

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name M.T. "SAMEIRO"	Official Number	Nationality and Port of Registry PORTUGUESE LISBON	Gross Tonnage -	Date of Build 1947	Port of Survey LISBON (ALFEITE.)
Moulded Dimensions: Length 130 M Breadth 17.8 M Depth 10 M <i>To centre of rudder stock 130.26 M</i>					Date of Survey WHILE BUILDING.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 15.550 metric tons					Surveyor's Signature <i>G. Milon</i>
Coefficient of fineness for use with Tables .761 .770					Particulars of Classification +100A1 Carrying petroleum in Bulk (CLASS CONTEMPLATED.)

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 10.000	(a) Where D is greater than Table depth (D-Table depth) R = 333 m.m.	Moulded Breadth (B) 17.800
Stringer plate ... 0.175	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = 333 m.m.	Standard Round of Beam = $\frac{B^2}{50} = \frac{17.8^2}{50} = \mathbf{356}$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures ✓	Ship's Round of Beam = 360
Depth for Freeboard (D) = 10.0175		Difference + 4
		Restricted to
		Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{4^2}{4} \times \frac{3657}{4} = \mathbf{NIL}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	29.450	29.410	2400	✓	29.410
" overhang	410				
R.Q.D. enclosed					
" overhang	267				
Bridge enclosed	10.434	10.267	2400	x.9	9.240
" overhang aft	500	.375		x.9	.338
" overhang forward					
F'cle enclosed	11.690	11.690	2400	✓	11.690
" overhang	5.270	5.270	2400	x.9	1.143
Trunk aft (7m. wide)	47.570	13.300	1220	x.9	6.664
" forward	30.450	12.120	1220	x.9	6.457
Tonnage opening aft					
" forward					
Total	51.867	82.618			67.493

Standard Height of Superstructure **7.290 m**
" " R.Q.D. **✓**
Deduction for complete superstructure **1067 mm**
Percentage covered $\frac{S}{L} = \frac{39.83}{63.43} = \mathbf{63.43}$
" $\frac{S_1}{L} = \frac{63.43}{51.82} = \mathbf{51.82}$
Percentage from Table, Line A TANKER **43.00**
(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 = $1067 \times .4300 = \mathbf{459. mm}$

SHEER CORRECTION.

(SEE SKETCH OVER)

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	1339	1	1339	1395	1395	1	1395
1/4 L from A.P.	595	4	2380	295	295	4	1180
1/2 L	147	2	294	0	-	2	-
Amidships	-	4	-	0	-	4	-
3/4 L from F.P.	298	2	596	0	-	2	-
1/4 L	1130	4	4520	300	300	4	1200
F.P.	2678	1	2678	2750	2750	1	2750
Total			12051				6525

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{5526}{18} \left(.75 - \frac{1392}{2 \times 130} \right) = \mathbf{+ 169 mm}$
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 " =

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **10.013**
Summer freeboard = **1.916**
Moulded draught (d) = **8.102**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{48} \text{ inches} = \mathbf{169 mm}$

Addition for Winter North Atlantic Freeboard (if required) = $168.8 + 106.8 = \mathbf{275 mm}$

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = \mathbf{14,753}$
Tons per inch immersion at summer load water line
 $T = \mathbf{20.28}$

