

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

*now named "OLWEN" of London (30/4/37)*

-5 APR 1932

-5 APR 1932

Index. No. 77675  
(For London Office only.)

Computation of Freeboard for ~~Steamer, Sailing Ship, Tanker~~  
having **POOP BRIDGE & FORECASTLE.**

Port of Survey Pontsmouth.  
Date of Survey 30.31<sup>st</sup> March & 4<sup>th</sup> April 1932  
Name of Surveyor J. Mcmillan  
Particulars of Classification +100 A1.  
carrying petroleum in tanks.

Ship's Name Muskari (Type of Superstructures.)  
Nationality and Port of Registry BRITISH LONDON.  
Official Number 140449  
Gross Tonnage 6451  
Date of Build 1917-12

Moulded Dimensions: Length 419.30 Breadth 54.29 Depth 32.41  
Moulded displacement at moulded draught = 85 per cent. of moulded depth 14300. tons  
Coefficient of fineness for use with Tables .491.

| Depth for Freeboard (D)                                       | Depth correction  | Round of Beam correction  |
|---|---|---|
| Moulded depth ... .. <u>32.41</u>                             | (a) Where D is greater than Table depth<br>(D - Table depth) R =<br><u>(32.45 - 24.95) x 3 = + 14.40.</u> | Moulded Breadth (B) <u>54.29</u><br>Standard Round of Beam = $\frac{B \times 12}{50} = 13.03$<br>Ship's Round of Beam = <u>13.25</u><br>Difference <u>.22</u> |
| Stringer plate ... .. <u>.04</u>                              | (b) Where D is less than Table depth (if allowed)<br>(Table depth - D) R =                                | Restricted to   |
| Sheathing on exposed deck<br>T $\left(\frac{L-S}{L}\right) =$ | If restricted by superstructures  | Correction = $\frac{\text{Diff}^o}{4} \times \left(1 - \frac{S_1}{L}\right) = \frac{.22}{4} \times .5824 = -.03.$   |
| Depth for Freeboard (D) = <u>32.45</u>                        |   |   |

## DEDUCTION FOR SUPERSTRUCTURES.

|                                 | Mean Covered Length (S) | Equivalent Enclosed Length (S <sub>1</sub> ) | Height     | Height Correction | Effective Length (E) |
|---------------------------------|-------------------------|--|------------|-------------------|----------------------|
| Poop enclosed ... ..            | <u>104.3</u>            | <u>104.30</u>                                | <u>7.5</u> | <u>✓</u>          | <u>104.30</u>        |
| " overhang ... ..               |                         |  |            |                   |                      |
| R.Q.D. enclosed ... ..          |                         |  |            |                   |                      |
| " overhang ... ..               |                         |  |            |                   |                      |
| Bridge enclosed ... ..          | <u>25.25</u>            | <u>25.25</u>                                 | <u>7.5</u> | <u>✓</u>          | <u>25.25</u>         |
| " overhang aft ... ..           |                         |  |            |                   |                      |
| " overhang forward ... ..       |                         |  |            |                   |                      |
| Forecastle enclosed <u>open</u> | <u>49.25</u>            | <u>45.59</u>                                 | <u>7.5</u> | <u>✓</u>          | <u>45.59</u>         |
| " overhang ... ..               |                         |  |            |                   |                      |
| Trunk aft ... ..                |                         |  |            |                   |                      |
| " forward ... ..                |                         |  |            |                   |                      |
| Tonnage opening aft ... ..      |                         |  |            |                   |                      |
| " forward ... ..                |                         |  |            |                   |                      |
| Total ... ..                    | <u>178.80</u>           | <u>175.14</u>                                |            |                   | <u>175.14</u>        |

Standard Height of Superstructure 4.50  
" " R.Q.D. ✓  
Deduction for complete superstructure 42.00  
Percentage covered  $\frac{S}{L} = 42.64$   
" "  $\frac{S_1}{L} = 41.46$   
" "  $\frac{E}{L} = 41.46$   
Percentage from Table, Line A.  
(corrected for absence of forecastle (if required))  
Percentage from Table, Line B. Lanker. 32.46  
(corrected for absence of forecastle (if required))  
Interpolation for bridge less than 2L (if required)  
Deduction = 42.00 x .3246 = - 13.46 ch

