

# IRON SHIP.

No. 3487 Survey held at West Hartlepool Date, First Survey 16<sup>th</sup> Nov 1874 Last Survey 12<sup>th</sup> June 1875

On the S.S. "Rosa Mary" Yard Number 151 Master Webster

<b>TONNAGE</b> under Tonnage Deck } <u>905.80</u>	<b>ONE, OR TWO DECKED, THREE DECKED VESSEL.</b>
Ditto of Third, Spar, or Awning Deck. } <u>89.70</u>	<b>SPAR, OR AWNING DECKED VESSEL.</b>
Ditto of Poop, or Raised Or. Dk. } <u>28.49</u>	<b>HALF BREADTH</b> (moulded) .. .. . <u>14.11</u>
Ditto of Houses on Deck <u>2.80</u>	<b>DEPTH</b> from upper part of Keel to top of Upper Deck Beams <u>18.6 1/2</u>
Ditto of Forecastle <u>32.20</u>	<b>GIRTH</b> of Half Midship Frame (as per Rule) .. .. <u>30.1</u>
Gross Tonnage <u>1129.07</u>	<b>1st NUMBER</b> .. .. . <u>63.6 1/2</u>
Less Open Space <u>47.15</u>	<b>1st NUMBER, if a THREE-DECKED VESSEL</b>
Less Engine Room <u>361.30</u>	deduct 7 feet .. .. . <u>220.4</u>
Register Tonnage as cut on Beam } <u>720.62</u>	<b>LENGTH</b> .. .. . <u>144.90</u>
	<b>2nd NUMBER</b> .. .. . <u>144.90</u>
	<b>PROPORTIONS</b> —Breathths to Length .. within 0.1
	Depths to Length—Upper Deck to Keel .. within 1.3
	Main Deck ditto .. .. .

Built at West Hartlepool  
 When built 1875 Launched 24 April  
 By whom built W. Gray & Co.  
 Owners Lowndale & Co.  
 Port belonging to Hartlepool  
 Destined Voyage Mediterranean  
 If Surveyed while Building, Afloat, or in Dry Dock.

**LENGTH** on deck as per Rule .. 220 4 **BREADTH**—Moulded... .. 29 10 **DEPTH** top of Floors to Upper Deck Beams .. 17 **Power of Engines** ... 100 **No. of Decks with flat laid** One  
 Dimensions of Ship per Register, length, 221 breadth, 30 depth, 16—8  
 No. of Tiers of Beams Two

	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.
<b>KEEL</b> , depth and thickness .. .. .	8 x 2 3/8	7 1/2 x 3 3/8	8 x 2 3/8	7 1/2 x 3 3/8	8 x 2 3/8	7 1/2 x 3 3/8
<b>STEM</b> , moulding and thickness... ..	8 x 2 3/8	7 1/2 x 3 3/8	8 x 2 3/8	7 1/2 x 3 3/8	8 x 2 3/8	7 1/2 x 3 3/8
<b>STERN-POST</b> for Rudder do. do. ....	8 x 4 1/2	7 1/2 x 4 3/4	8 x 4 1/2	7 1/2 x 4 3/4	8 x 4 1/2	7 1/2 x 4 3/4
for Propeller .. .. .	8 x 4 1/2	7 1/2 x 4 3/4	8 x 4 1/2	7 1/2 x 4 3/4	8 x 4 1/2	7 1/2 x 4 3/4
Distance of Frames from moulding edge to moulding edge, all fore and aft .. .. .	23	23	23	23	23	23
<b>FRAMES</b> , Angle Iron, for 1/2 length amidships Do. for 1/2 at each end .. .. .	4 x 3 1/2	4 x 3 1/2	4 x 3 1/2	4 x 3 1/2	4 x 3 1/2	4 x 3 1/2
<b>REVERSED FRAMES</b> , Angle Iron .. .. .	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3
<b>FLOORS</b> , depth and thickness of Floor Plate at mid line for half length amidships ..	8 1/2 x 5/16	8 1/2 x 5/16	8 1/2 x 5/16	8 1/2 x 5/16	8 1/2 x 5/16	8 1/2 x 5/16
thickness at the ends of vessel .. .. .	8 1/2 x 5/16	8 1/2 x 5/16	8 1/2 x 5/16	8 1/2 x 5/16	8 1/2 x 5/16	8 1/2 x 5/16
depth at 3/4 the half-bdth. as per Rule ..	14	14	14	14	14	14
height extended at the Bilges... ..	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2
<b>BEAMS, Upper, Spar, or Awning Deck</b> Single or double Ang. Iron, Plate or Tee Bulb Iron } Single or double Angle Iron on Upper edge ..	2 1/2 x 2 1/2	2 1/2 x 2 1/2	2 1/2 x 2 1/2	2 1/2 x 2 1/2	2 1/2 x 2 1/2	2 1/2 x 2 1/2
Average space... ..	46	46	46	46	46	46
<b>BEAMS, Main or Middle Deck</b> Single or double Ang. Iron, Plate or Tee Bulb Iron } Single or double Angle Iron on Upper Edge ..	2 1/2 x 2 1/2	2 1/2 x 2 1/2	2 1/2 x 2 1/2	2 1/2 x 2 1/2	2 1/2 x 2 1/2	2 1/2 x 2 1/2
Average space... ..	46	46	46	46	46	46
<b>BEAMS, Lower Deck, Hold or Orlop</b> Single or double Ang. Iron, Plate or Tee Bulb Iron } Single or double Angle Iron on Upper Edge ..	2 1/2 x 2 1/2	2 1/2 x 2 1/2	2 1/2 x 2 1/2	2 1/2 x 2 1/2	2 1/2 x 2 1/2	2 1/2 x 2 1/2
Average space... ..	46	46	46	46	46	46
<b>KEELSONS</b> Centre line, single or double plate, box, or intercostal, Plates .. .. .	14 x 1 1/16	14 x 1 1/16	14 x 1 1/16	14 x 1 1/16	14 x 1 1/16	14 x 1 1/16
" Rider Plate .. .. .	8 x 9/16	7 3/4 x 9/16	8 x 9/16	7 3/4 x 9/16	8 x 9/16	7 3/4 x 9/16
" Bulb Plate to intercostal Keelson .. ..	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
" Angle Irons .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
" Double Angle Iron Side Keelson .. ..	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
" Side intercostal Plate .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
" do. Angle Irons .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
" Attached to outside plating with angle iron ..	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>BILGE</b> Angle Irons .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
" do. Bulb Iron... ..	7 1/2 x 7/16	7 x 7/16	7 1/2 x 7/16	7 x 7/16	7 1/2 x 7/16	7 x 7/16
" do. Intercostal plates riveted to plating for length .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>BILGE STRINGER</b> Angle Irons .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
Intercostal plates riveted to plating for length .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>SIDE STRINGER</b> Angle Irons .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2

