

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

"SOUTH AMERICA" (COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name <b>"<i>ex</i> RIO TEUCO"</b>	Official Number ✓	Nationality and Port of Registry <b>ARGENTINIAN</b> <i>Libertarian</i> <b>BUENOS AIRES</b> <i>manrovia</i>	Gross Tonnage ✓	Date of Build 1947	Port of Survey <i>Sunderland</i>
Moulded Dimensions: Length <i>422.04</i> Breadth <i>56.67</i> Depth <i>28.133</i> TO & OF RUDDER STOCK					Date of Survey <i>While building</i>
Moulded displacement at moulded draught = 85 per cent. of moulded depth <i>11980</i> tons					Surveyor's Signature <i>R.M. Wilson</i>
Coefficient of fineness for use with Tables <i>.7363</i> ✓					Particulars of Classification <i>1-100 A.1</i> <i>with freeboard</i>

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth ... <i>28.133</i>	(a) Where D is greater than Table depth (D-Table depth) R = <i>(28.17 - 28.14) 3 + .09"</i> ✓	Moulded Breadth (B) <i>56.67</i>
Stringer plate (DECK COMPOSITION 1" THICK 1/4" ACCOM) <i>.034</i> ✓	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = ✓	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{56.67 \times 12}{50} = 13.60"$ ✓
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$ ✓	If restricted by superstructures ✓	Ship's Round of Beam = <i>14</i>
Depth for Freeboard (D) = <i>28.17</i>		Difference = <i>+ .40"</i> ✓
		Restricted to
		Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.40}{4} \times .0062 = .0062$ <i>= NIL.</i>

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ...	<i>30.79</i>	<i>30.79</i>	<i>8.75</i>		<i>30.79</i>
„ overhang ...	✓				
R.Q.D. enclosed ...	✓				
„ overhang ...	✓				
Bridge enclosed ...	✓				
„ overhang aft ...	✓				
„ overhang forward ...	✓				
F'cle enclosed ...	<i>386.08</i>	<i>386.08</i>	<i>8.75</i>		<i>386.08</i>
„ overhang ...	✓				
Trunk aft ...	✓				
„ forward ...	✓	<i>1/2 diff.</i>			
Tonnage opening aft ...	<i>5.17</i>	<i>2.58</i>	<i>8.75</i>		<i>2.58</i>
„ „ forward ...	✓				
Total ...	<i>422.04</i>	<i>419.45</i>			<i>419.45</i>

Standard Height of Superstructure *7.50'* ✓

„ „ R.Q.D. ✓

Deduction for complete superstructure *42.00"* ✓

Percentage covered  $\frac{S}{L} = 100$  ✓

„ „  $\frac{S_1}{L} =$  } *99.38* ✓

„ „  $\frac{E}{L} =$

Percentage from Table, Line A.  
(corrected for absence of forecastle (if required)) *99.24* ✓

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

Interpolation for bridge less than 2L (if required) ✓

Deduction = *42 × .9924 = - 41.68"* ✓

## SHEER CORRECTION.

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ...	<i>52.20</i>	1	<i>52.20</i>	<i>62.00</i>	<i>77.00</i>	1	<i>77.00</i>
1/8 L from A.P. ...	<i>23.23</i>	4	<i>92.92</i>	<i>27.37</i>	<i>34.265</i>	4	<i>137.06</i>
2/8 L „ ...	<i>5.74</i>	2	<i>11.48</i>	<i>7.38</i>	<i>8.47</i>	2	<i>16.94</i>
Amidships ...	-	4	-	-	-	4	-
2/8 L from F.P. ...	<i>11.48</i>	2	<i>22.96</i>	<i>13.50</i>	<i>14.96</i>	2	<i>29.92</i>
1/8 L „ ...	<i>46.46</i>	4	<i>185.84</i>	<i>53.60</i>	<i>60.52</i>	4	<i>242.08</i>
F.P. ...	<i>104.41</i>	1	<i>104.41</i>	<i>121.00</i>	<i>136.00</i>	1	<i>136.00</i>
Total ...			<i>469.81</i>	<i>+ 15.00"</i>			<i>639.00</i>

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{169.19}{18} (.75 - .50) = -2.35"$   
If limited on account of midship superstructure. ✓

Actual height of superstructure *8.75'*  
Standard „ *7.50'*  
*1.25'*

Mean actual sheer aft =  
Mean standard sheer aft = } *Excess* *Excess = 15"*

Mean actual sheer forward =  
Mean standard sheer forward = }

Length of enclosed superstructure forward of amidships =  
L aft of „ = } *c.s.s.*

If limited to maximum allowance of 1 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 = <i>28.17</i> Ft. Summer freeboard = <i>3.13</i> Moulded draught (d) = <i>25.04</i> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <i>6.26 = 6 1/4"</i> Addition for Winter North Atlantic Freeboard (if required) = ✓	<b>Deduction for Fresh Water.</b> Displacement in salt water at summer load water line $\Delta = 12667$ Tons per inch immersion at summer load water line $T = 47.3$ Deduction = $\frac{\Delta}{40 T}$ inches = <i>6.69</i> <i>= 6 3/4"</i>	<b>TABULAR FREEBOARD</b> corrected for Flush Deck (if required) $\frac{.736 + .68}{1.36} = \frac{1.416}{1.36}$ Correction for coefficient <table border="1"> <tr> <th></th><th>+</th><th>-</th></tr> <tr> <td>Depth Correction</td><td><i>.09</i></td><td></td></tr> <tr> <td>Deduction for superstructures</td><td></td><td><i>41.68</i></td></tr> <tr> <td>Sheer correction</td><td></td><td><i>2.35</i></td></tr> <tr> <td>Round of Beam correction</td><td></td><td></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></td><td><i>.09</i></td><td><i>44.03</i></td></tr> <tr> <td>Summer Freeboard</td><td></td><td><i>- 43.94</i></td></tr> </table>		+	-	Depth Correction	<i>.09</i>		Deduction for superstructures		<i>41.68</i>	Sheer correction		<i>2.35</i>	Round of Beam correction			Correction for Thickness of Deck amidships			Other corrections, scantlings, etc.				<i>.09</i>	<i>44.03</i>	Summer Freeboard		<i>- 43.94</i>
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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 ...	<i>13"</i>	Tropical Fresh Water Freeboard	<i>2' - 0 1/2"</i>
Fresh Water Line „ „ ...	<i>6 3/4"</i>	Fresh Water „ „	<i>2' - 6 3/4"</i>
Tropical Line „ „ ...	<i>6 1/4"</i>	Tropical „ „	<i>2' - 7 1/4"</i>
Winter Line below „ „ ...	<i>6 1/4"</i>	Winter „ „	<i>2' - 7 3/4"</i>
Winter North Atlantic Line „ „ ...	-	Winter North Atlantic „ „	-



# South America

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.

Displacement at 25'-1½" draught = 12667 tons.

Tons per inch = 47.3 tons.

Trade of ship Ocean going

Names of sister ships "RIO DIAMANTE" Sunderland Rpt No 34477 "RIO GUALEGUAY" Sunderland Rpt No 34547

Builder's name and yard number Short Brothers Limited Yard No 494

Owners Flota Mercante del Estado Buenos Aires

Fee £ 16 : 0 : 0

Will be charged on 4E.

1912



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Foundation