

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

| | | | | | |
|---|-----------------|---|--------------------------------------|------------------------------|---|
| Ship's Name BRITISH ENDEAVOUR. | Official Number | Nationality and Port of Registry BRITISH LONDON | Gross Tonnage APPROX. 8560 | Date of Build 1948 | Port of Survey HEBBURN-ON-TYNE. |
| Moulded Dimensions: Length 463'-46" Breadth 61'-75" Depth 34'-1" <i>To centre of keel, stock.</i> | | | | | Date of Survey DURING CONSTRUCTION |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth 18170 tons | | | | | Surveyor's Signature A. Hunter |
| Coefficient of fineness for use with Tables .77 .767 | | | | | Particulars of Classification # 100 A1 (CONTEMPLATED) CARRYING PETROLEUM IN BULK. |

| | | |
|---|---|--|
| DEPTH FOR FREEBOARD (D). | DEPTH CORRECTION. | ROUND OF BEAM CORRECTION. |
| Moulded depth ... 34.08 | (a) Where D is greater than Table depth (D-Table depth) R = (34.14-30.89)3 = +9.75" | Moulded Breadth (B) 61.75" |
| Stringer plate72"06 | (b) Where D is less than Table depth (if allowed) (Table depth-D) R = 3.25" | Standard Round of Beam = $\frac{B \times 12}{50} = \frac{61.75 \times 12}{50} = 14.82$ |
| Sheathing on exposed deck NONE. | If restricted by superstructures ✓ | Ship's Round of Beam 15 1/2" = +29-15.50 |
| $T \left(\frac{L-S}{L} \right) =$ | | Difference .68 |
| Depth for Freeboard (D) = 34.14 | | Restricted to |
| | | Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.68}{4} \times .823 = -.10"$ |

| DEDUCTION FOR SUPERSTRUCTURES. | | | | | |
|--------------------------------|-------------------------|--|--------------|-------------------|----------------------|
| | Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) |
| Poop enclosed | 96.79 | 96.79 | 8'-0" | ✓ | 96.79 |
| „ overhang | 3'-6" | .17 | | | .17 |
| R.Q.D. enclosed | 0.33 | | | | |
| „ overhang | 42.67 | 42.67 | 8'-0" | ✓ | 42.67 |
| Bridge enclosed | 40'-0" | 42.67 | 8'-0" | ✓ | 42.67 |
| „ overhang aft | 3'-6" | 2.63 | | | 2.63 |
| „ overhang forward | 3'-6" | .42 | | | .42 |
| F'cle enclosed | 50.89 | 50.89 | 8'-0" | ✓ | 50.89 |
| „ overhang | NONE | | | | |
| Trunk aft | | | | | |
| „ forward | | | | | |
| Tonnage opening aft | | | | | |
| „ „ forward | | | | | |
| Total | 195.01 | 193.57 | | | 193.57 |

| | |
|---|---------------|
| Standard Height of Superstructure | 7.50' |
| „ „ R.Q.D. | ✓ |
| Deduction for complete superstructure | 42.00 |
| Percentage covered $\frac{S}{L} =$ | 42.08 |
| „ „ $\frac{S_1}{L} =$ | 41.77 |
| „ „ $\frac{E}{L} =$ | 41.61 |
| Percentage from Table, Line A. TANKER | 32.77 |
| (corrected for absence of forecastle (if required)) | 32.61 |
| Percentage from Table, Line B. (corrected for absence of forecastle (if required)) | |
| Interpolation for bridge less than .2L (if required) | |
| Deduction = $42.00 \times .3277 =$ | 13.76" |

SHEER CORRECTION.

| Station | Standard Ordinate | S | M | Product | Actual Ordinate | Effective Ordinate | S | M | Product |
|---------------------|-------------------|---|--------|---------|-----------------|--------------------|--------|--------|---------|
| A.P. ... | 56.35 | 1 | 56.35 | 56.35 | 62 56" | 56.35 | 1 | 56.35 | 56.35 |
| 1/8 L from A.P. ... | 25.075 | 4 | 100.30 | 24.8 | 25.075 | 4 | 100.30 | 100.30 | 100.30 |
| 3/8 L " ... | 6.198 | 2 | 12.39 | 6.2 | 6.198 | 2 | 12.39 | 12.39 | 12.39 |
| Amidships ... | — | 4 | — | — | — | 4 | — | — | — |
| 5/8 L from F.P. ... | 12.39 | 2 | 24.78 | 12.3 | 12.30 | 2 | 24.60 | 24.60 | 24.60 |
| 7/8 L " ... | 50.15 | 4 | 200.60 | 49.3 | 49.30 | 4 | 197.20 | 197.20 | 197.20 |
| F.P. ... | 112.69 | 1 | 112.69 | 111.25 | 111.25 | 1 | 111.25 | 111.25 | 111.25 |
| Total ... | | ✓ | 507.11 | | | | 508.09 | | 508.09 |

Mean actual sheer aft = Excess

Mean standard sheer aft = Excess

Mean actual sheer forward = Deficient

Mean standard sheer forward = Deficient

Length of enclosed superstructure forward of amidships = } Tanker.