## SHEER CORRECTION.

| Station                          | Standard Ordinate | S | M | Product       | Actual Ordinate | Effective Ordinate | S | M | Product       |
|----------------------------------|-------------------|---|---|---------------|-----------------|--------------------|---|---|---------------|
| A.P. ... ..                      | <u>51.93</u>      | 1 |   | <u>51.93</u>  | <u>5.0"</u>     | <u>60.00</u>       | 1 |   | <u>60.00</u>  |
| $\frac{1}{2}$ L from A.P. ... .. | <u>23.11</u>      | 4 |   | <u>92.44</u>  | <u>26.78"</u>   | <u>26.04</u>       | 4 |   | <u>104.28</u> |
| $\frac{3}{8}$ L " ... ..         | <u>5.41</u>       | 2 |   | <u>11.42</u>  | <u>7"</u>       | <u>6.52</u>        | 2 |   | <u>13.04</u>  |
| Amidships ... ..                 |                   | 4 |   | <u>✓</u>      | <u>NIL</u>      | <u>✓</u>           | 4 |   | <u>✓</u>      |
| $\frac{3}{8}$ L from F.P. ... .. | <u>11.42</u>      | 2 |   | <u>22.84</u>  | <u>13"</u>      | <u>13.03</u>       | 2 |   | <u>26.06</u>  |
| $\frac{1}{2}$ L " ... ..         | <u>46.21</u>      | 4 |   | <u>184.84</u> | <u>52.4"</u>    | <u>52.14</u>       | 4 |   | <u>208.56</u> |
| F.P. ... ..                      | <u>103.86</u>     | 1 |   | <u>103.86</u> | <u>10.0"</u>    | <u>120.00</u>      | 1 |   | <u>120.00</u> |
| Total ... ..                     |                   |   |   | <u>464.33</u> |                 |                    |   |   | <u>531.94</u> |

Mean actual sheer aft = Excess  
Mean standard sheer aft =

Mean actual sheer forward = Excess  
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships = Lanker. do  
" " aft of " = not appl

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{75 - S}{2L} \right) = \frac{64.61}{18} \times \left( \frac{75 - 2132}{2} \right) = - 1.93.$

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.  
Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 32.45  
Summer freeboard = 5.96  
Moulded draught (d) = 26.49

Deduction for Tropical freeboard and addition for Winter freeboard =  $\frac{d}{4}$  inches = 6.62  
Addition for Winter North Atlantic Freeboard (if required) = 4.19 = 4.2

Deduction for Fresh Water.

Displacement in salt water at summer load water line  
 $\Delta = 13940.$   
Tons per inch immersion at summer load water line  
T = 45.8  
Deduction =  $\frac{\Delta}{40T}$  inches = 4.61  
= 4.2

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

|   | +            | -            |
|---|--------------|--------------|
| Depth Correction ... ..                           | <u>14.40</u> | <u>✓</u>     |
| Deduction for superstructures ... ..              | <u>✓</u>     | <u>13.46</u> |
| Sheer correction ... ..                           | <u>✓</u>     | <u>1.93</u>  |
| Round of Beam correction ... ..                   | <u>✓</u>     | <u>.03</u>   |
| Correction for Thickness of Deck amidships ... .. | <u>✓</u>     | <u>✓</u>     |
| Other corrections, scantlings, etc. ... ..        | <u>✓</u>     | <u>✓</u>     |
|   | <u>14.40</u> | <u>15.72</u> |
| Summer Freeboard                                  |              |              |

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

|   |              |                                       |
|---|--------------|---------------------------------------|
| Tropical Fresh Water Line above Centre of Disc ... .. | <u>14.4"</u> | Tropical Fresh Water Freeboard ... .. |
| Fresh Water Line " " ... ..                           | <u>4.2"</u>  | Fresh Water " " ... ..                |
| Tropical Line " " ... ..                              | <u>6.4"</u>  | Tropical " " ... ..                   |
| Winter Line below " " ... ..                          | <u>6.2"</u>  | Winter " " ... ..                     |
| Winter North Atlantic Line " " ... ..                 | <u>11"</u>   | Winter North Atlantic " " ... ..      |



