

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

17 AUG 1948

Ship's Name "TOMAR"	Official Number	Nationality and Port of Registry NORWEGIAN TOMSBERG.	Gross Tonnage 6410	Date of Build 1948	Port of Survey TRIESTE
Moulded Dimensions: Length 455.6 Breadth 64.0' Depth TO SHELTER DECK 42.16 455.58' to centre of Rudder stock.					Date of Survey DURING CONSTRUCTION
Moulded displacement at moulded draught = 85 per cent. of moulded depth 21300 tons 14600 F.O.					Surveyor's Signature 86. Lumsden
Coefficient of fineness for use with Tables .68 (.676 actual)					Particulars of Classification 100A1 WITH FREEBOARD.

DEPTH FOR FREEBOARD (D).

Moulded depth ... **30.5**
Stringer plate ... **.04**
Sheathing on exposed deck
 $T \left(\frac{L-S}{L} \right) =$
Depth for Freeboard (D) = **30.54**

DEPTH CORRECTION.

(a) Where D is greater than Table depth
(D-Table depth) R = **(30.54 - 30.37) 5 = + .51"**
(b) Where D is less than Table depth (if allowed)
(Table depth-D) R = **.17**
If restricted by superstructures **✓**

ROUND OF BEAM CORRECTION.

Moulded Breadth (B) **64.00'**
Standard Round of Beam = $\frac{B \times 12}{50} =$ **15.36"**
Ship's Round of Beam = **NONE F.O.K.**
Difference **15.36"**
Restricted to
Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ **$\frac{15.36}{4} \times .0034 = +.02"$**

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	38.435	38.35	11.66	✓	38.35
" overhang	-	-	-	-	-
R.Q.D. enclosed	-	-	-	-	-
" overhang	-	-	-	-	-
Bridge enclosed	412.31	412.31	11.66	✓	412.31
" overhang aft	-	-	-	-	-
" overhang forward	-	-	-	-	-
Fore enclosed	38.5	-	7.25	-	-
" overhang	-	-	-	-	-
Trunk aft	-	-	-	-	-
" forward	-	-	-	-	-
Tonnage opening aft	4.92	2.46	11.66	✓	2.46
" forward	-	-	-	-	-
Total	455.58	453.12	-	-	453.12

Standard Height of Superstructure **7.50'**
" " R.Q.D. **✓**
Deduction for complete superstructure **42.00"**
Percentage covered $\frac{S}{L} =$ **100**
" " $\frac{S_1}{L} =$ **99.46**
" " $\frac{E}{L} =$ **99.33**
Percentage from Table, Line A. **48**
(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 = **42.00 × .9933 = - 41.72"**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	55.56	1	✓	55.56	56.2	106.12	1	✓	106.12
$\frac{1}{2}$ L from A.P.	24.725	4	✓	98.90	24.3	47.225	4	✓	188.90
$\frac{2}{3}$ L	6.11	2	✓	12.22	58	11.67	2	✓	23.34
Amidships	✓	4	✓	✓	✓	✓	4	✓	✓
$\frac{2}{3}$ L from F.P.	12.22	2	✓	24.44	10.9	17.37	2	✓	34.74
$\frac{1}{2}$ L	49.457	4	✓	197.80	47.1	70.275	4	✓	281.10
F.P.	111.12	1	✓	111.12	108.0	157.92	1	✓	157.92
Total	-	-	-	500.04	449.92	-	-	-	792.12

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ **$\frac{292.08}{18} \times .25 = - 4.06"$**
If limited on account of midship superstructure. **✓**

Actual sheer deck height = **11.66'**
Standard " " = **7.50'**
Excess = **4.16'**
Mean actual sheer aft = **Excess**
Mean standard sheer aft = **49.92"**

Mean actual sheer forward = **Excess**
Mean standard sheer forward = **Excess**

Length of enclosed superstructure forward of amidships = **6.55**
" " aft of " = **6.55**

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **30.54**
Summer freeboard = **3.62**
Moulded draught (d) = **26.92**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **6.73 = 6 $\frac{3}{4}$ "**

Addition for Winter North Atlantic Freeboard (if required) = **✓**

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta =$ **15030 TONS**
Tons per inch immersion at summer load water line
T = **55 TONS.**

Deduction = $\frac{\Delta}{40 T}$ inches
= **6.83"**
= **6 $\frac{3}{4}$ "**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient **nil.**

Depth Correction ... **.51**
Deduction for superstructures ... **41.72**
Sheer correction ... **4.06**
Round of Beam correction ... **.02**
Correction for Thickness of Deck amidships ... **✓**
Other corrections, scantlings, etc. ... **✓**

+	-
51	✓
✓	41.72
✓	4.06
.02	✓
✓	✓
✓	✓
53	45.78

Summer Freeboard = **43.58"**

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

Tropical Fresh Water Line above Centre of Disc **13 $\frac{1}{2}$ " 342 m/m**
Fresh Water Line " " **6 $\frac{3}{4}$ " = 171**
Tropical Line " " **6 $\frac{3}{4}$ " = 171**
Winter Line below " " **6 $\frac{3}{4}$ " = 171**
Winter North Atlantic Line " " **✓**

Tropical Fresh Water Freeboard **3' 7 $\frac{1}{2}$ " = 1105 m/m**
Fresh Water **3' 6" = 763**
Tropical **3' 0 $\frac{3}{4}$ " = 934**
Winter **3' 0 $\frac{3}{4}$ " = 934**
Winter North Atlantic **4' 2 $\frac{1}{4}$ " = 1276**

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.

Trade of ship

Names of sister ships

Builder's name and yard number *CANTIERE RIUNITI DELL ADRIATICO YARD NO 1434* 39575

Owners *WILH. WILHELMSSEN.*

Fee £.....

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Foundation