

31 JAN 1933

Rpt. C.11.

Index. No. **30069**  
(For London Office only.)Lloyd's Register of Shipping.  
SURVEYS FOR FREEBOARD.

11021

|  |                                     |                 |                          |   |   |
|--|-------------------------------------|-----------------|--------------------------|---|---|
| Computation of Freeboard for <del>Steamer, Sailing Ship, Tanker</del>              |                                     |                 |                          | Port of Survey <b>Belfast.</b>  |   |
| Having <b>Forecastle &amp; Bridge.</b>   |                                     |                 |                          | Date of Survey <b>Jan 28<sup>th</sup> &amp; 30<sup>th</sup> 1933.</b> |   |
| (Type of Superstructures.)   |                                     |                 |                          | Name of Surveyor <b>Jas. J. Rennie</b>                                |   |
| Ship's Name  | Nationality and Port of Registry    | Official Number | Gross Tonnage            | Date of Build   | Particulars of Classification   |
| <b>"ALLEGHENY"</b>   | <b>British</b><br><b>Liverpool.</b> | <b>145858.</b>  | <b>828</b><br><b>856</b> | <b>1921-7.</b>  | <b>+100A1</b><br><b>Carrying petroleum in bulk</b><br><b>S.S. Shl. No 2.28.</b> |
| Moulded Dimensions: Length <b>199.83'</b> Breadth <b>32.33'</b> Depth <b>15.0'</b> |                                     |                 |                          |   |   |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth            |                                     |                 |                          | 1747 ✓ tons   |   |
| Coefficient of fineness for use with Tables  |                                     |                 |                          | .742 ✓  |   |

|                                    |       |   |       |  |                                     |
|------------------------------------|-------|---|-------|--|-------------------------------------|
| Depth for Freeboard (D)            |       | Depth correction                                  |       | Round of Beam correction   |                                     |
| Moulded depth ...                  | 15.0  | (a) Where D is greater than Table depth           | ✓     | Moulded Breadth (B)  | 32.33                               |
| Stringer plate ...                 | .04   | (D - Table depth) R =                             |       | Standard Round of Beam = $\frac{B \times 12}{50}$                              | 7.76                                |
| Sheathing on exposed deck          | ✓     | (15.04 - 13.32) 1.537 =                           | +2.64 | Ship's Round of Beam   | 8"                                  |
| $T \left( \frac{L-S}{L} \right) =$ |       | (b) Where D is less than Table depth (if allowed) |       | Difference   | .24                                 |
| Depth for Freeboard (D) =          | 15.04 | (Table depth - D) R =                             |       | Restricted to  |                                     |
|                                    |       | If restricted by superstructures                  |       | Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right)$ | $\frac{.24}{4} \times .6109 = -.04$ |

## DEDUCTION FOR SUPERSTRUCTURES.

|                         | Mean Covered Length (S) | Equivalent Enclosed Length (S <sub>i</sub> ) | Height | Height Correction | Effective Length (E) |  |
|-------------------------|-------------------------|--|--------|-------------------|----------------------|--|
| Poop enclosed ...       | ✓                       |  |        |                   |                      | Standard Height of Superstructure <b>6.0</b> ✓                   |
| " overhang ...          | ✓                       |  |        |                   |                      | " " R.Q.D. ...   |
| R.Q.D. enclosed ...     | ✓                       |  |        |                   |                      | Deduction for complete superstructure <b>25.98</b> ✓             |
| " overhang ...          | ✓                       |  |        |                   |                      | Percentage covered $\frac{S}{L} =$ <b>38.91</b> ✓                |
| Bridge enclosed ...     | 54'-4"                  | 54.33  | 7'-0"  |                   | 54.33                | " " $\frac{S_1}{L} =$ <b>38.91</b>                               |
| " overhang aft ...      | ✓                       |  |        |                   |                      | " " $\frac{E}{L} =$ <b>35.00</b> ✓                               |
| " overhang forward ...  | ✓                       |  |        |                   |                      | Percentage from Table, Line A.                                   |
| W'cle enclosed ...      | 23'-5"                  | 23.42  | 4'-0"  | 4.0/6.0           | 15.61                | (corrected for absence of forecastle (if required))              |
| " overhang ...          | ✓                       |  |        |                   |                      | Percentage from Table, Line B.                                   |
| Trunk aft ...           | ✓                       |  |        |                   |                      | (corrected for absence of forecastle (if required)) <b>23.25</b> |
| " forward ...           | ✓                       |  |        |                   |                      | Interpolation for bridge less than .2L (if required)             |
| Tonnage opening aft ... | ✓                       |  |        |                   |                      | Deduction = <b>-6.04</b>   |
| " " forward             | ✓                       |  |        |                   |                      |  |
| Total ...               | 77.75                   | 77.75  |        |                   | 69.94                |  |

