bridge less than 2L (if required) > 2L
Deduction = 42 x 32.79 = 13.77

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ...	<u>87.86</u>	<u>1</u>	<u>87.86</u>	<u>51.5</u>	<u>51.5</u>	<u>1</u>	<u>51.5</u>
$\frac{1}{2}$ L from A.P. ...	<u>39.10</u>	<u>4</u>	<u>156.40</u>	<u>12.5</u>	<u>12.5</u>	<u>4</u>	<u>50.0</u>
$\frac{2}{3}$ L " ...	<u>9.66</u>	<u>2</u>	<u>19.32</u>	<u>-4.0</u>	<u>-4.0</u>	<u>2</u>	<u>-8.0</u>
Amidships ...		<u>4</u>		<u>0</u>		<u>4</u>	
$\frac{2}{3}$ L from F.P. ...	<u>19.32</u>	<u>2</u>	<u>38.64</u>	<u>26</u>	<u>26</u>	<u>2</u>	<u>52.0</u>
$\frac{1}{2}$ L " ...	<u>78.20</u>	<u>4</u>	<u>312.80</u>	<u>72</u>	<u>72</u>	<u>4</u>	<u>288.0</u>
F.P. ...	<u>175.72</u>	<u>1</u>	<u>175.72</u>	<u>141.7</u>	<u>141.7</u>	<u>1</u>	<u>141.7</u>
Total ...			<u>790.74</u>				<u>576.2</u>

Mean actual sheer aft = Defic
Mean standard sheer aft = Defic
Mean actual sheer forward = Defic 93.03%
Mean standard sheer forward = Defic 93.03%
Length of enclosed superstructure forward of amidships = 396
" " aft of " = 396
Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75}{2L} \right) = \frac{215.54}{18} \left(\frac{75}{4192} \right) = 3.96$
If limited on account of midship superstructure.
If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft.

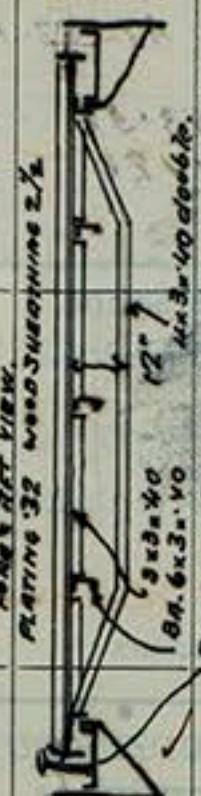
<p>Deduction for Tropical Freeboard.</p> <p>Addition for Winter and Winter North Atlantic Freeboard.</p> <p>Depth to Freeboard Deck = <u>Ft.</u></p> <p>Summer freeboard = <u></u></p> <p>Moulded draught (d) = <u></u></p> <p>Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <u></u></p> <p>Addition for Winter North Atlantic Freeboard (if required) = <u></u></p>	<p>Deduction for Fresh Water.</p> <p>Displacement in salt water at summer load water line $\Delta = \underline{40050}$</p> <p>Tons per inch immersion at summer load water line $T = \underline{131.6}$</p> <p>Deduction = $\frac{\Delta}{40T}$ inches = $\frac{40050}{40 \times 131.6} = 7.6 = 7\frac{1}{2}$</p> <p><u>190 m/m</u></p>	<p>TABULAR FREEBOARD corrected for Flush Deck (if required)</p> <p>Correction for coefficient</p> <table border="1"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction ...</td> <td><u>4.38</u></td> <td></td> </tr> <tr> <td>Deduction for superstructures ...</td> <td></td> <td><u>13.77</u></td> </tr> <tr> <td>Sheer correction ...</td> <td><u>3.95</u></td> <td></td> </tr> <tr> <td>Round of Beam correction ...</td> <td><u>2.55</u></td> <td></td> </tr> <tr> <td>Correction for Thickness of Deck amidships ...</td> <td><u>.89</u></td> <td></td> </tr> <tr> <td>Other corrections, scantlings, <u>are to be considered</u></td> <td><u>11084</u></td> <td></td> </tr> <tr> <td><u>from all seasons moulded draught</u></td> <td><u>122.62</u></td> <td><u>13.77</u></td> </tr> <tr> <td><u>All Seasons Summer Freeboard = 277.16 = 7040 m</u></td> <td></td> <td></td> </tr> </table> <p><u>168.31</u> <u>22</u> <u>168.31</u></p>		+	-	Depth Correction ...	<u>4.38</u>		Deduction for superstructures ...		<u>13.77</u>	Sheer correction ...	<u>3.95</u>		Round of Beam correction ...	<u>2.55</u>		Correction for Thickness of Deck amidships ...	<u>.89</u>		Other corrections, scantlings, <u>are to be considered</u>	<u>11084</u>		<u>from all seasons moulded draught</u>	<u>122.62</u>	<u>13.77</u>	<u>All Seasons Summer Freeboard = 277.16 = 7040 m</u>		
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24 SEP 1932
As assigned
by the Registrar
Station

