

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.Computation of Freeboard for Steamer, Sailing Ship, Tanker
having *Poop. Bridge & Forecastle.*Port of Survey *Newcastle-upon-Tyne*

(Type of Superstructures.)

Date of Survey *Whilst building*Ship's Name
"ABBEYDALE"
Nationality and Port of Registry
British London
Official Number
165409
Gross Tonnage
8299
Date of Build
*1937.*Name of Surveyor *W. J. Craig*Moulded Dimensions: Length *464.21* Breadth *61.75* Depth *34.04*
Moulded displacement at moulded draught = 85 per cent. of moulded depth *18198* tons
Coefficient of fineness for use with Tables *.77* *includes 11 tons for main stem*Particulars of Classification *+100 A-1.*
"carrying petroleum in bulk"

| Depth for Freeboard (D) | | | | Depth correction | | Round of Beam correction | |
|------------------------------------|-----|-------------|--------------|--|--|--|-------------------------------|
| Moulded depth | ... | ... | <i>34.04</i> | (a) Where D is greater than Table depth (D - Table depth) R = | | Moulded Breadth (B) | <i>61.75</i> |
| Stringer plate | ... | <i>.82"</i> | ... | <i>(34.11 - 30.94) x 3 = +9.5</i> | | Standard Round of Beam = $\frac{B \times 12}{50}$ | <i>14.82</i> |
| Sheathing on exposed deck | | | | (b) Where D is less than Table depth (if allowed) (Table depth - D) R = | | Ship's Round of Beam <i>7.5</i> | <i>15"</i> |
| $T \left(\frac{L-S}{L} \right) =$ | | | | | | Difference | <i>.18</i> |
| Depth for Freeboard (D) = | | | <i>34.11</i> | If restricted by superstructures | | Restricted to | |
| | | | | | | Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right)$ | <i>18 x 5809 / 4 = 261.15</i> |

DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) |
|---|-------------------------|--|-----------------------------|-------------------|----------------------|
| Poop enclosed | <i>103.0</i> | <i>103.00</i> | <i>8'-0"</i> | - | <i>103.00</i> |
| " overhang | <i>3.5</i> | <i>1.75</i> | <i>and 8'-7" at transom</i> | - | <i>1.75</i> |
| R.Q.D. enclosed | | | | | |
| " overhang | | | | | |
| Bridge enclosed | <i>36.0</i> | <i>36.00</i> | <i>8'-0"</i> | - | <i>36.00</i> |
| " overhang aft | <i>3.0</i> | <i>2.25</i> | | - | <i>2.25</i> |
| " overhang forward | <i>3.5</i> | <i>1.75</i> | | - | <i>1.75</i> |
| File enclosed <i>See sketch on back</i> | <i>10.21</i> | <i>10.21</i> | <i>8'-0"</i> | - | <i>10.21</i> |
| " overhang | <i>43.14</i> | <i>39.59</i> | | - | <i>39.59</i> |
| Trunk aft | | | | | |
| " forward | | | | | |
| Tonnage opening aft | | | | | |
| " forward | | | | | |
| Total | <i>202.35</i> | <i>194.55</i> | | | <i>194.55</i> |

Standard Height of Superstructure *7.50*

" " R.Q.D.

Deduction for complete superstructure *42.0*Percentage covered $\frac{S}{L} =$ *43.59*" $\frac{S_1}{L} =$ *41.91*" $\frac{E}{L} =$ *41.91*Percentage from Table, Line *A. Tanker* *32.91*
(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 = *42 x 32.91 = -13.8.*

SHEER CORRECTION.

| Station | Standard Ordinate | S | Product | Actual Ordinate | Effective Ordinate | S | Product |
|--------------------------|-------------------|---|---------------|-----------------|--------------------|---|---------------|
| A.P. | <i>56.42</i> | 1 | <i>56.42</i> | <i>38.0</i> | <i>38.0</i> | 1 | <i>38.00</i> |
| $\frac{1}{2}L$ from A.P. | <i>25.105</i> | 4 | <i>100.42</i> | <i>21.87</i> | <i>21.87</i> | 4 | <i>87.48</i> |
| $\frac{3}{4}L$ " | <i>6.205</i> | 2 | <i>12.41</i> | <i>6.00</i> | <i>6.00</i> | 2 | <i>12.00</i> |
| Amidships | | 4 | | | | 4 | |
| $\frac{3}{4}L$ from F.P. | <i>12.41</i> | 2 | <i>24.82</i> | <i>12.25</i> | <i>12.25</i> | 2 | <i>24.50</i> |
| $\frac{1}{2}L$ " | <i>50.21</i> | 4 | <i>200.84</i> | <i>50.12</i> | <i>50.12</i> | 4 | <i>200.48</i> |
| F.P. | <i>112.84</i> | 1 | <i>112.84</i> | <i>113.00</i> | <i>113.00</i> | 1 | <i>113.00</i> |
| Total | | | <i>507.75</i> | | | | <i>475.46</i> |

