

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name **'THEODOXUS'** Official Number **181776** Nationality and Port of Registry **BRITISH LONDON** Gross Tonnage **10672** Date of Build **1945-5**

Port of Survey **FALMOUTH**

Date of Survey **11th, November, 1947.**

Surveyor's Signature **Alex. H. Jenkins.** Class **Contemplated.**

Moulded Dimensions: Length **503.00'** Breadth **68.00'** Depth **39.25'**
To centre of rudder stock

Moulded displacement at moulded draught = 85 per cent. of moulded depth **24300** tons

Coefficient of fineness for use with Tables **.745**

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... 39.25	(a) Where D is greater than Table depth (D-Table depth) R = (39.33-33.53)3 = +17.40"	Moulded Breadth (B) 68.00
Stringer plate08	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = 5.80	Standard Round of Beam = $\frac{B \times 12}{50} = 16.32$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures <input checked="" type="checkbox"/>	Ship's Round of Beam = 15.82-18"
Depth for Freeboard (D) = 39.33		Difference - .50
		Restricted to
		Correction = $\frac{\text{Diff}^\circ}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.50}{4} \times .007 = +.08"$

DEDUCTION FOR SUPERSTRUCTURES.					
	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	109.17	109.17	8.0		109.17
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	38.67	38.67	8.0		38.67
" overhang aft ...					
" overhang forward ...	52.63	52.63	10.0		52.63
F'cle enclosed ...	53.0	52.63	10.0		52.63
" overhang75	.38			.38
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	201.22	200.85			200.85

Standard Height of Superstructure 7.50	
" " R.Q.D. <input checked="" type="checkbox"/>	
Deduction for complete superstructure 42.00	
Percentage covered $\frac{S}{L} = 40.00$	
" " $\frac{S_1}{L} =$	
" " $\frac{E}{L} =$	39.93
Percentage from Table, Line A. Tanker 30.93	
(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 x .3093 = 12.99"	

SHEER CORRECTION.							
Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S
A.P. ...	60.30	1		60.30	24.00	24.00	1
$\frac{1}{2}$ L from A.P. ...	26.83	4		107.32	4.00	4.00	4
$\frac{2}{3}$ L " ...	6.63	2		13.26	-	-	2
Amidships ...	-	4		-	-	-	4
$\frac{2}{3}$ L from F.P. ...	13.27	2		26.54	-	-	2
$\frac{1}{2}$ L " ...	53.67	4		214.68	6.00	6.00	4
F.P. ...	120.60	1		120.60	18.00	18.00	1
Total ...				542.70			82.00

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{460.70}{18} \left(.75 - \frac{200.85}{500} \right) = +14.08"$

If limited on account of midship superstructure.

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

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line $\Delta =$ 21890	Correction for coefficient $\frac{.745 + .68}{1.36} = \frac{1.425}{1.36}$
Depth to Freeboard Deck = 39.33	Tons per inch immersion at summer load water line $T =$ 67.0	Depth Correction ... 17.40
Summer freeboard = 9.23	Deduction = $\frac{\Delta}{40 T}$ inches = 8.17"	Deduction for superstructures ... 12.99
Moulded draught (d) = 30.10	= 8.14"	Sheer correction ... 14.08
Deduction for Tropical freeboard and addition for		Round of Beam correction08
Winter freeboard = $\frac{d}{4}$ inches = 7.52" = 7$\frac{1}{2}"$		Correction for Thickness of Deck amidships ...
Addition for Winter North Atlantic Freeboard (if required) = 7.52 + 5.03 = 12.55" = 12$\frac{1}{2}"$		Other corrections, scantlings, etc. ...
		Summer Freeboard = 110.97

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

Tropical Fresh Water Line above Centre of Disc	15$\frac{3}{4}"$
Fresh Water Line " "	8$\frac{1}{4}"$
Tropical Line " "	7$\frac{1}{2}"$
Winter Line below " "	7$\frac{1}{2}"$
Winter North Atlantic Line " "	12$\frac{1}{2}"$

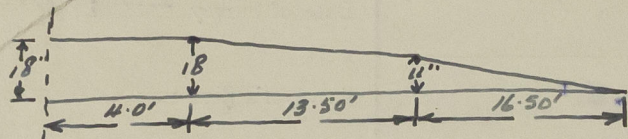
Tropical Fresh Water Freeboard	9.23"
Fresh Water " "	7.11"
Tropical " "	8.16$\frac{1}{2}"$
Winter " "	8.71$\frac{1}{4}"$
Winter North Atlantic " "	9.10$\frac{1}{4}"$

Theodosius.

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.

It will be recommended this vessel is eligible for classification contemplated with record of drydocking 11,47 and to have the notation of EXAMINED L.R. 11,47.

Alex. H. Jenkins.
12/11/47.



$$\begin{aligned}\text{Camber} &= (8 \times 12) 18 = 1728 \\ &\quad (27 \times 12) 14.5 = 4698 \\ &\quad (16.50 \times 12) 11 = 2178 \\ &\quad \hline &\quad 8604\end{aligned}$$

$$\begin{aligned}\frac{2}{3}h (68 \times 12) &= 8604 \\ h &= \frac{8604 \times 3}{2(68 \times 12)}\end{aligned}$$

$$\text{equivalent camber} = 15.82$$

$$\begin{aligned}\text{Bridge} &= 36.00' \\ \frac{2}{3} \times 4 &= \frac{2.67}{38.67'} \text{ equivalent incl. length.}\end{aligned}$$

$$\begin{aligned}\text{Poop} &= 106.50 \\ \frac{2}{3} \times 4 &= \frac{2.67}{109.17} = \text{equivalent incl. length.}\end{aligned}$$

~~Lancaster~~ 5

Trade of ship Carrying Petroleum in bulk. Ocean.

Names of sister ships -

Builder's name and yard number Kaiser Company Incorporated, Portland, Oregon. No. 2419.

Owners Anglo-Saxon Petroleum Co. Ltd.,

Fee £ 20. 0. 0.



© 2020

Lloyd's Register
Foundation