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

| HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS   |                       |            |  |                 |               |                    |                         |                      |                 |  |  |
|---|-----------------------|------------|--|-----------------|---------------|--------------------|-------------------------|----------------------|-----------------|--|--|
| FOOLES - - - - - WELLS. F & A - - - - - POOP  |                       |            |  |                 |               |                    |                         |                      |                 |  |  |
| Description of Hatchway   | FOREPEAK.             | FOREHOLD   | OT. HATCHES  | FOR* PUMP ROOM. | SUMMER TANKS. | OF BUNKER HATCHES. | OF SIDE BUNKER HATCHES. | COAL BUNKER HATCHES. | AFT PEAK HATCH. |  |  |
| Dimensions of Hatchway  | 2' x 2'               | 6' x 9' 0" | 6' x 4'  | 2' 4" x 2' 4"   | 6' x 4'       | 6' x 5'            | 2' 9" x 2' 9"           | 4' x 4'              | 2' 6" x 2' 6"   |  |  |
| COAMINGS  | Height above Deck     | 20" ✓      | 20" ✓  | 24" ✓           | 30" ✓         | 30" ✓              | 18" ✓                   | 18" ✓                | 18" ✓           |  |  |
|   | Thickness { Sides     | 44 ✓       | 44 ✓   | 48 ✓            | 44 ✓          | 44 ✓               | 44 ✓                    | 44 ✓                 | 44 ✓            |  |  |
|   | Thickness { Ends      | 44 ✓       | 44 ✓   | 48 ✓            | 44 ✓          | 44 ✓               | 44 ✓                    | 44 ✓                 | 44 ✓            |  |  |
|   | Stiffeners            | ✓          | 7 x 2 1/2 x 3/8 BA ✓                                 | ✓               | ✓             | ✓                  | ✓                       | ✓                    | ✓               |  |  |
|   | Brackets, Stays       | ✓          | ✓  | ✓               | ✓             | ✓                  | ✓                       | ✓                    | ✓               |  |  |
| HATCH BEAMS   | Number                | 2          |  |                 |               |                    |                         |                      |                 |  |  |
|   | Spacing               |            |  |                 |               |                    |                         |                      |                 |  |  |
|   | Scantling and Sketch  | ✓          | 11" x 30" Plate<br>Double angles<br>3 x 3 x 40<br>6" | ✓               | ✓             | ✓                  | ✓                       | ✓                    | ✓               |  |  |
|   | Bearing Surface       |            |  |                 |               |                    |                         |                      |                 |  |  |
| FORE AND AFTERS   | Number                |            |  |                 |               |                    |                         |                      |                 |  |  |
|   | Spacing               |            |  |                 |               |                    |                         |                      |                 |  |  |
|   | Unsupported Lengths   |            |  |                 |               |                    |                         |                      |                 |  |  |
|   | Scantling* and Sketch | ✓          | ✓  | ✓               | ✓             | ✓                  | ✓                       | ✓                    | ✓               |  |  |
| Bearing Surface   |                       |            |  |                 |               |                    |                         |                      |                 |  |  |
| HATCH COVERS  | Material              | Steel ✓    | Steel ✓  | Steel ✓         | Steel ✓       | Steel ✓            | Steel ✓                 | Steel ✓              | Steel ✓         |  |  |
|   | Thickness             | 3/8" ✓     | 1/2" ✓   | 5/8" ✓          | 1/2" ✓        | 5/8" ✓             | 1/2" ✓                  | 1/2" ✓               | 2 1/2" ✓        |  |  |
|   | How fitted            | Jointed ✓  | Jointed ✓  | Jointed ✓       | Jointed ✓     | Jointed ✓          | Jointed ✓               | Jointed ✓            | Jointed ✓       |  |  |
|   | Bearing Surface       | ✓          | ✓  | ✓               | ✓             | ✓                  | ✓                       | ✓                    | ✓               |  |  |
| Spacing of Cleats   |                       | 24" ✓      | ✓  | ✓               | ✓             | ✓                  | ✓                       | 18" ✓                | 18" ✓           |  |  |
| Number of Tarpaulins  |                       | 2 ✓        | ✓  | ✓               | ✓             | ✓                  | ✓                       | 2 ✓                  | 2 ✓             |  |  |
| *Are wood fore and afters steel shod at all bearing surfaces ?<br>Are battens and wedges efficient and in good condition ?<br>Are tarpaulins in good condition and in accordance with rule requirements ?<br>Are lashings provided in accordance with rule requirements ? |                       |            |  |                 |               |                    |                         |                      |                 |  |  |
| Ring Bolts.   |                       |            |  |                 |               |                    |                         |                      |                 |  |  |