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{32.29}{18} \left(\frac{75-2179}{2L} \right) \text{ AP.}$

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 = *34.11*
Summer freeboard = *6.73*
Moulded draught (d) = *27.38*Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = *6.84 = 6\frac{3}{4}*
Addition for Winter North Atlantic Freeboard (if required) = *6.84 + 4.64 = 11.48 = 11\frac{1}{2}*

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta =$ *17210*
Tons per inch immersion at summer load water line
 $T =$ *58.1*Deduction = $\frac{\Delta}{40T}$ inches
= *7.4*
= *7\frac{1}{2}*

TABULAR FREEBOARD corrected for Fresh Deck (if required)

Correction for coefficient

| | + | - |
|--|-------------|-------------|
| Depth Correction | <i>9.5</i> | - |
| Deduction for superstructures | - | <i>13.8</i> |
| Sheer correction | <i>1.0</i> | - |
| Round of Beam correction | - | - |
| Correction for Thickness of Deck amidships | - | - |
| Other corrections, scantlings, etc. | - | - |
| | <i>10.5</i> | <i>13.8</i> |

Summer Freeboard = *80.7*

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

| | |
|--|-----------------------|
| Tropical Fresh Water Line above Centre of Disc | <i>14\frac{1}{4}"</i> |
| Fresh Water Line | <i>7\frac{1}{2}"</i> |
| Tropical Line | <i>6\frac{3}{4}"</i> |
| Winter Line below | <i>6\frac{3}{4}"</i> |
| Winter North Atlantic Line | <i>11\frac{1}{2}"</i> |

| | |
|--------------------------------|-------------------------|
| Tropical Fresh Water Freeboard | <i>5'-6\frac{1}{2}"</i> |
| Fresh Water | <i>6'-1\frac{1}{4}"</i> |
| Tropical | <i>6'-2"</i> |
| Winter | <i>7'-3\frac{1}{2}"</i> |
| Winter North Atlantic | <i>7'-8\frac{1}{4}"</i> |

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Particulars of Scuppers and Sanitary Discharge Pipes:—

all discharges from Poop & Fore spaces discharging below freeboard deck are fitted with brass storm valves.

Particulars of Side Scuttles:—

all side scuttles fitted with strong hinged deadlights.

Particulars of Guard Rails:—

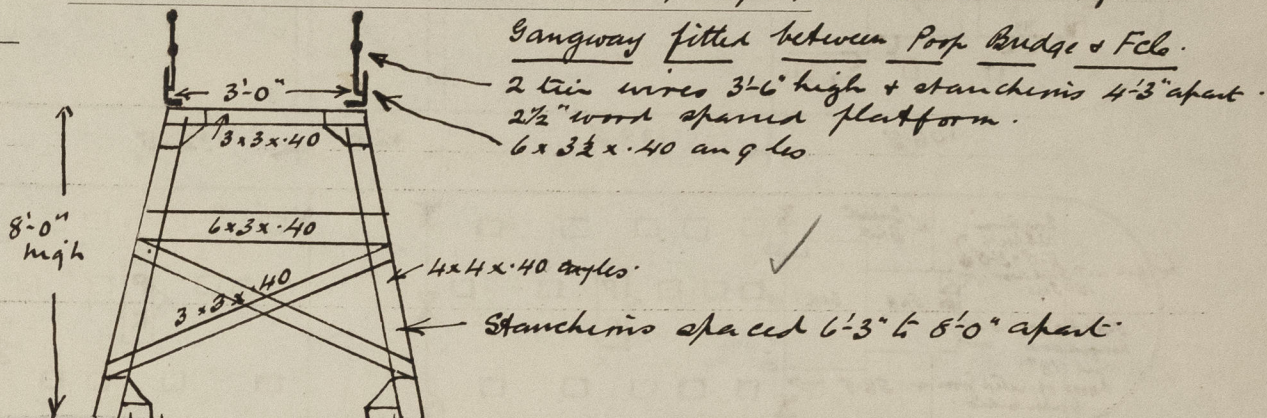
Poop deck: 3 tier rails 3'-6" high with stanchions 4'-6" apart.

Forecastle: 3 " " 3'-6" " " 4'-0" "

Bridge: 1- steel bulwark at sides 3'-7" high with teak rail.

Rails & stanchions at ends 2nd & teak rail 3'-7" high, stanchions 4'-6" apart.

