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IN D.O.

Date of completion of report 14th December 1951

Port of Rio de Janeiro

No. 5179

Survey held at Rio de Janeiro

Date First Survey 25th July 1950

Last Survey 14th December

19 51

On the (State if Machinery Altered Aft and if Single, Twin or Triple Screw) Tw.Sc. steamer "RIO DOURO"(ex Transport Ferry 3039) .Machinery aft.

State Type (Full Scantling, Complete Superstructure with or without Tonnage Openings) Special Type

State Type of Erections Flush Deck

TONNAGE under	} Particulars
Tonnage Deck...}	

CLASS +A1

State if with freeboard } no
as condition of Class }

Built at Glasgow

Do. of space or spaces between Tonnage Dk. and Upper Dk.	Will
--	------

Length from fore part of stem to after part of stern }
post on summer L.W.L. See Sec. 3 (1a) }

FEEET.

Launched  Yard No.

Total	forwarded
Gross Tonnage	when issued

Breadth (*greatest moulded*) B 54

54

Builders Fairfield & Co. Ltd. (J 11725)

Gross Tonnage _____ when issued
 Net Tonnage _____ by authorities

Depth, at middle of length from top of keel to top of beam at side of uppermost continuous deck. See Sec. 3 (1c)

Owners E. G. Fontes e Cia. Ltda.

1st Longitudinal Number (L × D).....=

Managers.....
(Where necessary to be entered in Reg. Book.)

Framing Depth "d," at middle of length. See }
Sec. 3 (1d)

Residence Av. Nilo Peçanha, 12.
Rio de Janeiro

Proportions—Depth to Length—Uppermost continuous deck to top of keel

Port of Registry Rio de Janeiro

Do. Long Bridge to top)
of keel)

If surveyed while building, afloat, or in dry dock

Draught Moulded

Altering & Completing, Afloat & Drydock.

FRAMES, DOUBLE BOTTOM AND BEAMS.

	INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.		INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.
MES, Spacing amidships	As attached report.		Bracket Floors, Frame	4 4 3/8 ✓	
" " from 1/2 length amidships to } Collision bulkhead.....}			" " Reversed Frame	4 4 3/8 ✓	
" " in peaks.....	2 1/4"	/	" " Vertical Struts	4 4 3/8 ✓	
FRAMING.			Centre Girder, depth and thickness amidships	36" x 1 1/2" ✓	
me Amidships, Angle, [or [.....			" " top Angles	6 4 1 1/2 (double B.A.) ✓	
" " Extends up to			" " bottom Angles	3 3 7.17 lbs ✓	
Reversed Frame Amidships, Angle			Side Girders, No. each side and thickness	one 3/8 ✓	
" " Extends up to...			Margin Plate depth (excl. of flange) and thickness	Connected	
Thickness of Framing Girder.....			" " Vertical Angle to Tank side Bracket abaft 1/2 len. from stem	to	
Dimensions in Uppermost Continuous 'tween } Decks, Angle, [or [.....			" " Vertical Angle to Tank side Bracket from forward 1/2 len. from stem to Panting Area }	Tank side	
" Second 'tween Decks, Angle, [or [.....			" " Gussets, spacing and scantling abaft 1/2 len. from stem.....	with	
" Third " " " "			" " Gussets, spacing and scantling from forward 1/2 len. from stem to Panting Area.....	3 3 3/8 angles ✓	
from 1 len. for'd. to 15% len. from Stem	Aft 6 3 : .32 BA ✓ Fore 5 3 : .38 angle		Tank Side Brackets, height above base line, at toe of Frame and thickness)		
in Peaks, Angle & [.....	3 1/4 = 3 3/8 - 3 1/4		INNER BOTTOM PLATING.		
Diameter and Spacing of Rivets through Frame and Shell Plating amid- ships			Breadth and thickness of Middle Line Strake ...	48 x 3/8 ✓	
If Frame Joggled	yes		Thickness of remainder in Holds	3/8 ✓	
The scantlings and arrangements in the Painting Area in accordance with the Rules or as approved ?	as		Are Rule requirements complied with regarding increases of scantlings in way of double bottom in E. & B. space and framing in Bunkers and Boiler Room ?	no d.b. in E.R. & B.R. ✓	
The scantlings and arrangements in way the Bottom Forward in accordance with Rules and/or as approved ?	approved		BEAMS.		
DOUBLE BOTTOM. in E.R.			Uppermost Continuous Deck, amidships, aft in Aft, Angle, [or [.....	5 2 1/2 .30 ✓	
s, Depth and thickness at mid-line in } Holds	as		" " in way of Bridge, Angle, [or [.....	5 3 .26 ✓	
Height of Brackets at side above } base line at toe of frame			Spacing	2 1/4" ✓	
c Line Keelson, on Floors, Angles, } [or [.....	approved		Main Second Deck, amidships, Angle, [or [.....	aft 5 2 1/2 .30 ✓ ford 5 3 .32 ✓	
" " Through Plate or } Intercoastal Plate... }			Spacing	2 1/4" ✓	
" " Foundation Plate on } Floors			Lower Third Deck, amidships, Angle, [or [.....	aft 5 2 1/2 .30 ✓ ford 6 3 .32 ✓	
" " Flat Plate Keel Angles			Spacing	2 1/4" ✓	
Side Keels, No. each side			Fourth Deck, amidships, Angle, [or [.....		
" " thickness of Intercoastal Plate...			Spacing		
" " Angles			Poop Deck, Angle, [or [.....		
			Spacing		
DOUBLE BOTTOM. Fr. 17 - 32			Bridge Deck, Angle, [or [.....		
Solid Floors, thickness and spacing	5/8 6'0"		Spacing		
" " Are Frame and Reversed Frame } joggled ?	no ✓		Forecastle Deck, Angle, [or [.....		
Bracket Floors, breadth and thickness at } middle line..... }	3/8 36"		Spacing		
" " breadth and thickness at } margin plate..... }	3/8 36"				

