

NEWCASTLE-ON-TYNE 104375

Index No. 39014
(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name **"AURIS"** Official Number **181847** Nationality and Port of Registry **BRITISH LONDON** Gross Tonnage **8250** Date of Build **1947** Port of Survey **NEWCASTLE-ON-TYNE**

Moulded Dimensions: Length **461'-0"** Breadth **59'-0"** Depth **34'-0"**
TO CENTRE OF RUDDER STOCK

Moulded displacement at moulded draught = 85 per cent. of moulded depth **17737** tons

Coefficient of fineness for use with Tables **.79**

Date of Survey **DURING CONSTRUCTION**

Surveyor's Signature **Al Hunter**

Particulars of Classification **100 A1**
CARRYING PETROLEUM IN BULK
(CONTEMPLATED)

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth 34.00	(a) Where D is greater than Table depth (D-Table depth) R = $(34.06 - 30.73) \times 3.0 = +9.99"$ ✓	Moulded Breadth (B) 59.0 ✓
Stringer plate06	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = 3.33	Standard Round of Beam = $\frac{B \times 12}{50} = 14.16$ ✓
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam 14.38 ✓
Depth for Freeboard (D) = 34.06		Difference .22 ✓
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{.22}{4} (1 - .4313) = .03$ ✓

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S) FEET	Equivalent Enclosed Length (S ₁) FEET	Height FEET	Height Correction	Effective Length (E)	
Poop enclosed ... <i>EQUIV. SIDE CENTRE</i>	96.19	96.19	8.0		96.19	Standard Height of Superstructure 7.50 ✓
" overhang ...	Nil					" " R.Q.D.
R.Q.D. enclosed ...	Nil					Deduction for complete superstructure 42.00 ✓
" overhang ...	Nil					Percentage covered $\frac{S}{L} = 43.67$ ✓
Bridge enclosed ... <i>EQUIV. SIDE CENTRE</i>	47.17	47.17	7.50		47.17	" " $\frac{S_1}{L} = 43.13$ ✓
" overhang aft ...	10.00	7.50			7.50	" " $\frac{E}{L} =$
" overhang forward ...	Nil					Percentage from Table, Line A. TANKER. = 34.13 ✓
Fore enclosed ...	48.00	48.00	7.50		48.00	(corrected for absence of forecastle (if required))
" overhang ...	Nil					Percentage from Table, Line B.
Trunk aft ...	Nil					(corrected for absence of forecastle (if required))
" forward ...	Nil					Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...	Nil					Deduction = 42.00 × .3413 = -14.33 ✓
" " forward ...	Nil					
Total ...	201.36	198.86			198.86	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	56.10	1	56.10	56.00	56.00	1	56.00		56.00	Mean actual sheer aft = Deficient ✓
1/4 L from A.P. ...	24.96	4	99.84	24.87	24.87	4	99.48		99.48	Mean actual sheer forward = Deficient ✓
1/2 L " ...	6.17	2	12.34	6.12	6.12	2	12.24		12.24	Mean standard sheer forward = Deficient ✓
Amidships ...	-	4	-	-	-	4	-		-	Length of enclosed superstructure forward of amidships =
3/4 L from F.P. ...	12.34	2	24.68	12.25	12.25	2	24.50		24.50	" " aft of " = Tanker ✓
3/8 L " ...	49.93	4	199.72	49.87	49.87	4	199.48		199.48	
F.P. ...	112.20	1	112.20	112.50	112.50	1	112.50		112.50	
Total ...			504.88				504.20			

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{.68}{18} \left(\frac{75-.2184}{2} \right) = +.02"$ ✓

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 = **34.06** Ft.
Summer freeboard = **6.67**
Moulded draught (d) = **27.39**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = **6.85** = **6 3/4**

Addition for Winter North Atlantic Freeboard (if required) = **6.85** + **4.61** = **11.46** = **11 1/2**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 16740$

Tons per inch immersion at summer load water line

$T = 56.02$

Deduction = $\frac{\Delta}{40T}$ inches

= **7.48**

= **7 1/2**

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{79+.68}{1.36} = \frac{1.47}{1.36}$

Depth Correction **9.99** ✓

Deduction for superstructures **-14.33** ✓

Sheer correction **.02** ✓

Round of Beam correction **.03** ✓

Correction for Thickness of Deck amidships **-**

Other corrections, scantlings, etc. **-**

Summer Freeboard = **79.91** ✓

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

Tropical Fresh Water Line above Centre of Disc ... **14 1/4** ✓
Fresh Water Line " " ... **7 1/2** ✓
Tropical Line " " ... **6 3/4** ✓
Winter Line below " " ... **6 3/4** ✓
Winter North Atlantic Line " " ... **11 1/2** ✓

Tropical Fresh Water Freeboard ... **6'-8"** ✓
Fresh Water " " ... **5'-5 3/4"** ✓
Tropical " " ... **6'-0 1/2"** ✓
Winter " " ... **6'-1 1/4"** ✓
Winter North Atlantic " " ... **7'-2 1/4"** ✓
Winter North Atlantic " " ... **7'-7 1/2"** ✓

Auris.

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.

EXTREME DISPLACEMENT AT 26'0" EXTREME DRAFT = 15,758 TONS TONS PER INCH = 55.46

" " " 27'6" " = 16,765 " " " = 56.05

" " " 29'0" " = 17,776 " " " = 56.68

BOTTOM OF KEEL IS 1 1/2' BELOW BASE LINE

Poop Equivalent Bulkhead = 97.44 centre
93.69 side
 $3.75 \times \frac{2}{3} = 2.50'$
93.69
96.19.

Bridge Equivalent Bulkhead = 48.50' - centre
44.50' - side
 $4.00 \times \frac{2}{3} = 2.67'$
44.50
47.17.

Trade of ship OCEAN GOING OIL TANKER

Names of sister ships NEERA (Yd. No 670) EMPIRE NEPTUNE (Yd. No 666) &c. (PLEASE SEE ACCOMPANYING LETTER)

Builder's name and yard number R. & W. HAWTHORN LESLIE & Co. LD No 686

Owners ANGLO SAXON PETROLEUM Co. LD.

Fee £. 19 - -

ML-D