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, <u>Steel</u> , Deck:-			
Tropical Fresh Water Line above Centre of Disc ...	<u>190 m/m</u>	Tropical Fresh Water Freeboard ...	<u>4540 m/m</u>
Fresh Water Line " " ...	<u>190 m/m</u>	Fresh Water " " ...	<u>4350 "</u>
Tropical Line " " ...	<u>NIL</u>	Tropical " " ...	<u>4540 "</u>
Winter Line below " " ...	<u>NIL</u>	Winter " " ...	<u>4540 "</u>
Winter North Atlantic Line " " ...	<u></u>	Winter North Atlantic " " ...	<u></u>

MARKING FORM
RECEIVED 20 DEC 1932

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
Description of Hatchway		To Fore Peak on SUP. DK.	No. 1 on SUP. DK.	No. 2 on SUP. DK.	No. 2 on A. DK.	No. 1 on A. DK.			
Dimensions of Hatchway		4'0" x 4'0"	12'6" x 13'1"	17'9" x 19'8"	17'9" x 19'8"	18'6" x 13'1"			
COAMINGS	Height above Deck	13 1/2	HINGE D						
	Thickness	4 1/4	STEEL						
	Stiffeners	4 1/4	FLUSH						
	Brackets, Stays	none	HATCHWAY						
			WOOD						
HATCH BEAMS	Number		2 OFF	3 OFF	3 OFF	2 OFF			
	Spacing								
FORE AND AFTERS	Scantling and Sketch								
	Bearing Surface								
	Number			AS. No. 1.	AS. No. 1.	AS. No. 1.			
	Spacing								
	Unsupported Lengths								
HATCH COVERS	Scantling* and Sketch								
	Bearing Surface								
	Material	Steel							
	Thickness	1/4"							
HATCH COVERS	How fitted	Welded							
	Bearing Surface	AS.							
Spacing of Cleats		Same as							
Number of Tarpaulins		fourteen							

Particulars of fiddley, funnel and ventilator coamings:— The funnels are stepped directly on the upper sports deck & are well supported. The engine room extends to the sports deck and is covered by a substantially built steel sky light. At the upper sports deck grouped around the 2 funnels are five pairs of ventilators. Dimensions 6'3" x 6'0"; 5'5" x 6'7"; 6'9" x 6'8"; 5'9" x 6'3" & 5'3" x 5'6". The coamings are 12" high x 32 & the first coils are made of plating 14 thick stiffened.

Particulars of Flush Bunker Scuttles:—

None

Particulars of Companionways :—

an Superstructure deck fwd - 0.4 -

Steel plating 1/40. Corrug 1/44. Stiffeners 4 x 2 1/2 x .28 spaced about 24" apart.
Hinged steel WT door secured by clips. Sill 18" ✓

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

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

2 Vents on Superstructure deck.	18 $\frac{1}{2}$ " diam.	Cowings.	33 $\frac{1}{2}$ " x 4'0"	to fore peak truss deck.	Seven down mainmastroom heads.
3 " " "	17 $\frac{1}{2}$ " diam.	"	33 $\frac{1}{2}$ " x 4'0"	to mid hold and lower truss deck.	" " " " -
4 Square neck Vents on Superstructure deck.	diam. 4"	height of opening 24"	to top air F. deck.	W.T. brined openings.	
4 " " " " freeboard deck off.	" 5"	" " "	30'6" above deck F & E.	" " " "	-

Forced Ventilation. On freeboard deck off. 2 ducts long deck. 20"x20" cowings. 33"x32"-

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

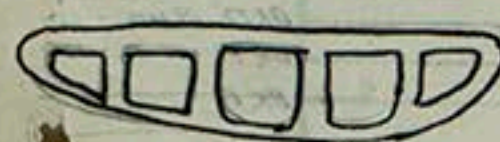
Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—
No air pipes on exposed positions on freeboard or superstructure decks. Air pipes from oil fuel tanks are collected to a common chest having an outlet discharging above the highest superstructure. — Air pipes from water ballast tanks are led overboard above deck 'D' through automatic non return valves. Air pipes to feed & F. water tanks are led withing hulls coaming, open mouthed & with overboard arrangement.