" " aft of " = }

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{5.02(.75 - .2104)}{18} = + 0.15"$

If limited on account of midship superstructure. ✓

5396

If limited to maximum allowance of 1 1/2 ins. per 100 ft. ✓

| | | |
|---|---|---|
| Deduction for Tropical Freeboard. | Deduction for Fresh Water. | TABULAR FREEBOARD corrected for Flush Deck (if required) |
| Addition for Winter and Winter North Atlantic Freeboard. | P.T.O. | Correction for coefficient $\frac{.767 + .68}{1.36} = \frac{1.447}{1.36}$ |
| Depth to Freeboard Deck = 34.08 | Displacement in salt water at summer load water line Δ = 17326 | Depth Correction ... 9.75 |
| Summer freeboard = 6.65 | Tons per inch immersion at summer load water line T = 58.43 | Deduction for superstructures ... 13.76 |
| Moulded draught (d) = 27.49 | Deduction = $\frac{\Delta}{40 T}$ inches = 7.41" | Sheer correction ... 15 |
| Deduction for Tropical freeboard and addition for | | Round of Beam correction ... 10 |
| Winter freeboard = $\frac{d}{4}$ inches = 6.87 = 6 3/4" | | Correction for Thickness of Deck amidships ... — |
| Addition for Winter North Atlantic Freeboard (if required) = 6.87 + 4.63 = 11.50 = 11 1/2" | | Other corrections, scantlings, etc. ... — |
| | | Summer Freeboard = 79.64 |

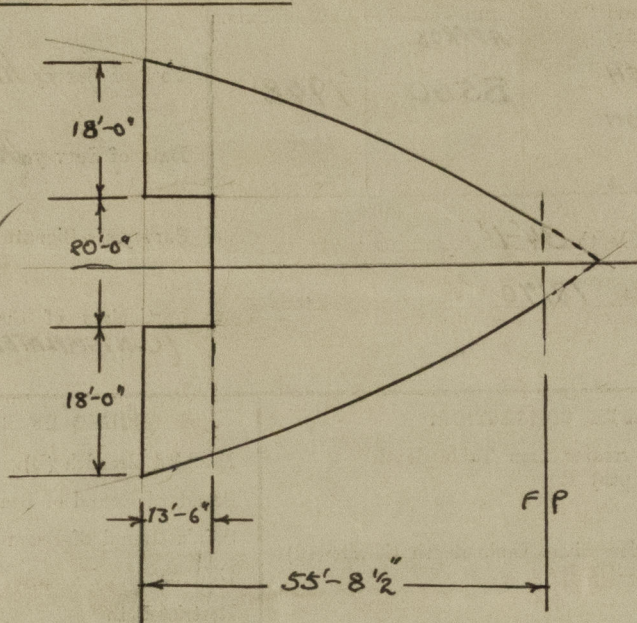
SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

| | | | |
|--|----------------|--------------------------------|------------------|
| Tropical Fresh Water Line above Centre of Disc | 14 1/4" | Tropical Fresh Water Freeboard | 5'-5 1/2" |
| Fresh Water Line | 7 1/2" | Fresh Water | 6'-0 1/4" |
| Tropical Line | 6 3/4" | Tropical | 6'-1" |
| Winter Line below | 6 3/4" | Winter | 7'-2 1/2" |
| Winter North Atlantic Line | 11 1/2" | Winter North Atlantic | 7'-7 1/4" |

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.

LENGTH OF FORECASTLE.

Forecastle:
 Length = 55.71'
 Area = $\frac{26 \times 13.6}{56.00} = 4.82$
 Equivalent = 50.89' ✓



Poop
 Length at side = 93.625'
 $\frac{2}{3} \times 4.75 = 3.17$
 96.795'
 equivalent overhang = 3.50' - 3.17'
 = 0.33' ✓

Bridge:-
 Length at side = 40.00'
 $\frac{2}{3} \times 4.0 = 2.67$
 42.67'
 Load overhang = 3.50' - 2.67'
 = 0.83' ✓

| DRAUGHT | EXTERNAL DISPLACEMENT | T.P.I |
|---------|-----------------------|-------|
| 28'-0" | 17627 | 58.6 |
| 27'-0" | 16927 | 58.2 |
| 26'-0" | 16231 | 57.7 |

Trade of ship CARRYING PETROLEUM IN BULK. OCEAN GOING.

Names of sister ships NONE

Builder's name and yard number R. W. HAWTHORN LESLIE & CO. LD 695

Owners BRITISH TANKER CO.

Fee £ 34 TO CHARGE WITH F.E.

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