	Inches in Ship.	16ths in Ship.	Inches required	16ths required
<b>Flat Keel Plates</b> , breadth and thickness .. ..	30	10/16	30	10/16
<b>PLATES</b> in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied half-bdth. ..	36	10/16	36	10/16
fm up. part of Bilge to l.r. edge of Sh'rstrake	36	10/16	36	10/16
<b>Main Sheerstrake</b> , breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake.	36	10/16	36	10/16
Up. or Spar Dk Sh'rstrake, brdth & thickness	36	10/16	36	10/16
<b>Butt Straps</b> to outside plating, breadth & thickness	9 3/4 x 7/16	9 3/4 x 7/16	9 3/4 x 7/16	9 3/4 x 7/16
<b>Lengths of Plating</b> .. .. .	46	46	46	46
<b>Shifts of Plating</b> , and Stringers... ..	36	9/16	32	10/16
<b>Gunwale Plate</b> on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness...	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Angle Iron</b> on ditto .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Tie Plates</b> fore and aft, outside Hatchways	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Diagonal Tie Plates</b> on Beams No. of Pairs, Planksheer material and scantling .. ..	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Waterways</b> do. do. .. ..	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Flat of Upper Deck</b> do. do. .. ..	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>How fastened</b> to Beams .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Stringer Plate</b> on ends of Main or Middle Deck Beams, breadth and thickness .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Is the Stringer Plate attached to the outside plating?</b>	Yes			
<b>Angle Irons</b> on ditto, No. .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Tie Plates</b> , outside Hatchways .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Diagonal Tie Plates</b> on Beams No. of pairs	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Waterways</b> materials and scantlings .. ..	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Flat of Middle Deck</b> do. do. .. ..	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>How fastened</b> to Beams .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Stringer Plates</b> on ends of Lower Deck, Hold or Orlop Beams .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Is the Stringer Plate attached to the outside plating?</b>	Yes			
<b>Angle Irons</b> on ditto, No. 2 .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Stringer or Tie Plates</b> , outside Hatchways ..	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Flat of Lower Deck</b> .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Ceiling</b> betwixt Decks, thickness and material ..	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
in hold do. do. .. ..	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Main piece of Rudder</b> , diameter at head .. ..	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
do. at heel .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Can the Rudder be unshipped afloat?</b> <u>yes</u>				
<b>Bulkheads</b> No. 4 Thickness of .. .. .	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Height up</b> <u>Main Deck</u> after one or more deck plates over.	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>How secured</b> to sides of ship <u>to double frames</u>	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Size of Vertical Angle Irons</b> <u>3 x 3 x 6/16</u> and distance apart <u>30</u> ins.	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2	5 x 3 1/2
<b>Are the outside Plates doubled</b> two spaces of Frames in length? <u>yes</u>				

Transoms, material. Knight-heads. Hawse Timbers.  
 Windlass Emerson & Wallers Patent Pall Bitt

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 above hold beams 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 in. diameter, averaging 5 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 3/8 ins. from centre to centre.

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

Butts of three Strakes at Bilge for half 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 3/4 in. diameter, averaging 3/8 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3/4 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 half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted half length amidships.

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

Breadth of laps of plating in double riveting 4 3/4 Breadth of laps of plating in single riveting 2 3/4

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double & Treble

Waterway, how secured to Beams (Explain by Sketch, if necessary.)

