

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name SANTA MAFALDA	Official Number	Nationality and Port of Registry PORTUGUESE	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length 64.3 Breadth 11 Depth 6					Date of Survey 11-9-48
Moulded displacement at moulded draught = 85 per cent. of moulded depth.....tons					Surveyor's Signature E.J.
Coefficient of fineness for use with Tables .68					Particulars of Classification 100 A1 Trader

DEPTH FOR FREEBOARD (D).				
Moulded depth	...	...	...	6.00
Stringer plate	...	...	...	0.11
Sheathing on exposed deck	...	...	...	0.50
$T \left(\frac{L-S}{L} \right) = 75 \times .6718$				
Depth for Freeboard (D) = 6.061				

DEPTH CORRECTION.	
(a) Where D is greater than Table depth (D - Table depth) R =	$8.33(6.061 - 4.286) 16.235 = +240$
(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	1.775
If restricted by superstructures	

ROUND OF BEAM CORRECTION.	
Moulded Breadth (B)	11.00
Standard Round of Beam = $\frac{B \times 12}{50}$	$\frac{11 \times 12}{50} = 220 \text{ mm}$
Ship's Round of Beam	$\frac{225}{5} = 45$
Difference	$225 - 220 = 5$
Restricted to	
Correction = $\frac{\text{Diff}^c}{4} \times \left(1 - \frac{S_1}{L}\right)$	$\frac{5}{4} \times .6982 = -1$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	3.900	3.900			
" overhang	1.200	.600			
R.Q.D. enclosed					
" overhang					
Bridge enclosed					
" overhang aft					
" overhang forward					
F'cle enclosed	13.81	13.810			
" overhang	2.19	1.095			
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	21.10	19.405			19.405

Standard Height of Superstructure	1.83
" " R.Q.D.	6.89
Deduction for complete superstructure	
Percentage covered $\frac{S}{L} =$	3.282
" " $\frac{S_1}{L} =$	30.18
" " $\frac{E}{L} =$	
Percentage from Table, Line A.	15.15
(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 = $6.89 \times 15.15 =$	- 104

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	790	1		1200		1	
$\frac{1}{6}L$ from A.P.		4				4	
$\frac{2}{6}L$ "		2				2	
Amidships		4				4	
$\frac{2}{6}L$ from F.P.		2				2	
$\frac{1}{6}L$ "		4				4	
F.P.	1579	1		2150		1	
Total							

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 "	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$
If limited on account of midship superstructure. **no allowance.**

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 = **60.86**
Summer freeboard = **8.30**
Moulded draught (d) = **52.56**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **10.9**Addition for Winter North Atlantic Freeboard (if required) = **1.60**

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 = **1.09**TABULAR FREEBOARD ~~corrected for Flush Deck (if required)~~
Correction for coefficient

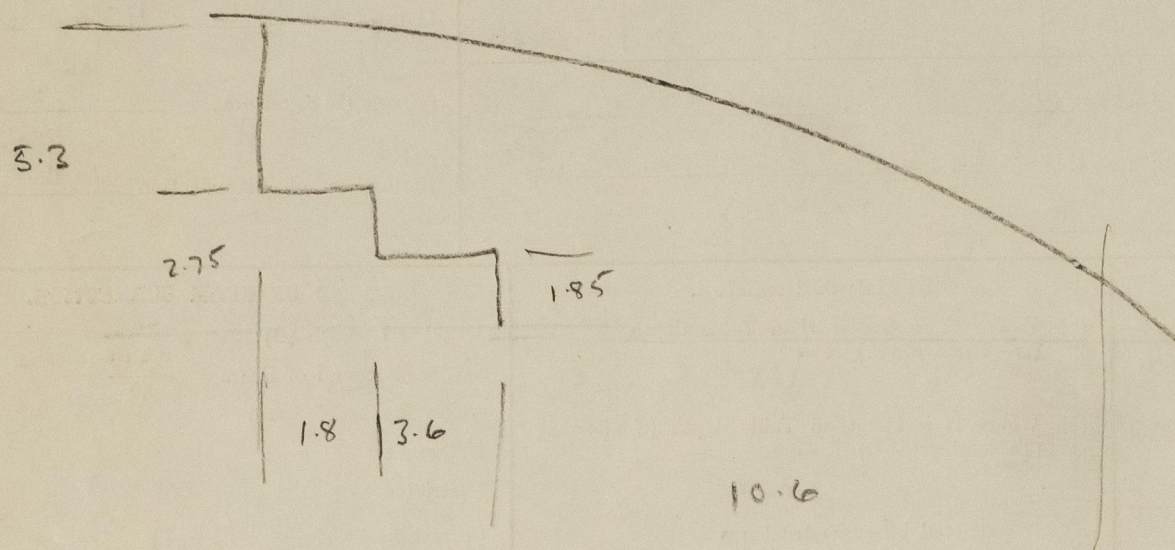
Depth Correction	...	...	...	240	-
Deduction for superstructures	...	...	...	-	104
Sheer correction	...	...	...	-	-
Round of Beam correction	...	...	...	-	1
Correction for Thickness of Deck amidships	...	...	...	25	-
Other corrections, scantlings, etc.	...	...	...	-	-
				265	105 + 150

Summer Freeboard = **79.5**SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, ~~Deck~~ Deck :-

Tropical Fresh Water Line above Centre of Disc	...	...	...	218 mm
Fresh Water Line	...	...	...	109 "
Tropical Line	...	...	...	109 "
Winter Line below	...	...	...	109 "
Winter North Atlantic Line	...	...	...	160 "

Tropical Fresh Water Freeboard	...	...	...	612 mm
Fresh Water	...	...	...	220 "
Tropical	...	...	...	721 "
Winter	...	...	...	933 "
Winter North Atlantic	...	...	...	890 "

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.



$$\begin{array}{r}
 \text{Forecastle} \quad 16.000 \\
 \text{less } \frac{(3.6 \times 1.85) + (1.8 \times 2.75)}{5.3} = \\
 \begin{array}{r}
 6.66 \\
 4.95 \\
 \hline
 11.61 / 5.3
 \end{array}
 \end{array}$$

$$\begin{array}{r}
 2.150 \\
 \hline
 13.81
 \end{array}$$

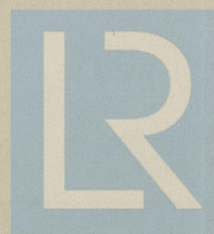
Trade of ship _____

Names of sister ships _____

Builder's name and yard number Oderi Terni Orlando 221

Owners _____

Fee £ _____



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Foundation