

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <b>ANSALDO YARD 854</b>	Official Number <b>-</b>	Nationality and Port of Registry <b>SWEDISH</b>	Gross Tonnage <b>-</b>	Date of Build <b>12.46</b>	Port of Survey <b>GENOA</b>
Moulded Dimensions: Length <b>40.85</b> Breadth <b>7.50</b> ✓ Depth <b>3.15</b> ✓					Date of Survey <b>DECEMBER 1946</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>594</b> net tons					Surveyor's Signature <i>Grammy</i>
Coefficient of fineness for use with Tables <b>706</b> ✓					Particulars of Classification <b>100A1</b>

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... <b>3.150</b>	(a) Where D is greater than Table depth $R = \frac{(D - \text{Table depth})}{\text{Table depth}} \times 100 = \frac{3.150 - 2.725}{2.725} \times 100 = +37 \text{ m/m}$	Moulded Breadth (B) <b>7.50 m</b>
Stringer plate ... <b>0.008</b>	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 150 \text{ m/m}$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$	If restricted by superstructures ✓	Ship's Round of Beam = <b>150 m/m</b>
Depth for Freeboard (D) = <b>3.158</b>		Difference <b>Nil</b>
		Restricted to
		Correction = $\frac{\text{Diff}}{4} \times \left( 1 - \frac{S_1}{L} \right) = \text{Nil}$

DEDUCTION FOR SUPERSTRUCTURES.					
	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...					
„ overhang ...	<b>7.00</b>				
R.Q.D. enclosed ...	<b>11.818</b>	<b>11.700</b>	<b>1.100</b>	<b>-</b>	<b>11.700</b>
„ overhang ...					
Bridge enclosed ...					
„ overhang aft ...					
„ overhang forward ...	<b>5.500</b>				
F'cle enclosed ...	<b>4.085</b>	<b>5.500</b>	<b>1.000</b>	<b>1.00/83</b>	<b>3.005</b>
„ overhang ...	<b>1.415</b>		<b>1.000</b>		
Trunk aft ...					
„ forward ...					
Tonnage opening aft ...					
„ „ forward ...					
Total ...	<b>17.200</b>	<b>17.200</b>			<b>14.705</b>

Standard Height of Superstructure <b>1.830 m</b>
„ „ R.Q.D. <b>980 m</b>
Deduction for complete superstructure <b>493 m/m</b>
Percentage covered $\frac{S}{L} = 42.10$
„ „ $\frac{S_1}{L} = 42.10$
„ „ $\frac{E}{L} = 36.00$
Percentage from Table, Line A. <b>20.10</b>
(corrected for absence of forecastle (if required)) <b>-</b>
Percentage from Table, Line B. <b>-</b>
(corrected for absence of forecastle (if required)) <b>-</b>
Interpolation for bridge less than .2L (if required) <b>-</b>
Deduction = <b>493 x .2010 = -99 m/m</b>

SHEER CORRECTION.							
Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ...	<b>594</b>	<b>1</b>	<b>594</b>	<b>440</b>	<b>440</b>	<b>1</b>	<b>440</b>
$\frac{1}{2}L$ from A.P. ...	<b>264</b>	<b>4</b>	<b>1056</b>	<b>195</b>	<b>195</b>	<b>4</b>	<b>780</b>
$\frac{2}{3}L$ „ ...	<b>66</b>	<b>2</b>	<b>132</b>	<b>35</b>	<b>35</b>	<b>2</b>	<b>70</b>
Amidships ...	<b>-</b>	<b>4</b>	<b>-</b>	<b>0</b>	<b>-</b>	<b>4</b>	<b>-</b>
$\frac{2}{3}L$ from F.P. ...	<b>132</b>	<b>2</b>	<b>264</b>	<b>142</b>	<b>139</b>	<b>2</b>	<b>278</b>
$\frac{1}{2}L$ „ ...	<b>528</b>	<b>4</b>	<b>2112</b>	<b>540</b>	<b>556</b>	<b>4</b>	<b>2224</b>
F.P. ...	<b>1189</b>	<b>1</b>	<b>1189</b>	<b>1252</b>	<b>1251</b>	<b>1</b>	<b>1251</b>
Total ...			<b>5347</b>				<b>5043</b>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{304}{18} \left( .75 - \frac{2105}{2105} \right) = \frac{304}{18} \times .75 = +9$

If limited on account of midship superstructure.

Mean actual sheer aft = **< 1**  
Mean standard sheer aft = **< 1**

Mean actual sheer forward = **> 1**  
Mean standard sheer forward = **> 1**

Length of enclosed superstructure forward of amidships = **Nil**

See over

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> Depth to Freeboard Deck = <b>3.158</b> Summer freeboard = <b>2.98</b> Moulded draught (d) = <b>2.860</b> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4} \text{ inches} = 60 \text{ mm}$ Addition for Winter North Atlantic Freeboard (if required) = <b>60 + 50 = 110 mm</b>	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta = 630$ Tons per inch immersion at summer load water line <b>T = 2.58</b> Deduction = $\frac{\Delta}{40 T} \text{ inches cm} = 61 \text{ m/m}$	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) Correction for coefficient <b>706 + 68 = 774</b> Depth Correction ... <b>37</b> Deduction for superstructures ... <b>99</b> Sheer correction ... <b>9</b> Round of Beam correction ... <b>-</b> Correction for Thickness of Deck amidships ... <b>-</b> Other corrections, scantlings, etc. ... <b>-</b> Summer Freeboard = <b>298 mm</b>
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SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-			
Tropical Fresh Water Line above Centre of Disc	<b>1.21</b>	<b>1.21</b>	Tropical Fresh Water Freeboard
Fresh Water Line	<b>.61</b>	<b>.61</b>	Fresh Water
Tropical Line	<b>.60</b>	<b>.60</b>	Tropical
Winter Line below	<b>.60</b>	<b>.60</b>	Winter
Winter North Atlantic Line	<b>1.10</b>	<b>1.10</b>	Winter North Atlantic



REP. N<sup>o</sup> 16339.

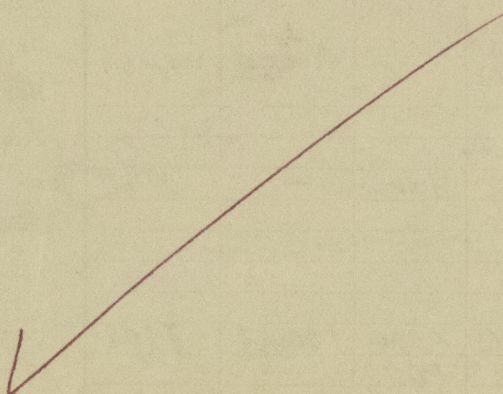
A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

Actual 5608 -  
Standard 5283 -  
325

Allowed sheer forward

$$\frac{5283}{278} + \left( \frac{325}{278} \times \frac{278}{25} \right) = 5561$$

Multiply the forward standard sheer ordinate =  $\frac{5561}{5283}$



Trade of ship .....

Names of sister ships .....

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

Owners .....

Fee £ WILL BE SENT LATER ON.



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