

WRECK SECTION

Lloyd's Register of Shipping

SURVEYS FOR FREEBOARD.

 5 SEP 1932
 Index. No. 20237
 (For London Office only.)

 No. 544
 No. 31027

Computation of Freeboard for Steamer, Sailing Ship, Tug

having

 Quarter Deck, Bridge, & Forecastle.
 (Type of Superstructures.)
Port of Survey Sunderland

Date of Survey

3rd September 1932.

Name of Surveyor

J. F. Eaton.

Ship's Name

"TORYISLAND"

Nationality and Port of Official Number

British 124624

Gross Tonnage

300

Date of Build

1909
5 Mo.

Moulded Dimensions: Length

135.0

Breadth

23.0

Depth

10.6

tons

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

.698

Coefficient of fineness for use with Tables

Particulars of Classification +100 A.1.S.S. Reg. No. 3-10.22S.S. Reg. No. 2.31

Depth for Freeboard (D)

Moulded depth

10.5

Stringer plate

.03

Sheathing on exposed deck

 $T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) =

10.53

Depth correction

(a) Where D is greater than Table depth
(D-Table depth) R = $(10.53 - 9.00) 1.038 = +1.59$ (b) Where D is less than Table depth (if allowed)
(Table depth-D) R =

If restricted by superstructures

Round of Beam correction

Moulded Breadth (B)

23.00Standard Round of Beam = $\frac{B \times 12}{50} =$ 5.52Ship's Round of Beam 5 $\frac{3}{4}$ =5.75

Difference

.23

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ $\frac{.23}{4} (1 - .5903) =$ -.02

DEDUCTION FOR SUPERSTRUCTURES.

Poop enclosed ...

" overhang ...

R.Q.D. enclosed ...

" overhang ...

Bridge enclosed ...

" overhang aft ...

" overhang forward ...

F'cle enclosed ...

" overhang ...

Trunk aft ...

" forward ...

Tonnage opening aft ...

" forward ...

Total ...

| Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) |
|-------------------------|--|--------|-------------------|----------------------|
| 47.66 | 47.66 | 3.5 | | 47.66 |
| 10.50 | 10.50 | 7.0 | | 10.50 |
| 20.56 | 20.56 | 6.5 | | 20.56 |
| 19.00 | 19.00 | | | 19.00 |
| 3.50 | 3.50 | | | 3.50 |
| 80.66 | 79.69 | | | 79.69 |

Standard Height of Superstructure

6

" " R.Q.D.

3.233

Deduction for complete superstructure

19.5Percentage covered $\frac{S}{L} =$ 59.75" " $\frac{S_1}{L} =$ 59.03" " $\frac{E}{L} =$ 59.03

Percentage from Table, Line A.

44.64

(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 = $19.5 \times .4464 =$ 8.71

SHEER CORRECTION.

| Station | Standard Ordinate | S | M | Product | Actual Ordinate | Effective Ordinate | S | M | Product |
|---------------------------|-------------------|---|---|---------|-----------------|--------------------|---|---|---------|
| A.P. | 23.50 | 1 | | 23.50 | 30.0 | 23.50 | 1 | | 23.50 |
| $\frac{1}{4}$ L from A.P. | 10.46 | 4 | | 41.84 | 13.43 | 10.46 | 4 | | 41.84 |
| $\frac{2}{4}$ L | 2.58 | 2 | | 5.16 | 3.16 | 2.58 | 2 | | 5.16 |
| Amidships | | 4 | | | 0 | | 4 | | |
| $\frac{2}{4}$ L from F.P. | 5.17 | 2 | | 10.34 | 5.02 | 5.02 | 2 | | 10.04 |
| $\frac{1}{4}$ L | 20.92 | 4 | | 83.68 | 20.14 | 20.14 | 4 | | 80.56 |
| F.P. | 47.00 | 1 | | 47.00 | 45.0 | 45.00 | 1 | | 45.00 |
| Total | | | | 211.52 | | | | | 206.10 |

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{5.42}{18} (.75 - .2987) = +.14$

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 = 10.53
 Summer freeboard = .56
Moulded draught (d) = 9.97

Deduction for Tropical freeboard and addition for

Winter freeboard = 2.49 = 2.49

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 $\frac{.698 + .680}{1.36} = \frac{1.378}{1.36}$

Depth Correction ...

Deduction for superstructures ...

