

# STEEL IRON SHIP.

(Received at London Office) **NOV 6 DEC 1888**

9614

No. **9614** Survey held at **Port Glasgow** Date, First Survey **13<sup>th</sup> June 88** Last Survey **1<sup>st</sup> Dec. 1888**  
On the **Steel twin screw steamer "Rio Branco"** 2 steel pole masts. Schooner rig.

**TONNAGE** under Tonnage Deck **415.03**  
Bridle of Main Spar, or Running Deck **.37**  
Ditto of Foremast **33.65**  
Ditto of Houses **88.79**  
Ditto of Forecastle **23.44**  
Gross Tonnage **556.28**  
Iron-Cross Space  
Less Engine Room **178.01**  
Register Tonnage as out on Beam **378.27**

**ONE, OR TWO DECKED, THREE-DECKED VESSEL, SPAN, OR TWIN-DECKED VESSEL.**  
Half Breadth (moulded) **15.5** Feet.  
Depth from upper part of Keel to top of Upper Deck Beams **10.66**  
Girth of Half Midship Frame (as per Rule) **23.75**  
1st Number **49.91**  
1st Number, if a 3-Decked Vessel deduct 7 feet  
Length **199.**  
2nd Number **993.2**  
Proportions— Breadths to Length **6.4**  
Depths to Length— Upper Deck to Keel **18.6**  
Main Deck ditto

Master **W. Boulton 87-88**  
Built at **Port Glasgow**  
When built **1888** Launched **27<sup>th</sup> Sep 1888**  
By whom built **Russell & Co.**  
Owners **Amazon Steam Navigation Co. (Limited)**  
Residence **London.**  
Port belonging to **Para**  
Destined Voyage **Para**  
If Surveyed while Building, Afloat, or in Dry Dock. **Built under special survey.**

Official Number

LENGTH on deck as per Rule	Feet. Inches	BREADTH— Moulded	Feet. Inches	DEPTH top of Floors to Upper Deck Beams	Feet. Inches	Power of Engines	Horse	N <sup>o</sup> . of Decks with flat laid	N <sup>o</sup> . of Tiers of Beams																																																																																																																					
199 0		31 0		9 8		150		one	one																																																																																																																					
Dimensions of Ship per Register, length, <b>200.45</b> breadth, <b>34.35</b> depth, <b>9.7</b> Moulded depth <b>10.1</b>																																																																																																																														
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Yes	Yes	Bulkheads No. 7 No. per Rule 4			Thickness of	4 1/2	4 1/2	Height up	Main Deck	Main Deck	How secured to sides of ship	Double Frames	Double Frames	Size of Vertical Angle Irons	2 1/2 x 2 1/2 x 5/8	2 1/2 x 2 1/2 x 5/8	and distance apart	48 ins.	48 ins.	Are the outside Plates doubled two spaces of Frames in length?	Yes	Yes
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Size of Vertical Angle Irons	2 1/2 x 2 1/2 x 5/8	2 1/2 x 2 1/2 x 5/8																																																																																																																												
and distance apart	48 ins.	48 ins.																																																																																																																												
Are the outside Plates doubled two spaces of Frames in length?	Yes	Yes																																																																																																																												

State clearly where plating is of alternate thickness—as distinct from diminished thickness at ends of vessel.

\* If Iron Deck, state if whole or part, and if wood deck is laid thereon.

The FRAMES extend in one length from **midline** to **gunwale** Riveted through plates with **5/8** in. Rivets, about **5** apart.

The REVERSED ANGLE IRONS on floors and frames extend from **middle line** to **upper turn of bilge** and to **Main Deck** alternately

KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? **Yes** And butts properly shifted? **Yes.**

PLATING. Garboard, double riveted to Keel, with rivets **3/4** in. diameter, averaging **3** ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets **5/8** in. diameter, averaging **2 1/2** ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets **3/4 x 5/8** in. diameter averaging **2 1/2 x 2 1/2** ins. from centre to centre.

