

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. 27663
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker

Port of Survey

Date of Survey 25. 10. 34

Name of Surveyor

Particulars of Classification +100 A1

(Type of Superstructures.)

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

Mangalore
Mathura

Moulded Dimensions: Length 478.16 Breadth 63.62 Depth 38.33
Moulded displacement at moulded draught = 85 per cent. of moulded depth 21130 tons
Coefficient of fineness for use with Tables .746

Depth for Freeboard (D)

Moulded depth ... 38.33
Ringer plate04
Heating on exposed deck
 $T \left(\frac{L-S}{L} \right) =$

Depth for Freeboard (D) = 38.37

Depth correction

(a) Where D is greater than Table depth
(D-Table depth) R = $(38.37 - 31.88) 3.00$
6.49
= + 19.47"
(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) 63.62
Standard Round of Beam = $\frac{B \times 12}{50} = \frac{63.62 \times 12}{50} = 15.27
Ship's Round of Beam = 16.00
Difference .73
Restricted to
Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.73}{4} \times .426 = -.08$$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<u>47.25</u>	<u>47.25</u>	<u>✓</u>		<u>47.25</u>
" overhang ...	<u>2.00</u>	<u>1.00</u>	<u>✓</u>		<u>1.00</u>
R.Q.D. enclosed ...					
" overhang ...					
Bridge enclosed...	<u>182.56</u>	<u>182.56</u>	<u>✓</u>		<u>182.56</u>
" overhang aft ...	<u>2.44</u>	<u>1.83</u>	<u>✓</u>		<u>1.83</u>
" overhang forward					
F'cle enclosed ...	<u>41.50</u>	<u>41.50</u>	<u>✓</u>		<u>41.50</u>
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward					
Total ...	<u>275.75</u>	<u>274.14</u>			<u>272.76</u>

Standard Height of Superstructure 7.50

" " R.Q.D. ✓

Deduction for complete superstructure 42

Percentage covered $\frac{S}{L} = \frac{275.75}{478.16} = 57.67\%$ ✓

" " $\frac{S_1}{L} = \frac{274.14}{478.16} = 57.34\%$ ✓

" " $\frac{E}{L} = \frac{272.76}{478.16} = 57.05\%$ ✓

Percentage from Table, Line A.
(corrected for absence of forecastle (if required))

Percentage from Table, Line B.
(corrected for absence of forecastle (if required)) 43.05%

Interpolation for bridge less than 2L (if required)

Deduction = $42 \times .4305 = - 18.08$ ✓

SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	<u>57.82</u>	1		<u>59.70</u>	<u>✓</u>	1	<u>59.70</u>
L from A.P. ...	<u>25.73</u>	4		<u>28.30</u>	<u>✓</u>	4	<u>113.20</u>
L " ...	<u>6.36</u>	2		<u>8.30</u>	<u>✓</u>	2	<u>16.60</u>
Amidships ...		4		<u>✓</u>		4	<u>✓</u>
L from F.P. ...		2		<u>17.90</u>	<u>✓</u>	2	<u>35.80</u>
L " ...		4		<u>59.90</u>	<u>✓</u>	4	<u>239.60</u>
F.P. ...	<u>105.64</u>	1		<u>128.70</u>	<u>✓</u>	1	<u>128.70</u>
Total ...			<u>520.38</u>				<u>593.54</u>

Mean actual sheer aft = Excess
Mean standard sheer aft

Mean actual sheer forward = Excess
Mean standard sheer forward

Length of enclosed superstructure forward of amidships = > .1L

" " aft of " = > .1L

Correction = $\frac{\text{Difference between sums of products}}{18} = \frac{593.54 - 520.38}{18} = \frac{73.16}{18} = 4.06$
If limited on account of midship superstructure.

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Ft.
Depth to Freeboard Deck = 38.37
Summer freeboard = 8.31.33
Moulded draught (d) = 30.0604

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

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

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction ...
Deduction for superstructures ...
Sheer correction ...
Round of Beam correction...
Correction for Thickness of Deck amidships ...
Other corrections, scantlings, etc. ...

	+	-
19.47		
- 18.08		
- 1.88		
- .08		
-		
- 20.04		
19.47	19.82	

Summer Freeboard = 98.66 99.83

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 " " ...	...

Shipping SURVEYS FOR FREEBOARD.

RETAIN

Musings section area

$$\begin{aligned} & (32.56 \times 63.62) - (.5 \times 31.81) - (3.25 \times 3.25) - (4. \dots) \\ & 2071 - 15.90 - 10.56 - 1 \\ & 2042.2 \times 3.75 = 2188 \end{aligned}$$

$(\dots) \times \Delta .4$

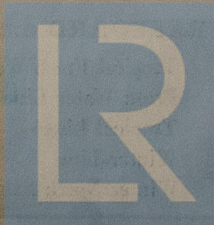
portion removed

$$\begin{aligned} \text{New D.} &= 23312 \\ & \quad 2819 \\ & \quad \hline & 20493 \\ & \quad 2188 \\ & \quad \hline & 21124 \end{aligned}$$

TABLE CORRECTIONS

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