Sheer correction ...

Round of Beam correction ...

Correction for Thickness of Deck amidships ...

Other corrections, scantlings, etc. ...

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

Fresh Water Line

Tropical Line

Winter Line

Winter North Atlantic Line

Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

Winter North Atlantic

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

| HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS | | | | | |
|--|-----------------------|--------------------------|--------------------------|----------------|--|
| Description of Hatchway | | No 1 on | No 2 on | Bunker | |
| Dimensions of Hatchway | | MAIN DK. | MAIN DK. | Hatch on | |
| | | 14'0" x 9'11" | 22'9" x 14'0" | Casing Top. | |
| COAMINGS | Height above Deck | 36" | 36" | | |
| | Thicknes { Sides | 40 | 40 | Flush | |
| | { Ends | 32 | 32 | with | |
| | Stiffeners ... | 36. 4'0" | 36 | Casing Top | |
| | Brackets, Stays | from aft end. | 7'4" apart. | | |
| HATCH BEAMS | Number ... | 1. | 2. | | |
| | Spacing ... | 7'0" | 7'0" | | |
| | Scantling and Sketch | 4 x 3 = 28 1/2 | 3 x 3 = 28 | | |
| | Bearing Surface | 2 1/2" | 2 1/2" | | |
| FORE AND AFTERS | Number ... | 1 | 3. | | |
| | Spacing ... | 5'0" | 3'6 1/2" | | |
| | Unsupported Lengths | 6'6" | 6'6" | | |
| | Scantling* and Sketch | 2 1/2" x 7 1/2" x 6 1/2" | 2 1/2" x 7 1/2" x 6 1/2" | Centre. Platel | |
| | Bearing Surface | 2 3/4" | 2 3/4" | Sides Platel | |
| HATCH COVERS | Material ... | W.P. | As | Steel | |
| | Thickness ... | 2 1/2" | As | .25 | |
| | How fitted | Shuntship | No 1 | Hinged | |
| | Bearing Surface | 2 1/2" | No 1 | | |
| Spacing of Cleats | | 24" | ↓ | ✓ | |
| Number of Tarpaulins | | 2 | ↓ | ✓ | |
| <p>*Are wood fore and afters steel shod at all bearing surfaces? <i>Yes</i></p> <p>Are battens and wedges efficient and in good condition? <i>Yes</i></p> <p>Are tarpaulins in good condition and in accordance with rule requirements? <i>Yes</i></p> <p>Are lashings provided in accordance with rule requirements? <i>Yes</i></p> | | | | | |

Particulars of fiddle, funnel and ventilator coamings:—

Fiddle Gratings covered by hinged steel covers.
Boiler room ventilators
Engine room skylight of wood. solid construction.

Particulars of Flush Bunker Scuttles:—

NONE.

Particulars of Companionways:—

NONE.

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

wood plugs
Canvas covers fitted
one vent on Fore Deck. 6" dia. Coaming 18" x 20 To Crew.
one " " MAIN " 10" " " 8'8" x 30 To Hold. supported to Forecastle front.
one " " Bridge " 10" " " 3'0" x 25 " "
Two mushroom Vents on Bridge St. 6" dia. C.I. Coaming 7" high. To Captain's Accommt.
one vent on Bridge St. 6" dia. Coaming 6" high x 18. To Captain's " "
one vent on R.D. Dk. 6" dia " 12" " x 20. To aft Store.

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

one on Forecastle Deck. 1 1/2" dia x 13 1/2" to mouth. To Fore Peak Tank.
wood plug fitted

