

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having *Poop, Bridge & Forecastle.* Port of Survey *Hull*

(Type of Superstructures.)

Ship's Name *Theomitor* Nationality and Port of Official Number *Greek Andros* Gross Tonnage *4427* Date of Build *1910-3*

Moulded Dimensions: Length *375-0* Breadth *51-75* Depth *27-4*

Moulded displacement at moulded draught = 85 per cent. of moulded depth *10522* tons

Coefficient of fineness for use with Tables *80*

Date of Survey *Dec. 4<sup>th</sup> 1933*

Name of Surveyor *Malcolm*

Particulars of Classification *+100A1*

| Depth for Freeboard (D)   |              | Depth correction  |  | Round of Beam correction   |  |
|---|--------------|---|--|--|--|
| Moulded depth   | <i>27-4</i>  | (a) Where D is greater than Table depth<br>(D - Table depth) R = $(27-4 - 25-0) 2-884$<br>= <i>+ 5-54</i> |  | Moulded Breadth (B)  | <i>51-75</i>                           |
| Stringer plate  | <i>5</i>     | (b) Where D is less than Table depth (if allowed)<br>(Table depth - D) R = <i>✓</i>                       |  | Standard Round of Beam = $\frac{B \times 12}{50}$                            | = <i>12-42</i>                         |
| Sheathing on exposed deck<br>$T \left( \frac{L-S}{L} \right) =$ | <i>none</i>  | If restricted by superstructures <i>✓</i>   |  | Ship's Round of Beam   | = <i>13</i>                            |
| Depth for Freeboard (D) =                                       | <i>27-96</i> |   |  | Difference   | = <i>58" excess</i>                    |
|   |              |   |  | Restricted to  |  |
|   |              |   |  | Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right)$ | = $\frac{58}{4} \times .512 = -14-11"$ |

## DEDUCTION FOR SUPERSTRUCTURES.

|                     | Mean Covered Length (S) | Equivalent Enclosed Length (S <sub>1</sub> ) | Height     | Height Correction | Effective Length (E) |   |
|---------------------|-------------------------|--|------------|-------------------|----------------------|---|
| Poop enclosed       | <i>32-7</i>             | <i>32-70</i>                                 | <i>8-0</i> |                   | <i>32-70</i>         | Standard Height of Superstructure <i>7-25</i>                     |
| " overhang          |                         |  |            |                   |                      | " " R.Q.D. <i>✓</i>   |
| R.Q.D. enclosed     |                         |  |            |                   |                      | Deduction for complete superstructure <i>40-33</i>                |
| " overhang          |                         |  |            |                   |                      | Percentage covered $\frac{S}{L} = 48-80\%$                        |
| Bridge enclosed     | <i>112-8</i>            | <i>112-80</i>                                | <i>8-0</i> |                   | <i>112-80</i>        | " $\frac{S_1}{L} = 48-80\%$                                       |
| " overhang aft      |                         |  |            |                   |                      | " $\frac{E}{L} = 48-80\%$   |
| " overhang forward  |                         |  |            |                   |                      | Percentage from Table, Line A.                                    |
| Fore enclosed       | <i>37-50</i>            | <i>37-50</i>                                 | <i>8-0</i> |                   | <i>37-50</i>         | (corrected for absence of forecastle (if required))               |
| " overhang          |                         |  |            |                   |                      | Percentage from Table, Line B.                                    |
| Trunk aft           |                         |  |            |                   |                      | (corrected for absence of forecastle (if required)) <i>34-98%</i> |
| " forward           |                         |  |            |                   |                      | Interpolation for bridge less than 2L (if required)               |
| Tonnage opening aft |                         |  |            |                   |                      | Deduction = $40-33 \times .3498 = -14-11"$                        |
| " forward           |                         |  |            |                   |                      |   |
| Total               | <i>183-00</i>           | <i>183-00</i>                                |            |                   | <i>183-00</i>        |   |