Particulars of fiddle, funnel and ventilator coamings:—

Steel gratings covered by strong steel hinged covers. Fiddle & funnel ventilators efficient condition. Engine skylight of steel strongly constructed.

Particulars of Flush Bunker Scuttles:—

✓

Particulars of Companionways:—

Steel companion 19' 0" x 7' 3" x 7' 6" high. leading to aft pump room below freeboard deck. 1 steel door with 19" sill, handle on door operated from both sides. Door permanently hinged.

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

24" coaming to forepeak scow. 30" " 1-9" x 30" coaming. 6-6" x 18" coaming. all to forepeak. 30" " 5 forehold. 36" " Bunkers (coal). 4-6" x 22" coaming to accommodation.

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

Fore well. 7" height. 90" diameter. Fore Copuldam 22 3/2" x 30" height (CT). Aft well. aft copuldam 32 3/2" x 30" height. Cows bunkers 22 3/2" x 30" height. Poop. Engine & Bunkers O.B.s. 42 3/2" x 30" height. aft peak. 12 3/2" x 30" height. fitted with canvas covers & wood plating.

Gangway Cargo and Coaling Ports:—



Forecastle: 2-4" with storm valves CE & CS ✓  
 4-6" without ✓  
 1-3" ✓  
 Particulars of Scuppers and Sanitary Discharge Pipes —  
 all discharging from forehand deck ✓  
 overboard below forehand deck ✓  
 Midships: 2-4" with storm valves CE & CS ✓  
 3-2" without ✓  
 all discharging from above superstructure deck overboard above forehand deck ✓

Aft: 1-4" with storm valves CE & CS ✓  
 2-3" ✓  
 Discharging from forehand deck overboard below forehand deck ✓  
 4-4" with storm valves CE & CS ✓  
 2-3" ✓  
 2-4" without ✓  
 3-2" ✓  
 all discharging from superstructure deck or above, overboard above forehand deck ✓

Particulars of Side Scuttles:

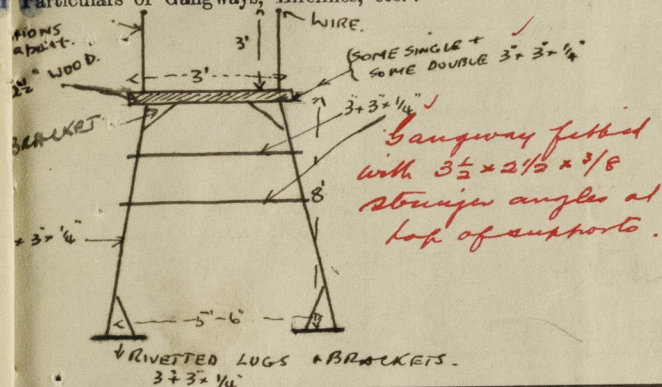
Ironcastles 10 at 10". Bridge space 4 at 10". Poop 9 at 10".

All scuttles above forehand deck, substantially constructed & fitted with deadlights (hinged)

Particulars of Guard Rails:—

Guard rails on poop and forecastle decks 3'-6" in height and are of strong construction

Particulars of Gangways, Lifelines, etc.:—



Gangway from poop to bridge & from bridge to forecastle. Stanchions of platform about 12 ft apart. Riveted lugs to deck with brackets as shown in sketch.

