

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

|   |                                  |   |                                |                              |                                    |
|---|----------------------------------|---|--------------------------------|------------------------------|------------------------------------|
| Ship's Name<br><b>PORT FREMANTLE</b>  | Official Number<br><b>149807</b> | Nationality and Port of Registry<br><b>BRITISH<br/>LONDON</b> | Gross Tonnage<br><b>8496.5</b> | Date of Build<br><b>1927</b> | Port of Survey.....                |
| Moulded Dimensions: Length <b>475.4</b> Breadth <b>63.0</b> Depth <b>34.75</b>            |                                  |   |                                |                              | Date of Survey <b>25.8.47.</b>     |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>18285</b> tons |                                  |   |                                |                              | Surveyor's Signature.....          |
| Coefficient of fineness for use with Tables <b>.724</b>                                   |                                  |   |                                |                              | Particulars of Classification..... |

|   |  |  |
|---|--|--|
| <b>DEPTH FOR FREEBOARD (D).</b><br>Moulded depth ... .. <b>34.75</b><br>Stringer plate ... .. <b>.04</b><br>Sheathing on exposed deck<br>$T \left( \frac{L-S}{L} \right) =$<br>Depth for Freeboard (D) = <b>34.79</b> | <b>DEPTH CORRECTION.</b><br>(a) Where D is greater than Table depth<br>(D-Table depth) R =<br>$(34.79 - 31.70) \times 3.00 = 9.27''$<br>(b) Where D is less than Table depth (if allowed)<br>(Table depth-D) R =<br>If restricted by superstructures <input checked="" type="checkbox"/> | <b>ROUND OF BEAM CORRECTION.</b><br>Moulded Breadth (B) <b>63.0'</b><br>Standard Round of Beam = $\frac{B \times 12}{50} = 15.12''$<br>Ship's Round of Beam = <b>15.75''</b><br>Difference <b>.63''</b><br>Restricted to <input checked="" type="checkbox"/><br>Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.63}{4} \times .0062 = .016$ |
|---|--|--|

## DEDUCTION FOR SUPERSTRUCTURES.

|                                    | Mean Covered Length (S) | Equivalent Enclosed Length (S <sub>1</sub> ) | Height        | Height Correction | Effective Length (E) |
|------------------------------------|-------------------------|--|---------------|-------------------|----------------------|
| Poop enclosed ... ..               | 24.29                   | 24.29  | 8'-7"         | ✓                 | 24.29                |
| " overhang ... ..                  |                         |  | 73" SHEATHING |                   |                      |
| R.Q.D. enclosed ... ..             |                         |  |               |                   |                      |
| " overhang ... ..                  |                         |  |               |                   |                      |
| Fore-castle Bridge enclosed ... .. | 444.08                  | 444.08                                       | 8'-7"         | ✓                 | 444.08               |
| " " overhang aft ... ..            | 1.53                    | 1.15   | 73" SHEATHING |                   | 1.15                 |
| " " overhang forward ... ..        |                         |  |               |                   |                      |
| F'cle enclosed ... ..              |                         |  |               |                   |                      |
| " overhang ... ..                  |                         |  |               |                   |                      |
| Trunk aft ... ..                   |                         |  |               |                   |                      |
| " forward ... ..                   |                         | 1/2 DIFF                                     |               |                   |                      |
| Tonnage opening aft ... ..         | 5.50                    | 2.94   |               | ✓                 | 2.94                 |
| " " forward ... ..                 |                         |  |               |                   |                      |
| Total ... ..                       | 475.40                  | 472.46                                       |               |                   | 472.46               |

Standard Height of Superstructure **7.50'**  
 " " R.Q.D. ☒  
 Deduction for complete superstructure **42.00'**  
 Percentage covered  $\frac{S}{L} = 100.0$   
 " "  $\frac{S_1}{L} =$   
 " "  $\frac{E}{L} =$  } **99.38**  
 Percentage from Table, Line A. & B **99.24**  
 (corrected for absence of fore-castle (if required))  
 Percentage from Table, Line B. ☒  
 (corrected for absence of fore-castle (if required))  
 Interpolation for bridge less than .2L (if required) ☒  
 Deduction = **42.00 x .9924 = 41.68''**

