

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name **"LEPTON"** Official Number **181572** Nationality and Port of Registry **BRITISH.** Gross Tonnage **6446** Date of Build **1946**

Port of Survey **BELFAST.**

Date of Survey **DURING CONSTRUCTION.**

Surveyor's Signature *J. Miller*

Particulars of Classification **100 A.1.**
"CARRYING PETROLEUM IN BULK"
(bless contemplated).

Moulded Dimensions: Length **426.0'** Breadth **54.25'** Depth **31.00'**
(To CF OF RUDDER STOCK).

Moulded displacement at moulded draught = 85 per cent. of moulded depth **13430.** tons

Coefficient of fineness for use with Tables **.772**

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth 31.00	(a) Where D is greater than Table depth (D-Table depth) R = (31.05-28.40) 3 = +7.95" 2.65	Moulded Breadth (B) 54.25'
Stringer plate ... 63 75 ... 06 05	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = ✓	Standard Round of Beam = $\frac{B \times 12}{50} = 13.02"$
Sheathing on exposed deck ✓ $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures ✓	Ship's Round of Beam 13 1/2 = 13.50"
Depth for Freeboard (D) = 31.05		Difference + .48"
		Restricted to
		Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.48}{4} \times \frac{532}{15} = -.07"$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed <i>equiv.</i> ...	90.75	90.75	8.0	✓	90.75
" overhang ...					
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed <i>equiv.</i> ...	46.41	46.41	7.5		46.41
" overhang aft ...	7.94	5.96			5.96
" overhang forward ...	90	90			90
F'cle enclosed ...	47.75	47.75	7.5		47.75
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...	193.04	191.06			191.06
" " forward ...	192.85	190.87			190.87
Total ...					

Standard Height of Superstructure 7.5'	
" " R.Q.D. ✓	
Deduction for complete superstructure 42.0"	
Percentage covered $\frac{S}{L} = 45.27$ 32	
" " $\frac{S_1}{L} = 44.80$ 5	
" " $\frac{E}{L} = 35.80$ 5	
Percentage from Table, Line A. Tanker 35.80	
(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 .3585 = -15.04"	

Actual & effective

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	54.0"	1		54.00		52.60	1		52.60
1/4 L from A.P. ...	23.9"	4		95.60		23.41	4		93.64
1/2 L ...	6.2"	2		12.40		5.79	2		11.58
Amidships ...	0	4					4		
3/4 L from F.P. ...	11.5"	2		23.00		11.57	2		23.14
1/4 L ...	47.9"	4		191.60		46.82	4		187.28
F.P. ...	105.0"	1		105.00		105.20	1		105.20
Total ...				481.60					473.44

Mean actual sheer aft =
Mean standard sheer aft = } *Excess*

Mean actual sheer forward =
Mean standard sheer forward = }

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

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75 - S}{2L} \right) = \frac{8.16}{18} \left(\frac{.75 - .226}{.523} \right) = -.24"$

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.

Depth to Freeboard Deck = **31.06**

Summer freeboard = **5.52**

Moulded draught (d) = **25.54**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **6.38 = 6 1/2"**Addition for Winter North Atlantic Freeboard (if required) = **6 1/2 + 4 1/4 = 10 3/4"**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 13007$

Tons per inch immersion at summer load water line

$T = 47.36$

Deduction = $\frac{\Delta}{40T}$ inches = **6.86 = 6 3/4"**FULL Δ T.P.1.**26' 13227 47.49****25' 12659 47.15**

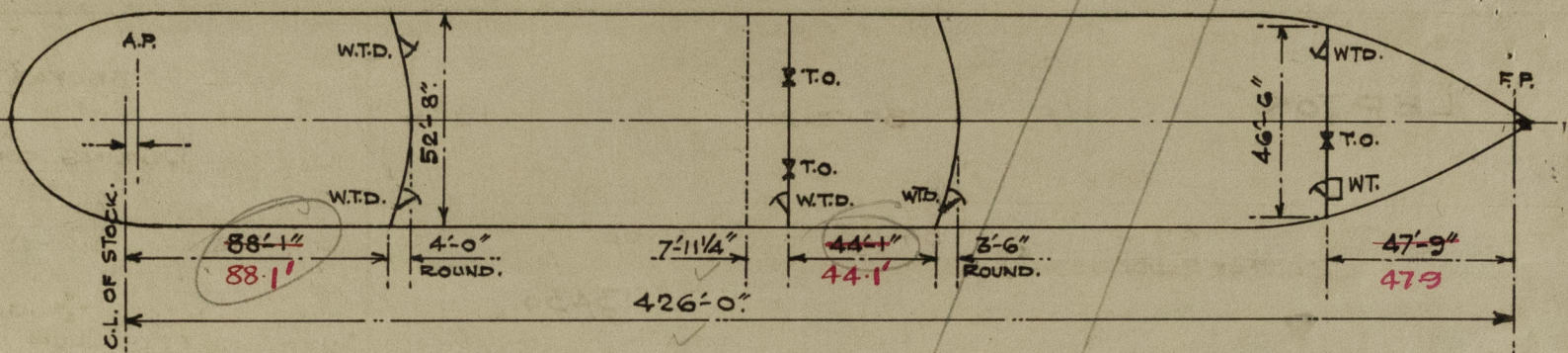
TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.772 + .68}{1.36} = \frac{1.452}{1.36}$

	+	-
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Depth Correction ... **7.95** ... **6**Deduction for superstructures ... **15.04** ... **6**Sheer correction ... **.24** ... **6**Round of Beam correction ... **.07** ... **6**Correction for Thickness of Deck amidships ... **.15** ... **6**Other corrections, scantlings, etc. ... **-7** ... **6****8.10 15.35 - 7.25**Summer Freeboard = **66.71**SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, **Steel, Deck:**Tropical Fresh Water Line above Centre of Disc ... **13 1/4"**Fresh Water Line " " ... **6 3/4"**Tropical Line " " ... **6 1/2"**Winter Line below " " ... **6 1/2"**Winter North Atlantic Line " " ... **10 3/4"**Tropical Fresh Water Freeboard ... **5' - 6 1/4"**Fresh Water " " ... **4' - 5"**Tropical " " ... **4' - 11 1/2"**Winter " " ... **4' - 11 3/4"**Winter North Atlantic " " ... **6' - 5"**

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.



Openings:- Fore Bh. - Tonnage opening 5'-0" x 4'-0" with 18" sill, portable steel plate stiffened and secured by wide spaced hook bolts.

Two hinged steel watertight doors 1 @ 5'-0" x 30" and 1 @ 5'-0" x 24" with 18" sills secured by toggles and operated from both sides.

Bridge front Bh. - One hinged steel watertight door 5'-0" x 30" with 18" sills secured by toggles and operated from both sides.

Bridge after Bh. - Tonnage openings 5'-0" x 3'-0", with 18" sills, portable steel plates, secured by wide spaced hook bolts.

One steel hinged watertight door 5'-0" x 24" with 18" sill, secured by toggles and operated from both sides.

Poop front Bh. - Two hinged steel watertight doors 5'-0" x 30", with 18" sills, secured by toggles and operated from both sides.

This report C.11 (Camp) is forwarded for marking freeboards before the vessel is launched on 26th September 1946.

Amel

Trade of ship

Ocean going Tanker.

Names of sister ships

"Linga" (H.W's. N°1309) and Lyria (H.W's 1308).

Builder's name and yard number

Messrs. Harland & Wolff Ltd Belfast. N°1346.

Owners

Messrs. Anglo-Saxon Petroleum Company Ltd.

Fee £

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