

IRON SHIPS.

No. 11941 Survey held at Newcastle Date, First Survey 15th February Last Survey 21st November 1872

On the Iron Screw Steamer "Rio Lima" Master Mitchell

Tonnage under Tonnage Deck	<u>236.21</u>	ONE, OR TWO DECKED, SPAR, OR AWNING-DECKED VESSELS.	THREE DECKED VESSELS.	Built at	<u>Newcastle</u>
Ditto of Third Spar, or Awning Deck		Half moulded breadth	<u>10.5</u>	When built	<u>1872</u> Launched <u>20th August</u>
Ditto of Prop, or Raised Qr. Dk.	<u>15.45</u>	Depth from upper part of Keel to top of Upper Deck Beams	<u>13.4</u>	By whom built	<u>W. E. Boutland</u>
Ditto of Houses on Deck	<u>33.80</u>	Girth of Half Midship Frame (as per Rule)	<u>20.75</u>	Owners	<u>Cotton & Co.</u>
Ditto of Forecastle		1st Number	<u>44.65</u>	Port belonging to	<u>London</u>
Gross Tonnage	<u>285.46</u>	Length	<u>140</u>	Destined Voyage	<u>Spain</u>
Crew Space, as per Rule		2nd Number	<u>6252</u>	If Surveyed while Building, Afloat, or in Dry Dock.	<u>While building</u>
Decked Tonnage		Depths to Length	<u>10.4</u>		
Decked Tonnage, as a	<u>105.10</u>	Breadths to Length	<u>6.6</u>		
Decked Tonnage, cut on Beam	<u>180.36</u>				

Length on deck as per Rule, 140 ^{Feet.} 0 ^{Inches.} Moulded Breadth, 21 ^{Feet.} 0 ^{Inches.} Depths from top of Floors to Upper and Main Deck Beams, as per Rule, 12 ^{Feet.} 5 ^{Inches.} Horse, 56 No. of Decks with flat laid one No. of Tiers of Beams one

