

IRON 458-0107

IRON SHIP.

Rev 80/7/14 to 6/7

No. 1253 Survey held at Newcastle Date, First Survey 18th Nov 73 Last Survey 15 June 1874.

On the S.S. Lionel Yard Number 299 Master Alexander Bruce

TONNAGE under Tonnage Deck 798.86
Ditto of Third Spar, or of Awning Deck.
Ditto of Poop, or Raised Or. Dk.
Ditto of Houses on Deck 42.54
Ditto of Forecastle 25.01
Gross Tonnage 866.21
Less Crew Space 40.87
825.34
Less Engine Room 277.19
Register Tonnage 548.15
as cut on Beam

ONE, OR TWO DECKED, THREE DECKED VESSEL, SPAR, OR AWNING-DECKED VESSEL.

HALF BREADTH (moulded) 15.0

DEPTH from upper part of Keel to top of Upper Deck Beams 10.8

GIRTH of Half Midship Frame (as per Rule) 30.5

1st NUMBER 64.1

1st NUMBER, if a THREE-DECKED VESSEL

deduct 7 feet

LENGTH 202.5

2nd NUMBER 129.6

PROPORTIONS—Breadths to Length under 7

Depths to Length—Upper Deck to Keel under 11

Main Deck ditto

Built at Newcastle

When built 1874 Launched 2nd May.

By whom built Wm & C. Mitchell & Co

Owners H. Clapham & Co

Port belonging to Newcastle

Destined Voyage Mediterranean

If Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 202 6 BREADTH—Moulded 30 0 DEPTH top of Floors to Upper Deck Beams 14 1 Power of Engines 98 Horse. N° of Decks with flat laid out. N° of Tiers of Beams two.

Dimensions of Ship per Register, length 203.5 breadth, 30.2 depth, 17.3

	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	7 x 23/30	7 x 23/30
STEM, moulding and thickness	8 x 4	7 x 4 3/4
STERN-POST for Rudder do. do. for Propeller	8 x 4	22
Distance of Frames from moulding edge to moulding edge, all fore and aft	22	(Class 90A)
FRAMES, Angle Iron, for 2/3 length amidships Do. for 1/3 at each end	4 x 3 7/8	4 x 3 7/8
REVERSED FRAMES, Angle Iron	3 x 3 6	3 x 3 6
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships thickness at the ends of vessel depth at 3/4 the half-bdth. as per Rule height extended at the Bilges	19 x 8 10 1/2	19 x 8 9 1/2
BEAMS, Upper, Spar, or Awning Deck Single or double Ang. Iron, Plate or Tee Bulb Iron Single or double Angle Iron on Upper edge Average space	5 x 3 7/8	5 x 3 7/8
BEAMS, Main or Middle Deck Single or double Ang. Iron, Plate or Tee Bulb Iron Single, or double Angle Iron, on Upper Edge Average space	on every frame.	
BEAMS, Lower Deck, Hold or Orlop Single or double Ang. Iron, Plate or Tee Bulb Iron Single or double Angle Iron on Upper Edge Average space	4 1/2 x 7 3 1/2	4 1/2 x 7 3 1/2
KEELSONS Centre line, single or double plate, Box, or Intercoastal, Plates Bulb Plate to Intercoastal Keelson Angle Irons Double Angle Iron Side Keelson Side Intercoastal Plate do. Angle Irons Attached to outside plating with angle iron	23 x 7 7 1/2 x 7 7 1/2	23 x 7 7 1/2 x 7 7 1/2
BILGE Angle Irons do. Bulb Iron do. Intercoastal plates riveted to plating for length	4 x 7 7 1/2 x 7 7 1/2	4 x 7 7 1/2 x 7 7 1/2
BILGE STRINGER Angle Irons Intercoastal plates riveted to plating for length	4 x 7 7 1/2 x 7 7 1/2	4 x 7 7 1/2 x 7 7 1/2
SIDE STRINGER Angle Irons	4 x 7 7 1/2 x 7 7 1/2	4 x 7 7 1/2 x 7 7 1/2

Transoms, material. Knight-heads. Hawse Timbers. Iron and oak
Windlass Hayfield's patent Pall Bitt Iron

The FRAMES extend in one length from Keel to gunwale Riveted through plates with 3/4 in. Rivets, about 6" apart.

The REVERSED ANGLE IRONS on floors and frames extend across middle line to I.D.S.A.I. and to gunwale 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 7/8 in. diameter, averaging 4 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 3/4 in. diameter, averaging 3 ins. from centre to centre.

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

Butts of 2 Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 1/6 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 in. diameter, averaging 3 ins. from cr. to cr.

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

Butts of Main Sheerstrake, treble riveted for 1/2 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.

Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, 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 and treble riveted.

