

For 3<sup>rd</sup> time only. FD/FS.

# Lloyd's Register of Shipping.

## KEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Temple Yard	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey <i>Office.</i>
				1936	Date of Survey <i>1.3.51</i>
Moulded Dimensions: Length <i>425</i> Breadth <i>56.0</i> Depth <i>36.17</i>					Surveyor's Signature <i>[Signature]</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					Particulars of Classification <i>Flush Deck Standard</i>
Coefficient of fineness for use with Tables <i>702 assumed</i>					<i>✓</i>

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... .. <i>36.17</i>	(a) Where D is greater than Table depth (D-Table depth) R = <i>(36.25 - 28.33) 3 = + 23.76 ✓</i>	Moulded Breadth (B)
Stringer plate ... .. <i>.92</i>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} =$
Sheathing on exposed deck	✓	Ship's Round of Beam = <i>Standard</i>
$T \left( \frac{L-S}{L} \right) =$	✓	Difference
Depth for Freeboard (D) = <i>36.25</i>	If restricted by superstructures	Restricted to
	✓	Correction = $\frac{\text{Diff}^*}{4} \times \left( 1 - \frac{S_1}{L} \right) =$

### DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..				
„ overhang ... ..				
R.Q.D. enclosed ... ..				
„ overhang ... ..				
Bridge enclosed ... ..				
„ overhang aft ... ..				
„ overhang forward ... ..				
Forecastle enclosed ... ..				
„ overhang ... ..				
Trunk aft ... ..				
„ forward ... ..				
Tonnage opening aft ... ..				
„ „ forward ... ..				
Total ... ..				

*Flush deck*

Standard Height of Superstructure	<i>7.50</i>
„ „ R.Q.D.	
Deduction for complete superstructure	<i>42.00</i>
Percentage covered $\frac{S}{L} =$	} <i>NIL</i>
„ „ $\frac{S_1}{L} =$	
„ „ $\frac{E}{L} =$	
Percentage from Table, Line A.	
(corrected for absence of fore-castle (if required))	
Percentage from Table, Line B.	
(corrected for absence of fore-castle (if required))	
Interpolation for bridge less than .2L (if required)	
Deduction =	<i>NIL</i>

### SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ... ..		1				1	
$\frac{1}{4}L$ from A.P. ... ..		4				4	
$\frac{3}{4}L$ „ ... ..		2				2	
Amidships ... ..		4				4	
$\frac{3}{4}L$ from F.P. ... ..		2				2	
$\frac{1}{4}L$ „ ... ..		4				4	
F.P. ... ..		1				1	
Total ... ..							

*Standard*

Mean actual sheer aft	} <i>Standard sheers</i>
Mean standard sheer aft =	
Mean actual sheer forward	}
Mean standard sheer forward =	
Length of enclosed superstructure forward of amidships =	} <i>NIL</i>
„ „ aft of „ =	

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

If limited on account of midship superstructure.

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

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	<i>79.35</i>
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient	<i>84.73</i>
Depth to Freeboard Deck = <i>36.25</i>	$\Delta =$	Depth Correction ... ..	} <i>AN 1.3.51</i>
Summer freeboard = <i>9.89</i>	Tons per inch immersion at summer load water line	Deduction for superstructures ... ..	
Moulded draught (d) = <i>27.25</i>	T =	Sheer correction ... ..	
Deduction for Tropical freeboard and addition for	Deduction = $\frac{\Delta}{40 T}$ inches	Round of Beam correction ... ..	
Winter freeboard = $\frac{d}{4}$ inches = <i>6.81 = 6¾</i>	=	Correction for Thickness of Deck amidships ... ..	
Addition for Winter North Atlantic Freeboard (if required) =		Other corrections, scantlings, etc. ... ..	
		23.76 -	<i>23.76</i>
		Summer Freeboard = <i>107.89</i>	

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

Tropical Fresh Water Line above Centre of Disc ... ..	Tropical Fresh Water Freeboard ... ..
Fresh Water Line „ „ ... ..	Fresh Water „ „ ... ..
Tropical Line „ „ ... ..	Tropical „ „ ... ..
Winter Line below „ „ ... ..	Winter „ „ ... ..
Winter North Atlantic Line „ „ ... ..	Winter North Atlantic „ „ ... ..

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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.

Block coeff @ 85% of 28.17 = .738 on  $\Delta = 12010$  tons

$$\text{Change in bc at 85\% of } 36.17 = \left[ .85 - .85 \left( \frac{28.17}{36.17} \right) \right] \frac{.0128}{0.1}$$

$$= \left[ .85 - \frac{.662}{.7788} \right] \times .128$$

$$= \frac{.0712 \times .128}{.188} = \frac{.009}{.738} = .012$$

.024 -  
 .738  
.762 -

Trade of ship .....

Names of sister ships .....

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

Owners .....

Fee £ .....



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