Dimensions of Ship per Register, length, 139.8 breadth, 21.8 depth, 12.1

	Inches in Ship.	Inches required per Rule.		Inches in Ship.	Inches required per Rule.
Keel, if bar iron, depth and thickness	<u>4 x 1 1/2</u>	<u>4 x 1 1/2</u>	Flat Keel Plates, breadth and thickness	<u>30</u>	<u>4</u>
Do. if centre through plate, depth and thickness	<u>4 x 1 1/2</u>	<u>6 1/4 x 1 1/2</u>	Plates in Garboard Strakes, breadth and thickness	<u>30</u>	<u>4</u>
Stem, if bar iron, moulding and thickness	<u>6 1/4 x 3 1/4</u>	<u>6 1/4 x 3 1/4</u>	Do. from Garboard to upper part of Bilges	<u>6</u>	<u>6</u>
Stern-post for Rudder do. do.	<u>21</u>	<u>21</u>	Do. of doubling at Bilge, or increased thickness, and length applied	<u>5</u>	<u>5</u>
Stern-post for Propeller	<u>21</u>	<u>21</u>	Do. from up. part of Bilge to l. edge of Sh'rstrake	<u>37</u>	<u>8</u>
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>21</u>	<u>21</u>	Do. Main Sheerstrake, breadth and thickness	<u>30</u>	<u>8</u>
Frames, size of Angle Iron, for 2/3 length amidships	<u>3</u>	<u>2 1/2</u>	Do. of doubling at Sh'rstrake, & length applied	<u>30</u>	<u>8</u>
Do. for 1/3 at each end	<u>3</u>	<u>2 1/2</u>	Do. from Mn. to Up. or Spar Dk. Sh'rstrake	<u>30</u>	<u>8</u>
Reversed Frames, size of Angle Iron	<u>2 1/2</u>	<u>2 1/2</u>	Do. Up. or Spar Dk. Sh'rstrake, breadth & thickness	<u>30</u>	<u>8</u>
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	<u>12</u>	<u>6</u>	Butt Straps to outside plating, breadth & thickness	<u>8 1/2</u>	<u>5 1/2</u>
Do. at the ends	<u>5</u>	<u>5</u>	Lengths of Plating	<u>10</u>	<u>6</u>
Do. do. do. at Bilge Keelson	<u>24</u>	<u>24</u>	Shifts of Plating, and Stringers	<u>5</u>	<u>3</u>
Do. height extended at the Bilges	<u>24</u>	<u>24</u>	Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	<u>28</u>	<u>6</u>
Beams, Upper, Spar, or Awning Deck (No. <u>42</u>) single or double Angle Iron, Plate or Tee	<u>5</u>	<u>3</u>	Angle Iron on ditto	<u>3 x 3</u>	<u>6</u>
Bulk Plate	<u>5</u>	<u>3</u>	Tie Plates (fore and aft), outside Hatchways	<u>7</u>	<u>6</u>
Single or double Angle Iron on Upper edge	<u>12</u>	<u>6</u>	Diagonal Tie Plates on Beams (No. of Pairs,)	<u>none</u>	<u>6</u>
Average space	<u>12</u>	<u>6</u>	Planksheer material and scantling	<u>Iron Cutter</u>	<u>3</u>
Beams, Main or Middle Deck (No.) single, or double Angle Iron, Plate or Tee	<u>5</u>	<u>3</u>	Waterways do. do.	<u>3</u>	<u>3</u>
Single, or double Angle Iron, on Upper Edge	<u>12</u>	<u>6</u>	Flat of Upper Deck do. do.	<u>3</u>	<u>3</u>
Average space	<u>12</u>	<u>6</u>	How fastened to Beams	<u>1/2</u>	<u>1/2</u>
Beams, Lower Deck, Hold or Orlop (No.) single or double Angle Iron, Plate or Tee	<u>5</u>	<u>3</u>	Stringer Plate on ends of Main or Middle Deck	<u>1/2</u>	<u>1/2</u>
Single or double Angle Iron on Upper Edge	<u>12</u>	<u>6</u>	Beams, breadth and thickness	<u>1/2</u>	<u>1/2</u>
Average space	<u>12</u>	<u>6</u>	(Is the Stringer Plate attached to the outside plating?)	<u>Yes</u>	<u>Yes</u>
Keelson Centre line, single or double plate, or Intercoastal, size of Plates	<u>12</u>	<u>5</u>	Angle Irons on ditto (No.)	<u>3</u>	<u>3</u>
Do. Bulb Plate to Intercoastal Keelson	<u>6</u>	<u>6</u>	Tie Plates, outside Hatchways	<u>7</u>	<u>6</u>
Do. Size of Angle Irons	<u>3</u>	<u>3</u>	Diagonal Tie Plates on Beams (No. of pairs,)	<u>none</u>	<u>6</u>
Do. Side Intercoastal Keelson, size of Plates	<u>3</u>	<u>3</u>	Waterways materials and scantlings	<u>Iron Cutter</u>	<u>3</u>
Do. Angle Irons on tops of Floors	<u>3</u>	<u>3</u>	Flat of Middle Deck do. do.	<u>3</u>	<u>3</u>
Do. Bilge Keelson, Bulb Iron	<u>3</u>	<u>3</u>	How fastened to Beams	<u>1/2</u>	<u>1/2</u>
Do. Intercoastal plates riveted to plating for length	<u>3</u>	<u>3</u>	Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	<u>1/2</u>	<u>1/2</u>
Do. do. Angle Irons	<u>3</u>	<u>3</u>	(Is the Stringer Plate attached to the outside plating?)	<u>Yes</u>	<u>Yes</u>
Side Stringers (No. <u>one</u>) size of Angle Irons	<u>3</u>	<u>3</u>	Angle Irons on ditto (No.)	<u>3</u>	<u>3</u>
