

Lloyd's Register of Shipping.  
SURVEYS FOR FREEBOARD.  
(COMPUTATION FOR STEAMER, ~~SAILING SHIP, TANKER.~~)

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

Ship's Name <i>"DIVINA"</i>	Official Number <i>8542</i>	Nationality and Port of Registry <i>Swedish Stockholm</i>	Gross Tonnage <i>650 (Approx.)</i>	Date of Build <i>1942.</i>	Port of Survey <i>Stockholm</i>
Moulded Dimensions: Length <i>51.800</i> Breadth <i>8.990</i> Depth <i>4.420</i>					Date of Survey <i>30, 13, 30, 8, 15, 28, 1, 1942.</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <i>1154.8</i> tons					Surveyor's Signature <i>H. J. Anderson</i>
Coefficient of fineness for use with Tables <i>.68 (Actual .654)</i>					Particulars of Classification <i>100 A1 Sailing vessel in bulk</i>

Depth for Freeboard (D).	Depth correction.	Round of Beam correction.
Moulded depth ... .. <i>4.420</i>	(a) Where D is greater than Table depth (D—Table depth) R = <i>8.33(4.428-3.453)13.1 = +106%</i>	Moulded Breadth (B) <i>8.990</i>
Stringer plate ... .. <i>8</i>	(b) Where D is less than Table depth (if allowed) (Table depth—D) R = <i>475</i>	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{8.990 \times 12}{50} = 0.180$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = <i>0.182</i>
Depth for Freeboard (D) = <i>4.428</i>		Difference <i>72</i>
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{72}{4} \times \left( 1 - \frac{5.220}{17.764} \right) = -1%$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..	<i>12.544</i>	<i>12.544</i>	<i>2.100</i>	<i>-</i>	<i>12.544</i>
» overhang ... ..	<i>12.544</i>				
R.Q.D. enclosed ... ..					
» overhang ... ..					
Bridge enclosed... ..					
» overhang aft ... ..					
» overhang forward ... ..					
F'cle enclosed ... ..	<i>5.220</i>	<i>5.220</i>	<i>2.150</i>		<i>5.220</i>
» overhang ... ..					
Trunk aft ... ..					
» forward ... ..					
Tonnage opening aft ... ..					
» » forward ... ..					
Total ... ..	<i>17.764</i>	<i>17.764</i>			<i>17.764</i>

Standard Height of Superstructure <i>1830%</i>	R.Q.D. ....
Deduction for complete superstructure <i>585%</i>	
Percentage covered $\frac{S}{L} = \frac{12.544}{17.764} = 34.29\%$	
» $\frac{S_1}{L} = \frac{12.544}{17.764} = 34.29\%$	
» $\frac{E}{L} = \frac{5.220}{17.764} = 34.29\%$	
Percentage from Table, Line A. <i>18.65%</i>	(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 = <i>585 × .1865 = -109%</i>	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ... ..	685	1	685	628	678	1	678		
1/6L from A.P. ... ..	304	4	1216	302	307	4	1228		
2/6L » ... ..	76	2	152	29	79	2	158		
Amidships ... ..	-	4	-	0	0	4	-		
2/6L from F.P. ... ..	152	2	304	154	154	2	308		
1/6L » ... ..	608	4	2432	606	606	4	2424		
F.P. ... ..	1371	1	1376	1322	1377	1	1377		
Total ... ..			6160				6173		

Mean actual sheer aft

Mean standard sheer aft

=

Excess

Mean actual sheer forward

Mean standard sheer forward

=

Excess

Length of enclosed superstructure

L

forward of amidships

=

Nil.

»

»

aft of

»

=

Nil.

Correction =

Difference between sums of products

18

(.75 - S / 2L)

=

13 / 18

(.75 - .1714)

=

Nil.

If limited on account of midship superstructure.

Yes.

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.	Deduction for Fresh Water.	TABULAR FREEBOARD corrected for Flush Deck (if required)
Depth to Freeboard Deck = <i>4.428</i>	Displacement in salt water at summer load water line <i>1240 tons</i>	Correction for coefficient <i>Nil.</i>
Summer freeboard = <i>.461</i>	$\Delta = \text{See report}$	Depth Correction ... .. <i>106</i>
Moulded draught (d) = <i>3.967</i>	Tons per inch immersion at summer load water line <i>9.65</i>	Deduction for superstructures ... .. <i>- 109</i>
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{48} \text{ inches} = 83\%$	$T = \text{See report}$	Sheer correction ... .. <i>-</i>
Addition for Winter North Atlantic Freeboard (if required) = <i>51% + 83% = 134%</i>	Deduction = $\frac{\Delta}{40 T} \text{ inches} = \frac{1240}{40 \times 9.65} = 3.22\%$	Round of Beam correction ... .. <i>- 1</i>
	<i>= 82%</i>	Correction for Thickness of Deck amidships ... .. <i>-</i>
		Other corrections, scantlings, etc. ... .. <i>-</i>
		Summer Freeboard = <i>461</i>

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

Tropical Fresh Water Line above Centre of Disc ... ..	<i>165%</i>	Tropical Fresh Water Freeboard ... ..	<i>296.</i>
Fresh Water Line » ... ..	<i>82.</i>	Fresh Water » ... ..	<i>379.</i>
Tropical Line » ... ..	<i>83.</i>	Tropical » ... ..	<i>378.</i>
Winter Line below » ... ..	<i>83.</i>	Winter » ... ..	<i>544.</i>
Winter North Atlantic Line » ... ..	<i>134.</i>	Winter North Atlantic » ... ..	<i>595.</i>



*Divina.*

A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

Length of Poop :-  $48 \times .58 = 2.784$   
 $4.19 \times .58\frac{1}{2} = 1.215$   
 $\frac{8.99}{\quad}$   
 $\frac{3.999}{\quad}$   
 $\frac{.444}{\quad}$   
 $\frac{12.100}{\quad}$   
 $\frac{12.544}{\quad}$

Trade of ship .....

Names of sister ships *M/S 'Glan' Same builder Yard No 177.*

Builder's name and yard number .....

Owners .....

Fee £ .....



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Foundation