Particulars of Gangway Cargo and Coaling Ports:—

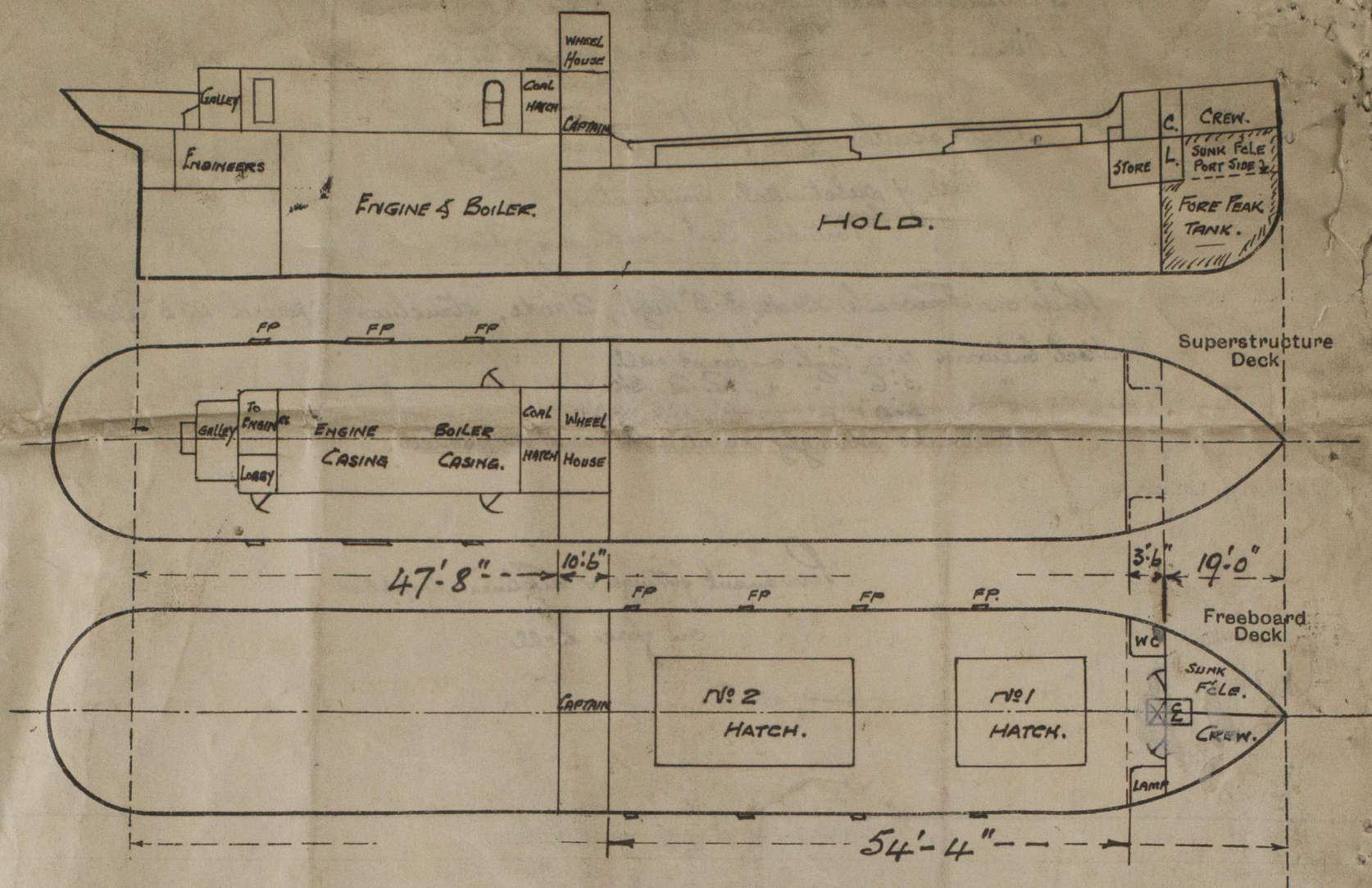
NONE.



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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:—

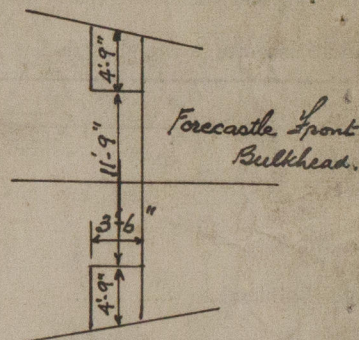


State any special features in the construction of the ship:—

Stylights on R.D. Sk. to Engineer's Account.
3'-5" x 1'-10" x 14" Coaming x .25 Steel.
1 1/2" Sole's wood top, hinged, 2 bulleyes.

The vessel has been examined in Dry Dock.
for freeboard, & damage, which has now been repaired.

Equip. for 18 Kts.
✓ 22.5 - 11.75 x 3.5
21.25 ✓
22.5 - 1.94 ✓
= 20.56 ✓
Burkang 8.94 ✓



Builder's name and yard number

Cochrane & Sons, Selby.

Names of sister ships

Owners

W. Barney.

Fee £

5 : 2 : —

Received by me



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