

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

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>
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 =		Moulded Breadth (B)	<b>20.116 M</b>
Stringer plate	<b>24 mm.</b>	<b>833 (11.987-10.428) 30 = 390 mm.+ 1.559</b>		Standard Round of Beam = $\frac{B \times K}{50}$	<b>0.402</b>
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$		(b) Where D is less than Table depth (if allowed) (Table depth—D) R =		Ship's Round of Beam	<b>0.420</b>
Depth for Freeboard (D) =	<b>11.987 M</b>	If restricted by superstructures		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(1-325)}{4} = 3</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 <b>Equiv.</b>	<b>32.638</b>	<b>32.638</b>	<b>2440</b>	<b>-</b>	<b>32.638</b>
» overhang					
R.Q.D. enclosed					
» overhang					
Bridge enclosed					
» overhang aft					
» overhang forward					
Fore enclosed	<b>18.204</b>	<b>18.204</b>	<b>2440</b>	<b>-</b>	<b>18.204</b>
» overhang					
Trunk aft					
» forward					
Tonnage opening aft					
» forward					
Total	<b>50.842</b>	<b>50.842</b>			<b>50.842</b>

Standard Height of Superstructure	<b>2290 mm.</b>
» R.Q.D.	<b>-</b>
Deduction for complete superstructure	<b>1067 mm.</b>
Percentage covered $\frac{S}{L} =$	<b>32.50</b>
» $\frac{S_1}{L} =$	<b>32.50</b>
» $\frac{E}{L} =$	<b>32.50</b>
Percentage from Table, <del>Tanker</del> <b>Tanker</b>	<b>23.5 %</b>
(corrected for absence of forecastle [if required])	
Percentage from Table, Line B. (corrected for absence of forecastle [if required])	<b>-</b>
Interpolation for bridge less than 2L (if required)	<b>-</b>
Deduction = <b>1067 x .235 = -251 mm.</b>	

SHEER CORRECTION.

Station	Standard Ordinate mm.	S M	Product	Actual Ordinate mm.	Effective Ordinate	S M	Product
A.P.	<b>1557</b>	<b>1</b>	<b>1557</b>	<b>1041</b>	<b>1041</b>	<b>1</b>	<b>1041</b>
1/6 L from A.P.	<b>692</b>	<b>4</b>	<b>2768</b>	<b>119</b>	<b>119</b>	<b>4</b>	<b>476</b>
2/6 L »	<b>173</b>	<b>2</b>	<b>346</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>
Amidships	<b>-</b>	<b>4</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>
2/6 L from F.P.	<b>346</b>	<b>2</b>	<b>692</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>
1/6 L »	<b>1383</b>	<b>4</b>	<b>5532</b>	<b>515</b>	<b>515</b>	<b>4</b>	<b>2060</b>
F.P.	<b>3114</b>	<b>1</b>	<b>3114</b>	<b>2029</b>	<b>2029</b>	<b>1</b>	<b>2029</b>
Total			<b>14009</b>				<b>5606</b>

Mean actual sheer aft	<b>---</b>
Mean standard sheer aft	<b>---</b>
Mean actual sheer forward	<b>---</b>
Mean standard sheer forward	<b>---</b>
Length of enclosed superstructure forward of amidships	<b>---</b>
» aft of »	<b>---</b>

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

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 <del>xxxxxx</del>	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>	$\Delta = 22529$	<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>	<b>T = 70.29</b>	Deduction for superstructures <b>- 251</b>	
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{48} \times \text{xxxx} = 190 \text{ mm.}$	Deduction = $\frac{\Delta}{40 T}$ inches	Sheer correction <b>274</b>	
Addition for Winter North Atlantic Freeboard (if required) = <b>190+128 = 318 mm.</b>	<b>= 8.01"</b>	Round of Beam correction <b>- 3</b>	
	<b>= 204 mm.</b>	Correction for Thickness of Deck amidships <b>-</b>	
		Other corrections, scantlings, etc. <b>-</b>	
		<b>664 254 +410</b>	
		Summer Freeboard <b>= 2890</b>	

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, ~~Work~~ Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc	<b>394 mm.</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 ✓

At 9.097 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 "JULIUS", Yard No.550. ✓

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

Owners Rederiaktiebolaget Monacus. ✓

Fee £ .....



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