

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

For LONDON OFFICE ONLY

Received 12 MAY 1956

Index No. 46324

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Owners C11

Rpt 11935

Ship's Name 'SAN FLORO'	Official Number	Nationality and Port of Registry SPANISH SANTANDER	Gross Tonnage 644	Date of Build 1956	Port of Survey BILBAO
Moulded Dimensions: Length 60.8 m. Breadth 9.75 m. Depth 3.40 m.					Date of Survey DURING CONSTRUCTION
Freeboard Length 61.041 m. (C of RIDGER STOCK)					Surveyor's Signature <i>[Signature]</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth 1185 tons					Particulars of Classification +100A1
Coefficient of fineness for use with Tables 0.68 (actual 0.672)					SUITABLE FOR DRAUGHT OF ABOUT 3.557 m. (CLASS CONTEMPLATED).

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 3.40 m.	(a) Where D is greater than Table depth (D - Table depth) R =	Moulded Breadth (B) 9.75 m.
Stringer plate ... 7 1/2"	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 23.52$
Wood Sheathing on exposed deck	8.33 (4.069 - 3.408) 15.415 = 85	Ship's Round of Beam = 195
$T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Difference = 195
Depth for Freeboard (D) = 3.408		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{195^2}{4} \times 0.0166 = 154$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	16.441	16.441	2.25	✓	16.441
" overhang60	.300			.300
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...					
" overhang aft ...					
" overhang forward ...	42.2	42.200	2.25	✓	42.200
Fore enclosed ...					
" overhang60	.450			.450
Trunk aft ...		3.75			
" forward ...		DIFF x 9.75			
Tonnage opening aft ...	1.20	.634		✓	.634
" " forward ...					
Total ...	61.041	60.025			60.025

Standard Height of Superstructure **1830**

" " R.Q.D. **661**

Deduction for complete superstructure **661**

Percentage covered $\frac{S}{L} = 100$

" " $\frac{S_1}{L} = 98.34$

" " $\frac{E}{L} = 97.96$

Percentage from Table, Line A. x **6**

(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 = **661 x 97.96 = 648**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	762	1		762	799	1219	1		1219
1/2 L from A.P. ...	338	4		1352	372	542	4		2168
1/4 L " ...	84	2		168	83	134	2		268
Amidships ...	0	4		0	0	0	4		0
1/2 L from F.P. ...	168	2		336	171	213	2		426
1/4 L " ...	676	4		2704	684	862	4		3448
F.P. ...	1525	1		1525	1518	1938	1		1938
Total ...				6847	+420				9467

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{2620}{18} \times .25 = 36$

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 " =

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 = **3.408**

Summer freeboard = **51**

Moulded draught (d) = **3.357**

Keel allowance =

Extreme draught =

Deduction for Tropical freeboard and addition for =

Winter freeboard = $\frac{d \text{ mm}}{48} = 70 \text{ mm}$

Addition for Winter North Atlantic Freeboard (if required) = **51 mm + 70 = 121**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 1406$

Tons per inch immersion at summer load water line

$T = 4.83$

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

73 mm

3.438 **1.444** **4.85**

3.357 **1.406** **4.83**

3.281 **1.371** **4.8**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient **N/L**

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

	+	-
Depth Correction		85
Deduction for superstructures		648
Sheer correction		36
Round of Beam correction	11	
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
	1	769

Summer Freeboard = **179**

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

Tropical Fresh Water Line above Centre of Disc **73 mm ... 2.87"**

Fresh Water Line " **73 mm ... 2.87"**

Tropical Line " **NIL mm ... NIL**

Winter Line below " **70 mm ... 2.76"**

Winter North Atlantic Line " **121 mm ... 4.76"**

Tropical Fresh Water Freeboard **22 mm**

Fresh Water " **22 mm**

Tropical " **51 mm limited**

Winter " **121 mm**

Winter North Atlantic " **172 mm**

MINUS .87"

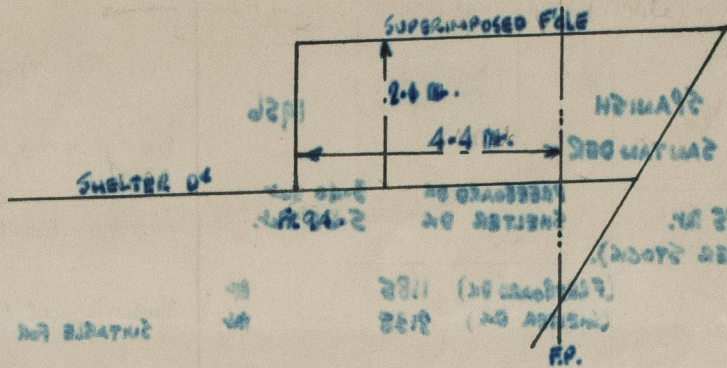
MINUS .87"

2"

4.76"

6.76"

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.



$$\frac{B - b}{B} = \frac{9.75 - 6}{9.75} = \frac{3.75}{9.75}$$

Trade of ship INTERNATIONAL

Names of sister ships NONE

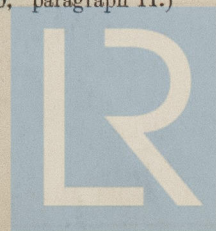
Builder's name and yard number CORCHO HITOS S.A. SANTANDER. YARD NO 65.

Owners DON JOSÉ MANUEL POMBO ROMERO-ROBLEDO.

Fee 3.366 pes.

List of plans forwarded for reference. (See "Instructions to Surveyors, Part 4, 1950," paragraph 11.)

MIDSHIP SECTION "AS BUILT"
 UPPER DECK APPROVED 13-5-55
 SECOND DECK APPROVED 13-5-55.



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