#### Particulars of Freeing Arrangements.

|                  | Length of Bulwark | Height of Bulwark | Size of Freeing Ports                  | Number each side | Area each side | Rule area each side                           |
|------------------|-------------------|-------------------|--|------------------|----------------|---|
| After Well ...   | 127.25'           | 3'-6"             | open rail for 64'-6"<br>468 square ft. | 52               | 23.4 ✓         | 111.4 ✓<br><del>25.45</del> or 50% open rails |
| Forward Well ... | 113.25'           | 3'-6"             | open rail for 59'-9"<br>- do -         | 42               | 18.92 ✓        | 99.2 ✓<br><del>22.76</del>                    |

State position of each freeing port (F. and A. position and height above deck edge) } After Well: — From mido. 19 ft, 41 ft, 62.75 ft, 68.5 ft, 106.5 ft. } See sketch.  
 Forward Well: — " " 21.5 ft, 45.5 ft, 49.5 ft, 94 ft.  
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such: — Bottom of freeing ports 10" above deck fitted with vertical bars 9" spacing. ✓  
 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 ...   | .40"    | .40"    | 8 1/2 x 3 1/2 x 3/8 BA | 30"     | Brackets.                     | ✓                | ✓               | 7.5'              |
| Raised Quarter Deck Bulkhead ...  | 3/8"    | 3/8"    | 3 x 3 x 1/4"           | 32"     | ✓                             | 5'-0" x 2'-6" ✓  | 18" ✓           | 7.5'              |
| Bridge, After Bulkhead ...  | 7/16"   | .40"    | 6 x 3 x 3/8"           | 30"     | brackets bottom only.         | 5'-0" x 2'-6" ✓  | 19" ✓           | 7.5'              |
| Bridge, Forward Bulkhead ...  | 7/16"   | 7/16"   | 3 1/2 x 3 1/2 x 1/4"   | 36"     | ✓                             | open.            | 18" ✓           | 7.5'              |
| Trunk, Aft ...  |         |         |                        |         |                               |                  |                 |                   |
| Trunk, Forward ...  |         |         |                        |         |                               |                  |                 |                   |
| Exposed Machinery Casings on Free-board or Raised Quarter Decks ...                     | 7/16"   | 7/16"   | 3 x 2 1/2 x 1/4"       | 39"     | Some Brackets                 | 4'-6" x 3'-0" ✓  | 18" ✓           | 7.0'              |
| Exposed Machinery Casings on Superstructure Decks ...                                   |         |         |                        |         |                               |                  |                 |                   |
| Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... |         |         |                        |         |                               |                  |                 |                   |
| Deckhouses on Flush Deck Ships ...  |         |         |                        |         |                               |                  |                 |                   |