Butts of **Old** Strake at Bilge for **half** length, double riveted with Butt Straps **5/8** thicker than the plates they connect.

Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets **3/4** in. diameter, averaging **3** ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets **3/4 x 5/8** in. diameter, averaging **2 1/2 x 2 1/2** ins. from cr. to cr.

Edges of Main Sheerstrake, double or single riveted. **Upper Sheerstrake, double or single riveted.**

Butts of Main Sheerstrake, double riveted for **length** amidships. **Butts of Upper or Spar Sheerstrake, treble riveted length amidships**

Butts of Main Stringer Plate, double riveted for **length** amidships. **Butts of Upper or Spar Stringer Plates, treble riveted for length**

Breadth of laps of plating in double riveting **4 1/2** Breadth of laps of plating in single riveting **2 1/2**

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? **Double** No. of Breasthooks, **14** deep floors Crutches, **14** deep floors

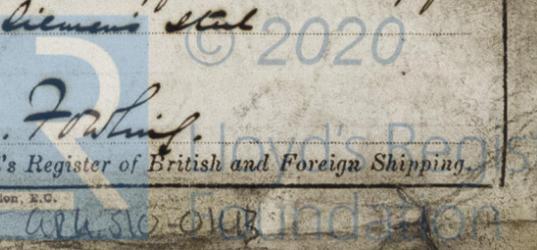
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? **Clement's Steel**

Manufacturer's name or trade mark, **Connell & Coats.**

The above is a correct description.

Builder's Signature, **Russell & Co.** Surveyor's Signature, **Robt. Forth**  
Surveyor to Lloyd's Register of British and Foreign Shipping.

Form No. 1 for Iron Ships—2000—16 5/85—Transfer Ink.



Workmanship. Are the butts of plating planed or otherwise fitted? *Planned*

Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? *Yes*

Are the fillings between the ribs and plates solid single pieces? *Yes*

Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *Yes*

Are the rivet holes well and sufficiently countersunk in the plate and punched from the facing surfaces? *Yes*

Do any rivets break into or through the seams or butts of the plating? *a few*

Masts, Bowsprit Yards, &c., are *Steel* in *good* condition, and sufficient in size and length. If of Iron or Steel give Scantlings of Plating, Angle Irons, &c., and further explain by a Sketch showing how the lower Masts and Bowsprit are constructed, showing the number of Plates and Angle Irons, mode of riveting, quality of Materials, and if stamped with Maker's name.

State also Length and Diameter of Lower Masts and Bowsprit *The Spars are in accordance with approved sketch. The steel has been tested as required. "Crescent" brand.*

N <sup>o</sup> .	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested and Superintendent, also Number of Certificate.	ANCHORS.					
								N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate.	W <sup>g</sup> t req'd per Rule.	Machine where Tested and Superintendent, also Number of Certificate.	
		Chain	60	1 1/2	24 3/4	105-1 1/2	7268	Bower Anchors	1	10-1-0	12-4-1-14	10-0-0	11169
	Fore Sails,	Iron Stream Chain	45	1 1/2	22 3/4	75-5 1/2	7270		1	10-0-14	12-2-0-2	10-0-0	11173
	Fore Top Sails,	Steel Wire	75	5/8	45 1/2	75-5 1/2	7258		1	8-0-0	10-2-2-0	8-0-0	11170
	Fore Topmast Stay Sails,	Towline, Hemp.	75	6		75-6	Russian hemp		Tested at Tipton by E.R. Pitt.				
	Main Sails,	Hawser	90	3 1/2		90-3 1/2		Stream Anchor	1	2-2-4	5-2-2-0	2-2-0	11190
	Main Top Sails, and quality	Warp	75	4 1/2		75-4 1/2	Manila	Kedge	1	2-0-0	4-10-0-0	2-2-0	11207
			90	4		90-4		2nd Kedge.	1	1-3-0		1-3-0	including stock

