

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

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

Ship's Name <b>HUDSON RIVER</b> <b>RANELLA</b>	Official Number	Nationality and Port of Registry <i>Argentinian</i> <i>Kristiansund</i> <b>LIBERIAN.</b>	Gross Tonnage <b>7199</b>	Date of Build	Port of Survey
Moulded Dimensions: Length <b>416.85'</b> Breadth <b>56.88</b> Depth <b>37.33</b>					Date of Survey <b>7.10.47</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <b>16690</b> tons					Surveyor's Signature
Coefficient of fineness for use with Tables <b>.776</b>					Particulars of Classification <b>100 A1 - with hull</b> <i>"Carrying Homogeneous cargo of Petroleum in Bulk"</i>

<b>DEPTH FOR FREEBOARD (D).</b> Moulded depth ... .. <b>37.33</b> Stringer plate ... .. <b>.05</b> Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ <b>-</b> Depth for Freeboard (D) = <b>37.38</b>	<b>DEPTH CORRECTION.</b> (a) Where D is greater than Table depth $(D - \text{Table depth}) R =$ <b>(37.38 - 27.79) x 3 = +28.77</b> <b>9.59</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>56.88'</b> Standard Round of Beam = $\frac{B \times 12}{50} =$ <b>13.65"</b> Ship's Round of Beam = <b>14.00</b> Difference <b>.35</b> Restricted to Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) =$ <b><math>\frac{.35}{4} = .09</math></b>
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DEDUCTION FOR SUPERSTRUCTURES.					Standard Height of Superstructure <b>7.50'</b>
Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	R.Q.D. <b>42.00"</b>
Poop enclosed ... ..					Deduction for complete superstructure <b>42.00"</b>
" overhang ... ..					
R.Q.D. enclosed ... ..					Percentage covered $\frac{S}{L} =$
" overhang ... ..					" $\frac{S_1}{L} =$
Bridge enclosed ... ..					" $\frac{E}{L} =$
" overhang aft ... ..					Percentage from Table, Line A.
" overhang forward ... ..					(corrected for absence of forecastle (if required))
F'cle enclosed ... ..					Percentage from Table, Line B.
" overhang ... ..					(corrected for absence of forecastle (if required))
Trunk aft ... ..					Interpolation for bridge less than .2L (if required)
" forward ... ..					Deduction = <b>NIL.</b>
Tonnage opening aft ... ..					
" " forward ... ..					
Total ... ..					

SHEER CORRECTION.							
Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ... ..	<b>51.68</b>	1	<b>51.68</b>	<b>54.63</b>	<b>54.63</b>	1	<b>54.63</b>
$\frac{1}{2}L$ from A.P. ... ..	<b>23.00</b>	4	<b>92.00</b>	<b>22.38</b>	<b>22.38</b>	4	<b>89.52</b>
$\frac{3}{4}L$ " ... ..	<b>5.68</b>	2	<b>11.36</b>	<b>4.88</b>	<b>4.88</b>	2	<b>9.76</b>
Amidships ... ..	-	4	-	-	-	4	-
$\frac{3}{4}L$ from F.P. ... ..	<b>11.37</b>	2	<b>22.74</b>	<b>11.75</b>	<b>11.75</b>	2	<b>23.50</b>
$\frac{1}{2}L$ " ... ..	<b>46.00</b>	4	<b>184.00</b>	<b>47.13</b>	<b>47.13</b>	4	<b>188.52</b>
F.P. ... ..	<b>103.37</b>	1	<b>103.37</b>	<b>104.76</b>	<b>104.75</b>	1	<b>104.75</b>
Total ... ..			<b>465.15</b>				<b>470.88</b>

Mean actual sheer aft = **99.06%**  
 Mean standard sheer aft =  
 Mean actual sheer forward = **Excess**  
 Mean standard sheer forward =  
 Length of enclosed superstructure forward of amidships = **Flush deck**  
 " = **deck**

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( \frac{.75 - S}{2L} \right) = \frac{5.53}{18} \times .75 = .23"$   
 If limited on account of midship superstructure. **No, flush deck**  
 If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100 ft.

<b>Deduction for Tropical Freeboard.</b> <b>Addition for Winter and Winter North Atlantic Freeboard.</b> Depth to Freeboard Deck = <b>37.38</b> Summer freeboard = <b>9.77</b> Moulded draught (d) = <b>27.61</b> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>6.90" = 7"</b> Addition for Winter North Atlantic Freeboard (if required) = <b>✓</b>	<b>Deduction for Fresh Water.</b> 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 = <b>7 1/2"</b>	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) Correction for coefficient <b>776 + 68 = 1.456 / 1.36</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th></th> <th>+</th> <th>-</th> </tr> <tr> <td>Depth Correction</td> <td><b>28.77</b></td> <td>-</td> </tr> <tr> <td>Deduction for superstructures</td> <td>-</td> <td>-</td> </tr> <tr> <td>Sheer correction</td> <td>-</td> <td><b>.23</b></td> </tr> <tr> <td>Round of Beam correction</td> <td>-</td> <td><b>.09</b></td> </tr> <tr> <td>Correction for Thickness of Deck amidships</td> <td>-</td> <td>-</td> </tr> <tr> <td>Other corrections, scantlings, etc.</td> <td>-</td> <td>-</td> </tr> <tr> <td><b>28.77</b></td> <td><b>.32</b></td> <td><b>+ 28.45</b></td> </tr> </table> Summer Freeboard = <b>117.35</b>		+	-	Depth Correction	<b>28.77</b>	-	Deduction for superstructures	-	-	Sheer correction	-	<b>.23</b>	Round of Beam correction	-	<b>.09</b>	Correction for Thickness of Deck amidships	-	-	Other corrections, scantlings, etc.	-	-	<b>28.77</b>	<b>.32</b>	<b>+ 28.45</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>14 1/2" = 368</b>	Tropical Fresh Water Freeboard ... <b>9 - 9 1/4" = 2978</b>
Fresh Water Line " " ... <b>7 1/2" = 190</b>	Fresh Water " " ... <b>8 - 6 3/4" = 2610</b>
Tropical Line " " ... <b>7" = 178</b>	Tropical " " ... <b>9 - 1 3/4" = 2388</b>
Winter Line below " " ... <b>7" = 178</b>	Winter " " ... <b>9 - 2 1/4" = 2800</b>
Winter North Atlantic Line " " ... <b>✓</b>	Winter North Atlantic " " ... <b>10 - 4 1/4" = 3156</b>