

Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.
(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

| Ship's Name | Official Number | Nationality and Port of Registry | Gross Tonnage | Date of Build | Port of Survey |
|--|-----------------|----------------------------------|---------------|---------------|---|
| MITSUI 563-4 | | | | | |
| Moulded Dimensions: Length <u>46.6.9'</u> ✓ Breadth <u>63.32'</u> ✓ Depth <u>31.17'</u> ✓ T.C. of R/S Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons Coefficient of fineness for use with Tables <u>713 (assumed)</u> ✓ <u>68</u> | | | | | Date of Survey <u>20/12/50</u> Surveyor's Signature _____ Particulars of Classification _____ |

| DEPTH FOR FREEBOARD (D). | DEPTH CORRECTION. | ROUND OF BEAM CORRECTION. |
|------------------------------------|--|--|
| Moulded depth 31.17 | (a) Where D is greater than Table depth (D - Table depth) R = (31.21 - 31.12) 3 = + .27" ✓ | Moulded Breadth (B) 63.32 |
| Stringer plate04 | (b) Where D is less than Table depth (if allowed) (Table depth - D) R = ✓ | Standard Round of Beam = $\frac{B \times 12}{50} = 15.20$ ✓ |
| Sheathing on exposed deck | | Ship's Round of Beam = 3.94 ✓ |
| T $\left(\frac{L-S}{L} \right) =$ | | Difference 11.26 ✓ |
| Depth for Freeboard (D) = 31.21 ✓ | If restricted by superstructures ✓ | Restricted to |
| | | Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{11.26}{4} \times .0054 = + .02"$ ✓ |

DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S.) | Height | Height Correction | Effective Length (E) |
|----------------------------|-------------------------------|---------------------------------------|--------|----------------------|-------------------------|
| Poop enclosed | 24.99 | 24.99 | | / | 24.99 |
| „ overhang | 2.00 | 1.00 | | / | 1.00 |
| R.Q.D. enclosed | | | | | |
| „ overhang | | | | | |
| Bridge enclosed | | | | | |
| „ overhang aft | 435.91 | 435.91 | 7.515 | / | 435.91 |
| „ overhang forward | | | | | |
| F'cle enclosed | | | | | |
| „ overhang | | | | | |
| Trunk aft | | | | | |
| „ forward | | 1/2 def. | | | |
| Tonnage opening aft | 4.00 | 2.50 | | / | 2.50 |
| „ „ forward | | | | | |
| Total | 466.90 | 464.40 | | | 464.40 |

Standard Height of Superstructure 7.5 ✓

” ” R.Q.D. ✓

Deduction for complete superstructure 42.00" ✓

Percentage covered $\frac{S}{L} = 100$

” ” $\frac{S_1}{L} = \left. \begin{array}{l} \\ \\ \end{array} \right\} 99.46$

” ” $\frac{E}{L} =$

Percentage from Table, Line A. 99.33

~~(corrected for absence of forecastle (if required))~~

Percentage from Table, Line B.

~~(corrected for absence of forecastle (if required))~~

Interpolation for bridge less than $\cdot 2L$ (if required)

Deduction = $42.00 \times .9933 = -41.72$ "

SHEER CORRECTION.

| Station | Standard Ordnate | S M | Product | Actual Ordnate | Effective Ordnate | S M | Product |
|---------------------------|---------------------|--------|---------|-----------------------------|---------------------------|--------|---------|
| A.P. ... | ✓ 56.69 | 1 | 56.69 | + 24.18 28.00 | 80.18 93.48 | 1 | 93.18 |
| $\frac{1}{8}$ L from A.P. | X 20.78 | 4 | 83.12 | 30.00 | 41.47 | 4 | 165.88 |
| $\frac{2}{8}$ L " " | X 5.14 | 2 | 10.28 | 8.00 | 10.25 | 2 | 20.50 |
| Amidships ... | X | 4 | X | ✓ | ✓ | 4 | ✓ |
| $\frac{2}{8}$ L from F.P. | X 16.27 | 2 | 20.54 | 15.00 | 17.18 | 2 | 34.36 |
| $\frac{1}{8}$ L " " | X 41.56 | 4 | 166.24 | 60.00 | 69.50 | 4 | 278.00 |
| F.P. ... | ✓ 113.32 | 1 | 113.38 | 112.00 | 156.18 | 1 | 156.18 |
| Total ... | 510.21 | | 450.25 | + 24.18 | 1136.18 | | 748.18 |

[illegible]

Deduction for Tropical Freeboard.
Addition for Winter and Winter North Atlantic
Freeboard.

| | | |
|-------------------------|---|--------------|
| | | Ft. |
| Depth to Freeboard Deck | = | 31.21 |
| Summer freeboard | = | 4.08 |
| Moulded draught (d) | = | <u>27.13</u> |

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

**Deduction for
Water.**

Displacement in salt water at summer load water line
 $\Delta =$
 Tons per inch immersion at summer load water line
 T —

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

TABULAR FREEBOARD ~~corrected for Flush Deck (if required)~~

| | | | |
|--|--------|------------------|--------------------|
| Correction for coefficient | 1.36 | 1.36 | 94.57 |
| Depth Correction | 0.27 | ✓ | 92.36 |
| Deduction for superstructures | ✓ | 41.72 | ✓ |
| Sheer correction | ✓ | 1.93 | ✓ |
| Round of Beam correction | 0.02 | ✓ | ✓ |
| Correction for Thickness of Deck amidships | ✓ | ✓ | ✓ |
| Other corrections, scantlings, etc. | ✓ | 42.65 | 43.36 |
| | ✓ 0.29 | 45.86 | - 45.57 |
| Summer Freeboard = | | | 49.1 |

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

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

A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

$$\frac{B_1 - b}{B_1} = \frac{16.000 - 7.000}{16.000} = \frac{9.000}{16.000} = .562$$

Trade of ship _____

Names of sister ships _____

Builder's name and yard number _____

Owners _____

Fee £ _____



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Foundation