## SHEER CORRECTION.

| Station         | Standard Ordinate | S        | M | Product       | Actual Ordinate | Effective Ordinate | S        | M | Product       |   |
|-----------------|-------------------|----------|---|---------------|-----------------|--------------------|----------|---|---------------|---|
| A.P.            | <i>47-50</i>      | <i>1</i> |   | <i>47-50</i>  | <i>60-4</i>     | <i>60-25</i>       | <i>1</i> |   | <i>60-25</i>  | Mean actual sheer aft = <i>Excess</i>     |
| 1/2 L from A.P. | <i>21-135</i>     | <i>4</i> |   | <i>84-54</i>  | <i>26-0</i>     | <i>26-07</i>       | <i>4</i> |   | <i>104-28</i> | Mean actual sheer forward = <i>Excess</i> |
| 1/2 L "         | <i>5-225</i>      | <i>2</i> |   | <i>10-45</i>  | <i>7-0</i>      | <i>6-52</i>        | <i>2</i> |   | <i>13-04</i>  | Mean standard sheer forward               |
| Amidships       |                   | <i>4</i> |   |               | <i>0</i>        |                    | <i>4</i> |   |               | Length of enclosed superstructure         |
| 1/2 L from F.P. | <i>10-45</i>      | <i>2</i> |   | <i>20-90</i>  | <i>14-0</i>     | <i>13-43</i>       | <i>2</i> |   | <i>26-86</i>  | L forward of amidships = <i>&gt; 1/2</i>  |
| 1/2 L "         | <i>42-27</i>      | <i>4</i> |   | <i>169-08</i> | <i>35-0</i>     | <i>53-71</i>       | <i>4</i> |   | <i>214-84</i> | " aft of " = <i>&gt; 1/2</i>              |
| F.P.            | <i>95-00</i>      | <i>1</i> |   | <i>95-00</i>  | <i>120-0</i>    | <i>120-00</i>      | <i>1</i> |   | <i>120-00</i> |   |
| Total           |                   |          |   | <i>427-47</i> |                 |                    |          |   | <i>539-27</i> |   |

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left( \frac{75-S}{2L} \right) = \frac{111-80}{18} \left( \frac{75-244}{506} \right) = -3-14"$$

If limited on account of midship superstructure.

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

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *FL*

Summer freeboard =

Moulded draught (d) =

Correction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches =

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ 

Tons per inch immersion at summer load water line

T =

Deduction =  $\frac{\Delta}{40T}$  inches

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

|  | +           | -            |
|--|-------------|--------------|
| Depth Correction                           | <i>8-54</i> |              |
| Deduction for superstructures              |             | <i>14-11</i> |
| Sheer correction                           |             | <i>3-14</i>  |
| Round of Beam correction                   |             | <i>58</i>    |
| Correction for Thickness of Deck amidships |             |              |
| Other corrections, scantlings, etc.        |             |              |
|  | <i>8-54</i> | <i>17-34</i> |

Summer Freeboard = *60-77*

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

|  |  |
|--|--|
| Tropical Fresh Water Line above Centre of Disc |  |
| Fresh Water Line                               |  |
| Tropical Line                                  |  |
| Winter Line below                              |  |
| Winter North Atlantic Line                     |  |

|                                |  |
|--------------------------------|--|
| Tropical Fresh Water Freeboard |  |
| Fresh Water                    |  |
| Tropical                       |  |
| Winter                         |  |
| Winter North Atlantic          |  |

Lloyd's Register Foundation

1906 freeboard  
reassigned



# PARTICULARS OF PROTECTION, TO, OPENINGS, ETC.

| HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS |                      |                  |               |                  |                  |               |                  |                  |               |                  |
|---|----------------------|------------------|---------------|------------------|------------------|---------------|------------------|------------------|---------------|------------------|
| Upper Deck                                      |                      |                  |               |                  |                  |               |                  |                  |               |                  |
| Description of Hatchway                         | No. 1                | No. 2            | No. 3         | No. 4            | No. 5            | No. 6         | No. 7            | No. 8            | No. 9         | No. 10           |
| Dimensions of Hatchway                          | 29' 9" x 14' 11"     | 29' 9" x 14' 11" | 17' 11" x 11' | 29' 9" x 14' 11" | 29' 9" x 14' 11" | 17' 11" x 11' | 29' 9" x 14' 11" | 29' 9" x 14' 11" | 17' 11" x 11' | 29' 9" x 14' 11" |
| COAMINGS  | Height above Deck    | 3'-6"            | 3'-8"         | 3'-0"            | 3'-6"            | 3'-6"         | 18"              | 18"              | 18"           | 30"              |
|   | Thickness Sides      | 4"               | as No. 1      | 4"               | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         |
|   | Stiffeners           | none             | as No. 1      | none             | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         |
|   | Brackets, Stays      | none             | as No. 1      | none             | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         |
| HATCH BEAMS                                     | Number               | 6                | 5             | 2                | 5                | 2             | 5                | 2                | 5             | 6                |
|   | Spacing              | even             | as No. 1      | 11' 3"           | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         |
|   | Scantling and Sketch | 23' 4" x 4"      | as No. 1      | 11' 3" x 4"      | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         |
|   | Bearing Surface      | 3"               | 3"            | 3"               | 3"               | 3"            | 3"               | 3"               | 3"            | 3"               |
| FORE AND AFTERS                                 | Number               | 1                | 1             | 1                | 1                | 1             | 1                | 1                | 1             | 1                |
|   | Spacing              | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         |
|   | Unsupported Lengths  | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         |
|   | Scantling and Sketch | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         |
| HATCH COVERS                                    | Material             | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         |
|   | Thickness            | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         |
|   | How fitted           | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         |
|   | Bearing Surface      | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         |
| Spacing of Cleats                               | as No. 1             | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         |
| Number of Tarpaulins                            | as No. 1             | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         | as No. 1         | as No. 1      | as No. 1         |

