

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

 Index No. **23252**
 (For London Office only.)

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having *file + bridge*

Port of Survey *Genoa*

Date of Survey *Dec 1932*

Name of Surveyor

Particulars of Classification *+100 A-1 with freeboard rule*

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
<i>Monte-de Savona</i>	<i>Italian Genoa</i>		<i>48502.18</i>	

Moulded Dimensions: Length *778.56* Breadth *95.8* Depth *53.31*

Moulded displacement at moulded draught = 85 per cent. of moulded depth *64180* tons

Coefficient of fineness for use with Tables *.664 (.68 level in table)*

Depth for Freeboard (D)	Depth correction	Round of Beam correction
Moulded depth ... <i>53.31</i>	(a) Where D is greater than Table depth (D - Table depth) R = <i>(53.37 - 57.91) 3 = 4.38</i>	Moulded Breadth (B) <i>95.8</i> Standard Round of Beam = $\frac{B \times 12}{50} = 22.99$ Ship's Round of Beam <i>4"</i> = $\frac{4}{18.99}$ Difference Restricted to Correction = $\frac{\text{Diff}}{4} \times (1 - \frac{S_1}{L}) = \frac{18.99}{4} \times \frac{53.77}{53.77} = 2.55$
Stringer plate <i>2.1</i> ... <i>.03</i>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$		
Depth for Freeboard (D) = <i>53.37</i>	If restricted by superstructures	

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
" overhang ...	<i>17</i>	<i>8.5</i>			<i>8.5</i>
R.Q.D. enclosed ...	<i>17</i>	<i>8.5</i>			<i>8.5</i>
" overhang ...	<i>17</i>	<i>8.5</i>			<i>8.5</i>
Bridge enclosed ...	<i>409.9</i>	<i>304.95</i>	<i>9.5</i>		<i>304.95</i>
" overhang aft ...					
" overhang forward ...					
F'cle enclosed ...	<i>192</i>	<i>129.51</i>	<i>9.5</i>		<i>129.51</i>
" overhang ...					
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" forward ...					
Total ...	<i>652.9</i>	<i>359.96</i>			<i>359.96</i>

Standard Height of Superstructure *7.5*

" " R.Q.D. *4.2*

Deduction for complete superstructure *4.2*

Percentage covered $\frac{S}{L} = \frac{83.85}{L} = 46.23$

" " $\frac{S_1}{L} = \frac{46.23}{L} = 46.23$

" " $\frac{E}{L} = \frac{46.23}{L} = 46.23$

Percentage from Table, Line A.
(corrected for absence of forecastle (if required))

Percentage from Table, Line B.
(corrected for absence of forecastle (if required)) *32.79*

Interpolation for bridge less than 2L (if required) *7.2L*

Deduction = $4.2 \times 32.79 = 13.77$

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	<i>87.86</i>	<i>1</i>		<i>87.86</i>	<i>57.5</i>	<i>57.5</i>	<i>1</i>		<i>57.5</i>
$\frac{1}{2}$ L from A.P. ...	<i>39.10</i>	<i>4</i>		<i>156.40</i>	<i>12.5</i>	<i>12.5</i>	<i>4</i>		<i>50.0</i>
$\frac{1}{4}$ L ...	<i>9.66</i>	<i>2</i>		<i>19.32</i>	<i>-4.0</i>	<i>-4.0</i>	<i>2</i>		<i>-8.0</i>
Amidships ...		<i>4</i>			<i>0</i>		<i>4</i>		
$\frac{1}{4}$ L from F.P. ...	<i>19.32</i>	<i>2</i>		<i>38.64</i>	<i>26</i>	<i>26</i>	<i>2</i>		<i>52.0</i>
$\frac{1}{2}$ L ...	<i>78.20</i>	<i>4</i>		<i>312.80</i>	<i>72</i>	<i>72</i>	<i>4</i>		<i>288.0</i>
F.P. ...	<i>175.72</i>	<i>1</i>		<i>175.72</i>	<i>141.7</i>	<i>141.7</i>	<i>1</i>		<i>141.7</i>
Total ...				<i>790.74</i>					<i>575.2</i>

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75 - \frac{S}{2L}}{2L} \right) = \frac{215.54}{18} \left(\frac{75 - 4192}{2L} \right) = 3.96$

If limited on account of midship superstructure.

Mean actual sheer aft = *Defic*Mean actual sheer forward = *Defic 93.03%*

Length of enclosed superstructure forward of amidships =

" " aft of " =

Sheer for 2

	0	1	0	0	1	0
<i>19.32</i>	<i>3</i>	<i>57.96</i>	<i>26</i>	<i>3</i>	<i>78</i>	
<i>78.20</i>	<i>3</i>	<i>234.60</i>	<i>72</i>	<i>3</i>	<i>216</i>	
<i>175.72</i>	<i>1</i>	<i>175.72</i>	<i>141.7</i>	<i>1</i>	<i>141.7</i>	
					<i>435.7</i>	

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

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = *Ft.*

Summer freeboard =

Moulded draught (d) =

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

$\Delta = 41100$

Tons per inch immersion at summer load water line

$T = 131.6$

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

$= 7.68"$

$= 195 \text{ m/m}$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction ...	<i>4.38</i>	
Deduction for superstructures ...		<i>13.77</i>
Sheer correction ...	<i>3.96</i>	
Round of Beam correction ...	<i>2.55</i>	
Correction for Thickness of Deck amidships ...	<i>.89</i>	
Other corrections, scantlings, etc. to correspond to all seasons moulded draught	<i>103.00</i>	
	<i>114.78</i>	<i>13.77</i>
Summer Freeboard =	<i>269.32</i>	

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, *30 m/m* Compression at *Wood*, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc ...	<i>195 m/m</i>
Fresh Water Line " " ...	<i>195</i>
Tropical Line " " ...	<i>NIL</i>
Winter Line below " " ...	<i>NIL</i>
Winter North Atlantic Line " " ...	<i>NIL</i>

Tropical Fresh Water Freeboard ...	<i>4145</i>
Fresh Water " " ...	<i>4145</i>
Tropical " " ...	<i>4340</i>
Winter " " ...	<i>4340</i>
Winter North Atlantic " " ...	<i>4340</i>

assigned
to the Registry
Station

DEC 1932

This freeboard is measured from the uppermost continuous deck. D.C. (53-33/4) midship. 4.5-1/2 mid depth.

P.T.O.

Depth to Buckhead dr. LHD meters
 dr comp + str 13.750
40

13.790

R.1. Freeboard 4.340
 Mounded draught = 9.450

R.1 Freeboard
marked from dk D
D¹ Height D to C
Freeboard from dk C
Allowing string & compression
are the same on both decks.

4.346
<u>2.500</u>
6.840

Plans originally approved for mounded draught of 9.250 ^{metres} = 30.35 ^{ft.}
 on 15/11/32 increased draught of 8" allowed = $\frac{.67}{31.02} = 94.50 \text{ metres}$