

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

Received **26 DEC 1952**
Index No. _____
Govt. Copy _____
Owners C11 _____

Ship's Name 'TUAREG'	Official Number	Nationality and Port of Registry Norwegian Tonsberg.	Gross Tonnage approx. #1800 11'480	Date of Build 1952	Port of Survey Greenock
Moulded Dimensions: Length 520'-0" Breadth 69'-9" Depth 37'-3"					Date of Survey while Building 1952.
Freeboard Length					Surveyor's Signature John Barnett.
Moulded displacement at moulded draught = 85 per cent. of moulded depth 24807. tons					Particulars of Classification +100A1 Carrying Petroleum in Bulk.
Coefficient of fineness for use with Tables .756					

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth	37.25	(a) Where D is greater than Table depth (D-Table depth) R =		Moulded Breadth (B)	69.75
Stringer plate	.90	(37.33 - 34.67) 3 = +7.98		Standard Round of Beam = $\frac{B \times 12}{50}$	16.74
Wood Sheathing on exposed deck		(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Ship's Round of Beam	17.5
$T \left(\frac{L-S}{L} \right) =$				Difference	+ 0.76
Depth for Freeboard (D) =	37.33	If restricted by superstructures		Restricted to	
				Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right)$	$\frac{0.76}{4} \times 0.5714 = -0.11$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Poop enclosed	119.17	119.17	8.0		119.17	Standard Height of Superstructure 7.5
" overhang	122.5					" " R.Q.D. ✓
R.Q.D. enclosed						Deduction for complete superstructure 42.00
" overhang	44.56					Percentage covered $\frac{S}{L} =$
Bridge enclosed	41.87	44.56	7.5		44.56	" " $\frac{S_1}{L} =$ 42.86
" overhang aft	47.87		7.5			" " $\frac{E}{L} =$
" overhang forward						Percentage from Table, Line A. TANKER 33.86
F'cle enclosed	59.16	59.16	7.5		59.16	(corrected for absence of forecastle (if required))
" overhang						Percentage from Table, Line B.
Trunk aft						(corrected for absence of forecastle (if required))
" forward						Interpolation for bridge less than .2L (if required)
Tonnage opening aft						Deduction = $42.00 \times .3386 = -14.22$
" " forward						Note Bridge sides 12" inboard from ship's side.
Total	222.89	222.89			222.89	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	62.00	1		62.00	62"	62.00	1		62.00
$\frac{1}{8}L$ from A.P.	27.59	4		110.36	27.5"	27.50	4		110.00
$\frac{3}{8}L$ "	6.82	2		13.64	6.875"	6.875	2		13.75
Amidships	0	4		0	0	0	4		0
$\frac{5}{8}L$ from F.P.	13.64	2		27.28	14.0"	14.00	2		28.00
$\frac{7}{8}L$ "	55.18	4		220.72	55"	55.00	4		220.00
F.P.	124.00	1		124.00	124"	124.00	1		124.00
Total				558.00					557.75

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 " = } TANKER

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{0.25}{18} \times (.75 - .2143) = +.01$
If limited on account of midship superstructure. **5357** 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	=	37.33	✓
Summer freeboard	=	7.58	✓
Moulded draught (d)	=	29.75	✓
Keel allowance	=		
Extreme draught	=		
Deduction for Tropical freeboard and addition for	=		
Winter freeboard = $\frac{d}{4}$ inches	=	7.44	✓
Addition for Winter North Atlantic Freeboard (if required)	=	7.44 + 5.20 = 12.64	✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line	=	30' 23.03	✓
Tons per inch immersion at summer load water line	=	29' 22.56	✓
T =	=	30' 73.17	✓
Deduction = $\frac{40 T}{\Delta}$ inches	=	29' 72.58	✓
	=	7.97	✓
	=	8"	✓

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient	$\frac{69.756}{1.36} = \frac{1.436}{1.36}$	92.10	✓
		97.24	✓
Depth Correction	7.98	✓	
Deduction for superstructures	14.22	✓	
Sheer correction	.01	✓	
Round of Beam correction	0.11	✓	
Correction for Thickness of Deck amidships		✓	
Other corrections, scantlings, etc.		✓	
Summer Freeboard	90.90		

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

Tropical Fresh Water Line above Centre of Disc	15 1/2	393	✓	Tropical Fresh Water Freeboard	6' - 3 1/2"	1918	✓
Fresh Water Line	8	203	✓	Fresh Water	6' - 1 1/2"	2108	✓
Winter Line	7 1/2	190	✓	Tropical	6' - 1 1/2"	2121	✓
Winter Line below	7 1/2	190	✓	Winter	8' - 2 1/2"	2501	✓
Winter North Atlantic Line	12 3/4	324	✓	Winter North Atlantic	8' - 7 3/4"	2635	✓

T. Mareg

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.

Plans forwarded with this report (Please return).

1. midship section.
2. Profile & Decks.

$$\begin{aligned} \text{POOP} \quad \text{Length at side} &= 112.50 \checkmark \\ + \frac{2}{3} \times 10.0' \checkmark &= \frac{6.67 \checkmark}{119.17 \checkmark} = \text{Equiv. length.} \end{aligned}$$

$$\begin{aligned} \text{BRIDGE} \quad \text{Length at side} &= 41.87 \checkmark \\ + \frac{2}{3} \times 6.0' &= \frac{4.00 \checkmark}{45.87 \checkmark} \times \frac{67.75 \checkmark}{69.75 \checkmark} \\ &= 44.56 \checkmark = \text{Equiv. length} \end{aligned}$$

Trade of ship

International

Names of sister ships

✓

Builder's name and yard number

Lithgown Ltd No. 1069.

Owners

Wills. Wilhemsen.

Fee £

50 : 0 : 0.

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



© 2021

Lloyd's Register
Foundation