\*Are wood fore and afters steel shod at all bearing surfaces? *Yes*  
 Are battens and wedges efficient and in good condition? *Yes*  
 Are tarpaulins in good condition and in accordance with rule requirements? *Yes*  
 Are lashings provided in accordance with rule requirements? *Ringbolts provided*

Particulars of fiddle, funnel and ventilator coamings:—  
*Fiddle funnel ventilator coamings in efficient condition*  
*Fiddle gratings closed by strong hinges & steel covers*  
*Engine Room skylight of steel, strong & constructed*

Particulars of Flush Bulker Scuttles:—  
*none*

Particulars of Companionways:—  
*none*

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—  
*Ice Deck: 9" dia. 6' high to 12' dia. coamings 12' x 24" high to stow & cover space*  
*Wells: 18" dia. coamings 36" high x 32" x 4" to holds*  
*Base Deck: 12" dia. coamings 36" high x 32" x 4" to tween decks*  
*Pooped Deck: 12" dia. 30" high x 32" to tween decks*

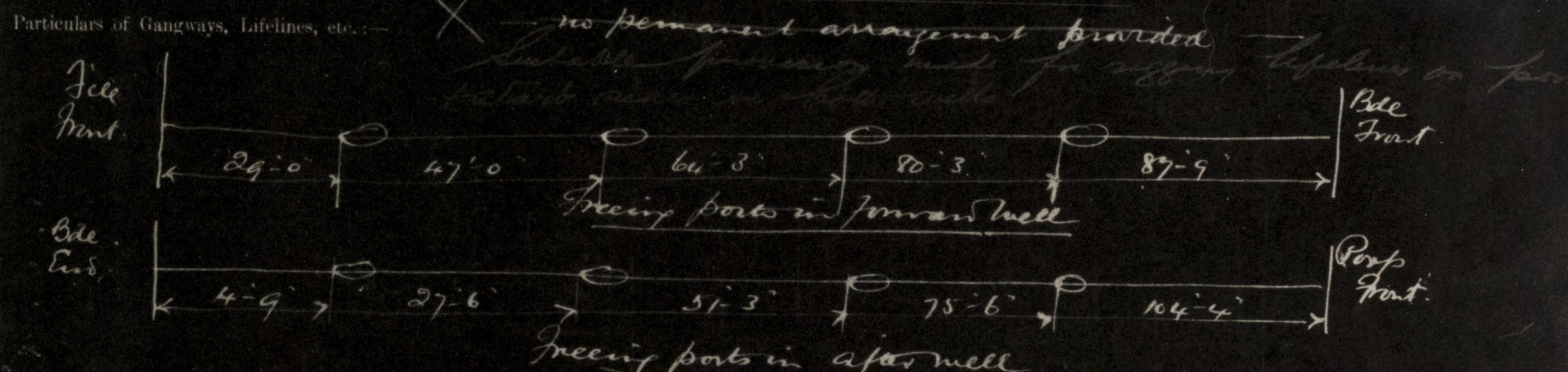
Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—  
*4 1/2" under free; 6" high to 9" high to F.P. line & N.B. 3" screws & covers or wood plugs provided. 22" dia.*  
*afternoon. 2" dia. 30" high x 18" high F.N. to B.B. lines, plugs to be fitted*  
*Pooped: to A.P. Tank. pipe 2 1/2" dia. of 8" hatch coaming. 30" high*

