

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name CHISHOLM TRAIL	Official Number 181763	Nationality and Port of Registry BRITISH LONDON	Gross Tonnage 10660.33	Date of Build 1945	Port of Survey FALMOUTH
Moulded Dimensions: Length 503.00' Breadth 68.00' Depth 39.25' To centre of rudder stock					Date of Survey 24th OCTOBER 1947
Moulded displacement at moulded draught = 85 per cent. of moulded depth 24300 tons					Surveyor's Signature Alex. M. Jenkins
Coefficient of fineness for use with Tables .745					Particulars of Classification CLASS CONTEMPLATED

DEPTH FOR FREEBOARD (D). Moulded depth 39.25 Stringer plate08 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 39.33	DEPTH CORRECTION. (a) Where D is greater than Table depth (D-Table depth) R = (39.33-33.53)3 = +17.40' (b) Where D is less than Table depth (if allowed) (Table depth-D) R = 5.8 If restricted by superstructures ✓	ROUND OF BEAM CORRECTION. Moulded Breadth (B) 68.00 Standard Round of Beam = $\frac{B \times 12}{50} =$ 16.32" Ship's Round of Beam = 18" Difference +1.68 Restricted to Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) =$ $\frac{1.68 \times 6007}{4} = -25"$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed <i>equin</i> ...	109.17	109.17	8.0	✓	109.17
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed <i>equin</i> ...	38.67	38.67	8.0	✓	38.67
" overhang aft ...					
" overhang forward ...					
F'cle enclosed ...	52.63	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 **7.5'**

" " R.Q.D. **42"**

Deduction for complete superstructure **42"**

Percentage covered $\frac{S}{L} =$ **40.01**

" " $\frac{S_1}{L} =$ **39.93**

" " $\frac{E}{L} =$ **30.93**

Percentage from Table, Line A Tanker **30.93**
(corrected for absence of fore-castle (if required))

Percentage from Table, Line B. **✓**
(corrected for absence of fore-castle (if required))

Interpolation for bridge less than .2L (if required) **✓**

Deduction = **42 × .3093 = -12.99"**

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	60.30	1		60.30	24.00	24.00	1		24.00
1/4 L from A.P. ...	26.83	4		107.32	4.00	4.00	4		16.00
1/2 L " ...	6.63	2		13.26	-	-	2		
Amidships ...	-	4		-	-	-	4		
3/4 L from F.P. ...	13.27	2		26.54	-	-	2		
1/4 L " ...	63.67	4		214.68	6.00	6.00	4		24.00
F.P. ...	120.60	1		120.60	18.00	18.00	1		18.00
Total ...				542.70					82.00

Mean actual sheer aft =
Mean standard sheer aft = **deficient**

Mean actual sheer forward =
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = **Tanker**

" " aft of " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{460.7}{18} \left(.75 - \frac{200.1}{503} \right) = +14.07"$

If limited on account of midship superstructure. **✓** **5499** If limited to maximum allowance of 1 1/2 ins. per 100 ft. **✓**

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **39.33** Ft.
Summer freeboard = **9.23**
Moulded draught (d) = **30.10**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **7.52 = 7 1/2"**

Addition for Winter North Atlantic Freeboard (if required) = **7.52 + 5.03 = 12.55 = 12 1/2"**

Deduction for Fresh Water.

Displacement in salt water at summer load water line $\Delta =$ **21890**
Tons per inch immersion at summer load water line **T = 67.0**
Deduction = $\frac{\Delta}{40 T}$ inches = **8.17**
= 8 1/4"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient	$\frac{.745 + .68}{1.36} =$ 1.425	
Depth Correction	17.40	
Deduction for superstructures	12.99	
Sheer correction	14.07	
Round of Beam correction	.25	
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
Summer Freeboard	110.63	

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

Tropical Fresh Water Line above Centre of Disc	15 1/4"	400	Tropical Fresh Water Freeboard	2813
Fresh Water Line	8 1/4"	210	Fresh Water	2413
Tropical Line	7 1/4"	190	Tropical	2603
Winter Line below	7 1/4"	190	Winter	2823
Winter North Atlantic Line	12 1/2"	317	Winter North Atlantic	3063

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 IN MY OPINION IS ELIGIBLE TO HAVE THE NOTATION OF CLASSIFICATION CONTEMPLATED WITH NOTATION OF EXAMINED L.R. 10, 47 VALID FOR 12 MONTHS AND RECORD OF DRY DOCKING 10, 47.

Alex. M. Jenkins.

Poop :-

at side = 106.5

$\frac{2}{3} \times 4 = 2.67$

109.17 = equiv enclosed length.

Bridge :-

at side = 36.00

$\frac{2}{3} \times 4 = 2.67$

38.67 = equiv enclosed length.

Trade of ship CARRYING PETROLEUM IN BULK OCEAN.

Names of sister ships ✓

Builder's name and yard number KAISER COMPANY INCORPORATED PORTLAND OREGON. N° 2403.

Owners BRITISH TANKER PETROLEUM

Fee £ 20 : 0 : 0.

1767



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