Particulars of Gangway Cargo and Coaling Ports:—

Coaling fronts. Name fitted.

Particulars of Gangway Cargo and Coaling Ports:— *Coaling ports. Name fitted.*
All gangway doors are W.T. & apparently constructed as listed as follows:
In lower deck (D-E) a) 77" x 71"; b) 65" x 71"; c) 99" x 87". In lower deck (C-D) d) 77" x 74"; e) 77" x 73"; f) 77" x 75"
In lower deck (B-C) g) 77" x 81". In lower deck (A-B) h) 77" x 75"; i) 48" x 77"; k) 48" x 77"; l) 77" x 77".

Particulars of Scuppers and Sanitary Discharge Pipes — Discharges from spaces above the bulkhead deck are collected by groups to common tanks and discharge overboard through galvanized steel pipes having bronze valves, controlled from above the 3rd deck at the ship's sides and an automatic non-return valve between the tank and the tank. Discharges from spaces below the 3rd deck are led by groups to a common tank and discharged overboard by compressed air. (Adams system) The discharge pipes from the tank have bronze valve (controlled from above the 3rd deck) at the ship's sides and an automatic non return valve in an accessible position. There is a galley refuse disposal having the above opening above the 3rd deck. All of the discharge arrangements have an automatic valve in an accessible position and W.T. fitted at the inboard ends.



Particulars of Side Scuttles: All side scuttles below D deck (Bulkhead deck) are of 1/8" in bulkhead C-D & B-C also in way of scuttles. Frames are furnished with bronze cast steel & malleable cast iron decklights. Windows ordering bronze or painted side scuttles are fitted. In superstructure bulkhead about 3" down from top of bulkhead (monopipe 36" x 28") are cut & fitted with substantial sliding windows with protective shuttles. The sill of the lowest side light is 34'-2 1/2" above the base line.

Particulars of Guard Rails: — as Superstructure deck. fwd — Height of rails 54" Standard 1 1/4" diam spaced about 4 feet apart. Rails spaced 6 1/2" apart

