

1820 IRON SHIPS.

Rec 4/2/59

No. 1530 Survey held at Dumbarton Date 31st January 1859
 on the Iron Ship "Marcella" Master M. Lagier
 Tonnage Gross 415 ⁴⁴/₁₀₀ Engine Room 228 ⁹⁴/₁₀₀ Register 486 ⁵²/₁₀₀ Built at Whiteinch,
 When Built 1855 By whom built W. Barclay & Clark Owners A. Lopez & Co.
 Port belonging to Alicante Destined Voyage Alicante & Marseilles
 If Surveyed Afloat or in Dry Dock Dry Dock at Dumbarton

Length aloft	Feet. Inches.	Extreme Breadth	Feet. Inches.	Depth from top of Upper Deck Beam to top of Floor	Feet. Inches.	Power of Engines	Horse No.
.....	<u>215</u>	<u>24 6</u>	<u>16 6</u>	<u>148</u>
Distance of Frames or Ribs from moulding edge to moulding edge, all fore and aft	Inches in Ship. <u>18</u>	Inches required per Rule. <u>18</u>	Inches. 16ths required per Rule. <u>18</u>	Inches. 16ths required per Rule. <u>18</u>	Stem, if bar iron, moulding and thickness	Inches. 16ths required per Rule. <u>10 2 3/4 7/8 2 3/4</u>	
Floors, Size of Angle Iron, and No. <u>One</u> at bottom of Floor Plate	Inches. In Ship. <u>4 3 1/2</u>	Inches. In Ship. <u>4 3 1/2</u>	Inches. 16ths required per Rule. <u>4 3 1/2</u>	Inches. 16ths required per Rule. <u>4 3 1/2</u>	Stern-post, if bar iron, moulding and thickness	<u>8 4 1/2 7/8 5 1/2</u>	
„ depth and thickness of Floor Plate at mid line	<u>18 1/2</u>	<u>16 1/2</u>	<u>16 1/2</u>	<u>16 1/2</u>	Keel, if bar iron, depth and thickness	<u>10 2 3/4 7/8 2 3/4</u>	
„ depth and thickness of Floor Plate at Bilge Keelson	<u>12 1/2</u>	<u>13 1/2</u>	<u>13 1/2</u>	<u>13 1/2</u>	„ if plate iron, breadth and thickness		
„ Size of Reversed Angle Iron, and No. <u>one</u> at top of Floor Plate	<u>3 3 3/8</u>	<u>3 2 3/4</u>	<u>3 2 3/4</u>	<u>3 2 3/4</u>	Garboard Plates, thickness	Description of Iron. <u>Midships</u>	
Frames, Size of Angle Iron, single or double	<u>4 3 1/2</u>	<u>4 3 1/2</u>	<u>4 3 1/2</u>	<u>4 3 1/2</u>	From Garboard to upper part of Bilge	<u>1 1/2 3/8 5/8</u>	
„ Reversed Iron, <u>it</u> to every frame	<u>3 3 3/8</u>	<u>3 2 3/4</u>	<u>3 2 3/4</u>	<u>3 2 3/4</u>	From upper part of Bilge to Sheerstrakes	<u>1/2 1/2 1/2 1/2</u>	
Beams, Deck (N ^o . <u>52</u>) double Angle Iron or Bulb Iron with double Angle Iron on top	<u>3 3 7/16</u>	<u>3 3 7/16</u>	<u>3 3 7/16</u>	<u>3 3 7/16</u>	Sheerstrakes and	<u>1/2 1/2 1/2 1/2</u>	
„ „ depth & thickness of plate amidships	<u>7 7/16</u>	<u>6 7/8</u>	<u>6 7/8</u>	<u>6 7/8</u>	Breadth & thickness of Butt Straps to outside plating	<u>8 x 5 7/8 7/16</u>	
„ „ double or single Angle Iron, on lower edge	<u>2 1/2 2 1/2 7/16</u>	<u>2 1/2 2 1/2 7/16</u>	<u>2 1/2 2 1/2 7/16</u>	<u>2 1/2 2 1/2 7/16</u>	Planksheers	Material. <u>Iron</u>	
„ „ average space between	<u>3 feet</u>	<u>3 feet</u>	<u>3 feet</u>	<u>3 feet</u>	Gunwale Plate or Stringer on ends of Up. Dk Beams	<u>2 1/2 1 1/2</u>	
„ „ if wood (N ^o .) sided & moulded					Angle Iron on ditto	<u>4 x 4 7/16 4 5/16 3 5/16</u>	
„ Hold, or Lower Deck (N ^o . <u>39</u>) double Angle Iron or Bulb Iron with double Angle Iron on top	<u>3 3 7/16</u>	<u>3 3 7/16</u>	<u>3 3 7/16</u>	<u>3 3 7/16</u>	Waterway	<u>3 12 8 1/2 7</u>	
„ „ depth & thickness of plate amidships	<u>7 1/2</u>	<u>6 7/8</u>	<u>6 7/8</u>	<u>6 7/8</u>	Deck	<u>3 3/8 3 1/2</u>	
„ „ double or single Angle Iron, on lower edge	<u>2 1/2 2 1/2 7/16</u>	<u>2 1/2 2 1/2 7/16</u>	<u>2 1/2 2 1/2 7/16</u>	<u>2 1/2 2 1/2 7/16</u>	Ceiling in Hold	<u>3 3 1/2</u>	
„ „ average space between	<u>6 7/16</u>	<u>6 7/16</u>	<u>6 7/16</u>	<u>6 7/16</u>	Ceiling betwixt Decks	<u>3</u>	