Standing and Running Rigging *ful. Steel wire* sufficient in size and *good* in quality. She has *2 Life Boats* and *2 others*

The Windlass is *Charles Chapman Patent* and Rudder *good* Pumps *as approved*

Engine Room Skylights. How constructed? *Open* How secured in ordinary weather? *✓*

What arrangements for deadlights in bad weather? *Temporary skylight fitted for voyage out.*

Coal Bunker Openings. How constructed? *4 cast iron shutters* How are lids secured? *Bayonet fixing* Height above deck? *7 inch*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *1 Compway, 2 Scuppers & 2 pipes on each side forward; 1 Compway, 2 Scuppers & 2 pipes on each side aft.*

Cargo Hatchways. How formed? *Steel coaming 13" high*

State size Main Hatch *10' 0" x 6' 0" on each side* Forehatch *3' 6" x 5' 0"* Quarterhatches *10' 0" x 6' 0" one on each side, 4' 0" x 4' 0" at center, 2' 6" x 4' 0" —*

If of extraordinary size, state how framed and secured? *✓*

What arrangement for shifting beams? *✓*

Hatches, If strong and efficient? *Yes, 2 1/2" teak.*

Order for Special Survey No. *1381*

Date *6<sup>th</sup> June 1888*

Order for Ordinary Survey No. *197*

Date *19<sup>th</sup> June 1888*

No. *197* in builder's yard.

- DATES OF SURVEYS held while building as per Section 18.
- 1st. On the several parts of the frame, when in place, and before the plating was wrought
  - 2nd. On the plating during the process of riveting
  - 3rd. When the beams were in and fastened, and before the decks were laid...
  - 4th. When the ship was complete, and before the plating was finally coated or cemented..
  - 5th. After the ship was launched and equipped

1888

June 13, 15, 21, 26, 27, 28 : July 3, 4, 16, 18, 20, 26, 30 :  
 Aug. 2, 6, 7, 8, 9, 15, 18, 27, 30 :  
 Sept. 5, 6, 8, 11, 14, 18, 21, 22, 25, 26, 27 :  
 Oct. 2, 3, 4, 5, 6, 8, 12, 19, 23, 24, 26, 27, 29, 30, 31 :  
 Nov. 1, 5, 6, 8, 9, 12, 14, 15, 16, 19, 20, 23, 24, 26, 28, 30, Dec. 1 (65 visits)

State dates of letters respecting this case *1888. May 31. June 12, 16, 23. Sep<sup>r</sup> 8.*

General Remarks (State quality of workmanship, &c.) *The workmanship is good and the vessel has been constructed in accordance with the approved plans (4 in No.) attached hereto. The forgings were made by the builders, examined and found satisfactory. The collision bulkhead has been tested by hose and found good. The Committee's Circulars relating to steel have also been complied with.*

*Sketch of midship section forwarded 27/11/88*

*Asphalt per G. K. 9/11/89.*

State if one, two, or three decked vessel, and if open, concerning deck; and the length of poop, bridge, fore-castle, or raised quarter-deck. (If double bottom, state particulars on separate form.)

How are the surfaces preserved from oxidation? Inside *Asphalt & Paint* Outside *Paint*

I am of opinion this Vessel should be Classed *A.1. Steel "For River purposes only" One deck & shade deck.*

The amount of the Entry Fee .....£ 3 : 0 : 0 is received by me,

Special .....£ 27 : 16 : 0 *3<sup>rd</sup> Decr 1888*

(to be sent as per margin). Certificate ... *gratis*

(Travelling Expenses, if any, £ *nil*.)

Committee's Minute

Character assigned *A1 Steel*

*+ Sub 12/88*

*a/c*

Surveyor to Lloyd's Register of British and Foreign Shipping.

From the further information now afforded it is submitted that vessel appears eligible to be classed A.1. Steel "For River purposes only" as recommended.

*W. & shade on 10k shade on*

Lloyd's Register Foundation

Certificate to be sent to G.K. office