

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

No 34489

Ship's Name M.V. BRITISH COMMERCE	Official Number 180903	Nationality and Port of Registry British-London	Gross Tonnage 6092	Date of Build JULY 1946	Port of Survey Sunderland
Moulded Dimensions: Length 400'-0" Breadth 56'-0" Depth 30'-1" <i>To centre of rudder stock</i>					Date of Survey During construction
Moulded displacement at moulded draught = 85 per cent. of moulded depth 12,495 tons					Surveyor's Signature Neil F.H. Duncan
Coefficient of fineness for use with Tables 4 7030					Particulars of Classification +100 A1 Carrying petroleum in Bulk.

Depth for Freeboard (D). Moulded depth ... 30'-1" ... 30.08 Stringer plate ... 5/8"05 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ / Depth for Freeboard (D) = 30.13	Depth correction. (a) Where D is greater than Table depth $(D - \text{Table depth}) R = (30.13 - 26.67) \times 3 = +10.38"$ 3.46 (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) 56.00' Standard Round of Beam = $\frac{B \times 12}{50} = 13.44"$ Ship's Round of Beam = 14.00" Difference .56" Restricted to Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{.56}{4} \times .5696 = -.08$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed <i>Equiv.</i>	89.75	89.75	8.0	-	89.75
" overhang50	.25			.25
R.Q.D. enclosed					
" overhang					
Bridge enclosed <i>Equiv.</i>	42.33	42.33	8.0	-	42.33
" overhang aft	3.50	2.62			2.62
" overhang forward	.17	.08			.08
Fore enclosed <i>Equiv.</i>	37.13	37.13	8.0	-	37.13
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" " forward					
Total	173.38	172.16			172.16

Standard Height of Superstructure **7'-6"**
 " " R.Q.D. **/**
 Deduction for complete superstructure **42.00"**
 Percentage covered $\frac{S}{L} = 43.34$
 $\frac{S_1}{L} = 43.04$
 $\frac{E}{L} = 43.04$
 Percentage from Table, Line A. **-**
 (corrected for absence of forecastle (if required)) **-**
 Percentage from Table, Line B. **Tanker 34.04**
 (corrected for absence of forecastle (if required)) **-**
 Interpolation for bridge less than .2L (if required) **-**
 Deduction = $42 \times .3404 = -14.30$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	50.00	1		50.00	50	50	1		50.00
1/4 L from A.P. ...	22.25	4		89.00	22.25	22.25	4		89.00
1/2 L " ...	5.50	2		11.00	5.5	5.5	2		11.00
Amidships ...	-	4		-	-	-	4		-
3/4 L from F.P. ...	11.00	2		22.00	11	11.0	2		22.00
1/4 L " ...	44.50	4		178.00	44.5	44.5	4		178.00
F.P. ...	100.00	1		100.00	100	100.0	1		100.00
Total				450.00					450.00

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

Mean actual sheer aft = **1**
 Mean standard sheer aft = **1**
 Mean actual sheer forward = **1**
 Mean standard sheer forward = **1**
 Length of enclosed superstructure forward of amidships = **/**
 " " aft of " = **/**

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 = 30.13 Summer freeboard = 5.19 Moulded draught (d) = 24.94 Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.23 = 6 1/4 Addition for Winter North Atlantic Freeboard (if required) = 4 1/4 + 6 1/4 = 10 1/4	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 12200$ Tons per inch immersion at summer load water line $T = 46.44$ Deduction = $\frac{\Delta}{40T}$ inches = 6.57 = 6 1/2	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient $\frac{.764 + .68}{1.36} = 1.444 / 1.36$ <table border="1"> <tr> <th></th><th>+</th><th>-</th></tr> <tr> <td>Depth Correction</td><td>10.38</td><td>-</td></tr> <tr> <td>Deduction for superstructures</td><td>-</td><td>14.30</td></tr> <tr> <td>Sheer correction</td><td>-</td><td>-</td></tr> <tr> <td>Round of Beam correction</td><td>-</td><td>.08</td></tr> <tr> <td>Correction for Thickness of Deck amidships</td><td>-</td><td>-</td></tr> <tr> <td>Other corrections, scantlings, etc.</td><td>-</td><td>-</td></tr> <tr> <td></td><td>10.38</td><td>14.38</td></tr> </table> Summer Freeboard = 62.36		+	-	Depth Correction	10.38	-	Deduction for superstructures	-	14.30	Sheer correction	-	-	Round of Beam correction	-	.08	Correction for Thickness of Deck amidships	-	-	Other corrections, scantlings, etc.	-	-		10.38	14.38
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:-

Tropical Fresh Water Line above Centre of Disc	12 3/4"
Fresh Water Line	6 1/2"
Tropical Line	6 1/4"
Winter Line below	6 1/4"
Winter North Atlantic Line	10 1/4"

Tropical Fresh Water Freeboard	51-2 1/4"
Fresh Water	41-1 1/2"
Tropical	41-7 3/4"
Winter	41-8"
Winter North Atlantic	51-8 1/2"
	61-0 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.

Displacement Extreme at Summer Load draft = 12,200

Tons per inch = 46.44

Keel $\frac{1}{8}$ "

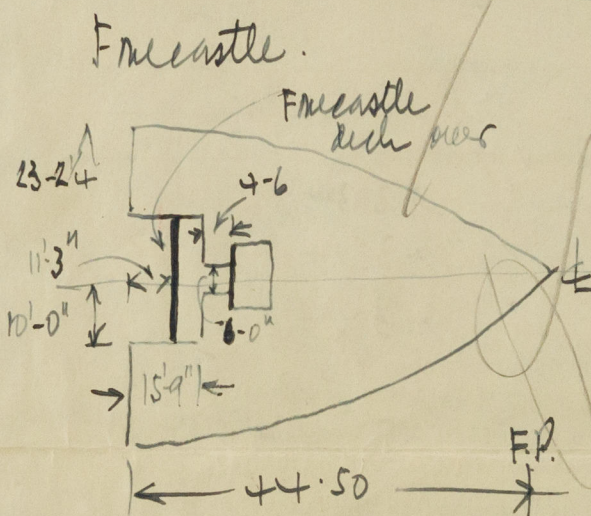
Stringer $\frac{5}{8}$ "

Equivalent Lengths.

Roof. Length at center 91.25'
 " " Side 86.75'
 $4.50 \times \frac{2}{3} = 3.00$
 $86.75 + 3.00 = 89.75'$
 Equiv length = 89.75'
 Equiv overhang = 3.5 - 3.0 = .50'

Bridge length at center 44.0
 " " Side 39.0
 $5.0 \times \frac{2}{3} = 3.33$
 $39.0 + 3.33 = 42.33$
 Equiv overhang forward = 3.5 - 3.33 = .17'

Overhang aft = 3.5'



Recesses. $15.75 \times 20 = 3150$
 $4.5 \times 6 = 27.0$
 $342.0 / 46.37 = 7.37$

44.5
 37.13 equiv length
 Overhang = Nil.

Trade of ship Tramper

Names of sister ships ✓

Builder's name and yard number Wm Duffell & Sons Ltd Yard no 736

Owners British Tanker Co Ltd.

Fee £ 17

Will be charged on F.E

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