

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

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

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having complete superstructure with Tonnage Opening.

(Type of Superstructures.)

| | | | | |
|---------------------------------|----------------------------------|-----------------|---------------|---------------|
| Ship's Name <u>Dominica.</u> | Nationality and Port of Registry | Official Number | Gross Tonnage | Date of Build |
|---------------------------------|----------------------------------|-----------------|---------------|---------------|

Moulded Dimensions: Length 475.0 Breadth 58.75 Depth 32.75 to 2nd shk.
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons
Coefficient of fineness for use with Tables .769

Port of Survey _____
Date of Survey 14/2/34
Name of Surveyor _____
Particulars of Classification 10171 with plow

| | | |
|--|--|---|
| <p>Depth for Freeboard (D)</p> <p>Moulded depth <u>32.75</u></p> <p>Stringer plate <u>.04</u></p> <p>Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$ <u>✓</u></p> <p>Depth for Freeboard (D) = <u>32.79</u></p> | <p>Depth correction</p> <p>(a) Where D is greater than Table depth (D-Table depth) R = <u>(32.79-31.64) 3 = + 3.36</u></p> <p>(b) Where D is less than Table depth (if allowed) (Table depth-D) R = _____</p> <p>If restricted by superstructures</p> | <p>Round of Beam correction</p> <p>Moulded Breadth (B) = <u>58.75</u></p> <p>Standard Round of Beam = $\frac{B \times 12}{50} =$ <u>14.10</u></p> <p>Ship's Round of Beam = <u>14.50</u></p> <p>Difference <u>Eyes</u> <u>.40</u></p> <p>Restricted to</p> <p>Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) =$ <u>$\frac{.40}{4} \times .0047 = .01175$</u></p> |
|--|--|---|

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 | 440.50 | 470.50 | 8.0 | ✓ | 470.50 |
| " overhang aft | | | | | |
| " overhang forward | | | | | |
| F'cle enclosed | | | | | |
| " overhang | | | | | |
| Trunk aft | | | | | |
| " forward | | <u>1/2 diff</u> | | | |
| Tonnage opening aft | 4.50 | 2.25 | | | |
| " " forward | | | | | |
| Total | 475.00 | 472.75 | | | 472.75 |

Standard Height of Superstructure 7.50

" " R.Q.D. ✓

Deduction for complete superstructure 42.00

Percentage covered $\frac{S}{L} =$ 100.00

" " $\frac{S_1}{L} =$ 99.53

" " $\frac{E}{L} =$ 99.53

Percentage from Table, Line A. 99.42

(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 = 42.0 x .9942 = 41.75

SHEER CORRECTION.

| Station | Standard Ordinate | S M | Product | Actual Ordinate | Effective Ordinate | S M | Product |
|------------------------|-------------------|-----|---------|-----------------|--------------------|-----|---------------|
| A.P. | 57.50 | 1 | | <u>+6.00</u> | <u>37.50</u> | 1 | <u>43.50</u> |
| 1/8 L from A.P. | | 4 | | | <u>19.36</u> | 4 | <u>77.44</u> |
| 3/8 L " | | 2 | | | <u>4.78</u> | 2 | <u>9.56</u> |
| Amidships | | 4 | | | | 4 | |
| 5/8 L from F.P. | | 2 | | | <u>12.05</u> | 2 | <u>24.10</u> |
| 3/4 L " | | 4 | | | <u>48.43</u> | 4 | <u>194.92</u> |
| F.P. | 115.00 | 1 | | <u>+6.00</u> | <u>109.50</u> | 1 | <u>109.50</u> |
| Total | | | 517.50 | | | | 459.02 |

Mean actual sheer aft = Deficient
Mean standard sheer aft

Mean actual sheer forward = Deficient
Mean standard sheer forward

Length of enclosed superstructure forward of amidships = Deficient
" " aft of " = sheers.

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{58.48}{18} (.75 - .50) = + .81$

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 = 32.79 Ft.
Summer freeboard = 5.29
Moulded draught (d) = 27.50

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = 6.875 = 4"
Addition for Winter North Atlantic Freeboard (if required) = ✓

Deduction for Fresh Water.

Displacement in salt water at summer load water line

$\Delta = 17,000$ approx.

Tons per inch immersion at summer load water line

T = 56.5 approx.

Deduction = $\frac{\Delta}{40 T}$ inches
= 7.52 = 4 1/2"

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient .769 + .68 = 1.449
1.36 1.36

Depth Correction 3.36

Deduction for superstructures 41.75

Sheer correction81

Round of Beam correction ✓

Correction for Thickness of Deck amidships ✓

Other corrections, scantlings, etc. ✓

94.80

101.00

87B

17-2-37

41.75

34.58

Summer Freeboard = 63.42

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

Tropical Fresh Water Line above Centre of Disc 1 1/2"

Fresh Water Line " " 4 1/2"

Tropical Line " " 4"

Winter Line below " " 4"

Winter North Atlantic Line " " ✓

Tropical Fresh Water Freeboard 4' 11"

Fresh Water " " 4' 8"

Tropical " " 4' 8"

Winter " " 5' 10 1/2"

Winter North Atlantic " " ✓

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