

## Lloyd's Register of Shipping.

Index. No. 36902  
(For London Office only).

## SURVEYS FOR FREEBOARD.

F16

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

|   |   |   |                       |                       |  |
|---|---|---|-----------------------|-----------------------|--|
| Ship's Name<br>"OCEAN VOLUNTEER"  | Official Number<br>Not yet issued<br>168560 | Nationality and Port of Registry<br>BRITISH<br>LONDON<br>Manchester | Gross Tonnage<br>7174 | Date of Build<br>1942 | Port of Survey<br>RICHMOND, CALIFORNIA                                     |
| Moulded Dimensions: Length 417.35 ✓ Breadth 56.90 Depth 37.33 ✓<br>To centre of keel stock. |   |   |                       |                       | Date of Survey<br>APRIL 1942   |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth 16556 ✓ tons        |   |   |                       |                       | Surveyor's Signature<br>J. B. Ockers Rennie                                |
| Coefficient of fineness for use with Tables .769 ✓  |   |   |                       |                       | Particulars of Classification<br>+ 100 A1<br>With Freeboard (contemplated) |

|   |  |   |
|---|--|---|
| Depth for Freeboard (D).  | Depth correction.  | Round of Beam correction.   |
| Moulded depth ... 37.33   | (a) Where D is greater than Table depth<br>(D—Table depth) R=<br>(37.38 - 27.82) x 3 = + 28.68 ✓ | Moulded Breadth (B) 56.90   |
| Stringer plate ... .62" ... .05                                   | (b) Where D is less than Table depth (if allowed)<br>(Table depth—D) R= ✓                        | Standard Round of Beam = $\frac{B \times 12}{50} = 13.66$   |
| Sheathing on exposed deck<br>$T \left( \frac{L-S}{L} \right) =$ ✓ | If restricted by superstructures ✓   | Ship's Round of Beam = 14.00  |
| Depth for Freeboard (D) = ✓ 37.38                                 |  | Difference .34  |
|   |  | Restricted to ✓   |
|   |  | Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.34}{4} = -.09$ ✓ |

## DEDUCTION FOR SUPERSTRUCTURES.

|                         | Mean Covered Length (S) | Equivalent Enclosed Length (S <sub>1</sub> ) | Height | Height Correction | Effective Length (E) |
|-------------------------|-------------------------|--|--------|-------------------|----------------------|
| Poop enclosed ...       |                         |  |        |                   |                      |
| " overhang ...          |                         |  |        |                   |                      |
| R.Q.D. enclosed ...     |                         |  |        |                   |                      |
| " overhang ...          |                         |  |        |                   |                      |
| Bridge enclosed ...     |                         |  |        |                   |                      |
| " overhang aft ...      |                         |  |        |                   |                      |
| " overhang forward ...  |                         |  |        |                   |                      |
| F'cle enclosed ...      |                         |  |        |                   |                      |
| " overhang ...          |                         |  |        |                   |                      |
| Trunk aft ...           |                         |  |        |                   |                      |
| " forward ...           |                         |  |        |                   |                      |
| Tonnage opening aft ... |                         |  |        |                   |                      |
| " " forward ...         |                         |  |        |                   |                      |
| Total ...               |                         |  |        |                   |                      |

Standard Height of Superstructure \_\_\_\_\_  
" " R.Q.D. \_\_\_\_\_  
Deduction for complete superstructure \_\_\_\_\_  
Percentage covered  $\frac{S}{L} =$  )  
" "  $\frac{S_1}{L} =$  ) NIL ✓  
" "  $\frac{E}{L} =$  )  
Percentage from Table, Line A.  
(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 = NIL ✓

## SHEER CORRECTION.

| Station            | Standard Ordinate | S | M | Product | Actual Ordinate | Effective Ordinate | S | M | Product |
|--------------------|-------------------|---|---|---------|-----------------|--------------------|---|---|---------|
| A.P. ...           | 51.73             | 1 |   | 51.73   | 53.00           | 53.00              | 1 |   | 53.00   |
| 1/4L from A.P. ... | 23.02             | 4 |   | 92.08   | 23.12           | 23.12              | 4 |   | 92.48   |
| 1/2L " ...         | 5.69              | 2 |   | 11.38   | 5.12            | 5.12               | 2 |   | 10.24   |
| Amidships ...      | --                | 4 |   | --      | --              | --                 | 4 |   | --      |
| 3/4L from F.P. ... | 11.38             | 2 |   | 22.76   | 11.75           | 11.75              | 2 |   | 23.50   |
| 1/4L " ...         | 46.04             | 4 |   | 184.16  | 47.37           | 47.37              | 4 |   | 189.48  |
| F.P. ...           | 103.47            | 1 |   | 103.47  | 104.75          | 104.75             | 1 |   | 104.75  |
| Total ...          |                   |   |   | 465.58  |                 |                    |   |   | 473.45  |

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{7.87}{18} \times .75 = -.33$   
If limited on account of midship superstructure. ✓  
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)  | 83.21 ✓ |
| Addition for Winter and Winter North Atlantic Freeboard.   | Displacement in salt water at summer load water line | Correction for coefficient. $\frac{.769 + .68}{1.36} = \frac{1.449}{1.36} = 1.065$ ✓                          | 88.66 ✓ |
| Depth to Freeboard Deck = 37.38  | Δ = 13758  | Depth Correction ... 28.68 --   |         |
| Summer freeboard = 10.54   | Tons per inch immersion at summer load water line    | Deduction for superstructures ... --  |         |
| Moulded draught (d) = 26.84  | T = 48.5   | Sheer correction ... .33  |         |
| Deduction for Tropical Freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.71 = 6 3/4 | Deduction = $\frac{\Delta}{40T}$ inches = 7.09       | Round of Beam correction ... .09  |         |
| Addition for Winter North Atlantic Freeboard (if required) =   | = 7" ✓   | Correction for Thickness of Deck amidships ... --   |         |
|  |  | Other corrections, scantlings, etc. to correspond to a summer moulded draught of 26'10" (26'10 1/8" actual) ✓ | 9.58 -- |
|  |  | Summer Freeboard = 126.50 ✓   |         |

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

|  |          |                                    |            |
|--|----------|------------------------------------|------------|
| Tropical Fresh Water Line above Centre of Disc ... | 13 3/4"  | Tropical Fresh Water Freeboard ... | 9' 6 1/2"  |
| Fresh Water Line " " ...                           | 7" ✓     | Fresh Water " " ...                | 9' 4 3/4"  |
| Tropical Line " " ...                              | 6 3/4" ✓ | Tropical " " ...                   | 9' 11 1/2" |
| Winter Line below " " ...                          | 6 3/4" ✓ | Winter " " ...                     | 9' 11 3/4" |
| Winter North Atlantic Line " " ...                 | ✓        | Winter North Atlantic " " ...      | 11' 1 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.

J. Rannie  
Apr. 14<sup>th</sup> 1942.

Ans 17

Trade of ship.....INTERNATIONAL.....

Names of sister ships.....This vessel is the 16th of thirty sister ships, Nos. 1 - 30, to be built by Todd-California Shipbuilding Division of The Permanente Metals Corporation.....

Builder's name and yard number.....Todd-California Shipbuilding Division of The Permanente Metals Corporation - No. 16.....

Owners .....H. M. GOVERNMENT IN THE UNITED KINGDOM.....

Fee £.....To be charged in London.....



© 2020

Lloyd's Register  
Foundation