

Amended Computation

Rpt. C.11 (Comp.).

Index No. _____
(For London Office only.)

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

Ship's Name EUROPA	Official Number HOVC	Nationality and Port of Registry Panamanian Panama.	Gross Tonnage 15044	Date of Build	Port of Survey
Moulded Dimensions: Length 549.50 Breadth 71.75 Depth 42.25				Date of Survey 17. 7. 50	
Moulded displacement at moulded draught = 85 per cent. of moulded depth 29880 tons				Surveyor's Signature dt.	
Coefficient of fineness for use with Tables .739				Particulars of Classification +100 A.1 Sh. dk. with freeboard.	

DEPTH FOR FREEBOARD (D). Moulded depth ... 42.25 Stringer plate04 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) = 21 \times \frac{24}{549.5} = .01$ Depth for Freeboard (D) = 42.30	DEPTH CORRECTION. (a) Where D is greater than Table depth (D-Table depth) R = (42.30 - 36.635) = +16.99 (b) Where D is less than Table depth (if allowed) (Table depth-D) R = ✓ If restricted by superstructures ✓	ROUND OF BEAM CORRECTION. Moulded Breadth (B) 71.75 Standard Round of Beam = $\frac{B \times 12}{50} = 17.22$ Ship's Round of Beam = 6.00 Difference 11.22 Restricted to Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{11.22 \times .0620}{4} = +17''$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Poop + Bridge enclosed ...	439.25	439.25	8.5	-	439.25
" overhang aft ...					
" overhang forward ...	2.50	1.25			1.25
F'cle enclosed Equiv. ...	66.03	66.03	8.5	-	66.03
" overhang ...	17.42	8.71			8.71
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	525.50	515.24			515.24

Standard Height of Superstructure **7.50**

" " R.Q.D. **-**

Deduction for complete superstructure **42.00"**

Percentage covered $\frac{S}{L} = 95.64$

" " $\frac{S_1}{L} = 93.80$

Percentage from Table, Line A. +B **92.37**

(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 = **42 x .9237 = 38.80"**

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	64.95	1	64.95	60.00	60.00	1	60.00
$\frac{1}{2}$ L from A.P. ...	28.90	4	115.60	27.00	27.00	4	108.00
$\frac{3}{4}$ L " ...	7.145	2	14.29	7.00	7.00	2	14.00
Amidships ...	-	4	-	-	-	4	-
$\frac{3}{4}$ L from F.P. ...	14.29	2	28.58	14.00	14.00	2	28.00
$\frac{1}{2}$ L " ...	57.80	4	231.20	56.00	56.00	4	224.00
F.P. ...	129.90	1	129.90	125.50	125.00	1	125.00
Total ...			584.52				559.00

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - \frac{S}{2L}}{.75 - \frac{S}{2L}} \right) = \frac{25.52}{18} \left(\frac{.75 - .4782}{.75 - .4782} \right) = +.39'$

If limited on account of midship superstructure. **✓**

Mean actual sheer aft = **Deficient**

Mean standard sheer aft = **Deficient (.968)**

Length of enclosed superstructure forward of amidships = **> .1L**

" " aft of " = **> .1L**

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. **✓**

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **42.29**

Summer freeboard = **12.49**

Moulded draught (d) = **29.80**

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 **✓**

$\Delta =$ **✓**

Tons per inch immersion at summer load water line **✓**

T = **✓**

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

$\frac{d}{4} = 189 \text{ mm.}$ **✓**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.739 + .68}{1.36} = \frac{1.419}{1.36}$

	+	-
Depth Correction	16.99	
Deduction for superstructures		38.80
Sheer correction	.39	
Round of Beam correction	.17	.12
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc. to correct to an all seasons subdivision, moulded draught of 29.80	49.95	
Summer Freeboard =	149.88	

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

Tropical Fresh Water Line above Centre of Disc	189 mm
Fresh Water Line " "	189 mm
Tropical Line " "	Nil
Winter Line below " "	Nil
Winter North Atlantic Line " "	✓

Tropical Fresh Water Freeboard	3619
Fresh Water " "	3619
Tropical " "	3808
Winter " "	3808
Winter North Atlantic " "	✓