Do. Intercoastal plates riveted to plating for length	<u>3</u>	<u>3</u>	Stringer or Tie Plates, outside Hatchways	<u>7</u>	<u>6</u>
Bulk Plate length <u>3</u>	<u>6</u>	<u>5</u>	Flat of Lower Deck	<u>3</u>	<u>3</u>
Transoms, material <u>Iron</u> or, if none, in what manner compensated for.	<u>6</u>	<u>5</u>	Ceiling between Decks, thickness and material	<u>2 1/4</u>	<u>2 1/4</u>
Knight-heads <u>Iron</u> Hawse Timbers <u>Iron</u>	<u>6</u>	<u>5</u>	Do. in hold do. Baltic Pine	<u>2 1/4</u>	<u>2 1/4</u>
Windlass <u>Iron</u> Harfield's Patent Bitt <u>Iron</u>	<u>6</u>	<u>5</u>	Main piece of Rudder, diameter at head	<u>4</u>	<u>3 3/4</u>
The Frames extend in one length from <u>Keel</u> to <u>Cunwale</u>	<u>6</u>	<u>5</u>	Do. do. at heel	<u>2 3/4</u>	<u>2 1/4</u>
The Reverse Angle Irons on the floors and frames extend across the middle line to upper turn of bilges and to on every frame alternately	<u>6</u>	<u>5</u>	(Can the Rudder be unshipped afloat? <u>Yes</u>)	<u>Yes</u>	<u>Yes</u>
Keelsons. Are the various lengths of Plates and Angle Irons properly connected? <u>Yes</u> And are their butts properly shifted? <u>Yes</u>	<u>6</u>	<u>5</u>	Bulkheads No. <u>4</u> Thickness of	<u>4</u>	<u>4</u>
Plates, Garboard, double Riveted to Keel, double at upper edge, with Rivets (1/4 in.) diameter, averaging (1/2 in.) from centre to centre.	<u>6</u>	<u>5</u>	Do. Height up to upper deck, one to Cabin deck, Iron	<u>4</u>	<u>4</u>
Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets (1/4 in.) diameter, averaging (1/2 in.) from centre to centre.	<u>6</u>	<u>5</u>	Do. How secured to the sides of the ship <u>Double framed & brackets.</u>	<u>4</u>	<u>4</u>
Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes (6 1/4 in.) thick, double or single Riveted; with Rivets (1/4 in.) diameter averaging (1/2 in.) from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? <u>No</u>	<u>6</u>	<u>5</u>	Do. Size of Vertical Angle Irons, 2 1/2 x 4 and their distance apart, <u>30</u>	<u>4</u>	<u>4</u>
Do. of one Strake at Bilge for half length, double riveted with Butt Straps 1/16 thicker than their plates.	<u>6</u>	<u>5</u>	Do. Are the outside Plates doubled two spaces of Frames in length? <u>Yes</u>	<u>4</u>	<u>4</u>
Do. Edges from bilge to Main Sheerstrake, worked carvel with a lining piece () thick, or clencher, double or single riveted; with rivets (1/4 in.) diameter, averaging (1/2 in.) from centre to centre.	<u>6</u>	<u>5</u>		<u>4</u>	<u>4</u>
Do. Edges of Sheerstrake, Main, double or single Riveted. Upper, double or single Riveted. At upper edge <u>single</u> At lower edge <u>double</u>	<u>6</u>	<u>5</u>		<u>4</u>	<u>4</u>
Do. Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps (1/16) thick, double or single Riveted; with Rivets (1/4 in.) diameter, averaging (1/2 in.) from centre to centre.	<u>6</u>	<u>5</u>		<u>4</u>	<u>4</u>
Do. Butts of Main Sheerstrake, double or triple Riveted. Butts of Upper or Spar Sheerstrake, and Upper Deck Stringer Plate, double or triple Riveted	<u>6</u>	<u>5</u>		<u>4</u>	<u>4</u>
for half length amidships. Breadth of laps of plating in double Riveting (1/4) Breadth of laps of plating in single Riveting (1/2)	<u>6</u>	<u>5</u>		<u>4</u>	<u>4</u>
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? <u>Double riveted</u>	<u>6</u>	<u>5</u>		<u>4</u>	<u>4</u>
Planksheer, how secured to the plating of the sides. Waterway, how secured to the planksheer and to the Beams. (Explain by Sketch, if necessary.)	<u>6</u>	<u>5</u>		<u>4</u>	<u>4</u>
Beams of the various Decks, how secured to the sides? <u>Three plates riveted to frames</u> No. of Breasthooks, <u>three</u> Crutches, <u>three</u>	<u>6</u>	<u>5</u>		<u>4</u>	<u>4</u>
What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? <u>Angles, Frazer</u>	<u>6</u>	<u>5</u>		<u>4</u>	<u>4</u>
Manufacturer's name or trade mark, <u>Brothers Newcastle. Plates Stockton Malleable Iron Comp.</u>	<u>6</u>	<u>5</u>		<u>4</u>	<u>4</u>