## SHEER CORRECTION.

| Station                | Standard Ordinate | S M | Product | Actual Ordinate | Effective Ordinate | S M | Product |
|------------------------|-------------------|-----|---------|-----------------|--------------------|-----|---------|
| A.P. ... ..            | 57.54             | 1   |         | 54.00           |                    | 1   |         |
| 1/3 L from A.P. ... .. |                   | 4   |         | 23.50           |                    | 4   |         |
| 2/3 L " ... ..         |                   | 2   |         | 6.00            |                    | 2   |         |
| Amidships ... ..       |                   | 4   |         | -               |                    | 4   |         |
| 2/3 L from F.P. ... .. |                   | 2   |         | 11.75           |                    | 2   |         |
| 1/3 L " ... ..         |                   | 4   |         | 47.00           |                    | 4   |         |
| F.P. ... ..            |                   | 1   |         | 108.00          |                    | 1   |         |
| Total ... ..           |                   |     | 517.84  | +16.00          |                    |     | 582.00  |

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{64.16}{18} \times .25 = -1.89''$   
 If limited on account of midship superstructure. ☒

Mean actual sheer aft =  
 Mean standard sheer aft =

Mean actual sheer forward =  
 Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =  
 " " aft of " =

Actual height of main deck = 8'-10"  
 Standard height " " = 7'-6"  
 Diff. **1'-4"**

EXCESS

C.S.S.