## SHEER CORRECTION.

| Station  | Standard Ordinate | S | M | Product | Actual Ordinate | Effective Ordinate | S | M | Product |   |
|--|-------------------|---|---|---------|-----------------|--------------------|---|---|---------|---|
| A.P. ...   | 29.98             | 1 |   | 29.98   | 16.5"           | 16.50              | 1 |   | 16.50   | Mean actual sheer aft =                                   |
| 1/2 L from A.P. ...  | 13.34             | 4 |   | 53.36   | 5.13            | 5.13               | 4 |   | 20.52   | Mean standard sheer aft =                                 |
| 2/2 L " ...  | 3.30              | 2 |   | 6.60    | 1.28            | 1.28               | 2 |   | 2.56    | Mean actual sheer forward =                               |
| Amidships ...  | 0                 | 4 |   | 0       | ✓               |                    | 4 |   |         | Mean standard sheer forward =                             |
| 3/2 L from F.P. ...  | 6.60              | 2 |   | 13.20   | 4.14            | 4.14               | 2 |   | 8.28    | Length of enclosed superstructure forward of amidships =  |
| 1/2 L " ...  | 26.68             | 4 |   | 106.72  | 16.59           | 16.59              | 4 |   | 66.36   | " " aft of " =  |
| F.P. ...   | 59.96             | 1 |   | 59.96   | 42.0            | 42.00              | 1 |   | 42.00   |   |
| Total ...  |                   |   |   | 269.82  |                 |                    |   |   | 156.22  |   |
| Correction = $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) =$ |                   |   |   |         |                 |                    |   |   |         | $\frac{113.60}{18} (.75 - .1945) = +3.50$ ✓               |
| 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) | 23.07 |
| Addition for Winter and Winter North Atlantic Freeboard.  | Displacement in salt water at summer load water line    | Correction for coefficient                               | 24.17 |
| Depth to Freeboard Deck = <b>15.04</b>  | Δ = <b>1774</b>   | Depth Correction ...                                     | 2.64  |
| Summer freeboard = <b>2.02</b>  | Tons per inch immersion at summer load water line       | Deduction for superstructures ...                        | 6.04  |
| Moulded draught (d) = <b>13.02</b>  | T = <b>14.3</b>   | Sheer correction ...                                     | 3.50  |
| Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>3.25 = 3 1/4</b> | Deduction = $\frac{\Delta}{40 T}$ inches = <b>3 1/4</b> | Round of Beam correction ...                             |       |
| Addition for Winter North Atlantic Freeboard (if ...)   |   | Correction for Thickness of Deck amidships ...           |       |
|   |   | Other corrections, scantlings, etc. ...                  |       |

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

|  |     |                |
|--|-----|----------------|
| Tropical Fresh Water Line above Centre of Disc ... | 6/2 | Tropical Fresh |
| Fresh Water Line " " ...                           | 3/4 | Fresh Water    |
| Tropical Line " " ...                              | 3/4 | Tropical       |
| Winter Line below " " ...                          | 3/4 | Winter         |
| Winter North Atlantic Line " " ...                 | 5/4 | Winter North   |

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# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

| HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS                                  |                       |                 |           |                  |               |            |  |  |  |
|--|-----------------------|-----------------|-----------|------------------|---------------|------------|--|--|--|
|  |                       | Upper Dk.       | Upper Dk. | Fore Dk.         | Bridge Dk.    | Bridge Dk. |  |  |  |
| Description of Hatchway  |                       | Cargo Oil       | A.P. Tank | F.P. Store       | O.F. Bkrs.    | Cofferdam  |  |  |  |
| Dimensions of Hatchway   |                       | 10' 0" off.     | 18" dia   | 2' 6" x 2' 6"    | 2' 9" x 2' 9" | 18" x 14"  |  |  |  |
| COAMINGS   | Height above Deck     | 6' 3 1/2" x 50" | 12"       | 12"              | 6' 3" x 40 L  | 6"         |  |  |  |
|  | Thickness             | L               | 30        | 25               |               | 40         |  |  |  |
|  | Sides                 |                 |           |                  |               |            |  |  |  |
|  | Ends                  |                 |           |                  |               |            |  |  |  |
|  | Stiffeners            |                 |           |                  |               |            |  |  |  |
|  | Brackets, Stays       |                 |           |                  |               |            |  |  |  |
| HATCH BEAMS  | Number                |                 |           |                  |               |            |  |  |  |
|  | Spacing               |                 |           |                  |               |            |  |  |  |
|  | Scantling and Sketch  |                 |           |                  |               |            |  |  |  |
|  | Bearing Surface       |                 |           |                  |               |            |  |  |  |
| FORE AND AFTERS  | Number                |                 |           |                  |               |            |  |  |  |
|  | Spacing               |                 |           |                  |               |            |  |  |  |
|  | Unsupported Lengths   |                 |           |                  |               |            |  |  |  |
|  | Scantling* and Sketch |                 |           |                  |               |            |  |  |  |
|  | Bearing Surface       |                 |           |                  |               |            |  |  |  |
| HATCH COVERS   | Material              | Steel O.T.      | Steel WT. | Steel            | Steel O.T.    | Steel O.T. |  |  |  |
|  | Thickness             | 40              | 40        | 30               | 50            | 35         |  |  |  |
|  | How fitted            | Toggles         | Bolts     | Hinged & clipped | Toggles       | Toggles    |  |  |  |
|  | Bearing Surface       |                 | 3"        |                  |               |            |  |  |  |
| Spacing of Cleats  |                       | 15"             |           | 14"              | 10"           |            |  |  |  |
| Number of Tarpaulins   |                       |                 |           |                  |               |            |  |  |  |
| *Are wood fore and afters steel shod at all bearing surfaces? none.              |                       |                 |           |                  |               |            |  |  |  |
| Are battens and wedges efficient and in good condition? none.                    |                       |                 |           |                  |               |            |  |  |  |
| Are tarpaulins in good condition and in accordance with rule requirements? none. |                       |                 |           |                  |               |            |  |  |  |
| Are lashings provided in accordance with rule requirements? ✓.                   |                       |                 |           |                  |               |            |  |  |  |

Particulars of fiddle, funnel and ventilator coamings:— Funnel & ventilator coamings of steel efficient. Funnels openings protected by hinged steel covers. Engine room skylight of steel efficient.

Particulars of Flush Bunker Scuttles:—

none.

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—

| Position            | Space to            | Height     | Dia. | Thickness                   | Closing Appliance    |
|---------------------|---------------------|------------|------|-----------------------------|----------------------|
| Upper Dk.           | Below Freeboard Dk. | 3' (2)     | 9"   | 30                          | Plug & canvas cover. |
| "                   | do.                 | 3' (2)     | 12"  | 40                          |                      |
| "                   | do.                 | 3' 6" (1)  | 6"   | 25                          |                      |
| "                   | do.                 | 10" (2)    | 3"   | Loose sheet vent            |                      |
| Bridge Dk.          | Intact Bridge       | 2' 6" (14) | 9"   | 30                          |                      |
| "                   | "                   | 2' 0" (2)  | 6"   | 25                          |                      |
| "                   | "                   | 6" (4)     | 6"   | Loose sheet & S.D. Mushroom |                      |
| Below freeboard Dk. |                     | 2' (2)     | 9"   | 25                          |                      |

wood plugs & canvas covers provided.

Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

| Space to  | No. | Height | Dia. | Closing Appliance |
|-----------|-----|--------|------|-------------------|
| F.P. Tank | 1   | 10"    | 3"   | Canvas cover.     |
| A.P. Tank | 1   | 10"    | 3"   | Wooden plug. ✓    |

and Coaling Ports:—

none.





Particulars of Scuppers and Sanitary Discharge Pipes:—

From main deck space 1 soil discharge with storm valve fitted.  
 " Forecastle side house do do.

Particulars of Side Scuttles:—

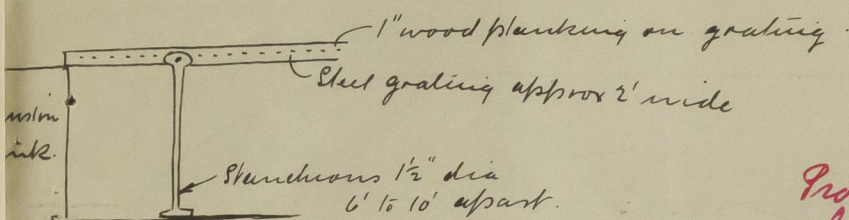
none.

