

Lloyd's Register of Shipping.  
SURVEYS FOR FREEBOARD.  
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

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

Ship's Name <b>m/t "C O N S T A N C E"</b>	Official Number <b>8675</b>	Nationality and Port of Registry <b>Swedish Kungsbacka.</b>	Gross Tonnage <b>Approx. 11.000</b>	Date of Build <b>1944 9</b>	Port of Survey <b>Gothenburg</b>
to centre of Rudder stock Moulded Dimensions: Length <b>156.414 M.</b> Breadth <b>20.116 M</b> Depth <b>11.963 M</b>					Date of Survey <b>During construction.</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>25190 M<sup>3</sup></b>					Surveyor's Signature <i>Hans Vane</i>
Coefficient of fineness for use with Tables <b>.7873</b>					Particulars of Classification <b>+100A1 Carrying Petroleum in Bulk.</b>

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth <b>11.963 M.</b>	(a) Where D is greater than Table depth (D—Table depth) R = <b>833 (11.987-10.428) 30 = 390 mm.+</b> <b>1.559</b>	Moulded Breadth (B) <b>20.116 M</b>
Stringer plate <b>24 mm.</b>	(b) Where D is less than Table depth (if allowed) (Table depth—D) R =	Standard Round of Beam = $\frac{B \times R}{50}$ = <b>0.402</b>
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <b>0.420</b>
Depth for Freeboard (D) = <b>11.987 M</b>		Difference <b>Excess</b> <b>.018</b>
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right)$ = <b><math>\frac{18}{4}(1-.325)</math></b>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S) M.	Equivalent Enclosed Length (S <sub>1</sub> ) M.	Height MM.	Height Correction	Effective Length (E) M.	
Poop enclosed Equiv.	<b>32.638</b>	<b>32.638</b>	<b>2440</b>	<b>-</b>	<b>32.638</b>	Standard Height of Superstructure <b>2290 mm.</b>
» overhang						» R.Q.D. <b>-</b>
R.Q.D. enclosed						Deduction for complete superstructure <b>1067 mm.</b>
» overhang						Percentage covered $\frac{S}{L} =$ <b>32.50</b>
Bridge enclosed						» $\frac{S_1}{L} =$ <b>32.50</b>
» overhang aft						» $\frac{E}{L} =$ <b>32.50</b>
» overhang forward						Percentage from Table, <del>Tanker</del> <b>23.5 %</b>
Fore enclosed	<b>18.204</b>	<b>18.204</b>	<b>2440</b>	<b>-</b>	<b>18.204</b>	(corrected for absence of forecastle [if required])
» overhang						Percentage from Table, Line B.
Trunk aft						(corrected for absence of forecastle [if required]) <b>-</b>
» forward						Interpolation for bridge less than 2L (if required) <b>-</b>
Tonnage opening aft						Deduction = <b>1067 x .235 = -251 mm.</b>
» forward						
Total	<b>50.842</b>	<b>50.842</b>			<b>50.842</b>	

SHEER CORRECTION.

Station	Standard Ordinate mm.	S	M	Product	Actual Ordinate mm.	Effective Ordinate	S	M	Product	Mean actual shear aft	Mean standard shear aft
A.P.	<b>1557</b>	1		<b>1557</b>	<b>1041</b>	<b>1041</b>	1		<b>1041</b>		
1/6 L from A.P.	<b>692</b>	4		<b>2768</b>	<b>119</b>	<b>119</b>	4		<b>476</b>	Mean actual shear forward	Mean standard shear forward
2/6 L	<b>173</b>	2		<b>346</b>	<b>0</b>	<b>0</b>	2		<b>0</b>		
Amidships	<b>-</b>	4		<b>-</b>	<b>0</b>	<b>0</b>	4		<b>0</b>	Length of enclosed superstructure forward of amidships =	
2/6 L from F.P.	<b>346</b>	2		<b>692</b>	<b>0</b>	<b>0</b>	2		<b>0</b>	» aft of » =	
1/6 L	<b>1383</b>	4		<b>5532</b>	<b>515</b>	<b>515</b>	4		<b>2060</b>		
F.P.	<b>3114</b>	1		<b>3114</b>	<b>2029</b>	<b>2029</b>	1		<b>2029</b>		
Total				<b>14009</b>					<b>5606</b>		

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right)$  =  $\frac{8403}{18} (.75 - .1625)$  = **+ 274 mm.**

If limited on account of midship superstructure. If limited to maximum allowance of 1 1/2 ins. per 100 ft. **-**

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD	mm.
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient <b>.7873 + .68</b>	<b>2299</b>
Depth to Freeboard Deck = <b>11.987</b>	$\Delta =$ <b>22529</b>	<b>1.36</b>	<b>2480</b>
Summer freeboard = <b>2.890</b>	Tons per inch immersion at summer load water line	Depth Correction <b>390</b>	
Moulded draught (d) = <b>9.097</b>	$T =$ <b>70.29</b>	Deduction for superstructures <b>251</b>	
Deduction for Tropical freeboard and addition for Winter freeboard = <b>190 mm.</b>	Deduction = $\frac{\Delta}{40 T}$ inches = <b>8.01"</b>	Sheer correction <b>274</b>	
Addition for Winter North Atlantic Freeboard (if required) = <b>190+128 = 318 mm.</b>	= <b>204 mm.</b>	Round of Beam correction <b>3</b>	
		Correction for Thickness of Deck amidships	
		Other corrections, scantlings, etc.	
		<b>664 254 +410</b>	
		Summer Freeboard = <b>2890</b>	

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, <del>Work</del> Steel, Deck:—			
Tropical Fresh Water Line above Centre of Disc	<b>394</b>	Tropical Fresh Water Freeboard	<b>2890 mm.</b>
Fresh Water Line	<b>204</b>	" Fresh Water	<b>2496 mm.</b>
Tropical Line	<b>190</b>	" Tropical	<b>2686 "</b>
Winter Line below	<b>190</b>	" Winter	<b>2700 "</b>
Winter North Atlantic Line	<b>318</b>	" Winter North Atlantic	<b>3080 "</b>
			<b>3208 "</b>



Constance

A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

	Draft Metres	Displacement Tons.	Tons per inch.
At 75% Moulded Depth =	8.972	22,180	70.11
" 85% " " =	10.169	25,520	71.83
" 95% " " =	11.365	28,940	73.24

$$\text{At } 9.097 \text{ M. } \frac{.125}{1.197} \times 3340 = 349 + 22,180 = 22529$$

$$\frac{.125}{1.197} \times 1.72 = .18 + 70.11 = 70.29$$

Trade of ship

Names of sister ships M/T "J U L I U S", Yard No.550.

Builder's name and yard number Messrs. A.-B. Götaverken, Yard No.581.

Owners Rederiaktiebolaget Monacus.

Fee £



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