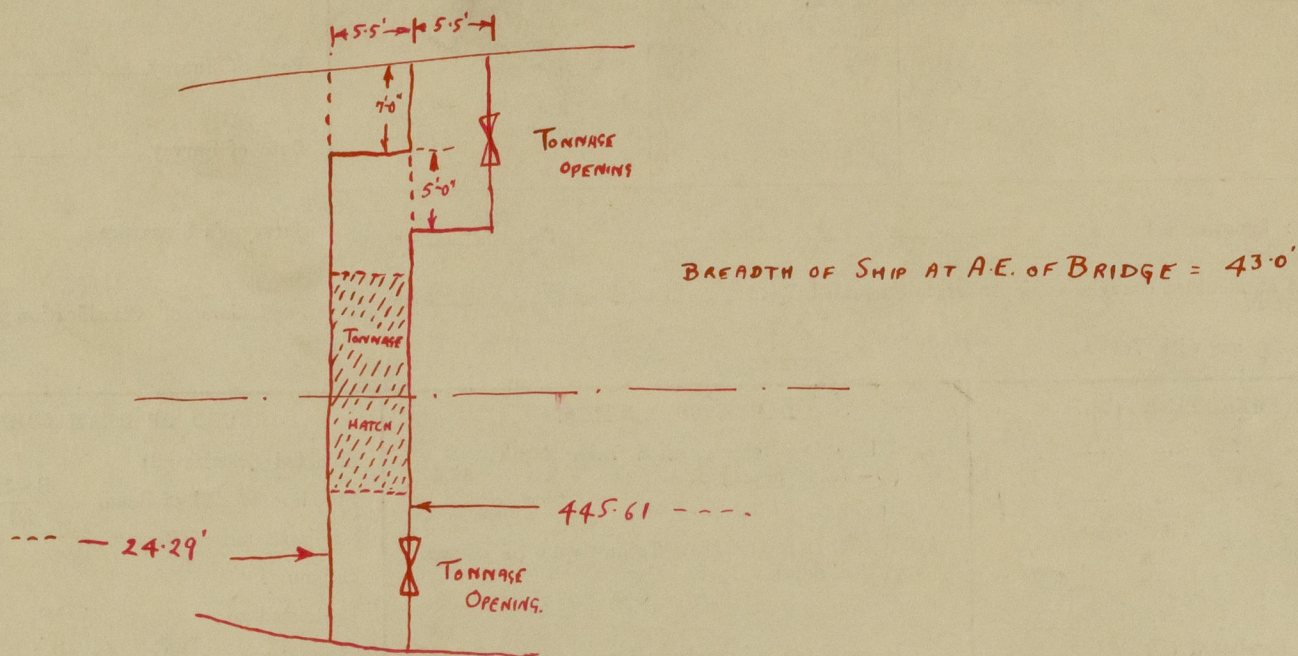
| <b>Deduction for Tropical Freeboard.</b><br><b>Addition for Winter and Winter North Atlantic Freeboard.</b><br>Depth to Freeboard Deck = <b>34.79</b><br>Summer freeboard = <b>5.40</b><br>Moulded draught (d) = <b>29.39</b><br>Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>7.35 = 7 1/4</b><br>Addition for Winter North Atlantic Freeboard (if required) = <input checked="" type="checkbox"/> | <b>Deduction for Fresh Water.</b><br>Displacement in salt water at summer load water line $\Delta =$ <b>18273</b><br>Tons per inch immersion at summer load water line $T =$ <b>59</b><br>Deduction = $\frac{\Delta}{40 T}$ inches = <b>7.74 = 7 3/4</b> | <b>TABULAR FREEBOARD corrected for Fresh Deck (if required)</b><br>Correction for coefficient <b>1.409.36</b><br><table border="1"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction ... ..</td> <td>9.27''</td> <td>-</td> </tr> <tr> <td>Deduction for superstructures ... ..</td> <td>-</td> <td>41.68</td> </tr> <tr> <td>Sheer correction ... ..</td> <td>-</td> <td>.89</td> </tr> <tr> <td>Round of Beam correction ... ..</td> <td>-</td> <td>-</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><b>9.27</b></td> <td><b>42.57</b></td> </tr> </table> Summer Freeboard = <b>64.70</b> |  | + | - | Depth Correction ... .. | 9.27'' | - | Deduction for superstructures ... .. | - | 41.68 | Sheer correction ... .. | - | .89 | Round of Beam correction ... .. | - | - | Correction for Thickness of Deck amidships ... .. | - | - | Other corrections, scantlings, etc. ... .. | - | - |  | <b>9.27</b> | <b>42.57</b> |
|--|--|--|--|---|---|-------------------------|--------|---|--------------------------------------|---|-------|-------------------------|---|-----|---------------------------------|---|---|---|---|---|--|---|---|--|-------------|--------------|
|  | +  | -  |  |   |   |                         |        |   |                                      |   |       |                         |   |     |                                 |   |   |   |   |   |  |   |   |  |             |              |
| Depth Correction ... ..  | 9.27''   | -  |  |   |   |                         |        |   |                                      |   |       |                         |   |     |                                 |   |   |   |   |   |  |   |   |  |             |              |
| Deduction for superstructures ... ..   | -  | 41.68  |  |   |   |                         |        |   |                                      |   |       |                         |   |     |                                 |   |   |   |   |   |  |   |   |  |             |              |
| Sheer correction ... ..  | -  | .89  |  |   |   |                         |        |   |                                      |   |       |                         |   |     |                                 |   |   |   |   |   |  |   |   |  |             |              |
| Round of Beam correction ... ..  | -  | -  |  |   |   |                         |        |   |                                      |   |       |                         |   |     |                                 |   |   |   |   |   |  |   |   |  |             |              |
| Correction for Thickness of Deck amidships ... ..  | -  | -  |  |   |   |                         |        |   |                                      |   |       |                         |   |     |                                 |   |   |   |   |   |  |   |   |  |             |              |
| Other corrections, scantlings, etc. ... ..   | -  | -  |  |   |   |                         |        |   |                                      |   |       |                         |   |     |                                 |   |   |   |   |   |  |   |   |  |             |              |
|  | <b>9.27</b>  | <b>42.57</b>   |  |   |   |                         |        |   |                                      |   |       |                         |   |     |                                 |   |   |   |   |   |  |   |   |  |             |              |

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

|   |        |                                       |           |
|---|--------|---------------------------------------|-----------|
| Tropical Fresh Water Line above Centre of Disc ... .. | 15"    | Tropical Fresh Water Freeboard ... .. | 4'-1 3/4" |
| Fresh Water Line " " ... ..                           | 7 3/4" | Fresh Water " " ... ..                | 4'-9"     |
| Tropical Line " " ... ..                              | 7 1/4" | Tropical " " ... ..                   | 4'-9 1/2" |
| Winter Line below " " ... ..                          | 7 1/4" | Winter " " ... ..                     | 4'-0"     |
| Winter North Atlantic Line " " ... ..                 | ✓      | Winter North Atlantic " " ... ..      | ✓         |



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 roof = 24.29 ft.

$$\begin{aligned} \text{Length of bridge \& forecastle} &= 445.61 - \frac{5.5 \times 12.0}{43.0} \\ &= 445.61 - 1.53 \\ &= \underline{444.08'} \end{aligned}$$

$$\text{Overhang} = \underline{1.53'}$$

Trade of ship .....

Names of sister ships .....

Builder's name and yard number .....

Owners .....

Fee £.....



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