

# IRON SHIP.

No. 10841 Survey held at Sunderland Date, First Survey September 26<sup>th</sup> 1873 Last Survey April 17<sup>th</sup> 1874  
 On the Ship "Eastern Monarch" Yard Number 65 Master Alfred Donaldson No. 27474

**TONNAGE** under Tonnage Deck 1565.34  
 Ditto of Third, Spar, or Awning Deck. —  
 Ditto of Poop, or Raised Or. Deck. 127.63  
 Ditto of Houses on Deck. 26.03  
 Ditto of Forecastle 49.84  
 Gross Tonnage 1768.84  
 Less Crew Space —  
 Less Engine Room —  
 Register Tonnage as cut on Beam —

**ONE, OR TWO DECKED, THREE DECKED VESSEL.**  
**SPAR, OR AWNING DECKED VESSEL.**  
**HALF BREADTH** (moulded) 20.65  
**DEPTH** from upper part of Keel to top of Upper Deck Beams 25.35  
**GIRTH** of Half Midship Frame (as per Rule) 39.45  
**1st NUMBER** 84.85  
**1st NUMBER, if a THREE-DECKED VESSEL** deduct 7 feet —  
**LENGTH** 240.5  
**2nd NUMBER** 204.06  
**PROPORTIONS**—Breadths to Length 6  
 Depths to Length—Upper Deck to Keel 9  
 Main Deck ditto —

Built at Sunderland  
 When built 1873 & 4 Launched 5 March 1874  
 By whom built Price, Ingham & Patten  
 Owners John Patton Junr. & Co.  
 Port belonging to London  
 Destined Voyage New Zealand  
 If Surveyed while Building, Afloat, or in Dry Dock.

**LENGTH** on deck as per Rule 240 **BREADTH** Moulded 40 **DEPTH** top of Floors to Upper Deck Beams 23 **Power of Engines** — **No. of Decks with flat laid** Two **No. of Tiers of Beams** Two

Dimensions of Ship per Register, length, 256.5 breadth, 40.3 depth, 23.5

	Inches in Ship.	Inches per Rule.
<b>KEEL</b> , depth and thickness	$9\frac{1}{2} \times 2\frac{1}{2}$	$9\frac{1}{2} \times 2\frac{1}{2}$
<b>STEM</b> , moulding and thickness	$9 \times 2\frac{1}{2}$	$9 \times 2\frac{1}{2}$
<b>STERN-POST</b> for Rudder do. do. for Propeller	$9 \times 2\frac{1}{2}$	$9 \times 2\frac{1}{2}$
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>24 ins</u>	(Class <u>100 A</u> )
<b>FRAMES</b> , Angle Iron, for $\frac{1}{2}$ length amidships	$5 \times 3\frac{1}{2}$	$5 \times 3\frac{1}{2}$
Do. for $\frac{1}{4}$ at each end	$5 \times 3\frac{1}{2}$	$5 \times 3\frac{1}{2}$
<b>REVERSED FRAMES</b> , Angle Iron	$3\frac{1}{2} \times 3$	$3\frac{1}{2} \times 3$
<b>FLOORS</b> , depth and thickness of Floor Plate at mid line for half length amidships	$22\frac{1}{2} \times 11$	$24\frac{1}{2} \times 10$
thickness at the ends of vessel	$12\frac{1}{4}$	$12\frac{1}{4}$
depth at $\frac{1}{4}$ the half-bdth. as per Rule	$12\frac{1}{4}$	$12\frac{1}{4}$
height extended at the Bilges	<u>to a fair top at ends</u>	
<b>BEAMS</b> , Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	$9 \times 9$	$9 \times 9$
Single or double Angle Iron on Upper edge	$3\frac{1}{2} \times 3$	$3\frac{1}{2} \times 3$
Average space	<u>alternate frames</u>	
<b>BEAMS</b> , Main or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	$9 \times 9$	$9 \times 9$
Single, or double Angle Iron, on Upper Edge	$4 \times 3$	$3\frac{1}{2} \times 3\frac{1}{2}$
Average space	<u>alternate frames</u>	
<b>BEAMS</b> , Lower Deck, Hold or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	$9 \times 9$	$9 \times 9$
Single or double Angle Iron on Upper Edge	$4 \times 3$	$3\frac{1}{2} \times 3\frac{1}{2}$
Average space	<u>alternate frames</u>	
<b>KEELSONS</b> Centre line, single or double plate, box, or Intercoastal, Plates	$17\frac{1}{2} \times 13$	$17\frac{1}{2} \times 13$
" Rider Plate	$9 \times 10$	$9 \times 10$
" Bulb Plate to Intercoastal Keelson	$5 \times 4$	$5\frac{1}{2} \times 4$
" Angle Irons	$5 \times 4$	$5\frac{1}{2} \times 4$
" Double Angle Iron Side Keelson	$5 \times 4$	$5\frac{1}{2} \times 4$
" Side Intercoastal Plate	$8$	$8$
" do. Angle Irons	$3 \times 3$	$3 \times 3$
" Attached to outside plating with angle iron	$3 \times 3$	$3 \times 3$
<b>BILGE</b> Angle Irons	$5 \times 4$	$5\frac{1}{2} \times 4$
" do. Bulb Iron	$5 \times 4$	$5\frac{1}{2} \times 4$
" do. Intercoastal plates riveted to plating for length	$5 \times 4$	$5\frac{1}{2} \times 4$
<b>BILGE STRINGER</b> Angle Irons	$5 \times 4$	$5\frac{1}{2} \times 4$
Intercoastal plates riveted to plating for length	$5 \times 4$	$5\frac{1}{2} \times 4$
<b>SIDE STRINGER</b> Angle Irons	$5 \times 4$	$5\frac{1}{2} \times 4$

