

Basic Computation for scantling purposes
as F.S. Ship. (F.D.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Index. No. 36834
(For London Office only).

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|--|-----------------|----------------------------------|---------------|---------------|--|
| Ship's Name <i>Greenwich Dry D. Co. Ltd</i> <i>Yard No 454</i> | Official Number | Nationality and Port of Registry | Gross Tonnage | Date of Build | Port of Survey |
| Moulded Dimensions: Length <i>470.9</i> Breadth <i>65.5</i> Depth <i>assumed 40.38</i> ✓ <i>Actual of midship store</i> ✓ (40.75 actual) | | | | | Date of Survey <i>20-4-42</i> |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth tons | | | | | Surveyor's Signature |
| Coefficient of fineness for use with Tables <i>✓ 696 (estimated)</i> | | | | | Particulars of Classification <i>100 HT with plates</i> (Contemp later) |

| | | |
|---|--|--|
| Depth for Freeboard (D). Moulded depth ... <i>✓ 40.38</i> Stringer plate ... <i>✓ .07</i> Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <i>✓ 40.45</i> | Depth correction. (a) Where D is greater than Table depth (D-Table depth) R = <i>✓ (40.45 - 31.39) 3 = + 27.18</i> <i>9.06</i> (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) Standard Round of Beam = $\frac{B \times 12}{50} =$ Ship's Round of Beam = Difference <i>assumed standard</i> ✓ Restricted to Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) =$ <i>Nil</i> ✓ |
|---|--|--|

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
Percentage covered $\frac{S}{L} =$
„ $\frac{S_1}{L} =$
„ $\frac{E}{L} =$
Percentage from Table, Line A.
(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 = *Nil* ✓

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 ... | | | | | | | | | |

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 „ =
Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ *Nil* ✓
If limited on account of midship superstructure.

| | | | |
|--|--|---|--|
| Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard. Ft. Depth to Freeboard Deck = <i>✓ 40.45</i> Summer freeboard = <i>✓ 10.15</i> Moulded draught (d) = <i>✓ 30.30</i> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 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 $\frac{.696+.68}{1.36} = \frac{1.376}{1.36} =$ <i>✓</i> Depth Correction ... <i>✓ 27.18</i> - Deduction for superstructures ... - Sheer correction ... - Round of Beam correction ... - Correction for Thickness of Deck amidships ... - Other corrections, scantlings, etc. ... <i>✓ 27.18</i> - Summer Freeboard = <i>121.84</i> | <i>93.57</i> ✓ <i>94.66</i> ✓ <i>+ 27.18</i> ✓ |
|--|--|---|--|

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 „ „ ... | ... |