Particulars of Gangway Cargo and Coaling Ports:—  
*none*

Particulars of Scuppers and Sanitary Discharge Pipes:—  
*In wells: Scuppers of funnel & bar type*  
*On Bridge Deck: pipe scuppers to shell, no valves*  
*Upper Deck in Bridge: pipe scuppers to shell, no valves*  
*Sanitary discharge pipes lead to shell in tween decks, with storm valves*

Particulars of Side Scuttles:—  
*In Ice cover space, fitted with deadlights, repairs are required by glass*  
*Pooped: not fitted with deadlights*  
*All Side Scuttles substantially constructed*

Particulars of Guard Rails:—  
*Ice, Base & Pooped Decks: 3'-6" high rails, 3 rods, stanchions spaced 5' apart*  
*Steel bulwarks in wells 4'-0" high substantially constructed & stayed*



| Particulars of Freeing Arrangements. |                   |                   |                       |                  |                |                     |
|--------------------------------------|-------------------|-------------------|-----------------------|------------------|----------------|---------------------|
|                                      | Length of Bulwark | Height of Bulwark | Size of Freeing Ports | Number each side | Area each side | Rule area each side |
| Forward Well                         | 104'-4"           | 4'-0"             | 3'-9" x 1'-8"         | 4                | 22.50          | 20.56               |
| After Well                           | 87'-9"            | 4'-0"             | as in aft well        | 4                | 22.50          | 17.58               |

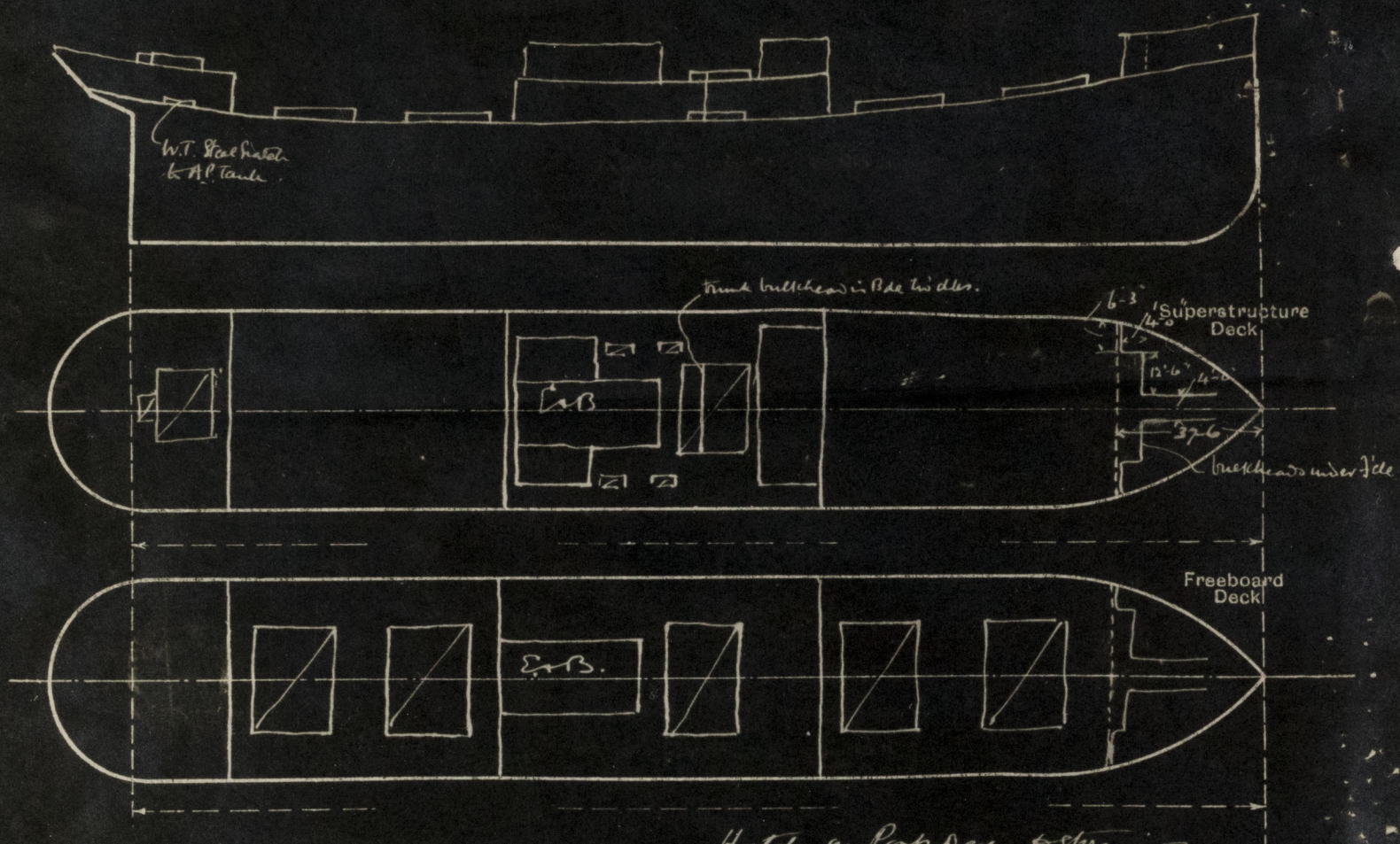
State position of each freeing port:—  
 F. and A. position and height above deck edge:—  
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:—  
 Additional area where sheer is less than standard.