Flat Keel Plates, breadth and thickness 40 12 3.6 12  
**PLATES** in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied  $\frac{1}{2}$  length fin up. part of Bilge to lr. edge of Sh'rstrake  
 Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake. Up. or Spar Dk Sh'rstrake, brdth & thickness  
 Butt Straps to outside plating, breadth & thickness  $9\frac{1}{2} \times 16\frac{1}{2}$   $8\frac{1}{2} \times 14$   $9\frac{1}{2} \times 16\frac{1}{2}$   $8\frac{1}{2} \times 14$   
 Lengths of Plating 5 Spaces of frames  
 Shifts of Plating, and Stringers 2 Spaces of frames  
 Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness 48 10 48 10  
 Angle Iron on ditto 5X4X 10 5 1/2 X 4 X 9  
 Tie Plates fore and aft, outside Hatchways 11 10 11 10  
 Diagonal Tie Plates on Beams No. of Pairs, —  
 Planksheer material and scantling Gutter gunwale  
 Waterways do. do. —  
 Flat of Upper Deck do. do. 4 in. J. Pin & 2 in. Oak  
 How fastened to Beams Galvanised Iron screw bolts and nuts  
 Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness —  
 Is the Stringer Plate attached to the outside plating? Yes  
 Angle Irons on ditto, No. —  
 Tie Plates, outside Hatchways —  
 Diagonal Tie Plates on Beams, No. of pairs —  
 Waterways materials and scantlings —  
 Flat of Middle Deck do. do. —  
 How fastened to Beams —  
 Stringer Plates on ends of Lower Deck, Holder 30 1/2 9 30 1/2 9  
 Is the Stringer Plate attached to the outside plating? Yes  
 Angle Irons on ditto, No. 2 4X4X 9 4X4X9  
 Stringer or Tie Plates, outside Hatchways 8 9 8 9  
 Flat of Lower Deck 3 in Baltic pine  
 Ceiling betwixt Decks, thickness and material 2 1/2 Baltic pine  
 Main piece of Rudder, diameter at head 6 — 6 —  
 do. at heel 3 1/4 — 3 1/4 —  
 Can the Rudder be unshipped afloat? Yes  
 Bulkheads No. 1 Thickness of 7 1/2 6 1/2  
 Height-up Upper deck  
 How secured to sides of ship Between double frames  
 Size of Vertical Angle Irons 3 1/2 X 3 X 9 1/2 and distance apart 30 ins.  
 Are the outside Plates doubled two spaces of Frames in length? Yes

Transoms, material. Knight heads. Hawse Timbers.  
 Windlass Immerson and Pall Bitt Iron  
 The **FRAMES** extend in one length from Keel to Gunwale Riveted through plates with 7/8 in. Rivets, about 6 1/2 apart.  
 The **REVERSED ANGLE IRONS** on floors and frames extend near middle line to Lower d'ble Stringer angle 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 1 1/8 in. diameter, averaging 5 3/4 ins. from centre to centre.  
 Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 7/8 in. diameter, averaging 3 5/4 ins. from centre to centre.  
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 3/4 ins. from centre to centre.  
 Butts of 3 Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 1/16 thicker than the plates they connect.  
 Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from cr. to cr.  
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 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, 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 5 1/4 Breadth of laps of plating in single riveting 4 1/4

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Treble and treble throughout  
 Waterway, how secured to Beams Gutter Gunwale (Explain by Sketch, if necessary.)  
 Beams of the various Decks, how secured to the sides? Chained down ends and riveted to frames and stringer plates No. of Breasthooks, 6 Crutches, 19 Transoms —  
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Angles by Houston Malleable Iron Co.  
 Manufacturer's name or trade mark, Plates by Tho. Wigham, & Middlesbrough Malleable Iron Co.

