

Esso WINDSOR
E-45799 45799

Trieste Rpt 11 14762

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

Index No.

Govt. Copy

Owners C11

Ship's Name **Cantieri Riuniti dell'Adriatico San Marco** Official Number **300795** Nationality and Port of Registry **British London** Gross Tonnage **23457** Date of Build **1958**

Port of Survey **Trieste**

Date of Survey **March, 1958**

Surveyor's Signature **83 Lunn**

Particulars of Classification **+100 A1**
Carrying Petroleum in Bulk
(Class contemplated)

Moulded Dimensions: Length **660'** Breadth **90.0'** Depth **47.0'**

Freeboard Length **660'**

Moulded displacement at moulded draught = 85 per cent. of moulded depth **53,701** tons

Coefficient of fineness for use with Tables **.792**

DEPTH FOR FREEBOARD (D).

Moulded depth ... **47.0'**

Stringer plate ... **0.112'**

Wood Sheathing on exposed deck **None**

$T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) = **47.11'**

DEPTH CORRECTION.

(a) Where D is greater than Table depth (D-Table depth) R = **9.33"**

(b) Where D is less than Table depth (if allowed) (Table depth-D) R = **0**

If restricted by superstructures **✓**

ROUND OF BEAM CORRECTION.

Moulded Breadth (B) **90'**

Standard Round of Beam = $\frac{B \times 12}{50} =$ **21.6"**

Ship's Round of Beam = **22"**

Difference **0.40**

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S}{L} \right) = \frac{.40}{4} \left(1 - \frac{.5701}{1-42.99} \right) = .06"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed <i>equiv.</i> ...	146.51	146.51	8.5	✓	146.51
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed <i>equiv.</i> ...	49.80	49.80	8.5	✓	49.80
" overhang aft ...					
" overhang forward ...					
F'cle enclosed <i>equiv.</i> ...	86.30	86.30	8.0	✓	86.30
" overhang ...	2.21	1.11	8.0	✓	1.11
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	284.82	283.72			283.72

Standard Height of Superstructure **7'-6"**

" " R.Q.D. **✓**

Deduction for complete superstructure **42.00"**

Percentage covered $\frac{S}{L} =$ **43.15**

" " $\frac{S_1}{L} =$ **42.99**

" " $\frac{E}{L} =$ **33.99**

Percentage from Table, Line A. **33.99**

(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 = $.3399 \times 42.00 = 14.28"$

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	76.00	1	76.00	18.54"	52.54	1	52.54
$\frac{1}{2}$ L from A.P. ...	33.82	4	135.28	1.77"	16.81	4	67.24
$\frac{2}{3}$ L " ...	8.36	2	16.72	0	0	2	0
Amidships ...	0	4	0	0	0	4	0
$\frac{2}{3}$ L from F.P. ...	16.72	2	33.44	0	0	2	0
$\frac{1}{2}$ L " ...	67.64	4	270.56	2.52"	252	4	10.08
F.P. ...	152.00	1	152.00	22.00"	47.25	1	47.25
Total ...			684.00				177.11

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 = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{56.89}{18} \left(.75 - \frac{.5342}{2.158} \right) = 15.05"$

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

If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100ft. **✓**

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **47.11'**

Summer freeboard = **11.60'**

Moulded draught (d) = **35.51'**

Keel allowance =

Extreme draught =

Deduction for Tropical freeboard and addition for =

Winter freeboard = $\frac{d}{4}$ inches = **8.88 - 9"**

Addition for Winter North Atlantic Freeboard (if required) = **8.88 + 6.60 = 15.48" = 15.5"**

Deduction for Fresh Water.

Displacement in salt water at summer load water line $\Delta = 47.488$ at $d=35'$

Tons per inch immersion at summer load water line **T = 120.7**

Deduction = $\frac{\Delta}{40 T}$ inches = **9.84"**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.792 + .68}{1.36} = \frac{1.472}{1.36}$

