

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
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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

Coefficient of fineness for use with Tables

Port of Survey

Date of Survey 18/5/31

Name of Surveyor

Particulars of Classification + 100 A 1

RETAIN

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Table depth	<u>24.42</u>	(a) Where D is greater than Table depth (D-Table depth) R = <u>(24.46 - 22.13) 2.554</u>		Moulded Breadth (B)	
Plate	<u>.04</u>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	<u>2.33 + 5.95</u>	Standard Round of Beam = $\frac{B \times 12}{50} =$	<u>11.47</u>
Height on exposed deck $\frac{L-S}{L} =$				Ship's Round of Beam =	<u>12.00</u>
Depth for Freeboard (D) =	<u>24.46</u>	If restricted by superstructures		Difference	<u>.53</u>
				Restricted to	
				Correction = $\frac{\text{Diff}^*}{4} \times (1 - \frac{S_1}{L}) =$	<u>.13 \times 293 = .04</u>

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Superstructure enclosed	<u>29.0</u>	<u>29.0</u>	<u>7.0</u>	<u>✓</u>	<u>29.0</u>
Overhang					
Superstructure enclosed	<u>170.0</u>	<u>170.0</u>	<u>7.0</u>	<u>✓</u>	<u>170.0</u>
Overhang aft					
Overhang forward	<u>33.2</u>	<u>33.2</u>	<u>7.0</u>	<u>✓</u>	<u>33.2</u>
Overhang	<u>5.3</u>	<u>2.65</u>			<u>2.65</u>
Overhang aft					
Overhang forward					
Image opening aft					
Image opening forward					
Total	<u>237.5</u>	<u>234.85</u>			<u>234.85</u>

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 = - 23.95

SHEER CORRECTION.

Position	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
Fore-castle	<u>43.32</u>	1		<u>43.32</u>	<u>39.0</u>	<u>39.0</u>	1		<u>39.0</u>
A.P.	<u>17.58</u>	4		<u>70.32</u>	<u>15.61</u>	<u>15.61</u>	4		<u>62.44</u>
Bridge	<u>4.76</u>	2		<u>9.52</u>	<u>3.90</u>	<u>3.90</u>	2		<u>7.80</u>
F.P.	<u>9.52</u>	2		<u>19.04</u>	<u>9.14</u>	<u>9.14</u>	2		<u>18.28</u>
Superstructure	<u>35.16</u>	4		<u>140.64</u>	<u>36.55</u>	<u>36.55</u>	4		<u>146.20</u>
Deck	<u>86.64</u>	1		<u>86.64</u>	<u>87.0</u>	<u>87.00</u>	1		<u>87.00</u>
Total				<u>369.48</u>					<u>360.72</u>

Mean actual sheer aft = 97.53 = 88.8%

Mean standard sheer aft = 110.34

Mean actual sheer forward = Exc.

Mean standard sheer forward = Exc.

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
			<u>110.34</u>	<u>97.53</u>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75-S}{2L} \right) = \frac{8.46}{18} \left(\frac{75-357}{.393} \right) + .19$

Limited on account of midship superstructure.

If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Correction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)	<u>51.54</u>
Correction for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient	
Depth to Freeboard Deck = Ft.	$\Delta =$	Depth Correction	<u>5.95</u>
Summer freeboard =	Tons per inch immersion at summer load water line	Deduction for superstructures	<u>23.95</u>
Moulded draught (d) =	T =	Sheer correction	<u>.19</u>
Correction for Tropical freeboard and addition for summer freeboard = $\frac{d}{4}$ inches =	Deduction = $\frac{\Delta}{40T}$ inches	Round of Beam correction	<u>.04</u>
Correction for Winter North Atlantic Freeboard (if required) =		Correction for Thickness of Deck amidships	
		Other corrections, scantlings, etc.	
		Summer Freeboard =	<u>6.14 23.99 - 17.85</u>

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	...	...	...	...	...	...
	Stiffeners	...	...	...	...	...	...	...	...
	Brackets, Stays	...	...	...	...	...	...	...	...
HATCH BEAMS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Scantling and Sketch	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
FORE AND AFTERS	Number	...	...	...	...	...	...	...	...
	Spacing	...	...	...	...	...	...	...	...
	Unsupported Lengths	...	...	...	...	...	...	...	...
	Scantling* and Sketch	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
HATCH COVERS	Material	...	...	...	...	...	...	...	...
	Thickness	...	...	...	...	...	...	...	...
	How fitted	...	...	...	...	...	...	...	...
	Bearing Surface	...	...	...	...	...	...	...	...
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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