Particulars of Gangways, Lifelines, etc. —

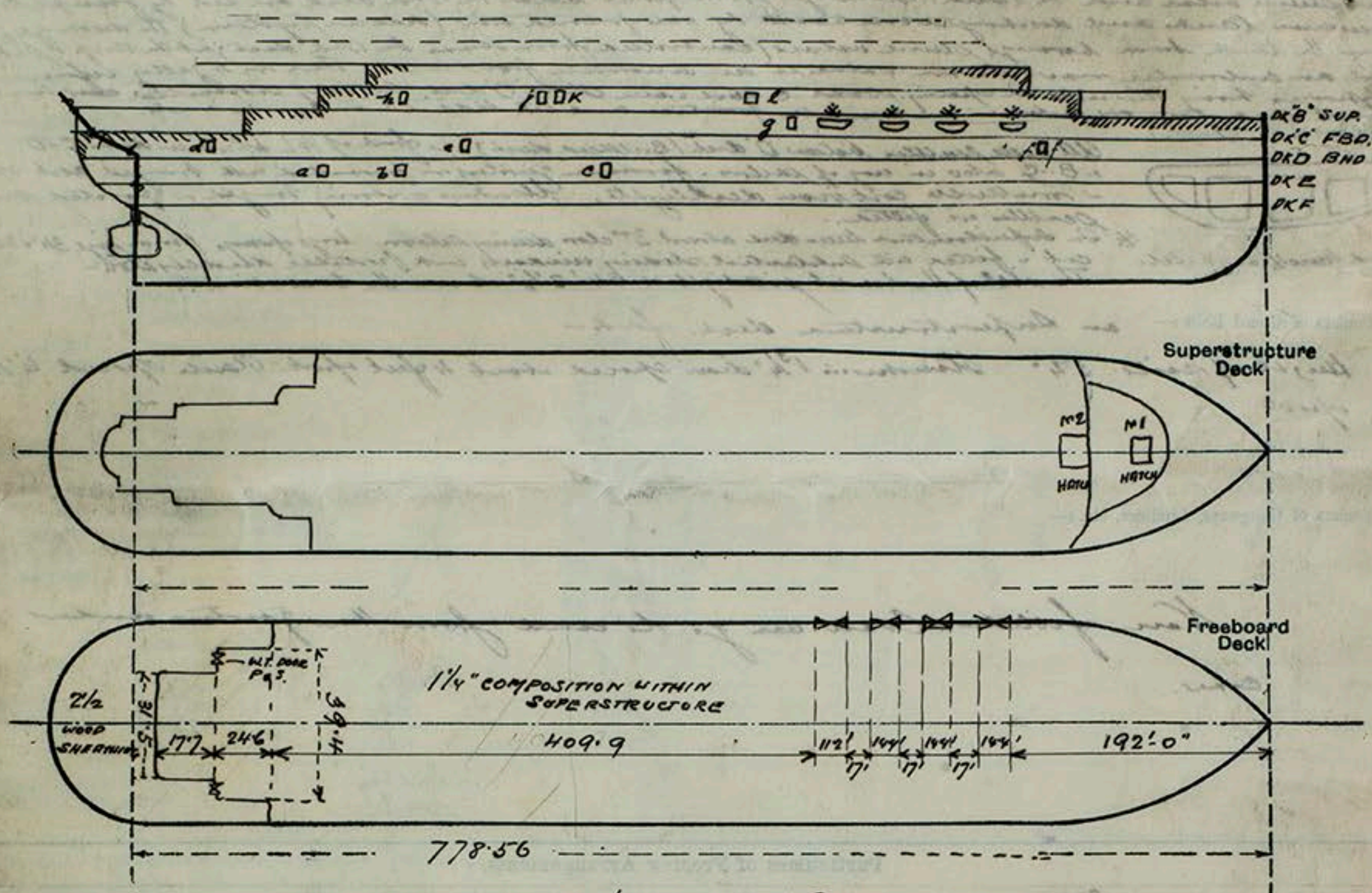
None fitted. Crew can go to and from their quarters under cover.

Particulars of Freeing Arrangements.						
	DEVELOPED Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well <i>Forward deck.</i>	<i>Protected by deck above</i> 102'	48"	3' x 16' oval 9' 5" x 20' oval.	Two. <i>Three on each</i>	8.4 61.5	
Forward Well <i>Superstructure deck</i>	<i>open rail.</i>					
State position of each freeing port } After Well:— 5'-3", 20'-5", 37'-1", 54'-9", 83'-0", 102' from bridge and Bulk. Height 16" (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:— Two 7/8" horizontal bars to each.						
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	47	35	6 x 3 x 35	30"	Brackets & bolting	63' 30"	15"	
Bridge, Forward Bulkhead								
Forecastle Bulkhead								
Trunk, Aft								
Trunk, Forward								
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...								
Exposed Machinery Casings on Super-structure Decks								
Machinery Casings within Superstruc-tures 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	Steel hinged W.T. door secured by clips manipulated from both sides.
Bridge, Forward Bulkhead	
Forecastle Bulkhead	
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	
Exposed Machinery Casings on Super-structure Decks	
Machinery Casings within Superstruc-tures 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 shown on the following sketches:—



$$\begin{aligned} \text{Deck covering } 71.26 \times 25/12 &= 14.85 \\ 54.4 \times 128/12 &= 5.67 \end{aligned}$$

$$\frac{20.52}{778.56} = 0.0264 = 0.3\%$$

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

The foreboard of this vessel will be assigned by the R.I. It is intended to class the vessel with L.R. R.I. & B.C. The scantlings have been approved by the Committee for a maximum draft of 30.35 ft. —

Depth to B.H.D. = 13.95 m	Length L.W.L. = 791.35
Deck Composition 30	Centre of Gravity of hull 6 1/2 (600 x 6.5) m/m
13780	12.80
R.I. foreboard 4540	778.55
Mid draught 9240	
10	
9250	
R.I. foreboard 4540 from deck D	
Height of keel 2500	
foreboard to D.C. 7040	
	with 30% composition in both keels

Builder's name and yard number *Cantieri Riuniti dell'Adriatico S. Maria Jovanova 783*

Names of sister ships *None*

Owners *Italia Flotte mercantile, Cornice, Lloyd di S. Maria, Navigazione Jovanova*

Fee £ ☒ Received by me