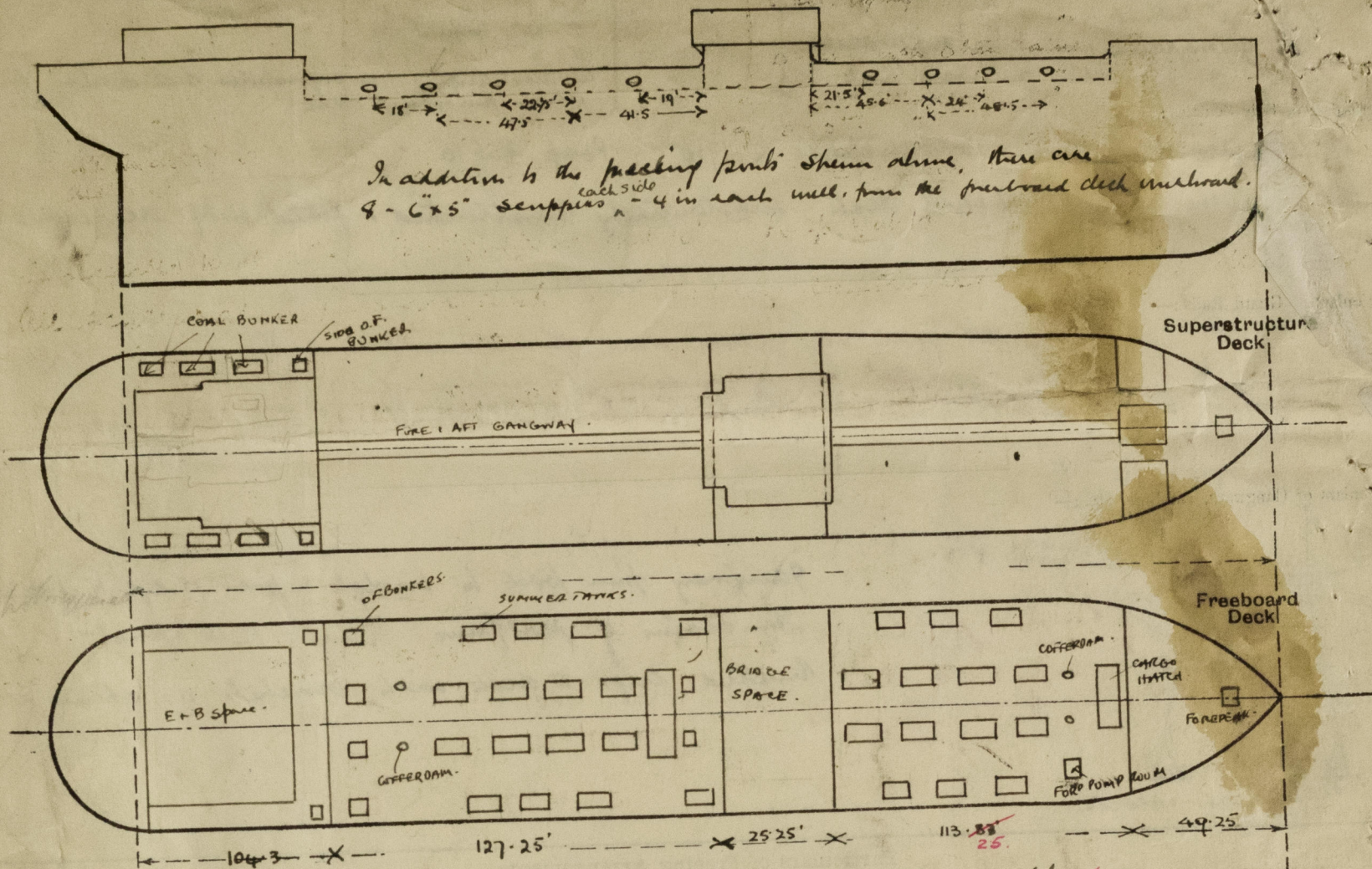
#### Particulars of Closing Appliances (state if capable of being manipulated from both sides).

|   |  |
|---|--|
| Poop Bulkhead ...   | no openings. ✓   |
| Raised Quarter Deck Bulkhead ...  | 2 steel doors 5'-0" x 2'-6" permanently hinged 2 inside lugs. Operated from both sides ✓ |
| Bridge, After Bulkhead ...  | 1 steel door 5'-0" x 2'-6" " " 2 lugs " " " " " " ✓                                      |
| Bridge, Forward Bulkhead ...  |  |
| Forecastle Bulkhead ...   |  |
| Exposed Machinery Casings on Free-board or Raised Quarter Decks ...                     | 5 steel doors, 4'-6" x 2'-0" permanently hinged handle operated from both sides ✓        |
| Exposed Machinery Casings on Superstructure Decks ...                                   | 1 wood " 4'-6" x 2'-0" x 1/2" (to freeing flat)  |
| Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... |  |
| Deckhouses on Flush Deck Ships ...  |  |



*Oliver.*

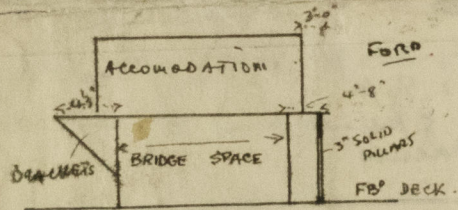
Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shown on the following sketches:—



Position of scuppers, storm valves etc detailed in foregoing paragraph. ✓  
 Shells measured in dry dock. ✓

Forecastle 49.25  
 1/10 L. 41.93  
 214.32  
 3.66  
 41.93  
 45.59

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



Sketch of Bridge.

*Oliver*

5' 0\"/>

and yard number

Builder's name and ships

Names of sister ships

*The Admiralty* Managers (*British Tanker Co Ltd.*)

Owners

9 0

Received by me

Fee £

14

13/6

*9/6/43 from London*

Repairs



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