

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

43431
Jhd 9200
27 FEB 1952

Ship's Name Eva Peron	Official Number	Nationality and Port of Registry Argentine Buenos Aires	Gross Tonnage 12741	Date of Build 1952	Port of Survey Birkenhead
Moulded Dimensions: Length 531.00 Breadth 71.00 Depth 39.00 to 5' 6" moulded on L.W.L.					Date of Survey Whilst building
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) 27470 tons					Surveyor's Signature Harold S. Newton J.B. Taylor +100 A1
Coefficient of fineness for use with Tables .770					Particulars of Classification Carrying Petroleum in bulk

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 39.00	(a) Where D is greater than Table depth (D-Table depth) R = (39.00-35.40)3 = +1.07"	Moulded Breadth (B) 71.00
Stringer plate ... 1.08"	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = 3.69	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{71 \times 12}{50} = \mathbf{17.04}$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures ✓	Ship's Round of Beam = 17.00
Depth for Freeboard (D) = 39.09		Difference .04
		Restricted to
		Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.04}{4} \times 54.33 = \mathbf{+0.01"}\mathbf{}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed (Sketch)	25.33	25.33	8'-0"	-	125.33
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed (Sketch)	43.67	43.67	8'-0"	-	43.67
" overhang aft ...	3.00	2.25			2.25
" overhang forward ...					
F'cle enclosed ...	71.25	71.25	8'-0"	-	71.25
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	243.25	242.50			242.50

Standard Height of Superstructure **7.30**

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

Deduction for complete superstructure **42.00'**

Percentage covered $\frac{S}{L} = \frac{45.81}{45.81} = \mathbf{1.00}$

" " $\frac{S_1}{L} = \frac{45.67}{45.67} = \mathbf{1.00}$

" " $\frac{E}{L} = \frac{45.67}{45.67} = \mathbf{1.00}$

Percentage from Table, Line **A. TANKER** **36.67**
(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 = $42.00 \times 36.67 = \mathbf{-15.40"}$

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	63.10	1	63.10	63.00	63.00	1	63.00
$\frac{1}{2}$ L from A.P. ...	28.08	4	112.32	27.87	27.87	4	111.48
$\frac{3}{4}$ L " ...	6.94	2	13.88	7.00	7.00	2	14.00
Amidships ...	-	4	-	✓	-	4	-
$\frac{3}{4}$ L from F.P. ...	13.88	2	27.76	13.87	13.87	2	27.74
$\frac{1}{2}$ L " ...	56.16	4	224.64	55.37	55.37	4	221.48
F.P. ...	126.20	1	126.20	125.75	125.75	1	125.75
Total ...			567.90				563.45

Mean actual sheer aft
Mean standard sheer aft = **Different**

Mean actual sheer forward
Mean standard sheer forward = **Different**

Length of enclosed superstructure forward of amidships = **Tanker**

" " aft of " = **Tanker**

Correction = $\frac{\text{Difference between sums of products}}{18} = \frac{4.45}{18} = \mathbf{+0.25"}$
If limited on account of midship superstructure.

$\left(\frac{.75 - S}{2L} \right) = \frac{.75 - 229.1}{18} = \mathbf{+0.13"}$
5209

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 = 39.09 Summer freeboard = 8.04 Moulded draught (d) = 31.05 Keel allowance = - Extreme draught = - Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 7.76 = 7$\frac{3}{4}$" Addition for Winter North Atlantic Freeboard (if required) = 7.76 + 5.31 = 13.07 = 13"	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = \mathbf{25619}$ Tons per inch immersion at summer load water line $T = \mathbf{76.89}$ Deduction = $\frac{\Delta}{40T}$ inches = $\frac{25619}{40 \times 76.89} = \mathbf{8.33 = 8\frac{1}{4}"}$ 525A T.P.C. 32.00 - 26425 = 77.32 31.00 - 25504 = 76.83	TABULAR FREEBOARD corrected for Flush Deck (if required) 770.68 / 1.36 = 1450 / 1.36 Correction for coefficient 94.52 <table border="1"> <tr> <th></th><th>+</th><th>-</th></tr> <tr> <td>Depth Correction</td><td>11.07</td><td>-</td></tr> <tr> <td>Deduction for superstructures</td><td>-</td><td>15.40</td></tr> <tr> <td>Sheer correction</td><td>.13</td><td>-</td></tr> <tr> <td>Round of Beam correction</td><td>.01</td><td>-</td></tr> <tr> <td>Correction for Thickness of Deck amidships</td><td>-</td><td>-</td></tr> <tr> <td>Other corrections, scantlings, etc.</td><td>-</td><td>-</td></tr> <tr> <td></td><td>11.21</td><td>15.40</td></tr> </table> Summer Freeboard = 96.59		+	-	Depth Correction	11.07	-	Deduction for superstructures	-	15.40	Sheer correction	.13	-	Round of Beam correction	.01	-	Correction for Thickness of Deck amidships	-	-	Other corrections, scantlings, etc.	-	-		11.21	15.40
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc **16"**
 Fresh Water Line " **8 $\frac{1}{4}"$**
 Tropical Line " **7 $\frac{3}{4}"$**
 Winter Line below " **7 $\frac{3}{4}"$**
 Winter North Atlantic Line " **13"**

Tropical Fresh Water Freeboard **8'-0 $\frac{1}{2}"$**
 Fresh Water **6'-8 $\frac{1}{2}"$**
 Tropical **7'-4 $\frac{1}{4}"$**
 Winter **7'-4 $\frac{3}{4}"$**
 Winter North Atlantic **8'-8 $\frac{1}{4}"$**

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.

$$\begin{array}{rcl} \text{Poop at side} & = & 122.00 \\ \frac{2}{3} \times 5 & = & 3.33 \\ \hline & & 125.33 = \text{Eqin Encl.} \end{array}$$

$$\begin{array}{rcl} \text{Bridge at side} & = & 38.50 \\ \frac{2}{3} \times 7.75 & = & 5.17 \\ \hline & & 43.67 = \text{Eqin Encl.} \end{array}$$

Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____

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Foundation