PILLARS AND DECKS.

PILLARS, No. of Rows.....	INCHES IN SHIP.		Any Departure from Approved Plans to be Noted.	Stringer Plate, breadth and thickness in way of Bridge	INCHES IN SHIP.		Any Departure from Approved Plans to be Noted.
	as	per			18	24	
" in 'tween Decks, Size and Spacing.....	per	approved		Thickness of Plating abreast Deck openings in way of Walls			
" " " " " "	plan	✓		Thickness of Plating abreast Deck openings in way of Bridge			
" in Holds " " " "				Thickness of Plating within line of openings.....			
" " " " " "				If Sheathed, material and thickness			
Centre Line Bulkhead.				Lower Deck.			
Stiffeners and Spacing.....				Stringer Plate, breadth and thickness.....	64	24	
Plating, thickness of				If Plated, state thickness.....	side	24	cen. 36
STRINGS AND DECKS.				Fourth Deck.			
Uppermost Continuous Deck.				Stringer Plate, breadth and thickness.....			
Stringer Plate, breadth and thickness in way of Walls	36	and doubled	✓	If Plated, state thickness			
" " " " " " in way of Bridge	3/8	x 30"	as approved	Pop Deck.			
" " " " " " Angle in Walls	4	4	1/2	Stringer Plate, breadth and thickness			
Thickness of Plating abreast Deck openings in way of Walls	29			Plating, Sheathing, material and thickness			
Thickness of Plating abreast Deck openings in way of Bridge	40	to 36		Bridge Deck.			
Thickness of Plating within line of openings.....	29			Stringer Plate, breadth and thickness.....			
If Sheathed, material and thickness	not			Plating, Sheathing, material and thickness			
Main Deck.				Forecastle Deck.			
Stringer Plate, breadth and thickness in way of Walls	16	x 24	✓	Stringer Plate, breadth and thickness.....			
				Plating, Sheathing, material and thickness			

SHELL PLATING.

