

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

13067

Ship's Name <b>"DIANA"</b>	Official Number <b>302</b>	Nationality and Port of Registry <b>Italian Venice</b>	Gross Tonnage <b>5347</b>	Date of Build <b>1923</b>	Port of Survey <b>Trieste</b>
Moulded Dimensions: Length <b>90.00</b> Breadth <b>13.50</b> Depth <b>6.60</b> Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>4965 m<sup>3</sup> tons</b> Coefficient of fineness for use with Tables <b>.789</b>					Date of Survey <b>Aug 1947</b>
					Surveyor's Signature <i>Montblanc</i>
					Particulars of Classification <b>100 A1 with freeboard (Class contemplated)</b>

<b>DEPTH FOR FREEBOARD (D).</b> Moulded depth ... .. <b>6.60</b> Stringer plate ... .. <b>0.09</b> Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <b>6.609</b>	<b>DEPTH CORRECTION.</b> (a) Where D is greater than Table depth (D-Table depth) R = $8.33 \frac{(6.609 - 6.0) 90.0}{609} = 115.3 + 115$ (b) Where D is less than Table depth (if allowed) (Table depth-D) R = $5.22$ If restricted by superstructures	<b>ROUND OF BEAM CORRECTION.</b> Moulded Breadth (B) <b>13.50 m</b> Standard Round of Beam = $\frac{B \times 12}{50} = 270 \frac{m}{m}$ Ship's Round of Beam = <b>280</b> Difference <b>10 m/m</b> Restricted to Correction = $\frac{Diff}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{10}{4} \times .0087 = .022 \frac{m}{m}$ NIL.
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<b>DEDUCTION FOR SUPERSTRUCTURES.</b>					Standard Height of Superstructure <b>1969</b> ✓	
	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	" " R.Q.D. <b>-</b>
Poop enclosed ... ..						Deduction for complete superstructure <b>890 m/m</b> ✓
" overhang ... ..						Percentage covered $\frac{S}{L} = 100$ ✓
R.Q.D. enclosed ... ..						" $\frac{S_1}{L} = 99.13$ ✓
" overhang ... ..						" $\frac{E}{L} = 99.13$ ✓
Bridge enclosed ... ..			<b>2400</b>			Percentage from Table, Line A. + B <b>98.93</b> ✓
" overhang aft ... ..						(corrected for absence of forecastle (if required))
" overhang forward ... ..						Percentage from Table, Line B.
F'cle enclosed ... ..						(corrected for absence of forecastle (if required))
" overhang ... ..						Interpolation for bridge less than .2L (if required)
Trunk aft ... ..						Deduction = <b>880.4</b> - <b>880 m/m</b>
" forward ... ..						
Tonnage opening aft ... ..						
" " forward ... ..						
Total ... ..	<b>90.000</b>	<b>89.215</b>			<b>89.215</b>	

<b>SHEER CORRECTION.</b>								Mean actual shear aft = <b>1491</b>		
Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean standard shear aft =
A.P. ... ..	<b>1004</b>	<b>1</b>		<b>1004</b>	<b>1060</b>	<b>1491</b>	<b>1</b>		<b>1491</b>	
¼L from A.P. ... ..	<b>440</b>	<b>4</b>		<b>1784</b>	<b>460</b>	<b>663</b>	<b>4</b>		<b>2652</b>	
½L " ... ..	<b>112</b>	<b>2</b>		<b>224</b>	<b>120</b>	<b>164</b>	<b>2</b>		<b>328</b>	
Amidships ... ..		<b>4</b>					<b>4</b>			
¾L from F.P. ... ..	<b>223</b>	<b>2</b>		<b>446</b>	<b>240</b>	<b>281</b>	<b>2</b>		<b>562</b>	
¾L " ... ..	<b>892</b>	<b>4</b>		<b>3568</b>	<b>920</b>	<b>1135</b>	<b>4</b>		<b>4540</b>	
F.P. ... ..	<b>2007</b>	<b>1</b>		<b>2007</b>	<b>2120</b>	<b>2551</b>	<b>1</b>		<b>2551</b>	
Total ... ..				<b>9039</b>					<b>18124</b>	
Correction = $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{9039 - 18124}{18} \times .75 = -43$										Mean actual shear forward = <b>1491</b>
If limited on account of midship superstructure.										Mean standard shear forward = <b>1491</b>
										Length of enclosed superstructure forward of amidships = <b>C.S.S.</b>
										" " aft of " = <b>-</b>

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> Depth to Freeboard Deck = <b>6.609</b> Summer freeboard = <b>306</b> Moulded draught (d) = <b>6.303</b> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4} \text{ inches} = 131.3$ Addition for Winter North Atlantic Freeboard (if required) = <b>181</b>	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta = 5850$ metric tons Tons per inch immersion at summer load water line $T = 10.4$ metric tons per inch Deduction = $\frac{\Delta}{40 T} \text{ inches} = 141$	<b>TABULAR FREEBOARD corrected for Flush Deck (if required)</b> Correction for coefficient $\frac{.729 + .68}{1.36} = 1.409$ Depth Correction ... .. <b>115</b> Deduction for superstructures ... .. <b>880</b> Sheer correction ... .. <b>43</b> Round of Beam correction ... .. <b>-</b> Correction for Thickness of Deck amidships ... .. <b>-</b> Other corrections, scantlings, etc. ... .. <b>-</b> Summer Freeboard = <b>306</b>
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<b>SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, <del>W</del> Steel, Deck :-</b>			
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 " " ... ..	



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.

Trade of ship

Names of sister ships

Builder's name and yard number

Owners

Fee £



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