

NAT. IN. 36983

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR ~~STEAMER~~ SAILING SHIP, TANKER.)

Index. No. 3777³
(For London Office only).

Ship's Name NAVICELLA	Official Number 180014	Nationality and Port of Registry BRITISH London	Gross Tonnage 825465	Date of Build 1944	Port of Survey NEWCASTLE-ON-TYNE
Moulded Dimensions: Length 461'-0" Breadth 59'-0" Depth 34'-0" To centre of rudder stock					Date of Survey DURING CONSTRUCTION
Moulded displacement at moulded draught = 85 per cent. of moulded depth 17737 tons					Surveyor's Signature R. Hunter
Coefficient of fineness for use with Tables .79					Particulars of Classification CARRYING PETROLEUM IN BULK (CLASS 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) 3 = +9.99	Moulded Breadth (B) 59.0'
Stringer plate06	(b) Where D is less than Table depth (if allowed) (Table depth - D) R = ✓	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 = 14.78
Depth for Freeboard (D) = 34.06		Difference .22
		Restricted to ✓
		Correction = $\frac{\text{Diff} \times (1 - \frac{S_1}{L})}{4} = \frac{.22 \times (1 - .428)}{4} = -.03$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
POOP ENCLOSED ... EQUIN. SIDE CENTRE	96.19	96.19	7.50	✓	96.19
„ overhang ...					
R.Q.D. enclosed ...					
„ overhang ...					
BRIDGE ENCLOSED ... EQUIN. SIDE CENTRE	47.17	47.17	7.50	✓	47.17
„ overhang aft ...	5.91	5.91			5.91
„ overhang forward ...					
F'cle enclosed ...	48.04	48.04	7.50	✓	48.04
„ overhang ...					
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward ...					
Total ...	199.28	197.31			197.31

Standard Height of Superstructure	7.5
„ „ R.Q.D.	✓
Deduction for complete superstructure	42.00
Percentage covered $\frac{S}{L} =$	43.23
„ $\frac{S_1}{L} =$	42.80
„ $\frac{E}{L} =$	42.80
Percentage from Table, Line A. TANKER	33.80
(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 .338 = -14.20

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
$\frac{1}{4}$ L from A.P. ...	24.96	4	99.84	24.87	24.87	4	99.48
$\frac{2}{4}$ L " 	6.17	2	12.34	6.12	6.12	2	12.24
Amidships 	-	4	-	-	-	4	-
$\frac{3}{4}$ L from F.P. ...	12.34	2	24.68	12.25	12.25	2	24.50
$\frac{1}{4}$ L " 	49.93	4	199.72	49.87	49.87	4	199.48
F.P. 	112.20	1	112.20	112.50	112.50	1	112.50
Total 			504.88	✓			504.20

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{.68}{18} (.75 - .2161) = +.02$
If limited on account of midship superstructure. **✓**

Mean actual sheer aft =	} Sufficient
Mean standard sheer aft =	
Mean actual sheer forward =	}
Mean standard sheer forward =	
Length of enclosed superstructure forward of amidships =	} Tanker
„ „ aft of „ =	

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck =	34.06
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	16740
Tons per inch immersion at summer load water line	56.02
Deduction = $\frac{\Delta}{40 T}$ 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 ...	- 14.20
Sheer correction ...	-.02
Round of Beam correction ...	-.03
Correction for Thickness of Deck amidships ...	-
Other corrections, scantlings, etc. ...	-
Summer Freeboard =	80.04

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 ...	5' 5 3/4"
Fresh Water „ „ ...	6' - 0 1/2"
Tropical „ „ ...	6' - 1 1/4"
Winter „ „ ...	7' - 2 3/4"
Winter North Atlantic „ „ ...	7' - 7 1/2"

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 Bhd.

Centre = 97.44
 Side = $\frac{93.69}{3.75} \times \frac{2}{3} = 2.50$
 $\frac{93.69}{96.19}$

Bridge Equivalent Bhd.

Centre = 48.50
 Side = $\frac{44.50}{4.00} \times \frac{2}{3} = 2.67$
 $\frac{44.50}{47.17}$

Trade of ship OCEAN GOING OIL TANKER.

Names of sister ships SAN VELINO (Y.N. 661) NATICINA (Y.N. 652) NUCULANA (Y.N. 649) &c. ALL BY SAME BUILDERS (HAWTHORN LESLIE & CO)

Builder's name and yard number R. W. HAWTHORN LESLIE & CO. LD. N. 663

Owners ANGLO SAXON PETROLEUM CO. LD.

Fee £ 79-0-0



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Foundation