SCANTLINGS.					RIVETING.								
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES.			BUTTS.				
	AMIDSHIPS.		FORWARD.	AFT.		State if Joggled?	SINGLE OR DOUBLE.	RIVETS.		No. of Rows of RIVETS.	RIVETS.		STRAPPED LAPPED.
	Breadth.	Thickness.	Thickness.	Thickness.				Diam.	Spacing or. to or.		Diam.	Spacing or. to or.	
FLAT PLATE KEEL	72	.48	.48	.97		Double	3/4	3	3	3/4	5/8	Lapped	
" DELG. (if any)													
BOTTOM PLATING, No. of Strakes (A.M.W.)	72 1/2	.36	.36	.36		do	3/4	3	3 - 2	3/4	5/8	do	
BILGE PLATING, No. of Strakes (A.M.W.)	36 1/2	.36	.36	.41	.29	do	3/4	3	2	3/4	5/8	do	
SIDE PLATING, No. of Strakes (A.M.W.)	71	.33	.29	.29		do	3/4	3	2	3/4	5/8	do	
UPPER DECK, Sheer-strake in Wells.....													
UPPER DECK, Sheer-strake in Bridge ...	51	.48	.29	.29					3 - 2	3/4	5/8	do	
STRAKE BELOW Sheer-strake in Wells.....	63	.33	.24	.24		Single	3/4	3	2	3/4	5/8	do	
STRAKE BELOW Sheer-strake in Bridge ...													
POOF SIDE PLATING													
BRIDGE SIDE PLATING ...													
FORECASTLE SIDE PLATING													

WATERTIGHT BULKHEADS.

Total No. of W.T. BULKHEADS in Vessel—

Extending to Upper Deck (Sec. 3 c) 6

" Deck next below

As per Rule 5

STIFFENERS.

	Plating Thickness.	VERTICAL.		HORIZONTAL.	
		Scantlings.	Spacing.	Scantlings.	Spacing.
MIDSHIP BULKHEAD, Upper 'tween decks	7/16	6x6x 7/16	24"	6x6x 7/16	7ft
" " Second "		to E.M.			
" " Third "		to Bhd.			
" " Holds	7/16	do	24"	do	do
COLLISION " (in Hold)					
AFTER PEAK " "					

FORGINGS and CASTINGS.

	Casting or Forging.	Scantlings.	Maker's Name.	Any Dep. from App. Plans to be Noted.
KEEL, Bar				
STEM				Closed as approved
STERN FRAME { Propeller Post	As			approved
{ Rudder "				
Speed of Vessel.....				
RUDDER—Type.....	Twin			
" A x D				
" Diam. of head	Forging	7" dia.		
" Mainpiece at top pintle	Admiralty supply as approved			
" " heel				
" how constructed				
" double or single plate coupling, vertical or horizontal.....	Double			

Rpt 9K 1a

Port of Rio de Janeiro

Continuation of Report No. 5179

dated 14th December 1951 on the

"RIO DOURO"

Particulars of Longitudinal framing.

Framing.	Amidships	Ends.	Riveting	
			Frames	Brackets
of B.A.			Dia.	Spacing
From uppermost continuous deck	Between upper and main decks.			
1 - 3	5 3 .31	5 3 .31	3/4	5 1/4 4 a 5/8
	Between main and Lower decks			
4 & 5	5 3 .31	5 3 .31	3/4	5 1/4 4 a 5/8
	Lower deck to keel			
6 - 19	7 3 .34	7 3 .34	3/4	4 1/2 7 a 3/4
Spacing	from 20 3/4 to 30"		Btm. ford. of Fr. 20	
			3/4	3 3/4

TRANSVERSES

	Amid.	Ends,	Lug rivets	
Side-Upp. & Depth & Th.	12 .24	12 .24	Dia.	Spacing.
Low.Tw.dks. Face	4" flange	4" flange		
Lugs to shell	3 3 .25	3 3 .25		
Side(Hold) Depth & Th.	15 .24	Various	3/4	3 3/8
Face	4" flange	as		to
Lugs to shell	3 3 .25	approved		3 3/4
Bottom Depth & Th.	24 .24	and		
Face	4 2 1/2 .37	Aft.		
Lugs to shell	3 3 .25			
Brackets	.24			
Spacing	generally 8'			

Longitudinal Beams of Angles and B.A.

