

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index No. 35864
(For London Office only).

24 FEB 1945

Ship's Name POZA RICA	Official Number -	Nationality and Port of Registry Italian	Gross Tonnage 7599	Date of Build 1940	Port of Survey Baltimore, Md.
Moulded Dimensions: Length 434.72' Breadth ^{62.83} 63.0' Depth 31.86'					Date of Survey 1st Sept., 1944 and subsequent dates
Moulded displacement at moulded draught = 85 per cent. of moulded depth at ⁰⁸ 27.8' = 16189 tons					Surveyor's Signature <i>J. Buchanan</i>
Coefficient of fineness for use with Tables .766 T/I at 26' = 56.5 tons T/I at 27' = 56.95 tons					Particulars of Classification 100 A1 Contemplated Carrying petroleum in bulk.

Depth for Freeboard (D).	Depth correction.	Round of Beam correction. ^{62.83}
Moulded depth 31.86	(a) Where D is greater than Table depth (D - Table depth) R = (31.92 - 29.98) 3 = + 8.82	Moulded Breadth (B) 63.00
Stringer plate ... ^{.75"}06	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = 2.94	Standard Round of Beam = $\frac{B \times 12}{50}$ = 15.12
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ -	If restricted by superstructures -	Ship's Round of Beam = 15.60
Depth for Freeboard (D) = 31.92		Difference .48
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right)$ = $\frac{.48^2}{4} \times \frac{582}{434.72}$ = -.07

DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed ... 108.27-18	108.18	7.5	-	108.18	Standard Height of Superstructure 7.5'
.. overhang ... 2.75-03	-02			.02	
R.Q.D. enclosed ...					Deduction for complete superstructure 42"
.. overhang ...					Percentage covered $\frac{S}{L} =$ } 45.68
Bridge enclosed... 40.38-9	40.39	8.0		40.39	.. $\frac{S_1}{L} =$
.. overhang aft ... 3.88-2.00	1.50			1.50	.. $\frac{E}{L} =$ 45.57
.. overhang forward 4.50					Percentage from Table, Line Tanker 36.57
F'cle enclosed ... 48.00	48.00	7.5		48.00	(corrected for absence of forecastle (if required))
.. overhang ...					Percentage from Table, Line B
Trunk aft ...					(corrected for absence of forecastle (if required))
.. forward ...					Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...					Deduction = 42 x .3657 = - 15.36
.. " forward					
Total ... 198.60	198.09			198.09	

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product	
A.P. ...	53.47	1	53.47	50.50	50.50	1	50.50	Mean actual sheer aft = <i>Deficient</i> Mean standard sheer aft = <i>but > .75</i>
$\frac{1}{2}$ L from A.P. ...	23.79	4	95.16	21.00	21.00	4	84.00	
$\frac{3}{4}$ L ..	5.88	2	11.76	5.00	5.00	2	10.00	Length of enclosed superstructure forward of amidships = aft of .. = <i>Tanker: does not apply.</i>
Amidships ...	-	4	-	-	-	4	-	
$\frac{3}{4}$ L from F.P. ...	11.76	2	23.52	18.00	18.00	2	36.00	
$\frac{1}{2}$ L ..	47.59	4	190.36	50.50	50.50	4	202.00	
F.P. ...	106.94	1	106.94	120.00	120.00	1	120.00	
Total ...			481.21				502.50	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{21.29(-.75 - .2284)}{18} = \frac{-15.216}{18} = -.845$ *but > .75*

If limited on account of midship superstructure. If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Depth to Freeboard Deck = 31.92 Summer freeboard = 5.70 Moulded draught (d) = 26.22 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.55 = 166 Addition for Winter North Atlantic Freeboard (if required) = 6.55 + 4.35 = 10.90 = 277	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta =$ Tons per inch immersion at summer load water line T = 56.65 Deduction = $\frac{\Delta}{40T}$ inches = 178	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.766 + .68}{1.36} = \frac{1.446}{1.36}$ <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td style="text-align: center;">+</td> <td style="text-align: center;">-</td> <td></td> </tr> <tr> <td>Depth Correction ...</td> <td style="text-align: center;">8.82</td> <td style="text-align: center;">-</td> <td></td> </tr> <tr> <td>Deduction for superstructures ...</td> <td style="text-align: center;">-</td> <td style="text-align: center;">15.36</td> <td></td> </tr> <tr> <td>Sheer correction ...</td> <td style="text-align: center;">-</td> <td style="text-align: center;">.62</td> <td></td> </tr> <tr> <td>Round of Beam correction ...</td> <td style="text-align: center;">-</td> <td style="text-align: center;">.07</td> <td></td> </tr> <tr> <td>Correction for Thickness of Deck amidships ...</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> <td></td> </tr> <tr> <td>Other corrections, scantlings, etc. ...</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">8.82</td> <td style="text-align: center;">16.05</td> <td style="text-align: center;">- 7.23</td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center;">Summer Freeboard = 68.41</td> <td></td> </tr> </table>		+	-		Depth Correction ...	8.82	-		Deduction for superstructures ...	-	15.36		Sheer correction ...	-	.62		Round of Beam correction ...	-	.07		Correction for Thickness of Deck amidships ...	-	-		Other corrections, scantlings, etc. ...	-	-			8.82	16.05	- 7.23		Summer Freeboard = 68.41		
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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 ...	344	Tropical Fresh Water Freeboard ...	1394
Fresh Water Line ..	178	Fresh Water ..	1560
Tropical Line ..	166	Tropical ..	1572
Winter Line below ..	166	Winter ..	1904
Winter North Atlantic Line ..	277	Winter North Atlantic ..	2015