Depth Correction **9.33"**

Deduction for superstructures **14.28"**

Sheer correction **15.05"**

Round of Beam correction **.06"**

Correction for Thickness of Deck amidships **✓**

Other corrections, scantlings, etc. **✓**

Summer Freeboard = **139.16"**

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

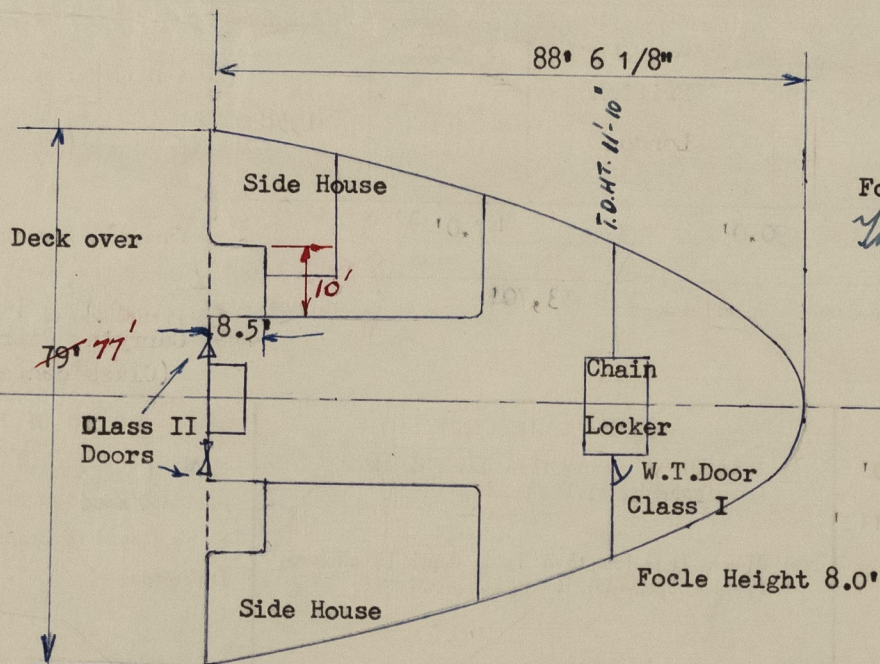
Tropical Fresh Water Line above Centre of Disc ...	18.34"	Tropical Fresh Water Freeboard ...	11.74"
Fresh Water Line " " ...	9.34"	Fresh Water " " ...	10.02"
Tropical Line " " ...	9"	Tropical " " ...	10.10"
Winter Line below " " ...	9"	Winter " " ...	12.14"
Winter North Atlantic Line " " ...	15.2"	Winter North Atlantic " " ...	12.10.34"

15 APR 1958

Esso Southampton.

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.

$$\begin{aligned} \text{Equiv. length} &= 88.51 - \frac{10 \times 8.5 \times 2}{77} \\ &= 86.30' \\ \frac{1}{4} &= 2.21' \end{aligned}$$



Forecastle

When deck height @ side @ F.P. = 13'-11 1/4"

$$\begin{aligned} \text{Equiv. length} &= 40 + \left(\frac{2}{3} \times 16.4 \right) \times \frac{88}{90} = 49.80' \\ &50.93 \end{aligned}$$

Bridge

Bridge height 8.5'

Closing appliances : front bhd. : intact

Aft bhs. Class II

$$\begin{aligned} \text{Sheers - aft.} \\ \text{AP.} &= 18.54 + (10'-4 - 7-6) = 52.54'' \\ \frac{4}{6} &= 1.77'' + 14.5'' + 12 \left(\frac{29.6}{139.6} \right)^2 = 16.81 \\ \text{Sheers - fwd.} \\ \text{FP} &= 22.00 + (13'-11 1/4 - 11'-10) = 47.25'' \end{aligned}$$

Poop
Closing appliances
poop front : intact

$$\begin{aligned} \text{Poop} \\ \text{Equiv. Length} &= 139.6' + \frac{61.5 \times 10}{89} = 146.51' \end{aligned}$$

When deck height @ side
at AP = 10'-4"
@ 4/6 = 48 1/2"

height = 8.5' @ side at fore end of poop.

Pump room
height 6.6'

hinged steel
W.T. doors

Trade of ship

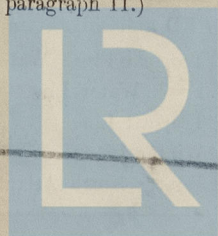
Names of sister ships Cantieri Riuniti dell'Adriatico Yard N°.1834 - "ESSO WINDSOR"

Builder's name and yard number Cantieri Riuniti dell'Adriatico - San Marco Yard N°.1839 - "ESSO SOUTHAMPTON"

Owners ESSO Petroleum Co., Ltd. London

Fee £ : :

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



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