We certify that the above is a correct description of the several particulars therein given.

Builder's Signature, W. E. Boutland Surveyor's Signature, S. H. Cooke

Marchant

Lloyd's Register
Foundation

120452-0489

Workmanship. Are the butts of plating planed or otherwise fitted? Chipping, hammering and filing
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
Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses? Solid single pieces
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? fairly so and are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? yes.
Are there any rivets which either break into or have been put through the seams or butts of the plating? a few

Her Masts, Bowsprit, Yards, &c., are in wood good condition, and sufficient in size and length. If they are of Iron or Steel give the 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

10840 Iron

No.	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	No.	Weight. Ex. Stock.	Test as per Certificate.	W't req'd per Rule.	Test req'd per Rule.
					<u>Ins.</u>		<u>Ins.</u>						
	Fore Sails,	Chain	<u>180</u>	<u>1 1/2</u>	<u>18.0.0.0</u>	<u>1 1/2</u>	<u>18.</u>	Bowers	<u>1</u>	<u>7.3.25</u>	<u>10.2.2.0</u>	<u>7.1.0</u>	<u>9 2/5</u>
	Fore Top Sails,	(State Machine where Tested, and name of Superintendent).	<u>Lloyd's Tyne</u>		<u>P.H. R. Burrell.</u>	<u>Supt.</u>		(State Machine where Tested, and name of Superintendent).	<u>Lloyd's Tyne</u>	<u>P.H. R. Burrell.</u>	<u>Supt.</u>		
	Fore Topmast Stay Sails	Hempen Stream Cable	<u>60</u>	<u>3/4</u>		<u>7 1/2</u>		Stream	<u>1</u>	<u>2.3.14</u>		<u>2.3.0</u>	
	Main Sails,	Hawser	<u>90</u>	<u>7</u>		<u>5 1/2</u>		Kedges	<u>1</u>	<u>1.1.7</u>		<u>1.1.0</u>	
	Main Top Sails,	Towlines ...	<u>180</u>	<u>5 1/2</u>									
		Warp	<u>180</u>	<u>3 1/2</u>									
		All of <u>good</u> quality.											

Her Standing and Running Rigging Hemp sufficient in size and good in quality. She has one Life Long Boat and one Skiff

The present state of the Windlass is Good Capstan and Rudder Good Pumps Good

Engine Room Skylights. How constructed? Iron Comings & Wood Tops How secured in ordinary weather? Bolted to angle iron

What arrangements are there for deadlights in such for bad weather? Solid shutters and bulls eyes.

Coal Bunker Openings. How constructed? Cast iron rims How are lids secured? Bars & Wedges How high above deck? 1 1/2

Scuppers, &c. What arrangements are there beyond the scuppers on deck, for clearing upper deck of water, in case of a sea coming on board?

Four ports each side, besides mooring ports

Cargo Hatchways. How formed? Iron Comings State size Main Hatch 14 ft x 8 ft After 7 ft 14 x 8

If of extraordinary size, state how framed and secured? Ordinary size

What arrangement for shifting beams? Shifting beam to each hatch & fore & after.

Hatches, themselves, whether strong and efficient? yes Main Hatchways. State size 14 feet x 8 feet.

Order for Special Survey No. <u>873</u>	DATES of	1st. On the several parts of the frame, when in place, and before the plating was wrought	} <u>Built under Special Survey.</u>
Date <u>29 Dec. 1871</u>	Surveys held	2nd. On the plating during the progress of riveting	
Order for Ordinary Survey No. <u>—</u>	while building	3rd. When the beams were in and fastened, and before the decks were laid	
Date <u>—</u>	as per	4th. When the ship was complete, and before the plating was finally coated or cemented	
No. <u>1</u>	in builder's yard.	5th. After the ship was launched and equipped	

General Remarks,

This is a one decked vessel. she has a raised Quarter deck 25 feet in length. and a bridge House amidships 28 feet in length.

State if one, two or three decked vessel, or if spar or awning decked, and lengths of poop, forecabin or raised quarter deck, or of double or part double bottom.

In what manner are the surfaces preserved from oxidation? Inside Cement & Paint Outside Paint.

I am of opinion this Vessel should be Classed 90 A1.

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

on 285 tons Special 14 : : Certificate " : :

(Travelling Expenses)
(if any) £ —

Committee's Minute 10th December 1872

Character assigned 90 A1

J. H. Cooke.

This vessel appears to be eligible for the class 90 A1 as recommended

2019
9/12/72
Lloyd's Register
Foundation