

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. 15501
(For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker

ing *a fore-castle, a bridge and a poop*

(Type of Superstructures.)

Ship's Name *ELOS* Nationality and Port of Registry Official Number Gross Tonnage Date of Build *1902*

Moulded Dimensions: Length *332.0* Breadth *47.79* Depth *24.42*

Moulded displacement at moulded draught = 85 per cent. of moulded depth *not yet recd.* tons

Efficient of fineness for use with Tables

Port of Survey

Date of Survey *18/5/31*

Name of Surveyor

Particulars of Classification *+ 100 A 1*

Depth for Freeboard (D)

depth *24.42*

plate *.04*

g on exposed deck

$\frac{L-S}{L} =$

Depth for Freeboard (D) = *24.46*

Depth correction

(a) Where D is greater than Table depth
(D-Table depth) R = *(24.46 - 22.13) 2.554*
2.33 + 5.95

(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)

Standard Round of Beam = $\frac{B \times 12}{50} =$ *11.47*

Ship's Round of Beam = *12.00*

Difference *.53*

Restricted to

Correction = $\frac{\text{Diff}^*}{4} \times (1 - \frac{S_1}{L}) =$ *.13 \times .293 = .04*

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
p enclosed ...	<i>29.0</i>	<i>29.0</i>	<i>7.0</i>	<i>✓</i>	<i>29.0</i>
overhang ...					
D. enclosed ...					
overhang ...					
idge enclosed...	<i>170.0</i>	<i>170.0</i>	<i>7.0</i>	<i>✓</i>	<i>170.0</i>
overhang aft ...					
overhang forward					
at Centre ...	<i>33.2</i>	<i>33.2</i>	<i>7.0</i>	<i>✓</i>	<i>33.2</i>
overhang ...	<i>5.3</i>	<i>2.65</i>			<i>2.65</i>
ank aft ...					
forward ...					
mage opening aft ...					
" forward					
Total ...	<i>237.5</i>	<i>234.85</i>			<i>234.85</i>

Standard Height of Superstructure *6.82*

" " R.Q.D.

Deduction for complete superstructure *37.47*

Percentage covered $\frac{S}{L} =$ *41.54*

" " $\frac{S_1}{L} =$ *70.74*

" " $\frac{E}{L} =$ *70.74*

Percentage from Table, Line A.
(corrected for absence of fore-castle (if required))

Percentage from Table, Line B. *63.91*
(corrected for absence of fore-castle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = *37.47 - 63.91 = - 26.44*

SHEER CORRECTION.

ion	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
...	<i>43.32</i>	<i>1</i>	<i>43.32</i>	<i>39.0</i>	<i>39.0</i>	<i>39.0</i>	<i>1</i>	<i>39.0</i>	
A.P. ...	<i>17.58</i>	<i>4</i>	<i>70.32</i>	<i>15.61</i>	<i>15.61</i>	<i>15.61</i>	<i>4</i>	<i>62.44</i>	
...	<i>4.76</i>	<i>2</i>	<i>9.52</i>	<i>3.90</i>	<i>3.90</i>	<i>3.90</i>	<i>2</i>	<i>7.80</i>	
...	<i>-</i>	<i>4</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>4</i>	<i>-</i>	
F.P. ...	<i>9.52</i>	<i>2</i>	<i>19.04</i>	<i>9.14</i>	<i>9.14</i>	<i>9.14</i>	<i>2</i>	<i>18.28</i>	
...	<i>35.16</i>	<i>4</i>	<i>140.64</i>	<i>36.55</i>	<i>36.55</i>	<i>36.55</i>	<i>4</i>	<i>146.20</i>	
...	<i>86.64</i>	<i>1</i>	<i>86.64</i>	<i>87.0</i>	<i>87.00</i>	<i>87.00</i>	<i>1</i>	<i>87.00</i>	
total ...			<i>369.48</i>					<i>360.72</i>	

Mean actual sheer aft = *97.53*
Mean standard sheer aft = *110.34*

Mean actual sheer forward = *Excess*
Mean standard sheer forward = *Excess*

Length of enclosed superstructure forward of amidships =

" " aft of " =

43.32 39.0 1 43.32 39.0
17.58 15.61 3 52.74 46.83
4.76 3.90 3 14.28 11.70
110.34 97.53

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{8.76}{18} \left(\frac{75-357}{2L} \right) = .49$

limited on account of midship superstructure.

