

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

N^o 33 212

23 FEB 1951

Ship's Name **SAN LORENZO** Official Number **11673** Nationality and Port of Registry **Argentine Buenos Aires** Gross Tonnage **11673** Date of Build **1951**

Port of Survey **Rosario** Date of Survey **while building** Surveyor's Signature **W. W. W. W.**

Moulded Dimensions: Length **160.322** Breadth **20.726** Depth **11.277**

Moulded displacement at moulded draught = 85 per cent. of moulded depth **24693** ^{Ans 3}

Coefficient of fineness for use with Tables **0.775**

Particulars of Classification **+100A/Carrying Petroleum in bulk/Class contemplated**

DEPTH FOR FREEBOARD (D). m		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth	11.277	(a) Where D is greater than Table depth (D-Table depth) R =	8.33 (11.277 - 10.689) 30 = + 152 mm	Moulded Breadth (B)	20.726 m
Stringer plate	0.022	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	✓	Standard Round of Beam = $\frac{B \times 12}{50}$	0.415 m
Sheathing on exposed deck				Ship's Round of Beam	0.415 m
$T \left(\frac{L-S}{L} \right) =$		If restricted by superstructures	✓	Difference	NIL
Depth for Freeboard (D) =	11.299			Restricted to	
				Correction = $\frac{\text{Diff}^c}{4} \times \left(1 - \frac{S_1}{L} \right)$	NIL

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed <i>equivalent</i>	47.512	47.512	2.430	-	47.512
" overhang	0.133	0.067			0.067
R.Q.D. enclosed					
" overhang					
Bridge enclosed <i>equivalent</i>	10.117	13.588	2.430	-	13.588
" overhang aft					
" overhang forward	0.133	0.067			0.067
Fore enclosed <i>equivalent</i>	14.563	14.563	2.206	-	14.563
" overhang	0.314	0.157	TAKEN AS STANDARD		0.157
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	80.772	75.954			75.954

Standard Height of Superstructure **2290 m/m**" " R.Q.D. **-**Deduction for complete superstructure **1067 m/m**Percentage covered $\frac{S}{L} = 50.38$
 $\frac{S_1}{L} = 47.37$
 $\frac{E}{L} = 47.37$
Percentage from Table, Line **TANKER** **38.37**
(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 = $1067 \times 0.3837 = 409 \text{ m/m}$

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	1590	1	1590	01000	808	1	808
$\frac{1}{2}L$ from A.P.	706	4	2824	0195	195	4	780
$\frac{2}{3}L$ "	176.5	2	353	01000	0	2	-
Amidships	0	4	-	01000	0	4	-
$\frac{2}{3}L$ from F.P.	353	2	706	01000	0	2	-
$\frac{1}{2}L$ "	1412	4	5648	01240	248	4	992
F.P.	3180	1	3180	01100	2100	1	2100
Total			14301				4680

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{362}{18} (.75 - .2513) = + 266 \text{ m.m}$

If limited on account of midship superstructure. **4981**

Mean actual sheer aft **Deficient**Mean actual sheer forward **Deficient** **< .5**

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

" " aft of " = **Short**

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **11.299**Summer freeboard = **2.550**Moulded draught (d) = **8.749**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{48} \text{ inches} = 182 \text{ m/m} = 18 \text{ c.m.}$ Addition for Winter North Atlantic Freeboard (if required) = **182 + 131 = 313 m/m = 31 c.m.**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

Tons per inch immersion at summer load water line

T = **20.50**Deduction = $\frac{\Delta}{40 T} \text{ inches}$ = **194 m.m**= **19 c.m.**

TABULAR FREEBOARD corrected for Fresh Deck (if required)

Correction for coefficient $\frac{.775 + .66}{1.36} = \frac{1.435}{1.36}$

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

Summer Freeboard = **2549**

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

Tropical Fresh Water Line above Centre of Disc **37 c.m.**Fresh Water Line " **19 "**Tropical Line " **18 "**Winter Line below " **18 "**Winter North Atlantic Line " **31 "**Tropical Fresh Water Freeboard **255 c.m.**Fresh Water **218 "**Tropical **236 "**Winter **237 "**Winter North Atlantic **273 "**

San Lorenzo.

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.

POOP AT SIDE 46.445
 $\frac{2}{3} \times 1600$ 1.067.
47.512.

OVERHANG FORWARD. 1.200.
1.067.
133

BRIDGE OPEN AT AFT END.

AT SIDE 12,800
4250
17050
 $\frac{2}{3} \times 1600$ 1067.
18117

OVERHANG FORWARD. 1.200
1.067.
133

FORE CASTLE. LENGTH AT SIDE 14.877

RECESS = $\frac{6.500 \times .685}{14200}$

.314 = OVERHANG.
14.563 = EQUIV. ENCLOSED.

Trade of ship

Ocean Trade

Names of sister ships

Director Madanaga, La Plaza

Builder's name and yard number

Machinefabrieken Scheepwerf van P. Smit & N.V. 598

Owners

Yacimientos Petroliferos Fiscales

Fee

500.-



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Foundation