

DEC 31 1938

B.

Rpt. C.11 (Comp.).

B.T. COPY.

Index. No. 35873
(For London Office only).

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

GRK. REPORT N° 20646.

Ship's Name BRITISH UNITY.	Official Number 167215	Nationality and Port of Registry BRITISH LONDON	Gross Tonnage APPROX 8407.36 8450	Date of Build Now Building.	Port of Survey GREENOCK
Moulded Dimensions: Length 465'-1" Breadth 61'-6" Depth 34'-0"					Date of Survey While Building
Moulded displacement at moulded draught = 85 per cent. of moulded depth 18282 tons					Surveyor's Signature Kenneth Inglis
Coefficient of fineness for use with Tables 774					Particulars of Classification 100A1. CARRYING PETROLEUM IN BULK LONGITUDINAL FRAMING AT BOTTOM & AT DECK. (CONTEMPLATED)

Depth for Freeboard (D). Moulded depth ... 34'-0" Stringer plate ... 7.2" ... 07 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 34.07	Depth correction. (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ $(34.07 - 31.01) 3 = + 9.18"$ (b) Where D is less than Table depth (if allowed) $(\text{Table depth} - D) R =$ If restricted by superstructures	Round of Beam correction. Moulded Breadth (B) 61'-6" Standard Round of Beam = $\frac{B \times 12}{50} =$ 14.76 Ship's Round of Beam = 15.2 Difference .74 excess Restricted to Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.74^2}{4} \times .5644 = -.10"$
---	---	---

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	
Roop enclosed ...	101.83	101.83	8'-0"		101.83	Standard Height of Superstructure 7.5'
.. overhang ...	3.50	1.75			1.75	" " R.Q.D. ✓
R.Q.D. enclosed ...	✓					Deduction for complete superstructure 42.00"
.. overhang ...	✓					Percentage covered $\frac{S}{L} =$ 44.70
Bridge enclosed ...	36.75	36.75	8'-0"		36.75	" " $\frac{S_1}{L} =$ 43.56
.. overhang aft ...	3.00	2.25			2.25	" " $\frac{E}{L} =$ 43.56
.. overhang forward ...	3.50	1.75			1.75	Percentage from Table, Line A. TANKER 34.56
F'cle enclosed ...	57.22	57.22	8'-0"		57.22	(corrected for absence of forecastle (if required))
.. overhang ...	2.11	1.05			1.05	Percentage from Table, Line B.
Trunk aft ...	✓					(corrected for absence of forecastle (if required))
.. forward ...	✓					Interpolation for bridge less than 2L (if required)
Tonnage opening aft ...	✓					Deduction = $42 \times .3456 = - 14.51"$
.. forward ...	✓					
Total ...	207.91	202.60			202.60	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. & A.T. 19'-4"	56.51	1		56.51	51.0	56.51	1		56.51	Mean actual sheer aft = <i>Excess (practically standard)</i>
FOR OF A.P.										Mean standard sheer aft
1/2 L from A.P. ...	25.145	4		100.58	26.66	25.145	4		100.58	Mean actual sheer forward = <i>Deficient</i>
1/2 L " ...	6.22	2		12.44	6.66	6.22	2		12.44	Mean standard sheer forward
Amidships ...		4			0		4			Length of enclosed superstructure forward of amidships =
1/2 L from F.P. ...	12.44	2		24.88	11.33	11.33	2		22.66	" aft of " = <i>Tanker</i>
1/2 L " ...	50.29	4		201.16	45.33	45.33	4		181.32	
F.P. ...	113.02	1		113.02	102.0	102.00	1		102.00	
Total ...				508.59					475.51	

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{33.08}{18} \left(.75 - \frac{2235}{5265} \right) = +.97"$

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 = 34.07 Summer freeboard = 6.67 Moulded draught (d) = 27.40 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 + 4.65 = 11.50 = 11 1/2"	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 27 - 16.976 = 10.024$ Tons per inch immersion at summer load water line $T = 27 - 58.17 = 28.83$ Deduction = $\frac{\Delta}{40T}$ inches = 7.44 = 7 1/2"	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.774 + .68}{1.36} = \frac{1.454}{1.36}$ Depth Correction ... 9.18 Deduction for superstructures ... 14.51 Sheer correction97 Round of Beam correction10 Correction for Thickness of Deck amidships ... Other corrections, scantlings, etc. ... Summer Freeboard = 79.98
---	---	--

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"	Tropical Fresh Water Freeboard ... 5'-5 3/4"
Fresh Water Line " " ... 7 1/2"	Fresh Water " " ... 6'-0 1/2"
Tropical Line " " ... 6 3/4"	Tropical " " ... 6'-1 1/4"
Winter Line below " " ... 6 3/4"	Winter " " ... 7'-2 3/4"
Winter North Atlantic Line " " ... 11 1/2"	Winter North Atlantic " " ... 7'-7 1/2"

British Unity

1900 7.10

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.

Forecastle

$$\text{Recess } 16 \times 11.75 = 188.00$$

$$14.5 \times 8.00 = 116.00$$

$$304.00 \div 55.00$$

$$\frac{62.75}{5.53}$$

57.22 Equivalent Bulkhead

Recess in Forecastle Deck

$$\frac{16 \times 11.75}{55} = \frac{62.75}{3.42}$$

$$59.33$$

Equivalent deck

$$\frac{59.33}{57.22}$$

$$2.11$$

Equivalent Overhang.

Trade of ship INTERNATIONAL.

Names of sister ships BRITISH ZEAL.

Builder's name and yard number LITHGOWS LIMITED No 914

Owners BRITISH TANKERS LTD

Fee £ 19 : 0 : 0

To BE RENDERED WITH FIRST ENTRY



© 2020

Lloyd's Register
Foundation