„ „ if wood (N ^o .) sided & moulded					Beam Clamps		
„ Paddle, wood, sided and moulded or if Iron, size of Plate					„ Shelf		
„ Engine					„ Stringer Plates on ends of Hold or Lower Dk Beams	<u>1 1/2 1 1/2 1 1/2</u>	
Keelson, wood, sided & moulded, iron, size of plate, if Box, give sketch & dimensions	<u>4 4 7/16</u>	<u>4 4 7/16</u>	<u>4 4 7/16</u>	<u>4 4 7/16</u>	Ceiling between Decks	<u>7 2 1/2</u>	
„ Side or Bilge	<u>2 1/2 1/2</u>	<u>2 1/2 1/2</u>	<u>2 1/2 1/2</u>	<u>2 1/2 1/2</u>	Stringer or Tie Plates outside Hatchways	<u>18 1/2 10 x 1/2</u>	
„ Number	<u>12</u>	<u>12</u>	<u>12</u>	<u>12</u>	Deck Beam Clamps	<u>1 1/2 1 1/2 1 1/2</u>	
Transoms, material <u>Plate</u> or, if none, in what manner compensated for.					„ Shelf		
Knight-heads					Stringers in Hold	<u>5 x 4 x 3/16 4 3/4 x 3 1/4 x 3/16</u>	
Hawse Timbers					Deck, Lower		
Bulkheads, N ^o . <u>Five</u> Thickness of <u>3 1/2 x 5/16</u>					Deck, Upper, how fastened to Beams	<u>On every other beam in each beam & 2 up screws in the intermediate one</u>	
are they free from defects?							
how secured to the sides of the ship							
size of vertical angle iron and their distance apart							
The Frames or Ribs extend in one length from <u>Keel</u> to <u>Gunwale</u> rivetted through plates with (<u>3/4</u> in.) rivets, about (<u>7</u> in.) apart.							
The reverse angle irons on the floors extend in one length across the middle line from <u>Keel</u> to <u>Hold Beams</u> & alternately							
„ „ „ on the frames „ „ „ from <u>Keel</u> to <u>Gunwale</u> & Stringer							
Keelson, how are the various lengths of plates or angle irons connected? <u>Butts Shifted</u>							
Plates, Garboard, double or single rivetted to keel & at upper edge, with rivets (<u>1</u> ins.) diameter averaging (<u>3 1/2</u> in.) from centre to centre of rivet.							
„ Edges from Garboards to upper part of bilge, worked carvel with a lining piece (<u>1</u> in.) thick, or clencher, double or single rivetted; rivets (<u>3/4</u> in.) diameter, averaging (<u>2 1/2</u> ins.) from centre to centre of rivets.							
„ Butts from Keel to turn of bilge, worked carvel with a lining piece (<u>3/4</u> in.) thick, double or single rivetted; rivets (<u>3/4</u> in.) diameter, averaging (<u>2 1/2</u> ins.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? <u>Yes</u>							
„ Edges from bilge to planksheer, worked carvel with a lining piece (<u>1</u> in.) thick, double or single rivetted; rivets (<u>3/4</u> in.) diameter, averaging (<u>2 1/2</u> in.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? <u>Yes</u>							
„ Butts from bilge to planksheers, worked carvel with a lining piece (<u>3/4</u> in.) thick, or clencher, double or single rivetted; rivets (<u>3/4</u> in.) diameter averaging (<u>2 1/2</u> ins.) from centre to centre of rivets. Breadth of laps in double rivetting (<u>4</u>) Breadth of laps in single rivetting (<u>2 1/4</u>)							
Planksheer, how secured to the plating of the sides							
Waterway „ „ planksheer and to the Beams							
Side trussing breadth and thickness of plates							
Deck trussing							
Deck Beams, how secured to the side? <u>Welded Messes Rivetted to Frames</u>							
Hold or Lower Deck „							
Paddle „							
No. of breasthooks <u>4</u> crutches <u>3</u> how are pointers compensated? <u>By</u>							
What description of iron is used for the angle iron and plate iron in the vessel? <u>Upper good</u> Builder's Signature <u>W. Barclay & Clark</u>							
Manufacturers of Iron not known							

