

Amended computation.

B.T. COPY.

Index. No. 17215
(For London Office only).

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

| | | | | | |
|--|----------------------------------|--|---|--------------------------------|---|
| Ship's Name LEWBAY | Official Number 109684 | Nationality and Port of Registry British, Belfast. | Gross Tonnage | Date of Build 1904-7 | Port of Survey |
| Moulded Dimensions: Length 182.83 ✓ Breadth 28.50 ✓ Depth 13.75 ✓ | | | | | Date of Survey 24.8.42. |
| Moulded displacement at moulded draught = 85 per cent. of moulded depth 1256 ✓ tons | | | | | Surveyor's Signature |
| Coefficient of fineness for use with Tables .722 ✓ | | | | | Particulars of Classification + 100 A1 |
| Depth for Freeboard (D). Moulded depth ... 13.75 Stringer plate04 Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ Depth for Freeboard (D) = 13.79 ✓ | | | Depth correction. (a) Where D is greater than Table depth (D - Table depth) R = (13.79 - 12.19) 1.407 = +2.25 ✓ 1.60 (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) 28.50 Standard Round of Beam = $\frac{B \times 12}{50} =$ 6.84 Ship's Round of Beam = 8 ✓ Difference 1.16 ✓ Restricted to Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) =$.29 x .255 = -.07 ✓ |

DEDUCTION FOR SUPERSTRUCTURES.

| | Mean Covered Length (S) | Equivalent Enclosed Length (S ₁) | Height | Height Correction | Effective Length (E) | |
|----------------------------------|-------------------------|--|--------|-------------------|----------------------|--|
| Poop enclosed ... | 17.0 ✓ | 17.0 | 5.2 | - | 17.00 | Standard Height of Superstructure 6.00 ✓ |
| „ overhang ... | | | | | | „ „ R.Q.D. 3.55 ✓ |
| R.Q.D. enclosed ... | 82.50 ✓ | 82.50 | 4.0 | - | 82.50 | Deduction for complete superstructure 24.28 ✓ |
| „ overhang ... | | | | | | Percentage covered $\frac{S}{L} =$ 74.17 |
| Bridge enclosed ... | 11.00 ✓ | 11.00 | 7.25 | - | 11.00 | „ $\frac{S_1}{L} =$ 74.414 |
| „ overhang aft ... | | | | | | „ $\frac{E}{L} =$ 74.414 |
| „ overhang forward | | | | | | Percentage from Table, Line A. (corrected for absence of forecastle (if required)) 68.51 ✓ |
| F'cle enclosed Equiv. ... | 25.10 ✓ | 25.10 | 7.25 | - | 25.10 | Percentage from Table, Line B. (corrected for absence of forecastle (if required)) |
| „ overhang ... | 1.14 | .57 | | | .57 | Interpolation for bridge less than .2L (if required) ✓ |
| Trunk aft ... | .98 | .49 | | | .49 | Deduction = 24.28 x .6851 = -16.59 ✓ |
| „ forward ... | | | | | | |
| Tonnage opening aft ... | | | | | | |
| „ „ forward | .58 | .09 | | | .09 | |
| Total ... | 136.17 | 136.17 | | | 136.17 | |

SHEER CORRECTION.

| Station | Standard Ordinate | S | M | Product | Actual Ordinate | Effective Ordinate | S | M | Product | |
|---|-------------------|---|---|---------|-----------------|--------------------|---|---|---------|---|
| A.P. ... | 28.28 | 1 | | 28.28 | 32.00 | 28.28 | 1 | | 28.28 | Mean actual sheer aft = EXCESS ✓ |
| 1/2 L from A.P. ... | 12.58 | 4 | | 50.32 | 11.85 | 12.58 | 4 | | 50.32 | Mean actual sheer forward = DEFICIENT ✓ |
| 1/2 L „ ... | 3.11 | 2 | | 6.22 | 2.96 | 3.11 | 2 | | 6.22 | Mean standard sheer aft |
| Amidships ... | - | 4 | | - | - | - | 4 | | - | Mean standard sheer forward |
| 1/4 L from F.P. ... | 6.22 | 2 | | 12.44 | 6.12 | 6.12 | 2 | | 12.24 | Length of enclosed superstructure forward of amidships = 105 L ✓ |
| 1/2 L „ ... | 25.17 | 4 | | 100.68 | 24.49 | 24.49 | 4 | | 97.96 | „ „ aft of „ = 50 L ✓ |
| F.P. ... | 56.56 | 1 | | 56.56 | 53.00 | 53.00 | 1 | | 53.00 | |
| Total ... | | | | 254.50 | | | | | 248.02 | |
| Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) =$ $\frac{6.48(.75-.374)}{18} = +.14$ ✓ | | | | | | | | | | |
| If limited on account of midship superstructure. ✓ | | | | | | | | | | |

