

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name TROCHURUS EX COUNCIL CREST	Official Number 181823	Nationality and Port of Registry BRITISH London	Gross Tonnage 10668.17	Date of Build 1945	Port of Survey CARDIFF
Moulded Dimensions: Length 503.00' ✓ Breadth 68.00' ✓ Depth 39.25' ✓ To centre of rudder stock					Date of Survey 17. 12. 47
Moulded displacement at moulded draught = 85 per cent. of moulded depth 24300 tons					Surveyor's Signature <i>Dennis Llewellyn</i>
Coefficient of fineness for use with Tables .745					Particulars of Classification Class: Contemplative

DEPTH FOR FREEBOARD (D).

Moulded depth ... **39.25** ✓
Stringer plate ... **.08** ✓
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 =
 $(39.33 - 39.53) 3 = + 17.40$
5.80
(b) Where D is less than Table depth (if allowed)
(Table depth - D) R =
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 **Excess = 1.68"**
Restricted to
Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S}{L} \right) = \frac{143}{4} \times 6017 = .25$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	108.67	108.67	8.0 ✓	✓	108.67
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed ...	38.67	38.67	8.0 ✓	✓	38.67
" overhang aft ...					
" overhang forward ...					
F'cle enclosed ...	53.0	53.00	10.0 ✓	✓	53.00
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	200.34	200.34			200.34

Standard Height of Superstructure **7.50**
" " R.Q.D. ✓
Deduction for complete superstructure **42.00**
Percentage covered $\frac{S}{L} =$
" " $\frac{S_1}{L} =$ } **39.83**
" " $\frac{E}{L} =$
Percentage from Table, Line A. Tanker **30.83**
(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 = $42.00 \times 30.83 = -12.95$

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 " ...	53.67	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 = *Deficient*
Mean standard sheer aft =

Mean actual sheer forward = *Deficient*
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = } Tanker.
" " aft of " =

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{460.70}{18} \left(.75 - \frac{1992}{5508} \right) = + 14.10$
If limited on account of midship superstructure.

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.

Ft.
Depth to Freeboard Deck = **39.33**
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
= $\frac{21890}{40 \times 67.0} = 8.17$
= **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	-	12.95
Sheer correction	14.10	-
Round of Beam correction	-	25
Correction for Thickness of Deck amidships	-	-
Other corrections, scantlings, etc.	-	-
	31.50	13.20
Summer Freeboard	= 110.70	

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

Tropical Fresh Water Line above Centre of Disc	5 3/4
Fresh Water Line	8 1/2
Tropical Line	7 1/2
Winter Line below	7 1/4
Winter North Atlantic Line	12 1/2

Tropical Fresh Water Freeboard	7.11
Fresh Water	2.6 1/2
Tropical	2.3 1/2
Winter	2.0 1/4
Winter North Atlantic	10.3 1/4

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

Owners *Anglo Saxon Petroleum Co Ltd*

Fee £ *20* : *0* : *0*

171 LD



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Foundation