

# LLOYD'S REGISTER OF SHIPPING

## SURVEYS FOR FREEBOARD

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER)

Received .....  
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Ship's Name <b>LETIZIA</b> <b>MONTANARI</b>	Official Number	Nationality and Port of Registry	Gross Tonnage	Date of Build	Port of Survey
Moulded Dimensions: Length <b>476.17</b> Breadth <b>68.00</b> Depth <b>36.10</b>					Date of Survey
Freeboard Length					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) tons					Particulars of Classification
Coefficient of fineness for use with Tables <b>.757</b>					

<b>DEPTH FOR FREEBOARD (D).</b> Moulded depth ... <b>36.10</b> Stringer plate <b>.82 + .87 = 1.69</b> ... <b>.14</b> Wood Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ Depth for Freeboard (D) = <b>36.24</b>	<b>DEPTH CORRECTION.</b> (a) Where D is greater than Table depth (D - Table depth) R = <b>(36.24 - 31.74) 3. = + 13.50</b> <b>4.50</b> (b) Where D is less than Table depth (if allowed) (Table depth - D) R = If restricted by superstructures	<b>ROUND OF BEAM CORRECTION.</b> Moulded Breadth (B) <b>68.00</b> Standard Round of Beam = $\frac{B \times 12}{50} =$ <b>16.32</b> Ship's Round of Beam = <b>17.00</b> Difference <b>.68</b> Restricted to Correction = $\frac{\text{Diff}^2}{4} \times \left( 1 - \frac{S_1}{L} \right) =$ <b><math>\frac{.68^2}{4} \times .691 = .12</math></b>
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## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed	<b>113.20</b>	<b>113.20</b>	<b>7.50</b>		<b>113.20</b>	Standard Height of Superstructure <b>7.5'</b>
" overhang						" " R.Q.D. <b>1</b>
R.Q.D. enclosed						Deduction for complete superstructure <b>42</b>
" overhang						Percentage covered $\frac{S}{L} =$
Bridge enclosed						" $\frac{S_1}{L} =$ <b>30.90%</b>
" overhang aft						" $\frac{E}{L} =$
" overhang forward						Percentage from Table, Line A. <b>15.76%</b>
F'cle enclosed	<b>33.92</b>	<b>33.92</b>	<b>7.50</b>		<b>33.92</b>	(corrected for absence of fore-castle (if required))
" overhang						Percentage from Table, Line B.
Trunk aft						(corrected for absence of fore-castle (if required))
" forward						Interpolation for bridge less than .2L (if required)
Tonnage opening aft						Deduction = <b>42 * .1576 = -6.62</b>
" " forward						
Total	<b>147.12</b>	<b>147.12</b>			<b>147.12</b>	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	<b>57.62</b>	1					1		
$\frac{1}{8}L$ from A.P.		4					4		
$\frac{2}{8}L$		2					2		
Amidships	○	4	○	○	○	○	4	○	○
$\frac{2}{8}L$ from F.P.		2					2		
$\frac{1}{8}L$		4					4		
F.P.	<b>115.23</b>	1					1		
Total				<b>578.58</b>					<b>321.00</b>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{197.58 (1.75 - 1.545)}{18} = + 6.54"$

If limited on account of midship superstructure.

If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100ft.

## Deduction for Tropical Freeboard.

## Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = **36.24**  
 Summer freeboard = **9.48**  
 Moulded draught (d) = **26.76**  
 Keel allowance = **26.82**  
 Extreme draught = **26.82**

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  
 $T =$

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

## TABULAR FREEBOARD corrected for Fresh 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.

	+	-
Depth Correction	<b>13.50</b>	
Deduction for superstructures		<b>6.62</b>
Sheer correction	<b>6.54</b>	
Round of Beam correction		<b>0.12</b>
Correction for Thickness of Deck amidships		<b>-1.87</b>
Other corrections, scantlings, etc.	<b>19.35</b>	
	<b>20.04</b>	<b>6.74</b>
Summer Freeboard =	<b>113.84</b>	<b>112.97</b>

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

Tropical Fresh Water Line above Centre of Disc	...
Fresh Water Line	"
Tropical Line	"
Winter Line	below
Winter North Atlantic Line	"

Tropical Fresh Water Freeboard	...
Fresh Water	"
Tropical	"
Winter	"
Winter North Atlantic	"