Particulars of Gangways, Lifelines, etc.:—



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 ... | ... | ... | ... | ... | ... | ... |
| Forward Well ... | ... | ... | ... | ... | ... | ... |
| 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. | | | | | | |

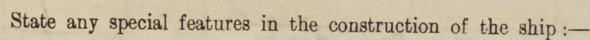
Particulars of Superstructures, Trunks, Casings, Deckhouses.

| | Coaming | Plating | Stiffeners | Spacing | End Attachments of Stiffeners | Size of Openings | Height of Sills | Height of Casings |
|---|---------|---------|--------------------|------------|--|---------------------|-----------------|---------------------------------------|
| Poop Bulkhead ... | .44 | .44 | 10 x 3 1/2 x 40 L | 30" | lugged | 2 @ 4'-0" x 3'-1" | 19" | 8'-0" |
| Raised Quarter Deck Bulkhead ... | | | | | | 1 at 5'-1" x 4'-1" | 19" | |
| Bridge, After Bulkhead ... | .30 | .30 | 4 1/2 x 3 x 34 L | 29" | none | 1 at 4'-0" x 3'-1" | 19" | 8'-0" |
| Bridge, Forward Bulkhead ... | .44 | .44 | 10 x 3 1/2 x 40 L | 30" | lugged | 1 at 5'-0" x 3'-0" | 18" | 8'-0" |
| Forecastle Bulkhead ... | .30 | .30 | 4 x 3 x 35 L | 28" to 32" | none | 14 at 5'-0" x 2'-1" | 18" | 8'-0" |
| Trunk, Aft ... | | | | | | 3 at 5'-0" x 2'-0" | | |
| Trunk, Forward ... | | | | | | 1 at 4'-3" x 2'-3" | | |
| Exposed Machinery Casings on Freeboard or Raised Quarter Decks ... | | | | | | | | |
| Exposed Machinery Casings on Superstructure Decks ... | .30 | .26 | 3 1/2 x 2 1/2 x 36 | 21" to 30" | none | 4 at 5'-3" x 2'-0" | 15 1/2" | 8'-0" to 6'-0" Fwd 8'-0" to 4'-6" Aft |
| Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... | .34 | .26 | 3 1/2 x 2 1/2 x 36 | 21" to 30" | riveted to beams in donkey bulk lower continuous to casing top in engine space | | | 8'-0" |
| Deckhouses on Flush Deck Ships ... | | | | | | | | |

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

| | |
|---|--|
| Poop Bulkhead ... | 2 openings { closed with hook bolted plates and also closed with 3" storm boards in channels full height |
| Raised Quarter Deck Bulkhead ... | 2 openings closed with hook bolted plates & also with 3" storm boards in channels full height |
| Bridge, After Bulkhead ... | 1 opening closed with hinged steel W.T. door operated from both sides. |
| Bridge, Forward Bulkhead ... | 1 opening closed with hinged steel W.T. door operated from both sides |
| Forecastle Bulkhead ... | 4 openings closed with hinged steel W.T. doors operated from both sides. |
| Exposed Machinery Casings on Freeboard or Raised Quarter Decks ... | 7 " " " 2" solid hinged teak doors |
| Exposed Machinery Casings on Superstructure Decks ... | 5 " " " 2" " " " pine " " " " |
| Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... | 4 openings closed with hinged steel doors operated from both sides. |
| Deckhouses on Flush Deck Ships ... | |

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 shewn on the following sketches:—



Blue Print sketch of Freemastle
also attached

Hand-drawn floor plan of a boat deck, showing various rooms and doors. The plan includes the following dimensions and features:

- Overall Dimensions:**
 - Length: 57.96
 - Beam (width): 10.21
 - Deck width: 44.46
 - Vertical distance from the bottom edge to the top of the main deck area: 26.33
 - Vertical distance from the top of the main deck area to the top of the upper section: 18.0
 - Horizontal distance from the left edge to the start of the upper section: 13.5
- Rooms and Features:**
 - DECK:** The main open area at the bottom.
 - W.T.S. (W.T. Stilt):** Located in the upper left and middle right sections.
 - PR (Pine door):** Located in the upper left section.
 - T (Teak door):** Multiple locations throughout the plan, including the upper left, middle, and lower sections.
 - S (Stilt door):** Located in the upper left section.
 - P (Pine door):** Multiple locations throughout the plan, including the middle and lower sections.
 - No:** Located in the upper left section.
- Other Labels:**
 - line of Fels dh.* (line of Fels dh.)

Legend:

- P = Pine door
- T = Teak door
- W.T.S. = W.T. Stilt
- S = Stilt door

Fee £ 19 : - : - Received by me

Forecastle considered open
abft steel bulkhead (intact) in
view of the falling of pine logs.