	B.As.	Amidships	Ends.	Spacing
Upper deck at sides	6 3 .32	6 3 .32	28 1/2	
" " " centre	6 3 .32	6 3 .32	24"	
Main deck	Angles	5 3 .31	5 3 .31	28 1/2
Lower deck at sides	B.As	6 3 .32	6 3 .32	28 1/2
" " " centre	B.As	6 3 .32	6 3 .32	22 1/2

Transverse Beams

	Plate	Face angles.
Upp. dk. sides.	24 24	5 3 .31 double
centre	12 24	4" flange
Main dk. sides	12 24	4" flange
Low. dk at sides	15 24	4" flange
centre	12 24	5" flange

GENERAL REMARKS—(The Surveyor should state the Number of Report and Name of any Sister Vessel. Plans showing Vessel as built should be forwarded and a List the Plans should be embodied.)

This vessel is a sister vessel to the "RIO MINHO", "RIO TEJO" and "RIO MONDEGO" (Rio report Nos. 4553, 4667 and 4857)

The following "as built" plans are enclosed herewith:-

Midship Section, Profile and Decks, Pillars and Girders.

These have been modified in accordance with the approved plans, as follows:-

Tween deck hatches No 1 11 beams, 19" deep, spaced 3' - 4", width 14' 4"
No 2 9 beams, 19" deep, spaced 3' - 2 1/2", width 14' 4".

The bow doors have been plated up and an efficient fore peak bulkhead fitted.

Two additional "stepped" bulkheads have been erected at Frs. 24/25 and 31/32. These bulkheads at the deck in way have been made watertight.

The hatch coamings have been modified as requested. The horizontal stiffening is B.A.

The stern has been stiffened in accordance with the plan forwarded.

The large ventilators have been dispensed with.

The stringer plating on the Upper deck has been doubled.

Ceiling has been fitted in the square of the hatches.

The CL bulkhead in forward ballast tank has been stiffened by 3 - 5"x5"x3/8" longitudinal angle bracketed at the ends.

The deks below the king posts have been doubled and bracketed.

Cargo battens fitted in the Lower Holds only, in way of side oil tanks.

PARTICULARS OF ELECTRIC WELDING (if employed) Hatchways and Hatch beams, W.T. bulkheads, Forward dou bottom tanktop and stiffening inside same, skeg seams and minor items electrically welded using approved electrodes.

SPECIAL NOTATIONS:—Either as part of the vessel's class or for record in the Register Book Longitudinal framing, Flat Cruiser stern, Machinery Aft.

Particulars of Drop Test of Cast Steel Anchors, viz.:- Weight, Surveyor's Initials, Number of Certificate, Date of Test.	1st Bower	29.0.18 JMT. 10146. 17/9/48
	2nd "	28.3.14 JMT. 10159. 22/9/48
	3rd "	28.1.21 JHJ. 10096. 3/9/48

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop ft., R.Q.D. ft., Bridge ft., Forecastle (in feet and tenths). When the Poop or Forecastle are joined to the B.D., this should be distinctly stated

Official No. Signal Letters Extreme Breadth over Belting (Circ. 1611) Over-all Length (Circ. 1705) 346.7ft

No. and Material of Decks 3 - steel

Parts of Bottom of Vessel coated with cement or approved composition Bottom coated with bitumastic throughout.

Particulars of composition (if fitted) and of approval

PARTICULARS OF WATER BALLAST:—(Comprising all tanks which may be used for Water Ballast. (Circ. 1284) Wells are not to be included in the lengths of the tanks, but Cofferdams and Dry Tanks (if tested) are to be included.

Where Fitted.	Length. Feet.	Water Capacity. Tons.	Where Fitted.	Length. Feet.	Water Capacity. Tons.
Double bottom, aft,			Fore peak tank, In 4 compartments (Fr 7-17)	32	59
Double bottom, under Engines and Boilers,			After peak tank, Ford. side tanks p. & s.	24	19
Double bottom, if under Engines only,			Deep tank, aft,		
Double bottom, if under Boilers only,			Deep tank, forward,		
Double bottom, forward,			Other tanks, if fitted,		
Total length (if continuous) and Capacity			(If necessary, furnish further information by sketch.)		

Order for Special Survey No. 1950- July 25. Dec. 14. 28. 1951- Jan. 9. Feb. 1, 14. Mar. 2. Apr. 18. May 16. July 12. Aug. 24. Sept 28. Nov. 17, 19, 21. Dec. 4, 12, 14.

Date

Dates of Surveys held while building

Lloyd's Register Foundation