

As a cargo vessel
For Scantlings Only

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <i>Sir J. Laing & Sons</i> <i>Jard Nos 789 & 800</i>	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length <i>491.00</i> Breadth <i>69.50</i> Depth <i>40.50</i>					Date of Survey <i>23.3.49</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					Surveyor's Signature
Coefficient of fineness for use with Tables <i>766 Estimated</i>					Particulars of Classification

DEPTH FOR FREEBOARD (D).

Moulded depth *40.50*

Stringer plate *.06*

Sheathing on exposed deck

$T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) = *40.56* ✓

DEPTH CORRECTION.

(a) Where D is greater than Table depth
(D-Table depth) R = *(40.56-32.73) 3 = +23.49* ✓

(b) Where D is less than Table depth (if allowed)
(Table depth-D) R = *7.83* ✓

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 = *Standard*

Difference

Restricted to

Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) =$ *NIL* ✓

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	<i>104.33</i>	<i>104.33</i>	<i>7.75</i>	✓	<i>104.33</i>
„ overhang					
R.Q.D. enclosed					
„ overhang					
Bridge enclosed	<i>37.97</i>	<i>37.97</i>	<i>7.50</i>	✓	<i>37.97</i>
„ overhang aft					
„ overhang forward					
Fore enclosed	<i>35.50</i>	<i>35.50</i>	<i>7.50</i>	✓	<i>35.50</i>
„ overhang					
Trunk aft					
„ forward					
Tonnage opening aft					
„ „ forward					
Total	<i>177.80</i>	<i>177.80</i>			<i>177.80</i>

Standard Height of Superstructure *7.50*

„ „ R.Q.D. ✓

Deduction for complete superstructure *42.00*

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

„ „ $\frac{S_1}{L} =$ *36.21* ✓ *unc 40%*

„ „ $\frac{E}{L} =$

Percentage from Table, Line A. *23.50* ✓

(corrected for absence of fore-castle (if required))

Percentage from Table, Line B. *27.50* ✓

(corrected for absence of fore-castle (if required))

Interpolation for bridge less than .2L (if required) *25.50* ✓

Deduction = *42.00 × .2550 = 10.71* ✓

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P.	<i>59.10</i>	1	<i>59.10</i>	<i>36.00</i>	<i>36.00</i>	1	<i>36.00</i>
$\frac{1}{2}$ L from A.P.	<i>26.30</i>	4	<i>105.20</i>	<i>3.00</i>	<i>3.00</i>	4	<i>12.00</i>
$\frac{2}{5}$ L „	<i>6.50</i>	2	<i>13.00</i>	—	—	2	—
Amidships	—	4	—	—	—	4	—
$\frac{3}{5}$ L from F.P.	<i>13.00</i>	2	<i>26.00</i>	—	—	2	—
$\frac{4}{5}$ L „	<i>52.60</i>	4	<i>210.40</i>	<i>2.50</i>	<i>2.50</i>	4	<i>10.00</i>
F.P.	<i>118.20</i>	1	<i>118.20</i>	<i>72.00</i>	<i>72.00</i>	1	<i>72.00</i>
Total			<i>531.90</i>				<i>130.00</i>

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 „ = *Shears.*

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{401.90}{18} \left(.75 - \frac{2000}{5500} \right) = +12.28$ ✓

If limited on account of midship superstructure. 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.**

Ft.

Depth to Freeboard Deck = *40.56*

Summer freeboard = *10.91*

Moulded draught (d) = *29.65*

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

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction *23.49*

Deduction for superstructures *10.71*

Sheer correction *12.28*

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

99.60 ✓

105.90 ✓

24.34

10.91

130.96 ✓

Summer Freeboard =

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 „ „