

437 C.11. Index. No. _____ (For London Office only.) Lloyd's Register of Shipping.SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having POOP - BRIDGE - FORECASTLE

(Type of Superstructures.)

Ship's Name <u>CHRISTIANSBORG.</u>	Nationality and Port of Registry <u>COPENHAGEN</u> <u>DANISH.</u>	Official Number	Gross Tonnage	Date of Build <u>1922.</u>
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Moulded Dimensions: Length 332.0 Breadth 48.50 Depth 24.50.

Moulded displacement at moulded draught = 85 per cent. of moulded depth

Efficient of fineness for use with Tables .778 tons

Port of Survey _____

Date of Survey _____

Name of Surveyor _____

Particulars of Classification T100A.1.

<p>Depth for Freeboard (D)</p> <p>d depth</p> <p>r plate</p> <p>ing on exposed deck $\left(\frac{L-S}{L}\right) =$</p> <p>Depth for Freeboard (D) = <u>24.54</u></p>	<p>Depth correction</p> <p>(a) Where D is greater than Table depth (D - Table depth) R = <u>+6.16</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)</p> <p>Standard Round of Beam = $\frac{B \times 12}{50} =$</p> <p>Ship's Round of Beam =</p> <p>Difference</p> <p>Restricted to</p> <p>Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L}\right) =$</p>
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- .02

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
op enclosed					
overhang					
D. enclosed					
overhang					
dge encloseded... ..					
overhang aft					
overhang forward					
le enclosed					
overhang					
nk aft					
forward					
nage opening aft ...					
forward					
Total					

Standard Height of Superstructure _____

" " R.Q.D. _____

Deduction for complete superstructure 37.47

Percentage covered $\frac{S}{L} =$

" " $\frac{S_1}{L} =$

" " $\frac{E}{L} =$ 81.20

Percentage from Table, Line A.
(corrected for absence of forecastle (if required))

Percentage from Table, TIMBER Line B. 88.25 ✓

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = 37.47 × 88.25 = - 33.07 ✓

SHEER CORRECTION.

ion	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
...		1				1	
A.P. ...		4				4	
...		2				2	
s ...		4				4	
F.P. ...		2				2	
...		4				4	
...		1				1	
al ...							

Mean actual sheer aft =

Mean standard sheer aft =

Mean actual sheer forward =

Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =

" " aft of " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) =$ -2.44

If limited to maximum allowance of 1½ ins. per 100 ft.

<p>on for Tropical Freeboard.</p> <p>n for Winter and Winter North</p> <p>ic Freeboard.</p> <p>Depth to Freeboard Deck = <u>24.54</u> ✓</p> <p>Summer freeboard = <u>2.16</u> ✓</p> <p>Moulded draught (d) = <u>22.38</u> ✓</p> <p>n for Tropical freeboard and addition for</p> <p>er freeboard = $\frac{d}{4}$ inches = <u>5.59</u> ✓</p> <p>Addition for Winter North Atlantic Freeboard (if required) = $\frac{2}{3} =$ <u>7.46</u> ✓</p>	<p>Deduction for Fresh Water.</p> <p>Displacement in salt water at summer load water line</p> <p>$\Delta =$ <u>8090 TONS.</u></p> <p>Tons per inch immersion at summer load water line</p> <p>$T =$ <u>32.5</u></p> <p>Deduction = $\frac{\Delta}{40T}$ inches = <u>6.22</u></p>	<p>TABULAR FREEBOARD corrected for Flush Deck (if required)</p> <p>Correction for coefficient</p> <table border="1"> <tr><td>+</td><td>-</td></tr> <tr><td>Depth Correction</td><td><u>6.16</u></td></tr> <tr><td>Deduction for superstructures</td><td><u>33.07</u> ✓</td></tr> <tr><td>Sheer correction</td><td><u>2.44</u> ✓</td></tr> <tr><td>Round of Beam correction... ..</td><td><u>.02</u> ✓</td></tr> <tr><td>Correction for Thickness of Deck amidships</td><td></td></tr> <tr><td>Other corrections, scantlings, etc.</td><td></td></tr> <tr><td><u>6.16</u></td><td><u>35.53</u></td></tr> </table> <p>Summer Freeboard = <u>25.89</u> ✓</p>	+	-	Depth Correction	<u>6.16</u>	Deduction for superstructures	<u>33.07</u> ✓	Sheer correction	<u>2.44</u> ✓	Round of Beam correction... ..	<u>.02</u> ✓	Correction for Thickness of Deck amidships		Other corrections, scantlings, etc.		<u>6.16</u>	<u>35.53</u>
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51.54 ✓

55.26 ✓

TIMBER SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck: - 25.89 = 658 METRES.

TIMBER Tropical Fresh Water Line above Centre of Disc ...	<u>16.11</u> = <u>409</u>	Tropical Fresh Water Freeboard ...	<u>14.08</u> = <u>358</u>
" Fresh Water Line " "	<u>10.52</u> = <u>267</u>	" Fresh Water " "	<u>19.67</u> = <u>500</u>
" Tropical Line " "	<u>9.89</u> = <u>251</u>	" Tropical " "	<u>20.30</u> = <u>516</u>
" Winter Line below " "	<u>3.16</u> = <u>80</u>	" Winter " "	<u>33.35</u> = <u>847</u>
" Winter North Atlantic Line " "	<u>5.50</u> = <u>140</u>	" Winter North Atlantic " "	<u>35.69</u> = <u>907</u>
SUMMER ABOVE	<u>4.30</u> = <u>109</u>		

W437-0052

RECEIVED

10m.2.31

MARKING

109 JUL 1935

Foundation