

Rpt. C.11 (Comp.).  
Freshener 36765.

Amended computation

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No. 36879  
(For London Office only).

Ship's Name <b>FRESHENER.</b>	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build <b>1942.</b>	Port of Survey
Moulded Dimensions: Length <b>120.0</b> Breadth <b>24-6</b> Depth <b>12'-6</b>					Date of Survey <b>15.7.42.</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>639.5</b> tons					Surveyor's Signature
Coefficient of fineness for use with Tables <b>.717.</b>					Particulars of Classification <b>+ 100 A1</b> <b>for Government Service</b>

<b>Depth for Freeboard (D).</b>	<b>Depth correction.</b>	<b>Round of Beam correction.</b>
Moulded depth ... .. <b>12.5</b>	(a) Where D is greater than Table depth	Moulded Breadth (B) <b>24'-6"</b>
Stringer plate ... .. <b>.03</b>	(P-Table depth) R = <b>(12.53-8.00) x .923 = +4.18"</b>	Standard Round of Beam = $\frac{B \times 12}{50} = 5.88"$
Sheathing on exposed deck	(b) Where D is less than Table depth (if allowed)	Ship's Round of Beam = <b>6.00"</b>
$T \left( \frac{L-S}{L} \right) =$ <b>✓</b>	(Table depth-D) R = <b>✓</b>	Difference <b>.12"</b>
Depth for Freeboard (D) = <b>12.53</b>	If restricted by superstructures <b>✓</b>	Restricted to <b>✓</b>
		Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{12}{4} \times .8476 = -0.3"$

### DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ... ..						Standard Height of Superstructure <b>6.0'</b>
„ overhang ... ..						„ „ R.Q.D. <b>✓</b>
R.Q.D. enclosed ... ..						Deduction for complete superstructure <b>18"</b>
„ overhang ... ..						Percentage covered $\frac{S}{L} = 15.35$
Bridge enclosed ... ..						„ „ $\frac{S_1}{L} = 15.24$
„ overhang aft ... ..						„ „ $\frac{E}{L} = 15.24$
„ overhang forward ... ..						Percentage from Table, Line A. <b>7.62</b>
Fore enclosed ... ..	<b>18'-2"</b>	<b>18.17</b>	<b>6'-6"</b>	<b>✓</b>	<b>18.17</b>	(corrected for absence of forecastle (if required)) <b>✓</b>
„ overhang ... ..	<b>0-3"</b>	<b>.12</b>			<b>.12</b>	Percentage from Table, Line B. <b>✓</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>18.00 x .0762 = -1.37"</b>
„ „ forward ... ..						
Total ... ..	<b>18.42</b>	<b>18.29</b>			<b>18.29</b>	

### SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean actual sheer aft = Mean standard sheer aft =
A.P. ... ..	22.00	1		22.00	12.0	12.0	1		12.00	} Deficient.
$\frac{1}{4}$ L from A.P. ... ..	9.79	4		39.16	5	5.0	4		20.00	
$\frac{2}{4}$ L „ ... ..	2.42	2		4.84	1½	1.5	2		3.00	
Amidships ... ..	—	4		—	—	—	4		—	} Nil.
$\frac{3}{4}$ L from F.P. ... ..	4.84	2		9.68	7	7.0	2		14.00	
$\frac{1}{4}$ L „ ... ..	19.58	4		78.32	19	19.0	4		76.00	
F.P. ... ..	44.00	1		44.00	42	42	1		42.00	
Total ... ..				198.00					167.00	

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{31.00}{18} (.75 - .0762) = +1.16"$

If limited on account of midship superstructure.

Length of enclosed superstructure forward of amidships =  
L

.. .. aft of .. =

$\frac{31.00}{18} (.75 - .0762) = +1.16"$

6738

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

Deduction for Tropical Freeboard.  
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **12.53** Ft.  
Summer freeboard = **2.21**  
Moulded draught (d) = **17.32**

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  
 $\Delta = 620$   
Tons per inch immersion at summer load water line  
 $T = 5.84$   
Deduction =  $\frac{\Delta}{40T}$  inches = **2.65**  
= **2¾"**

TABULAR FREEBOARD corrected for Flush Deck (if required)  
Correction for coefficient  $\frac{.717 + .68}{1.36} = 1.347/1.36$

Depth Correction ... ..  
Deduction for superstructures ... ..  
Sheer correction ... ..  
Round of Beam correction ... ..  
Correction for Thickness of Deck amidships ... ..  
Other corrections, scantlings, etc. to correspond with position of lowest side gentle aft.

	+	-
4.18		
1.37		
1.16		
.03		
10.24		
15.58		
1.40		
Summer Freeboard = <b>26.50</b>		

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:

Tropical Fresh Water Line above Centre of Disc **Not assigned**  
Fresh Water Line „ „ **2¾"**  
Tropical Line „ „ **Not assigned**  
Winter Line below „ „ **Nil**  
Winter North Atlantic Line „ „ **Not assigned**

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

**2'-2½"**

**1'-11¾"**

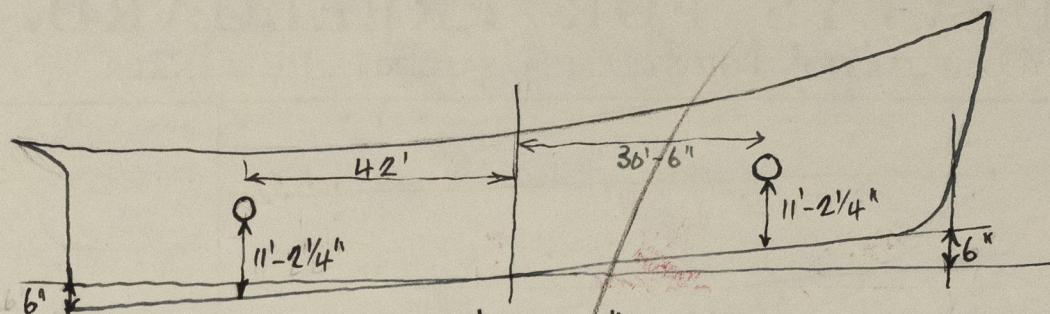
**2'-2½"**

**15-7.42**

**+ 14.18**



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.



Service trim  
12" by stern

$$6'' \times \frac{42}{60}$$

Limiting draught

$$\begin{array}{r} 11' - 2.25'' \\ 4.2'' \\ \hline 10' - 10.05'' \\ - 6'' \\ \hline 10' - 4.05'' \\ 12 - 6.38 \\ \hline 2' - 2.33'' \end{array}$$

$$= 2' 2 \frac{1}{2}'' \text{ by } 6.38$$

*Surveyor*

Trade of ship.....

Names of sister ships.....

Builder's name and yard number.....

Owners.....

Fee £.....



© 2021

Lloyd's Register  
Foundation