| | | | |
|---|--|---|----------------|
| Deduction for Tropical Freeboard. | Deduction for Fresh Water. | TABULAR FREEBOARD corrected for Flush Deck (if required) | |
| Addition for Winter and Winter North Atlantic Freeboard. | Displacement in salt water at summer load water line | Correction for coefficient $\frac{.722 + .68}{1.36} =$ $\frac{1.402}{1.36}$ ✓ | 20.25 ✓ |
| Depth to Freeboard Deck = 17.79 Ft. | $\Delta =$ 1472 | Depth Correction ... 2.25 ✓ | 20.88 ✓ |
| Summer freeboard = 4.554 | Tons per inch immersion at summer load water line | Deduction for superstructures ... 16.59 ✓ | |
| Moulded draught (d) = 13.245 | T = 10.4 | Sheer correction14 ✓ | |
| Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 3.31 = 3 3/4 ✓ | Deduction = $\frac{\Delta}{40 T}$ inches = 3.54 ✓ | Round of Beam correction07 ✓ | |
| Addition for Winter North Atlantic Freeboard (if required) = +2 ✓ | 3 1/2 ✓ | Correction for Thickness of Deck amidships ... 48.00 ✓ | |
| | | Other corrections, scantlings, etc. ... 9 ✓ | |
| | | Summer Freeboard = 54.64 ✓ | |

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

| | |
|---|--|
| Tropical Fresh Water Line above Centre of Disc ... 6 3/4 ✓ | Tropical Fresh Water Freeboard ... 3 - 11 3/4 ✓ |
| Fresh Water Line „ „ ... 3 1/2 ✓ | Fresh Water „ „ ... 4 - 3 ✓ |
| Tropical Line „ „ ... 3 1/4 ✓ | Tropical „ „ ... 4 - 3 1/4 ✓ |
| Winter Line below „ „ ... 3 1/4 ✓ | Winter „ „ ... 4 - 9 3/4 ✓ |
| Winter North Atlantic Line „ „ ... 5 1/4 ✓ | Winter North Atlantic „ „ ... 4 - 11 3/4 ✓ |

48 AUG 1942

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.

POSITION OF EQUIVALENT FOC'LE BHD

From Deck line at Side.

Area on Deck.

$$\begin{aligned}
 3.25 \times .25 &= .81 \checkmark \\
 1.25 \times .25 &= .31 \checkmark \\
 1.25 \times 1.83 \times .5 &= 1.14 \checkmark \\
 2.33 \times 5.42 &= 12.63 \checkmark \\
 10.67 \times .83 &= 8.86 \checkmark \\
 4.83 \times 3.17 &= 15.31 \checkmark \\
 3.08 \times .25 &= .77 \checkmark \\
 &= 39.83 \text{ sq. ft.}
 \end{aligned}$$

$$\text{BREADTH} = 25.42 \checkmark$$

$$\text{EQUIVALENT OVERHANG} = 1.57 \checkmark$$

$$26.67$$

$$\text{EQUIV. ENCLOSED LENGTH} = 25.10 \text{ Ft. } \checkmark$$

EQUIVALENT LINE OF DECK OVER.

From Deck line at side

$$\begin{aligned}
 .35 \times .58 \times .5 &= .10 \\
 18.49 \times .58 &= 10.72 \\
 &= 10.82 \\
 \text{BREADTH} &= 25.42 \\
 &= 1.43 \\
 &= 1.57 \\
 \text{OVERHANG} &= 1.14 \text{ Ft.}
 \end{aligned}$$

$$\begin{aligned}
 \text{Length to deck edge at centre} &= 26.08' \\
 \text{Equiv enclosed length} &= 25.10' \\
 &= 98'
 \end{aligned}$$

Trade of ship.....

Names of sister ships.....

Builder's name and yard number.....

Owners.....

Fee £.....



© 2021

Lloyd's Register
Foundation