

British HARMONY
36325
101120

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No. 37202
(For London Office only).

| | | | | | |
|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------------------------|---------------------------------------|------------------------------|---------------------------------------------------------------------------------------------------|
| Ship's Name "BRITISH RESPECT" | Official Number 168416 | Nationality and Port of Registry BRITISH LONDON | Gross Tonnage 8479 ASSIGNED | Date of Build 1943 | Port of Survey NEWCASTLE-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 18198 TONS 18215 | | | | | Surveyor's Signature <i>H. Little</i> |
| Coefficient of fineness for use with Tables 7695.77 | | | | | Particulars of Classification 100 A.1 "CARRYING PETROLEUM IN BULK" (CLASS CONTEMPLATED) |

| Depth for Freeboard (D). | Depth correction. | Round of Beam correction. |
|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Moulded depth 34'-0$\frac{1}{2}$" | (a) Where D is greater than Table depth (D-Table depth) R = (34.10-30.91)3 = +9.57" | Moulded Breadth (B) 61.75' |
| Stringer plate 0.06' | (b) Where D is less than Table depth (if allowed) (Table depth-D) R = 3.19 | Standard Round of Beam = $\frac{B \times 12}{50} =$ 14.82 |
| Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ | If restricted by superstructures ✓ | Ship's Round of Beam = 15.5" |
| Depth for Freeboard (D) = 34.10 | | Difference .68" |
| | | Restricted to |
| | | Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.68}{4} \times .5718 = .10"$ |

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'-7"-8'-0" | ✓ | 102.44 |
| „ overhang | 3'-6"-6" | .25 | | | .25 |
| R.Q.D. enclosed | ✓ | | | | |
| „ overhang | 46'-88" | 46.88 | 8'-0" | ✓ | 46.88 |
| Bridge enclosed Equi. ... | 44'-5 $\frac{1}{4}$ " | 44.54 | | | 44.54 |
| „ overhang aft | 2'-2" | 1.63 | | | 1.63 |
| „ overhang forward ... | 47'-32" | 47.32 | 8'-0" | ✓ | 47.32 |
| F'cle enclosed Equi. ... | 48'-11 $\frac{1}{2}$ " (SEE SKETCH) | 48.50 | | | 48.50 |
| „ 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 x .3382 = -14.20"**

(SEE ALSO SKETCH OF SHEER) SHEER CORRECTION.

| Station | Standard Ordinate | S | M | Product | Actual Ordinate | Effective Ordinate | S | M | Product |
|----------------------------------|-------------------|---|--------|---------|-----------------|--------------------|---|--------|---------|
| A.P. | 56.37 | 1 | 56.37 | 56.37 | 43.80 | 44.67 | 1 | 44.67 | 44.67 |
| $\frac{1}{4}$ L from A.P. | 25.08 | 4 | 100.32 | 21.875" | 21.875 | 21.875 | 4 | 87.50 | 87.50 |
| $\frac{2}{4}$ L „ | 6.20 | 2 | 12.40 | 6" | 6.00 | 6.00 | 2 | 12.00 | 12.00 |
| Amidships | - | 4 | - | NIL | - | - | 4 | - | - |
| $\frac{3}{4}$ L from F.P. | 12.40 | 2 | 24.80 | 12.25 | 12.25 | 12.25 | 2 | 24.50 | 24.50 |
| $\frac{1}{4}$ L „ | 50.17 | 4 | 200.68 | 50.125" | 50.125 | 50.125 | 4 | 200.50 | 200.50 |
| F.P. | 112.73 | 1 | 112.73 | 113" | 113.00 | 113.00 | 1 | 113.00 | 113.00 |
| Total | | | 507.30 | | | | | 482.17 | 482.17 |

Mean actual sheer aft = **43.80**
Mean standard sheer aft = **44.67**

Mean actual sheer forward = **44.67**
Mean standard sheer forward = **44.67**

Length of enclosed superstructure forward of amidships = **L**
„ „ aft of „ = **L**

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75-S}{2L} \right) = \frac{26.13}{18} \left(\frac{.75-.215}{.535} \right) = +.28"$
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. | Deduction for Fresh Water. | TABULAR FREEBOARD corrected for Fresh Deck (if required) |
| Addition for Winter and Winter North Atlantic Freeboard. | Displacement in salt water at summer load water line | Correction for coefficient $\frac{.77 \times .68}{1.36} = .145 \times .136$ |
| Depth to Freeboard Deck = 34.10 | $\Delta = 17300$ 17210 | Depth Correction 9.57 |
| Summer freeboard = 6.68 | Tons per inch immersion at summer load water line | Deduction for superstructures 14.20 |
| Moulded draught (d) = 27.43 | T = 58.09 | Sheer correction75 |
| Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.86 = 6$\frac{3}{4}$" | Deduction = $\frac{\Delta}{40 T}$ inches = 7.48 | Round of Beam correction10 |
| Addition for Winter North Atlantic Freeboard (if required) = 6.86 + 4.64 = 11.50 = 11$\frac{1}{2}$" | = 7$\frac{1}{2}$" | Correction for Thickness of Deck amidships - |
| | | Other corrections, scantlings, etc. - |
| | | 10.38 14.30 3.98 |
| | | Summer Freeboard = 79.885 |

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

| | |
|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Tropical Fresh Water Line above Centre of Disc ... 14$\frac{1}{4}$" | Tropical Fresh Water Freeboard ... 6'-8$\frac{3}{4}$" |
| Fresh Water Line „ „ ... 7$\frac{1}{2}$" | Fresh Water „ „ ... 5'-5$\frac{1}{2}$" |
| Tropical Line „ „ ... 6$\frac{3}{4}$" | Tropical „ „ ... 6'-0$\frac{1}{4}$" |
| Winter Line below „ „ ... 6$\frac{3}{4}$" | Winter „ „ ... 6'-1" |
| Winter North Atlantic Line „ „ ... 11$\frac{1}{2}$" | Winter North Atlantic „ „ ... 7'-2$\frac{1}{2}$" |
| | Winter North Atlantic „ „ ... 7'-7$\frac{1}{4}$" |

" BRITISH RESPECT "

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.

File Enclosed Equi.

$$\begin{array}{r} \text{Recess} = 4.5 \times 18.17 / 50 = 1.64 \\ 48.96 \\ \hline 47.32 \end{array}$$

$$\begin{array}{r} \text{Bridge Front} = 48.08 \\ 44.44 \\ \hline 3.64 \times \frac{2}{3} = 2.43 \\ 44.44 \\ \hline 46.87 \end{array}$$

ENCLOSURE

3 Plans for reference.

Trade of ship. CARRYING PETROLEUM IN BULK.

Names of sister ships. SIMILAR TO "BRITISH GRATITUDE." REPORT NO 100846 NEWCASTLE

Builder's name and yard number. MESSRS SWAN, HUNTER & WIGHAM RICHARDSON LTD WALKER-ON-TYNE NO 1724.

Owners. BRITISH TANKER CO.

Fee £



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Foundation