Beams of the various Decks, how secured to the sides? End turned & pieces welded No. of Breasthooks, Five Crutches, Two

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

Manufacturer's name or trade mark, Woolston & Co. Hartlepool & Co. West Hartlepool.

The above is a correct description.

Builder's Signature, William Gray & Co. Surveyor's Signature, J. P. Gladstone



**Workmanship.**

Are the butts of plating planed or otherwise fitted? *Planed*

14765 Jan.

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? *Solid*

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 faying surfaces? *Yes*

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

Masts, Bowsprit, Yards, &c., are *of Pine* 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 *Main Mast 71 ft. Diameter 18 1/2 in. Fore Mast 74 ft. Dia 18 1/2.*

**NUMBER for EQUIPMENT** *15947*

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 ...	240	1 9/16	40 1/2 tons	240 1/2	40 1/2	Bowers ...	3	21-1-14	21-10-0-14	21-0-0	21-12-0-20
	Fore Top Sails,	(State Machine where Tested, Date, & name of Superintendent.)											
	Fore Topmast Stay Sails												
	Main Sails,	Hmpn Strm Cbl	60	1 3/16									
	Main Top Sails,	Hawser ...	90										
		Towlines ...	90	3/12									
		Warp	140	5									
		quality <i>Good</i>		5 1/2									

Standing and Running Riggings *Wire & Hemp* sufficient in size and *Good* in quality. She has *Four* Long Boats and *Good*

The Windlass is *Good* Capstan *2* and Rudder *Good* Pumps *3* of *7* inch *Good*

Engine Room Skylights. How constructed? *3 in. Deck 1/4 casing to 1/2 in. Deck* How secured in ordinary weather? *Rolling*

What arrangements for deadlights in bad weather? *Rolling*

Coal Bunker Openings. How constructed? *Iron casing* How are lids secured? *Bars* Height above deck? *13 inches*

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

Cargo Hatchways. How formed? *7/16 Plate*

State size Main Hatch *22 ft. 11 in. x 10 ft. 10 in. baring 3 in. Fore hatch 11 ft. 3 in. x 7 ft. 11 in. baring 3 in. Quarter hatch 23 ft. x 9 ft. 10 in. baring 2 1/2 in.*

If of extraordinary size, state how framed and secured?

What arrangement for shifting beams? *7/16 plate in centre the whole depth of baring, Double angles on top edges.*

Hatches, If strong and efficient? *Strong & good*

Order for Special Survey No. *37*

Date *17 Oct 1874*

Order for Ordinary Survey No.

Date

No. *151* 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

Special Survey Date of Survey *1874, Nov 16*  
*1875 Jan 22-29 Feb 1-4 16-22 March 1-5-11-17-1*  
*April 1-6-9-13-15-19-20-28 May 14-20 June*  
*1-5-9-12*

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

*Workmanship & material good*  
*Is fitted with Raised Quarter deck, frames all to the top height, beams of 6 1/2 x 6 1/6 but with 2 1/2 x 2 1/2 x 5/16 angles on top edges, Stringer plates in ends 4 1/2 x 8/16. (additional plate at side of 30. 36 x 6/16 for 51 ft. in length.) Angles on Stringer plates 3 1/2 x 3 1/2 x 8/16. Tie plates 10 x 8/16.*  
*Plating outside 8/16-7/16-6/16 Deck 3/4 1/2 in. fastened with 9/16 in. 1/2 in.*  
*Forecastle frames all to the top height beams a single angles 5 x 3 x 8/16, Three of built 7 x 6/16. Double angles on top edges 2 1/2 x 2 1/2 x 5/16. Stringer plates in ends 10 x 6/16. Angles on 30. 3 x 3 x 7/16. Tie plates 7 x 6/16. Plating outside 5/16 Waterway 9 x 10. 1/2 in. Deck 3/4 1/2 in.*  
*Water ballast tanks fitted in fore & after hold frames in connection made with three plates, side plates 7/16 angles on 30. 3 1/2 x 3 1/2 x 7/16. Tie plates 6/16. Angles on 30. 3 x 3 x 6/16.*  
*Additional strengthening at break of raised deck, Sheers plates doubled for 20 ft. with 8/16 plate, Main Deck Stringer plates extend 6 frame space above break, raised 30. 4 spaces before, Bottom plating shell plating 1/2 in. riveted in neighbourhood of break, 40 ft. beam stringer overlap 1/2 in.*  
*31 ft 3 1/2 in. 8 1/2 ft. 2 in. Fore tank 76 ft. 6 in. after tank 65 ft.*

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.

How are the surfaces preserved from oxidation? Inside *Plat cemented with Portland cement* Outside *other parts with paint &c.*

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

The amount of the Entry Fee ... £ *5* : *0* : *0* is received by me,

Special ... £ *52* : *0* : *6* - *20 June 1875*

Certificate ...

(Travelling Expenses)

(if any) £

Committee's Minute *2nd July 1875*

Character assigned

*Lloyd's Register*

*William Gray*  
*Lloyd's Register*  
*This vessel appears eligible to be classed as recommended by 90 A 1.*  
*15th 20th 25th 30th 1/1/75*

Lloyd's Register Foundation