Workmanship. Are the lands or laps of the clenchwork in all cases in breadth at least five times the diameter of the rivets in double rivetted edges and butts, and at least three times the diameter of the rivets where single rivetting is admitted? By
 Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? ✓
 Do the fillings between the ribs and plates fill in solid with single pieces, or are they in short lengths of various thicknesses? Solid pieces
 Do the holes for rivetting plate to frames, lining pieces, or plate to plate, &c., conform well to each other? ✓ and are the rivet holes well and sufficiently countersunk in the outer plate? ✓
 Are there any rivets which either break into or have been put through the seams or butts of the plating? None

Her Masts, Yards, &c., are in Good condition, and sufficient in size and length.

She has SAILS.		CABLES, &c.		ANCHORS, and their weights.	
N ^o .			Fathoms. Inches.	N ^o .	Weight.
<u>One</u>	Fore Sails,	Chain	<u>240</u> <u>1 1/2</u>	Bower,	<u>3</u> <u>22</u>
<u>Complete</u>	Fore Top Sails,	Hempen Stream Cable	<u>105</u> <u>1 1/4</u>		<u>21</u>
	Fore Topmast Stay Sails,	Hawser	<u>110</u> <u>9</u>	Stream,	<u>1</u> <u>10</u>
<u>Suit</u>	Main Sails,	Towlines	<u>240</u> <u>6</u>		
	Main Top Sails,	Warp	<u>110</u> <u>5 1/2</u>	Kedge,	<u>2</u> <u>5 1/2</u>
	and other requisite Sails	All of <u>Good</u> quality.	<u>240</u> <u>4</u>		

Her Standing and Running Rigging Complete sufficient in size and Good in quality.

She has One Life Long Boat and Two Riggs & One Pinnace & One Cutter

The present state of the Windlass is Two Capstans & Good and Rudder Good Pumps One hand pump to each compartment & bilge to engine through

General Remarks, Statement and Date of Repairs, extent of corrosion (if any) both internally and externally, and condition of rivets.

- DATES of Surveys held while building, as per Section 17.
- 1st. On the several parts of the frame, when in place, and before the plating was wrought Occasionally seen
 - 2nd. On the plating during the progress of rivetting While Building
 - 3rd. When the beams were in and fastened, and before the decks were laid On April, 1855
 - 4th. When the ship was complete, and before the plating was finally coated 4 June 1855
 - 5th. After the ship was launched

This vessel was occasionally seen while Building and shown as the first vessel on the Building List for June 1855
According to the Specification produced, was intended for the Great Class; She has now received a thorough overhaul in Dock and Offit with a few alterations made in Cabin and Deck House, part new deck and Waterway
Ceiling in Flat of Bottom lifted, all oxidation on plating removed and a few suspicious rivets in bottom renewed
Enging taken out overhauled and replaced
New Standing Rigging of Wire
Greater part of Hawsers and Warps new
She appears a strong Built vessel and is now in a good and efficient Condition

In what manner are the surfaces preserved from oxidation? At present, Red Lead & Hancock's Patent Paint

I am of opinion this Vessel should be classed G.A.S.

The amount of the Fee£ 5 : - : - is received by me,
 Special£ 5 : 5 : -
 Certificate (if required)£ - : 5 : -

Committee's Minute 7th February 1859.

Character assigned A 1 for 9 Years
Build of Iron
[Signatures]

[Large handwritten signature]
 I am of opinion this vessel is eligible for the Class mentioned above
 4 Feb 1859
 Lloyd's Register Foundation