The above is a correct description.  
 Builder's Signature, Morrison & Foster Surveyor's Signature, James Brown

IRONCAST-0028



**Workmanship.**

Are the butts of plating planed or otherwise fitted?

*Planed*

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?

*A few in two thicknesses*

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

*Yes generally*

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 very few*

Masts, Bowsprit, Yards, &c., are *of Iron & 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 *(Please see Builders acct attached)*

*125 76 Iron*

**NUMBER for EQUIPMENT**

*21100*

N <sup>o</sup> .	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Lngh. & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS, &c.	N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
	Fore Sails,	Chain	270	1 1/16	67 1/10	270-1 1/16	67 1/10	Bowers ...	1	37.2.0	34.2.0	36 1/2	33.8.0.0
	Fore Top Sails,	(State Machine where Tested, Date, & name of Superintendent.)	<i>three links in each length. Tested &amp; breaking strain of 94 1/2 tons. Marked R. W. C. P. I. signed J. Hartness. 5 Feb. 1874</i>					(State Machine where Tested, Date, and name of Superintendent.)	1	36.3.26	33.15.0.0	31	29.8.0.0
	Fore Topmast Stay Sails	Hmpn Strm Cbl	90	12				Stream ...	1	14.2.0		14.0.0	
	Main Sails,	Hawser chain	90	1 1/8				Kedges ...	1	7.0.0		7.0.0	
	Main Top Sails,	Towlines	90	9						3.2.18		3.2.0	
		Warp	120	6									
		quality <i>good</i>	120										

Standing and Running Rigging *Wire & hump* sufficient in size and *good* in quality. She has *4* Long Boats and *3* others

The Windlass is *Good* Capstan *Good* and Rudder *Good* Pumps *Metal & good*

Engine Room Skylights.—How constructed?

How secured in ordinary weather?

What arrangements for deadlights in bad weather?

Coal Bunker Openings.—How constructed?

How are lids secured?

Height above deck?

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea?

*5 Ports & 4 Scuppers on each side*

Cargo Hatchways.—How formed? *Iron plate Cornings & Head ledges*

State size Main Hatch *16.0 X 11.4 X 2ft high* Fore hatch *8 X 6 X 2ft high* Quarter hatch *8ft X 7ft X 2ft high*

If of extraordinary size, state how framed and secured?

What arrangement for shifting beams? *Two hold Beams at Main Hatch*

Hatches, If strong and efficient? *Yes*

Order for Special Survey No. *2440*

Date *26 September 1873*

Order for Ordinary Survey No. —

Date —

No. *65* 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

*Built under S.P. and surveyed 1873 Sep 26 30 Oct 14 17 20 23 26 29 30 31 Jan 3 6 9 11 14 22 26 29 31 Feb 6 9 11 14 22 27 29 30 31 Mar 2 5 11 14 22 25 27 29 30 31 Apr 7 10 14 17*

**General Remarks, (State quality of workmanship &c.)**

*This vessel is constructed with a full Poop about 56 ft in length, and Fore-gallant, about 35 ft in length; instead of the double angle Iron stringer between decks, a clamp plate is wrought fore & aft 12 1/2 in and she is fitted with an iron watertight platform upon the lower deck stringer plates in the fore peak, with two panting Beams abaft the Collision Bulkhead; She had a cargo port on each side, between decks, with strong angle iron framing all round, a clamp plate above them and the sheer strake is doubled with 1/2 in plating, and the workmanship is generally of a good description.*

State if *one, two or three* decked vessel, or if *open or running* 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 *Portland Cement to upper turn of* Outside *3 Coats of paint*

I am of opinion this Vessel should be Classed *\* 100 A I, Barges and paint above*

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

Special ... £ *66* : *14* : - *25 April 1874*

Certificate ... : : *JBW*

(Travelling Expenses)

(if any) £

Committee's Minute *28th April 1874*

Character assigned *100 A I, AOC P*

*James Gibson*  
This vessel appears to be of the class recommended  
Lloyd's Register Foundation