| Particulars of Superstructures, Trunks, Casings, Deckhouses.                        |         |         |                |           |                               |                  |                 |                   |
|---|---------|---------|----------------|-----------|-------------------------------|------------------|-----------------|-------------------|
|   | Coaming | Plating | Stiffeners     | Spacing   | End Attachments of Stiffeners | Size of Openings | Height of Sills | Height of Casings |
| Pooped Bulkhead   | 38      | 38      | 6 x 3" L       | 2'-3"     | none                          | 14' x 2' 3"      | 24"             | 8'-0"             |
| Raised Quarter Deck Bulkhead  |         |         |                |           |                               | 14' x 3' 2"      | 24"             | 8'-0"             |
| Bridge, After Bulkhead  | 4       | 38      | not accessible |           |                               | 14' x 3' 5" 1/2" | 24"             | 8'-0"             |
| Bridge, Forward Bulkhead  | 4       | 38      | 8" B.A.        | 30"       | Bkts.                         | 5' x 4'          | 24"             | 8'-0"             |
| Forecastle Bulkhead   | 38      | 38      | 3 x 3" x 45"   | 30" x 36" | none                          | 4' 3" x 2'       | 18"             | 8'-0"             |
| Trunk, Aft  |         |         |                |           |                               |                  |                 |                   |
| Trunk, Forward  |         |         |                |           |                               |                  |                 |                   |
| Exposed Machinery Casings on Freeboard or Raised Quarter Decks                      |         |         |                |           |                               |                  |                 |                   |
| Exposed Machinery Casings on Superstructure Decks                                   | 38      | 38      | 3 x 3" x 43"   | 4' 3"     | Bkts. top                     | 4' 3" x 2'-0"    | 20"             | 7'-0"             |
| Machinery Casings within Superstructures not fitted with Class I Closing Appliances | 3       | 3       | 3 x 3" x 4"    | 4'-3"     | lapped top                    | 4' 3" x 2'-0"    | 18"             | 8'-0"             |
| Deckhouses on Flush Deck Ships  |         |         |                |           |                               |                  |                 |                   |

Particulars of Closing Appliances (state if capable of being manipulated from both sides):—  
*1) Portable steel plates, hook bolts spaced 12" apart. No.*  
*2) Steel hinges, doors, spring locks, yes. repairs req'd to locks.*  
*3) Stormboards 3" thick to full height in metal channels.*  
*4) Hinged steel doors, repairs required to fastenings.*  
*5) Hinged steel doors, hook bolts 10" + 1/2" apart, open all ways.*  
*6) Hinged steel doors to stow, spring locks, yes.*  
*7) Hinged steel doors, repairs required to fastenings.*  
*8) Hinged steel doors, repairs required to fastenings.*



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:—



Hatch on Prop Deck to store  
 4' x 3'-6" coaming 2'-3" x 4"  
 wood covers 23", bearing 23"  
 cleats spaced 24", battens wedged & 1" hauling  
 Running hatches U. side in Bde  
 3'-6" x 8'-6" coaming 18" x 4"  
 wood covers 23", bearing 23"  
 cleats 24" apart - battens wedged & 1" hauling

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

Freeboard Turret, held afloat.  
 In part of Special Periodical Turret, held  
 at this time.

Builder's name and yard number

Bartram & Sons No 215

Names of sister ships

Owners

M.S. Polemis

Fee £

12

15

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