

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

26 FEB 1954

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

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 27.00	(a) Where D is greater than Table depth (D-Table depth) R = (27.03-27.61) 2.494 +13.32"	Moulded Breadth (B) 54.0
Stringer plate031	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = ✓	Standard Round of Beam = $\frac{B \times 12}{50} = \frac{54.0 \times 12}{50} = \mathbf{12.96}$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures ✓	Ship's Round of Beam = NIL
Depth for Freeboard (D) = 27.03		Difference 12.96
		Restricted to
		Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{12.96}{4} \times 1 = \mathbf{+3.24}$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	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					

Standard Height of Superstructure

„ „ R.Q.D.

Deduction for complete superstructure

Percentage covered $\frac{S}{L} =$ **NIL**

„ „ $\frac{S_1}{L} =$ **NIL**

„ „ $\frac{E}{L} =$ **NIL**

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
$\frac{1}{8}$ L from A.P.	18.88	4	75.52	0 13.00	13.00	4	52.00
$\frac{3}{8}$ L „	4.665	2	9.33	-	-	2	-
Amidships	-	4	-	-	-	4	-
$\frac{5}{8}$ L from F.P.	9.33	2	18.66	-	-	2	-
$\frac{7}{8}$ 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 = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{257.77}{18} \times .75 = \mathbf{+10.74}$

If limited on account of midship superstructure. **✓**

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 = **27.03**

Summer freeboard = **11.02**

Moulded draught (d) = **16.01**

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = **4.00 = 4"**

Addition for Winter North Atlantic Freeboard (if required) = **✓**

Deduction for Fresh Water.

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

$\frac{d}{4} = 4"$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc. corresponding to a Summer moulded draught of 16'0" (16'0 1/8" actual).

Summer Freeboard = **132.25**

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
Fresh Water Line	...	4"	102
Tropical Line	...	4"	102
Winter Line	below	...	Nat. Assigned
Winter North Atlantic Line	Nat. Assigned

Tropical Fresh Water Freeboard	...	11'0 1/4"	3359 ~
Fresh Water	...	10'4 1/4"	3155
Tropical	...	10'8 1/4"	3257
Winter	...	10'8 1/4"	3257
Winter North Atlantic

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.

DMIT

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 £ 5.000,00 (Will be charged together with Hull, Machinery and Electrical Fees)



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