Deduction = $\frac{\Delta}{40 T} \text{ inches} = \mathbf{182 mm/mg}$

TANKER
TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

1757
1873

+	-
333	-
-	459
169	-
-	-
-	-
502	459
+ 43	

Summer Freeboard = **1916**

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

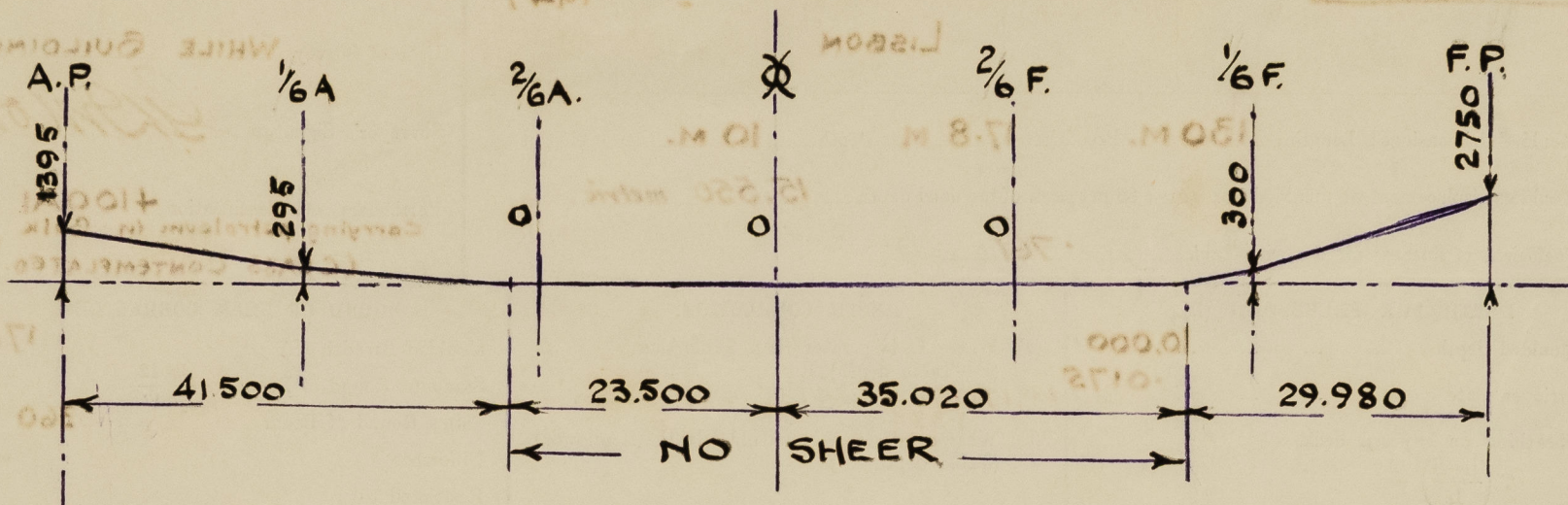
Tropical Fresh Water Line above Centre of Disc **35.1**
Fresh Water Line " **182**
Tropical Line " **169**
Winter Line below " **169**
Winter North Atlantic Line " **275**

Tropical Fresh Water Freeboard **1565**
Fresh Water " **1734**
Tropical " **1747**
Winter " **2085**
Winter North Atlantic " **2191**

SAMEIRO.

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.

SKETCH OF SHEERS.



DRAUGHT (m.)

DISPLACEMENT (metric tons)

8.600
8.550
8.500
8.450
8.400

15.735
15.630
15.550
15.450
15.360

Bridge

at side 9.120

$\frac{2}{3} \times 1.720$

1.147

Equis = 10.267

TONS/CENTIMETRE = 20.52 AT 8.500 m. (85%)

Trunk forward 31.970
less 1.147
30.823

$30.823 \times \frac{7}{17.8} = 12.120 = S_1$

Trunk aft 48.070
less bridge oh .375
47.695

sloped portion mean height $\frac{2400 + 1220}{2} = 1810$

length of main part (1.220 x high)

= $47.695 - (3230 + 9120) = 35.345$

$35.345 \times \frac{7}{17.8} = 13.900 = S_1$

$9.120 \times \frac{7}{17.8} = 3.580 = S_1$ 1810 m high

$3.230 \times \frac{7}{17.8} = 1.270 = S_1$ 2400 m high

Trade of ship CARRYING PETROLEUM IN BULK.

Names of sister ships x

Builder's name and yard number ARSENAL DO ALFEITE, YARD Nº C.15.

Owners CIA. COLONIAL DE NAVEGAÇÃO.

Fee £



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Lloyd's Register
Foundation