

Timber W136

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

| | | | | | |
|--|-----------------|--|------------------------------|------------------------------|---|
| Ship's Name HANNAH | Official Number | Nationality and Port of Registry <i>Dutch Rotterdam</i> | Gross Tonnage 3730 | Date of Build 1913 | Port of Survey 4.6.37. |
| Moulded Dimensions: Length 350.0 Breadth 49.79 Depth 26.05 | | | | | Surveyor's Signature |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth 8859 tons | | | | | Particulars of Classification + 100TH. |
| Coefficient of fineness for use with Tables .803 | | | | | |

Depth for Freeboard (D).
Moulded depth ... **26.05**
Ringer plate ... **.04**
Catching on exposed deck
 $T \left(\frac{L-S}{L} \right) =$ **✓**
Depth for Freeboard (D) = **26.09**

Depth correction.
(a) Where D is greater than Table depth
(D - Table depth) R = **26.09 - 23.33 = +7.43**
(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) **49.79**
Standard Round of Beam = $\frac{B \times 12}{50} = \frac{11.95}{50} = 15.00$
Ship's Round of Beam = **3.05**
Difference
Restricted to $\frac{3.05}{4} (1 - 0.112) = 0.23$
Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = -0.23$

DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) |
|-------------------------|-------------------------|--|--------|-------------------|----------------------|
| Poop enclosed ... | 43.67 | 43.67 | 7.5 | - | 43.67 |
| " overhang ... | | | | | |
| R.Q.D. enclosed ... | | | | | |
| " overhang ... | 165.28 | 165.28 | 2.5 | - | 165.28 |
| Bridge enclosed ... | | | | | |
| " overhang aft ... | | | | | |
| " overhang forward ... | 35.5 | 35.25 | 2.5 | - | 35.25 |
| F'cle enclosed ... | | | | | |
| " overhang ... | | | | | |
| Trunk aft ... | | | | | |
| " forward ... | | | | | |
| Tonnage opening aft ... | | | | | |
| " forward ... | | | | | |
| Total ... | 244.45 | 244.20 | | | 244.20 |

Standard Height of Superstructure **7.0**
" " R.Q.D. **5.333**
Deduction for complete superstructure **38.67**
Percentage covered $\frac{S}{L} = \frac{69.84}{69.77} = 69.77$
" " $\frac{S_1}{L} = \frac{69.77}{69.77} = 69.77$
Percentage from Table, Line *Timber* **81.36**
(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 = **38.67 × 81.36 = -31.46**

SHEER CORRECTION.

| Station | Standard Ordinate | S | M | Product | Actual Ordinate | Effective Ordinate | S | M | Product |
|---------------------|-------------------|---|---|---------|-----------------|--------------------|---|---|---------|
| A.P. ... | 45.00 | 1 | | 45.00 | 60.00 | 60.00 | 1 | | 60.00 |
| 1/4 L from A.P. ... | 20.02 | 4 | | 80.08 | 26.07 | 26.07 | 4 | | 104.28 |
| 1/2 L ... | 4.95 | 2 | | 9.90 | 6.50 | 6.50 | 2 | | 13.00 |
| Amidships ... | - | 4 | | - | - | - | 4 | | - |
| 3/4 L from F.P. ... | 9.90 | 2 | | 19.80 | 13.00 | 13.00 | 2 | | 26.00 |
| 1/4 L ... | 40.04 | 4 | | 160.16 | 52.14 | 52.14 | 4 | | 208.56 |
| F.P. ... | 90.00 | 1 | | 90.00 | 120.00 | 120.00 | 1 | | 120.00 |
| Total ... | | | | 404.94 | | | | | 531.84 |

Mean actual sheer aft = *Secur*
Mean standard sheer aft = *Secur*
Mean actual sheer forward = *Secur*
Mean standard sheer forward = *Secur*

Length of enclosed superstructure forward of amidships = **> .1L**
" " aft of " = **> .1L**

$$\frac{126.90}{18} (0.75 - 0.3492) = -2.83$$

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75 - S}{2L} \right) = -2.83$
If limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

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

Depth to Freeboard Deck = **26.09**
Summer freeboard = **2.878**
Moulded draught (d) = **23.201**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **5.8 = 14.72**

Addition for Winter North Atlantic Freeboard (if required) = $\frac{d}{3} = 7.73 = 19.67$

Deduction for Fresh Water.

Displacement in salt water at summer load water line

Δ =

Tons per inch immersion at summer load water line

T =

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

$\frac{d}{4} = 15 \text{ cm}$

TABULAR FREEBOARD corrected for Flush Deck (if required)
Correction for coefficient $\frac{803 + 68}{1.36} = \frac{1.483}{1.36} = 56.50$

| | + | - |
|--|------|-------------|
| Depth Correction ... | 7.43 | - |
| Deduction for superstructures ... | - | 31.46 |
| Sheer correction ... | - | 2.83 |
| Round of Beam correction ... | - | .23 |
| Correction for Thickness of Deck amidships ... | - | - |
| Other corrections, scantlings, etc. ... | - | - |
| Summer Freeboard = | 7.43 | 34.52 = 872 |

Timber SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, *Timber* Steel, Deck: **88 cm**
Timber Tropical Fresh Water Freeboard ... **58**
Timber Fresh Water ... **73**
Timber Tropical ... **73**
Timber Winter ... **108**
Timber Winter North Atlantic ... **118**
Timber Summer **19**

8 JUN 1937

10m 3.87. T.