If limited to maximum allowance of 1½ ins. per 100 ft.

Correction for Tropical Freeboard.

Correction for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = Ft.

Summer freeboard =

Moulded draught (d) =

Correction for Tropical freeboard and addition for summer freeboard = $\frac{d}{4}$ inches =

Correction 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 ...	<i>5.95</i>	
Deduction for superstructures ...		<i>23.95</i>
Sheer correction ...	<i>.19</i>	
Round of Beam correction ...		<i>.04</i>
Correction for Thickness of Deck amidships ...		
Other corrections, scantlings, etc. ...		
	<i>6.14</i>	<i>23.99</i>

Summer Freeboard = *51.54*

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 " " ...	

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PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS										
Description of Hatchway	...	...	...	...	...	...	...	...	...	...
Dimensions of Hatchway	...	...	...	...	...	...	...	...	...	...
COAMINGS	Height above Deck	...	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...	...
	Sides	...	...	...	...	...	...	...	...	...
	Ends	...	...	...	...	...	...	...	...	...
HATCH BEAMS	Stiffeners	...	...	...	...	...	...	...	...	...
	Brackets, Stays	...	...	...	...	...	...	...	...	...
	Number	...	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...	...
FORE AND AFTERS	Scantling and Sketch	...	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...	...
	Number	...	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...	...
HATCH COVERS	Unsupported Lengths	...	...	...	...	...	...	...	...	...
	Scantling* and Sketch	...	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...	...
	Material	...	...	...	...	...	...	...	...	...
Spacing of Cleats	...	...	...	...	...	...	...	...	...	...
	Number of Tarpaulins	...	...	...	...	...	...	...	...	...

*Are wood fore and afters steel shod at all bearing surfaces?
 Are battens and wedges efficient and in good condition?
 Are tarpaulins in good condition and in accordance with rule requirements?
 Are lashings provided in accordance with rule requirements?

Particulars of fiddley, funnel and ventilator coamings :—

Particulars of Flush Bunker Scuttles :—

Particulars of Companionways :—

Particulars of Ventilators in exposed positions on freeboard and superstructure decks :—

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks :—

Particulars of Gangway Cargo and Coaling Ports :—

Particulars of Scuppers and Sanitary Discharge Pipes —

Particulars of Side Scuttles :

Particulars of Guard Rails :—

Particulars of Gangways, Lifelines, etc. :—

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well
Forward Well

State position of each freeing port ... } After Well :—
 (F. and A. position and height above deck edge) } Forward Well :—
 State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :—
 Additional area where sheer is less than standard.

Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead
Raised Quarter Deck Bulkhead
Bridge, After Bulkhead
Bridge, Forward Bulkhead
Forecastle Bulkhead
Trunk, Aft
Trunk, Forward
Exposed Machinery Casings on Freeboard or Raised Quarter Decks
Exposed Machinery Casings on Superstructure Decks
Machinery Casings within Superstructures not fitted with Class I Closing Appliances
Deckhouses on Flush Deck Ships

Particulars of Closing Appliances (state if capable of being manipulated from both sides).	
Poop Bulkhead ...	...
Raised Quarter Deck Bulkhead ...	...
Bridge, After Bulkhead ...	...
Bridge, Forward Bulkhead ...	...
Forecastle Bulkhead ...	...
Exposed Machinery Casings on Freeboard or Raised Quarter Decks ...	...
Exposed Machinery Casings on Superstructure Decks ...	...
Machinery Casings within Superstructures not fitted with Class I Closing Appliances
Deckhouses on Flush Deck Ships

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Superstructure Deck

Freeboard Deck

Names of sister ships

Fee £ Received by me

Fee £ Received by me