Particulars of Guard Rails:—

On forecastle deck 2 rows 3'-6" high. stanchions spaced 4'-6" apart.  
 " Bridge " 3 " 3'-6" " " 5'-0" "  
 " " " forward end. wood cladding 3'-6" high.

Particulars of Gangways, Lifelines, etc.:—

A gangway is fitted from Bridge to forward hatch trunk.  
 The gangway is fitted between the hatch trunks and is as per sketch.



A guard rail is fitted on stanchions 3'-6" high. stanchions 6' apart.

Provision made for rigging lifelines from the forward end of gangway to crews accommodation and to forecastle deck.

Particulars of Freeing Arrangements.

|                     | Length of Bulwark | Height of Bulwark | Size of Freeing Ports  | Number each side | Area each side       | Rule area each side |
|---------------------|-------------------|-------------------|--|------------------|----------------------|---------------------|
| Well ... ..         | 15'-1"            | 3'-6"             | 4'-3" x 9"<br>2'-10" x 9"<br><del>2'-6" x 6"</del><br>1'-3" x 9" | 1<br>2<br>1 } X  | 8<br><del>1.25</del> | 8.0                 |
| Forward Well ... .. | 101'-4"           | 3'-6"             | 2'-0" x 6"<br>2'-6" x 1'-6"                                      | 22<br>1          | 25.75                | 20.26               |

State position of each freeing port ... .. After Well:— See sketch 9"  
 F. and A. position and height above deck edge) Forward Well:— 7" x 12"  
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— One fitted with steel shutters.  
 Additional area where sheer is less than standard.

Particulars of Superstructures, Trunks, Casings, Deckhouses.

|  | Coaming | Plating | Stiffeners          | Spacing | End Attachments of Stiffeners  | Size of Openings  | Height of Sills | Height of Casings |
|--|---------|---------|---------------------|---------|--------------------------------|-------------------|-----------------|-------------------|
| Poop Bulkhead ... ..   | ✓       |         |                     |         |                                |                   |                 |                   |
| Raised Quarter Deck Bulkhead ...   | ✓       |         |                     |         |                                |                   |                 |                   |
| Bridge, After Bulkhead ... ..  | 40      | 30      | 7 x 3 x 40 L        | 29"     | Brackets                       | 2 @ 4'-6" x 2'-6" | 18"             | 7'-0"             |
| Bridge, Forward Bulkhead ... ..  | 40      | 30      |                     |         |                                | 2 @ 4'-6" x 2'-6" | 18"             | 7'-0"             |
| Forecastle Bulkhead ... ..   | ✓       | 25      | 3 x 3 x 40 L        | 24"     | ✓                              | ✓                 | ✓               | 3'-6"             |
| Trunk, Aft ... ..  |         |         |                     |         |                                |                   |                 |                   |
| Trunks Forward to hatches ...  | ✓       | 35      | 5 x 3 1/2 x 40 L    | 23"     | Brackets. Top. Deck Bar. B.    | ✓                 | ✓               | 3'-9"             |
| Exposed Machinery Casings on Free-board or Raised Quarter Decks ...                        | ✓       |         |                     |         |                                |                   |                 |                   |
| Exposed Machinery Casings on Super-structure Decks ... ..                                  | ✓       |         |                     |         |                                |                   |                 |                   |
| Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... .. | ✓       |         |                     |         |                                |                   |                 |                   |
| Deckhouses on Flush Deck Ships ...   | ✓       | 30      | 3 1/2 x 3 1/2 x 40" | 36"     | Top. Brackets. Bottom. DK bar. | 2 @ 4'-6" x 2'-6" | 18"             | 7'-0"             |

