

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

 Index No. **35306.**
 (For London Office only).

| | | | | | |
|----------------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------|---------------|---------------|---------------------------------------------------------------------|
| Ship's Name M.S. "TON S" | Official Number | Nationality and Port of Registry Dutch Rotterdam. | Gross Tonnage | Date of Build | Port of Survey Rotterdam. |
| Moulded Dimensions: Length 48.50 M. Breadth 8.00 M. Depth 3.60 M. | | | | | Date of Survey Building. |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons | | | | | Surveyor's Signature L. VUYK. |
| Coefficient of fineness for use with Tables .758. | | | | | Particulars of Classification 100 A1. (Contemplated). |

| Depth for Freeboard (D). | Depth correction. | Round of Beam correction. |
|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Moulded depth | (a) Where D is greater than Table depth (D - Table depth) R = | Moulded Breadth (B) |
| Stringer plate | = +39 m.m. | Standard Round of Beam = $\frac{B \times 12}{50} =$ |
| Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ | (b) Where D is less than Table depth (if allowed) (Table depth - D) R = <input checked="" type="checkbox"/> | Ship's Round of Beam = |
| Depth for Freeboard (D) = 3.61 | If restricted by superstructures <input checked="" type="checkbox"/> | Difference |
| | | Restricted to |
| | | Correction = $\frac{\text{Diff}^e}{4} \times \left(1 - \frac{S_1}{L} \right) = \text{NIL.}$ |

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 | 19.62 | 19.62 | | | 19.62 |

Standard Height of Superstructure **1.83 m.**
 „ „ R.Q.D. **1.032 m.**
 Deduction for complete superstructure **557 mm.**
 Percentage covered $\frac{S}{L} = 40.45$
 „ „ $\frac{S_1}{L} = 40.45$
 „ „ $\frac{E}{L} = 40.45$
 Percentage from Table, Line A. **TIMBER = 63.28**
 (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 = **557 x .6328 = 352 m.m.**

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 | | |
| $\frac{2}{8}L$ „ | | 2 | | | | | 2 | | |
| Amidships | | 4 | | | | | 4 | | |
| $\frac{2}{8}L$ from F.P. | | 2 | | | | | 2 | | |
| $\frac{1}{8}L$ „ | | 4 | | | | | 4 | | |
| F.P. | | 1 | | | | | 1 | | |
| Total | | | | | | | | | |

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) =$
 If limited on account of midship superstructure. **Yes. No allowance.**

Mean actual sheer aft =
 Mean standard sheer aft =
 Mean actual sheer forward =
 Mean standard sheer forward =
 Length of enclosed superstructure forward of amidships =
 „ „ aft of „ =

= -8 m.m.
 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 = **3.61**
 Summer freeboard = **.14**
 Moulded draught (d) = **3.47**

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{48}$ inches = **72 m.m.**
 = **7 cms.**
 Addition for Winter North Atlantic Freeboard (if required) = $\frac{d}{36}$ = **96 m.m. = 10 cms.**

Deduction for Fresh Water.

Displacement in salt water at summer load water line
 $\Delta = 1046.1 \text{ M}^3$
 Tons per inch immersion at summer load water line
 $T = 3.505 \text{ M}^3 \text{ per cm.}$
 Deduction = $\frac{\Delta}{40 T}$ inches
 = **45 m.m.**
 = **8 cms.**

TABULAR FREEBOARD corrected for Flush Deck (if required)
 Correction for coefficient

Depth Correction
 Deduction for superstructures
 Sheer correction
 Round of Beam correction... ..
 Correction for Thickness of Deck amidships
 Other corrections, scantlings, etc.

| + | - |
|----|-----|
| 39 | - |
| - | 352 |
| - | - |
| - | - |
| - | - |
| - | - |
| 39 | 352 |

Summer Freeboard = **134 m.m.**

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

| TIMBER | Tropical Fresh Water Line above Centre of Disc | 36 cms | TIMBER | Tropical Fresh Water Freeboard | 14 cms. |
|--------|------------------------------------------------|--------|--------|--------------------------------|---------|
| „ | Fresh Water Line | 30 | „ | Fresh Water | NIL |
| „ | Tropical Line | 29 | „ | Tropical | 6 |
| „ | Winter Line | 12 | „ | Winter | 4 |
| „ | Winter North Atlantic Line | 12 | „ | Winter North Atlantic | 24 |
| „ | SUMMER | 22 | „ | | 48 |