Waterway, how secured to Beams (Explain by Sketch, if necessary.) Wedge pieces riveted No. of Breasthooks, 4 Crutches, 4

Beams of the various Decks, how secured to the sides? Wedge pieces riveted

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Frames, beams, and angles

Manufacturer's name or trade mark from the Stockton Malleable Iron Co and Palmer's, from the plating from

Hartlepool Malleable Iron Co, Bolton, Warrington & Co, and

The above is a correct description

Builder's Signature, C. Mitchell & Co Surveyor's Signature, R. P. Ho. Vaughan & Co

Workmanship. Are the butts of plating planed or otherwise fitted? *planed where practicable*
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? *fairly so.*
Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *Yes.*
Do any rivets break into or through the seams or butts of the plating? *a few.*

Masts, Bowsprit, Yards, &c., are *wood* 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 *✓*

13098 Iron

NUMBER for EQUIPMENT <i>4273</i>		Fathoms.	Inches.	Test per Certificate.	Lngh. & Size req'd pr Rule	Test req'd per Rule.	ANCHORS, &c.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
No. <i>one full set and wire</i>	SAILS.	<i>240</i>		<i>37/4</i>	<i>240-1 1/2</i>	<i>37/30</i>	Bowers	<i>3</i>	<i>18.3.21</i>	<i>19.15.17</i>	<i>18.0.0</i>	<i>19</i>
	Fore Sails,	Chain ...		<i>55.8/5</i>	<i>55-8/5</i>		(State Machine where Tested, Date, and name of Superintendent.)	<i>3</i>	<i>18.0.21</i>	<i>19.11</i>	<i>18.0.0</i>	<i>19</i>
	Fore Top Sails,	<i>Cardiff P. H. G. W. Penn Supt</i>		<i>13.3.74</i>	<i>13-3.74</i>		<i>Lloyd's June 7. H. R. Banell Supt</i>	<i>22</i>	<i>18.5.1872</i>	<i>14 July 1874</i>	<i>18.0.0</i>	<i>14</i>
	Fore Topmast Stay Sails	<i>Strm Cbl</i>		<i>90</i>	<i>90-56</i>		<i>Cardiff P. H. G. W. Penn Supt</i>	<i>1</i>	<i>18.0.14</i>		<i>18.0.0</i>	<i>1</i>
	Main Sails,	<i>Hawser</i>		<i>90</i>	<i>90-9</i>		<i>14 March 74</i>	<i>2</i>	<i>4.0.8</i>		<i>4.0.0</i>	<i>2</i>
	Main Top Sails,	<i>Towlines</i>		<i>90</i>	<i>90-5 1/2</i>			<i>2</i>	<i>2.0.14</i>		<i>2.0.0</i>	<i>2</i>
	Warp quality	<i>good</i>										

Standing and Running Rigging *heup* sufficient in size and *good* in quality. She has *1* Life *Long* Boat and *2* others.

The Windlass is *iron patent* Capstan *good* and Rudder *good* Pumps *good and efficient.*

Engine Room Skylights. How constructed? *panes & sashes with glass & guards* How secured in ordinary weather? *rolled down*

What arrangements for deadlights in bad weather? *tar paper*

Coal Bunker Openings. How constructed? *wood hatchways* How are lids secured? *bolted down* Height above deck? *8' 6" on bulk*

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? *five ports and mooring pipes on each side*

Cargo Hatchways. How formed? *iron comings & head ledges riveted.*

State size Main Hatch *20' 0" x 10' 0"* Forehatch *4' 6" x 8' 0"* Quarterhatch *11' 0" x 10' 0"*

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

What arrangement for shifting beams? *one iron shifting beam.*

Hatches, If strong and efficient? *yes.*

Order for Special Survey No. <i>900</i>	DAYS of Survey held while building as per Section 18.	1st. On the several parts of the frame, when in place, and before the plating was wrought	<i>Built under Special Survey.</i>
Date <i>20073</i>		2nd. On the plating during the process of riveting	<i>1873 Nov. 18. 26. Dec. 3. 15. 24. 31.</i>
Order for Ordinary Survey No. <i>—</i>		3rd. When the beams were in and fastened, and before the decks were laid....	<i>1874 Jan. 10. 16. 22. 30. Feb. 9. 14. 18. 24. March</i>
Date <i>—</i>		4th. When the ship was complete, and before the plating was finally coated or cemented..	<i>4. 10. 16. 20. 23. April 13. 18. 21. 27. May 12.</i>
No. <i>299</i> in builder's yard.		5th. After the ship was launched and equipped	<i>19. 22. 28. June 5. 12. 15.</i>

General Remarks, (State quality of workmanship &c.) *This is a "two-decked" vessel with one deck laid; she has a poop 27' 6" long, and a top-gallant forecastle 29 feet long: she is built in accordance with the midship section attached, and in other respects in accordance with the Rules. She has a water ballast tank under the engines and boilers, the top plating of same being 1/16" thick, and another in the after hold with top-plating 1/16" and flange plates 1/16" thick. The workmanship in this case is good.*

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

How are the surfaces preserved from oxidation? Inside *by cement & paint* Outside *by paint & composition*

I am of opinion this Vessel should be Classed *90 A. 1.*

The amount of the Entry Fee ... £ *5* ... is received by me,

Special Certificate ... £ *41.6* ... 29 July 1874
P. J. Brown

(Travelling Expenses) (if any) £ *—*

Committee's Minute *31st July 1874*

Character assigned *90 A*

W. & G. Mitchell & Co., Newcastle-on-Tyne.

This vessel appears eligible for class and is recommended by 90 st. 5' double bottom
Lloyd's Register Foundation