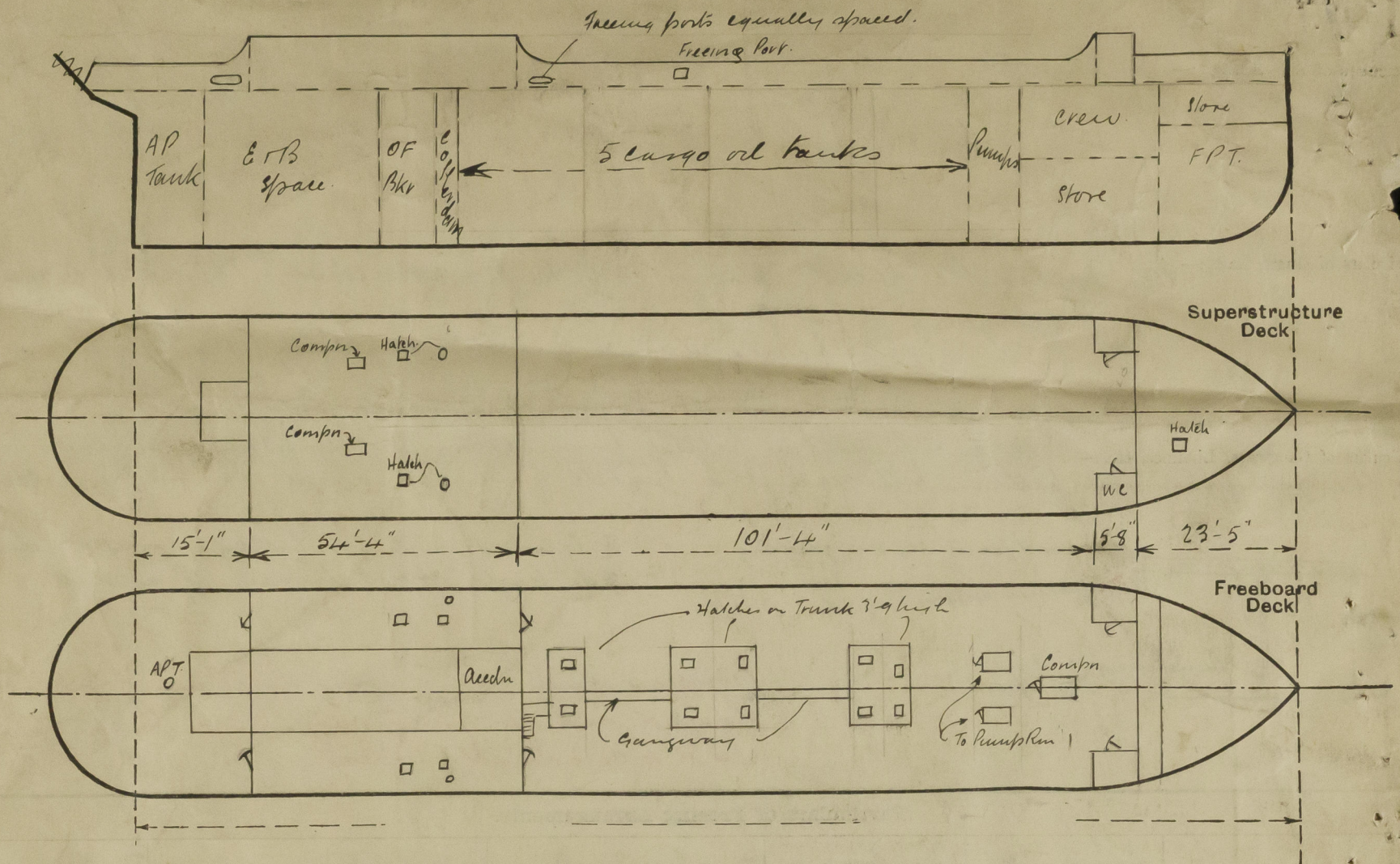
Particulars of Closing Appliances (state if capable of being manipulated from both sides).

|  |  |
|--|--|
| Poop Bulkhead ... ..   | none.  |
| Raised Quarter Deck Bulkhead ...   | none.  |
| Bridge, After Bulkhead ... ..  | Two hinged steel W.T. doors. Securing from both sides. |
| Bridge, Forward Bulkhead ... ..  | Two hinged do do do.                                   |
| Forecastle Bulkhead ... ..   | none.  |
| Exposed Machinery Casings on Free-board or Raised Quarter Decks ...                        | ✓  |
| Machinery Casings on Super-structure Decks ... ..  | ✓  |
| Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... .. | ✓  |
| Deckhouses on Flush Deck Ships ...   | Two hinged steel doors securing from either side       |



Allegheny

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shown on the following sketches:



State any special features in the construction of the ship:—

85% DM = 12.75  
12.87

12.92 = 1749  
12.87  
0.05 x 14.5 = 0.725  
1756  
1747

13.02 = 1749  
12.87  
12.87  
1749  
25  
1774

Builder's name and yard number

J. Brighton & Co. Ltd.

Names of sister ships

Owners

Anglo American Oil Co. Ltd.

Fee £

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