

— T I M B E R —

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

 Index No. _____
 (For London Office only.)

| | | | | | | |
|--|---|----------------------------------|---------------------------------|------------------------|-------------------------------------|--|
| Computation of Freeboard for Steamer, Sailing Ship, Tanker | | | | | Port of Survey _____ | |
| having <u>Prop, Bridge & Fcsl.</u> | | | | | Date of Survey <u>29. 11. 34</u> | |
| (Type of Superstructures.) | | | | | Name of Surveyor _____ | |
| Ship's Name <u>HARDINGHAM.</u> | Nationality and Port of Registry <u>British London</u> | Official Number <u>163310</u> | Gross Tonnage <u>5414.71</u> | Date of Build _____ | Particulars of Classification _____ | |
| Moulded Dimensions: Length | Breadth | Depth | | | | |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons | | | | | | |
| Coefficient of fineness for use with Tables _____ | | | | | | |

| Depth for Freeboard (D) | Depth correction | Round of Beam correction |
|---|---|--|
| Moulded depth | (a) Where D is greater than Table depth (D - Table depth) R = $(28.79 - 28.40) 3.00$ $= + 1.17$ | Moulded Breadth (B) Standard Round of Beam = $\frac{B \times 12}{50} =$ Ship's Round of Beam = |
| Stringer plate | (b) Where D is less than Table depth (if allowed) (Table depth - D) R = | Difference Restricted to |
| Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ | If restricted by superstructures | Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = - .03''$ |
| Depth for Freeboard (D) = <u>28.79</u> | | |

DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) |
|----------------------------|-------------------------|--|--------|-------------------|----------------------|
| 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 | | | | | |

Standard Height of Superstructure _____

 " " R.Q.D. _____

Deduction for complete superstructure 42.00

Percentage covered $\frac{S}{L} =$

 " " $\frac{S_1}{L} =$

 " " $\frac{E}{L} = 81.86$

Percentage from Table, Line A. Timber 88.66%
(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 = $42.00 \times .8866 = - 37.23''$

SHEER CORRECTION.

| Station | Standard Ordinate | S | M | Product | Actual Ordinate | Effective Ordinate | S | M | Product |
|---------------------------------|-------------------|---|---|---------|-----------------|--------------------|---|---|---------|
| A.P. | | 1 | | | | | 1 | | |
| $\frac{1}{8}L$ from A.P. | | 4 | | | | | 4 | | |
| $\frac{3}{8}L$ " | | 2 | | | | | 2 | | |
| Amidships | | 4 | | | | | 4 | | |
| $\frac{3}{8}L$ from F.P. | | 2 | | | | | 2 | | |
| $\frac{1}{8}L$ " | | 4 | | | | | 4 | | |
| F.P. | | 1 | | | | | 1 | | |
| Total | | | | | | | | | |

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = - 2.22''$

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.

Ft.

Depth to Freeboard Deck = 28.79

Summer freeboard = 3.79

Moulded draught (d) = 25.00

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 6.25''

Addition for Winter North Atlantic Freeboard (if required) = $\frac{2}{3} = 8.33'' = 8\frac{1}{4}''$ ✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 12932$

Tons per inch immersion at summer load water line

$T = 47.42$

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

= $6.82 = 6\frac{3}{4}''$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

| | + | - |
|---|--------------|--------------|
| Depth Correction | 1.17 | - |
| Deduction for superstructures | - | 37.23 |
| Sheer correction | - | 2.22 |
| Round of Beam correction | - | .03 |
| Correction for Thickness of Deck amidships | - | - |
| Other corrections, scantlings, etc. | - | - |
| Total | 1.17 | 39.48 |
| Summer Freeboard = | 45.45 | |

83.76

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

| Line | Height |
|---|-------------------------------------|
| Tropical Fresh Water Line above Centre of Disc | <u>17$\frac{1}{2}''$</u> |
| Fresh Water Line " " | <u>11$\frac{1}{4}''$</u> |
| Tropical Line " " | <u>10$\frac{3}{4}''$</u> |
| Winter Line below " " | <u>3$\frac{3}{4}''$</u> |
| Winter North Atlantic Line " " | <u>6$\frac{1}{4}''$</u> |

| Line | Height |
|---------------------------------------|------------------------------------|
| Tropical Fresh Water Freeboard | <u>2$\frac{1}{2}''$</u> |
| Fresh Water " " | <u>3$\frac{1}{4}''$</u> |
| Tropical " " | <u>3$\frac{1}{4}''$</u> |
| Winter " " | <u>4$\frac{1}{4}''$</u> |
| Winter North Atlantic " " | <u>4$\frac{1}{4}''$</u> |

Particulars of Scuppers and Sanitary Discharge Pipes :—

Particulars of Side Scuttles :—

Particulars of Guard Rails :—

Particulars of Gangways, Lifelines, etc. :—

RETAIN

| 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 } After Well :— (F. and A. position and height above deck edge) } Forward Well :— 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 | | | | | | | | |
| Raised Quarter Deck Bulkhead ... | | | | | | | | |
| Bridge, After Bulkhead | | | | | | | | |
| Bridge, Forward Bulkhead | | | | | | | | |
| Forecastle Bulkhead | | | | | | | | |
| Trunk, Aft | | | | | | | | |
| Trunk, Forward | | | | | | | | |
| Exposed Machinery Casings on Free-board or Raised Quarter Decks ... | | | | | | | | |
| Exposed Machinery Casings on Super-structure Decks | | | | | | | | |
| Machinery Casings within Superstruc-tures 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 | | | | | | | | |
| Raised Quarter Deck Bulkhead ... | | | | | | | | |
| Bridge, After Bulkhead | | | | | | | | |
| Bridge, Forward Bulkhead | | | | | | | | |
| Forecastle Bulkhead | | | | | | | | |
| Exposed Machinery Casings on Free-board or Raised Quarter Decks ... | | | | | | | | |
| Exposed Machinery Casings on Super-structure Decks | | | | | | | | |
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