

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name EPSOM	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey.....
Moulded Dimensions: Length 425.30 Breadth 56.00 Depth 28.67					Date of Survey.....
Moulded displacement at moulded draught = 85 per cent. of moulded depth..... tons					Surveyor's Signature.....
Coefficient of fineness for use with Tables..... .759					Particulars of Classification.....

DEPTH FOR FREEBOARD (D).

Moulded depth **28.67**

Stringer plate **.03**

Sheathing on exposed deck
 $T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) = **28.70**

DEPTH CORRECTION.

(a) Where D is greater than Table depth
 $(D - \text{Table depth}) R =$
 $(28.70 - 28.35) R = +1.05$

(b) Where D is less than Table depth (if allowed)
 $(\text{Table depth} - D) R =$

If restricted by superstructures

ROUND OF BEAM CORRECTION.

Moulded Breadth (B) **56.00**

Standard Round of Beam = $\frac{B \times 12}{50} =$ **13.44**

Ship's Round of Beam = **14.06**

Difference **+ .56**

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.56}{4} \times .0059 = \text{Nil}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	33.75	33.75	9.00	✓	33.75
" overhang29	.14			.14
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft	386.39	386.39	9.00	✓	386.39
" overhang forward					
Fore enclosed					
" overhang					
Trunk aft					
" forward					
Tonnage opening aft	4.87	2.51	✓		2.51
" " forward					
Total	425.30	422.79			422.79

Standard Height of Superstructure **7.5**

" " R.Q.D. **✓**

Deduction for complete superstructure **42**

Percentage covered $\frac{S}{L} =$ **1.00**

" " $\frac{S_1}{L} =$ **99.41**

" " $\frac{E}{L} =$ **99.27**

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

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

Interpolation for bridge less than .2L (if required)

Deduction = $42 \times .9927 = -41.70$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.		1			32.25	50.25	1		50.25
$\frac{1}{8}L$ from A.P.		4			.125	18.125	4		72.50
$\frac{2}{8}L$ "		2			-	5.53	2		11.06
Amidships		4			-	-	4		-
$\frac{3}{8}L$ from F.P.		2			-	10.89	2		21.78
$\frac{4}{8}L$ "		4			6.50	24.50	4		98.00
F.P.		1			81	99.00	1		99.00
Total				472.77					352.59

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{120.20}{18} \times .25 = +1.67$

If limited on account of midship superstructure.

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 " =

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

Depth to Freeboard Deck = **28.70**

Summer freeboard = **3.75**

Moulded draught (d) = **24.95**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **6 1/4**

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$

Tons per inch immersion at summer load water line

T =

Deduction = $\frac{\Delta}{40 T}$ inches

= **6 1/4**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

79.44

84.06

1.439

1.36

1.05

41.70

1.67

1.05

1.05

1.05

1.05

1.05

1.05

1.05

1.05

1.05

1.05

1.05

1.05

1.05

1.05

1.05

1.05

1.05

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

Tropical Fresh Water Line above Centre of Disc ... **13**

Fresh Water Line " " ... **6 1/4**

Tropical Line " " ... **6 1/4**

Winter Line below " " ... **6 1/4**

Winter North Atlantic Line " " ... **6 1/4**

Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

Winter North Atlantic

31.9

21.4

21.4

21.4

21.4

21.4

21.4

21.4

21.4

21.4