

# Lloyd's Register of Shipping.

26 FEB 1954

## SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Rio Teso  
No. 42107

Ship's Name <b>RIO GUADIANA (ex LST 3023)</b>	Official Number	Nationality and Port of Registry <b>Brazilian. Rio de Janeiro</b>	Gross Tonnage <b>4033</b>	Date of Build <b>1945</b>	Port of Survey <b>Rio de Janeiro</b>
Moulded Dimensions: Length <b>319'</b> Breadth <b>54'</b> Depth <b>27'</b> <i>LENGTH TO E of R.S. 324.2'</i>					Date of Survey <b>23rd February 1954</b>
Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons					Surveyor's Signature <i>M. Caldwell</i>
Coefficient of fineness for use with Tables <b>.91 (assumed)</b>					Particulars of Classification <b>A- for service between Trinidad &amp; River Plate</b>

DEPTH FOR FREEBOARD (D).		DEPTH CORRECTION.		ROUND OF BEAM CORRECTION.	
Moulded depth ... ..	<b>27.00</b>	(a) Where D is greater than Table depth (D-Table depth) R = $(27.03 - 21.61) 2.494$ <b>+13.32"</b>		Moulded Breadth (B)	<b>54.0</b>
Stringer plate ... ..	<b>.03</b>	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = ✓		Standard Round of Beam = $\frac{B \times 12}{50}$	$= \frac{54 \times 12}{50} = 12.96"$
Sheathing on exposed deck $T \left( \frac{L-S}{L} \right) =$		If restricted by superstructures ✓		Ship's Round of Beam	$= \text{NIL}$
Depth for Freeboard (D) =	<b>27.03</b>			Difference	$= \frac{12.96}{1} = 12.96"$
				Restricted to	
				Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S}{L}\right)$	$= \frac{12.96}{4} \times 1 = +3.24"$

**DEDUCTION FOR SUPERSTRUCTURES.**

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>i</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..					
" overhang ... ..					
R.Q.D. enclosed ... ..					
" overhang ... ..					
Bridge enclosed ... ..					
" overhang aft ... ..					
" overhang forward ... ..					
F'cle enclosed ... ..					
" overhang ... ..					
Trunk aft ... ..					
" forward ... ..					
Tonnage opening aft ... ..					
" " forward ... ..					
Total ... ..					

*FLUSH DECK  
NO SUPERSTRUCTURES*

Standard Height of Superstructure \_\_\_\_\_  
" " R.Q.D. \_\_\_\_\_

Deduction for complete superstructure \_\_\_\_\_

Percentage covered  $\frac{S}{L} =$  \_\_\_\_\_  
" "  $\frac{S_i}{L} =$  **NIL**  
" "  $\frac{E}{L} =$  \_\_\_\_\_

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

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

Interpolation for bridge less than .2L (if required) \_\_\_\_\_

Deduction = **NIL**

**SHEER CORRECTION.**

Station	Standard Ordinate	S M	Product	Actual Ordinate	Effective Ordinate	S M	Product
A.P. ... ..	42.42	1	42.42	30"	30.00	1	30.00
$\frac{1}{2}$ L from A.P. ... ..	18.88	4	75.52	13.00	13.00	4	52.00
$\frac{2}{3}$ L " ... ..	4.665	2	9.33	-	-	2	-
Amidships ... ..	-	4	-	-	-	4	-
$\frac{2}{3}$ L from F.P. ... ..	9.33	2	18.66	-	-	2	-
$\frac{1}{2}$ L " ... ..	37.75	4	151.00	0	-	4	-
F.P. ... ..	84.84	1	84.84	42"	42.00	1	42.00
Total ... ..			381.77				124.00

Mean actual sheer aft = \_\_\_\_\_  
Mean standard sheer aft = \_\_\_\_\_

Mean actual sheer forward = \_\_\_\_\_  
Mean standard sheer forward = \_\_\_\_\_

Length of enclosed superstructure forward of amidships = \_\_\_\_\_  
" " aft of " = \_\_\_\_\_

Correction =  $\frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{257.77}{18} \times .75 = +10.74"$   
If limited on account of midship superstructure. ✓

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 = <b>27.03</b> Summer freeboard = <b>11.02</b> Moulded draught (d) = <b>16.01</b> Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = <b>4.00" = 4"</b> Addition for Winter North Atlantic Freeboard (if required) = ✓	<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 $\frac{d}{4} = 4"$	<b>TABULAR FREEBOARD</b> <b>49.49 + 4.86</b> corrected for Flush Deck (if required) <b>54.35</b> Correction for coefficient $\frac{.91 + .68}{1.36} \times 1.59 = 1.36$ <b>63.55</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	8"	204 1/2	Tropical Fresh Water Freeboard	11 1/4"	3359 ~
Fresh Water Line	4"	102	Fresh Water	10 1/4"	3155
Tropical Line	4"	102	Tropical	10 1/4"	3257
Winter Line	below	Nil Assigned	Winter	10 1/4"	3257
Winter North Atlantic Line		Nil Assigned	Winter North Atlantic	Nil Assigned	

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.

*SMIT*

40195  
42107

Trade of ship Brazilian Coast - Trinidad to River Plate

Names of sister ships RIO MINHO, RIO TEJO, RIO MONDEGO and RIO DOURO

Builder's name and yard number Lithgows Ltd. Port Glasgow (J 1860)

Owners E.G. Fontes e Companhia, Ltda.

Fee £ 35.000,00 (Will be charged together with Hull, Machinery and Electrical Fees)



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