

BRITISH HARMONY 36325

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No. 37061
(For London Office only).

Ship's Name "BRITISH GRATITUDE"	Official Number 168355	Nationality and Port of Registry British, London.	Gross Tonnage 8463	Date of Build 1942	Port of Survey NEWCASTLE-ON-TYNE Wallsend-on-Tyne
Moulded Dimensions: Length 463'-7$\frac{3}{4}$" Breadth 61'-9" Depth 34'-0$\frac{1}{2}$"					Date of Survey During Construction
Moulded displacement at moulded draught = 85 per cent. of moulded depth 18254 tons					Surveyor's Signature E.H. Dean & H. Little
Coefficient of fineness for use with Tables .772					Particulars of Classification +100 A.I. Carrying Petroleum in bulk (Contingent).

Depth for Freeboard (D). Moulded depth 34'-04" Stringer plate06 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ ✓ Depth for Freeboard (D) = 34'-10"	Depth correction. (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ $(34'-10" - 30'-9") R = +9'-57"$ (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'-9" Standard Round of Beam = $\frac{B \times 12}{50} =$ 14'-82" Ship's Round of Beam = 1'-3$\frac{1}{2}$" Difference .68 Restricted to ✓ Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right) =$ $\frac{.68^2}{4} \times .5718 = -.10"$
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DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	102'-5 $\frac{1}{4}$ "	102'-44"	8'-0"	-	102'-44"
.. overhang ...	3'-6" on G side	.25			.25
R.Q.D. enclosed ...	-				
.. overhang ...	46'-88"	46'-88"	8'-0"	✓	46'-88"
Bridge enclosed ... Equiv.	44'-5 $\frac{1}{4}$ "	46'-88"	8'-0"	✓	46'-88"
.. overhang aft ...	2'-2"	1'-63"			1'-63"
.. overhang forward ...	47'-32"	47'-32"	8'-0"	✓	47'-32"
Fore enclosed ... Equiv.	48'-11 $\frac{1}{2}$ " (SEE SKETCH)	47'-32"	8'-0"	✓	47'-32"
.. overhang ...	-				
Trunk aft ...	-				
.. forward ...	-				
Tonnage opening aft ...	-				
.. forward ...	-				
Total ...	199'-31"	198'-52"			198'-52"

Standard Height of Superstructure **7'-5"**
 " " R.Q.D. **✓**
 Deduction for complete superstructure **42'-00"**
 Percentage covered $\frac{S}{L} =$ **42'-99** ✓
 " " $\frac{S_1}{L} =$ **42'-82** ✓
 " " $\frac{E}{L} =$ **42'-82** ✓
 Percentage from Table, Line A. **TANKER 33'-82**
 (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 × 33.82 = -14'-20"** ✓

(SEE SHEER DIAGRAM ON C.11 REPORT)

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	56'-37"	1	56'-37"	SEE 38'-00" DIAGRAM	43'-50"	1	43'-50"
$\frac{1}{8}$ L from A.P. ...	25'-08"	4	100'-32"	21'-815"	21'-875"	4	87'-50"
$\frac{2}{8}$ L ..	6'-20"	2	12'-40"	6"	6'-00"	2	12'-00"
Amidships ...	-	4	-	NIL.	-	4	-
$\frac{2}{8}$ L from F.P. ...	12'-40"	2	24'-80"	12'-25"	12'-25"	2	24'-50"
$\frac{1}{8}$ L ..	50'-17"	4	200'-68"	50'-125"	50'-125"	4	200'-50"
F.P. ...	112'-73"	1	112'-73"	113"	113'-00"	1	113'-00"
Total ...			507'-30"				481'-00"

Mean actual sheer aft = **DEFICIENT**
 Mean standard sheer aft

Mean actual sheer forward = **DEFICIENT**
 Mean standard sheer forward

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

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{26'-30"}{18} \left(.75 - \frac{.215}{.535} \right) = +.78"$
 If limited on account of midship superstructure. **✓**

If limited to maximum allowance of 1 $\frac{1}{2}$ ins. per 100 ft. **✓**

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **34'-10"**
 Summer freeboard = **6'-67"**
 Moulded draught (d) = **27'-43"**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **6'-86" = 6'-3 $\frac{3}{4}$ "**

Addition for Winter North Atlantic Freeboard (if required) = **6'-86" + 4'-64" = 11'-50" = 11'-2"**

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta =$ **17307**

Tons per inch immersion at summer load water line

$T =$ **58'-36"**

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

= 7'-41" = 7'-2"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

$\frac{.771 + .68}{1.36} = \frac{1.451}{1.36} =$ **78'-61**
83'-87

Depth Correction **9'-57**

Deduction for superstructures **-14'-20**

Sheer correction **.78**

Round of Beam correction **-10**

Correction for Thickness of Deck amidships **-**

Other corrections, scantlings, etc. **-35**

Summer Freeboard = **80'-12**

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 $\frac{1}{4}$ "
Fresh Water Line " " " "	7'-1 $\frac{1}{2}$ "
Tropical Line " " " "	6'-3 $\frac{3}{4}$ "
Winter Line below " " " "	6'-3 $\frac{3}{4}$ "
Winter North Atlantic Line " " " "	11'-1 $\frac{1}{2}$ "

Tropical Fresh Water Freeboard ...	5'-53 $\frac{1}{4}$ "
Fresh Water " " " "	6'-0 $\frac{1}{2}$ "
Tropical " " " "	6'-1 $\frac{1}{4}$ "
Winter " " " "	7'-2 $\frac{1}{4}$ "
Winter North Atlantic " " " "	7'-7 $\frac{1}{2}$ "

79'-92

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.

To/c'le. Equivalents Blad

$$\text{Area of ream} = 4.5 \times 18.17 = 81.76 \text{ sq ft.}$$

$$\text{Breadth} = 50'$$

$$\therefore \text{Equivalent CORRECTION} = 1.635 = 1.64$$

$$\frac{48.96}{47.32}$$

$$\frac{48.96}{47.32}$$

omit

omit

Trade of ship CARRYING PETROLEUM IN BULK

Names of sister ships "BRITISH HARMONY" REPORT NO 99701 NEWCASTLE

Builder's name and yard number MESSRS SWAN, HUNTER & WIGHAM RICHARDSON LTD. WALLSEND - ON - TYNE NO 1678.

Owners "BRITISH TANKER CO. LTD."

Fee £



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