

3237 IRON SHIPS.

Rev 6/8/63

No. 9097 Survey held at Newcastle Date 20th Mar to 31 July 1863
 on the screw "Aurora" Master J. A. Partridge

Tonnage Gross 698.07 Engine Room 164.78 Register 533.29 Built at Newcastle
 When Built 1863 By whom built Palmer Bros & Co Owners Pickernell Bros
 Launched 30th June 1863
 Port belonging to London Destined Voyage Newport

If Surveyed Afloat or in Dry Dock Special building

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.
210	8	28	5	17	-	100	

Description	Inches in Ship		Inches required per Rule		Description	Inches in Ship		Inches required per Rule	
	In Ship	In Ship	Inches	16ths		Inches	16ths	Inches	16ths
Distance of Frames or Ribs from moulding edge to moulding edge, all fore and aft	18	✓	18		Stem, if bar iron, moulding and thickness	7	2 3/4	7	2 3/4
Floors, Size of Angle Iron, and No. 1 at bottom of Floor Plate	4	3	7/16	4	3	7/16	8	5	7
depth and thickness of Floor Plate at mid line	24	✓	8/16	17	8/16	8	4 1/2	7	5 1/2
depth and thickness of Floor Plate at Bilge Keelson	4		8/16	4	8/16	7	2 3/4	7	2 3/4
Size of Reversed Angle Iron, and No. 1 at top of Floor Plate	3	3	6/16	3	2 3/4	6/16			
Frames, Size of Angle Iron, single or double	4	3	7/16	4	3	7/16			
Reversed Iron, 1/2 to every frame	3	3	6/16	3	2 3/4	6/16			
Beams, Deck (No. 39) double Angle Iron	2 3/4	2 3/4	5/16	2 1/2	2 1/2	5/16			
Bulb Iron with double Angle Iron on top	7		7/16	7	7/16				
depth & thickness of plate amidships									
double or single Angle Iron on lower edge									
average space between	3 feet		3 feet						
if wood (No.) sided & moulded									
Hold, or Lower Deck (No. 37) double Angle Iron or Bulb Iron with double Angle Iron on top	2 3/4	2 3/4	6/16	2 1/2	2 1/2	5/16			
depth & thickness of plate amidships	7		7/16	7	7/16				
double or single Angle Iron on lower edge									
average space between	3 feet		3 feet						
if wood (No.) sided & moulded									
Paddle, wood, sided and moulded or if Iron, size of Plate									
Engine									
Keelson, wood, sided & moulded, iron, size of plate, if Box, give sketch & dimensions									
Side or Bilge									
Number									

Transoms, material Iron or, if none, in what manner compensated for.
 Knight-heads " " " " " " Bulkheads, No. 4 Thickness of 6/16 - 6/16
 Hawse Timbers " " " " " " are they free from defects? " how secured to the sides of the ship by double frames
 size of vertical angle iron and their distance apart 3 1/2 x 5/16 30 ins apart

The Frames or Ribs extend in one length from Keel to Gunnwale rivetted through plates with (3/4 in.) rivets, about (6) apart.
 The reverse angle irons on the floors extend in one length across the middle line from Tank side to Tank side
 " " " on the frames " " " from Tank side to Gunnwale Stringer in Hold alternately

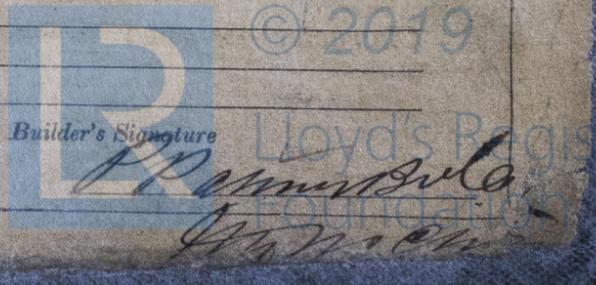
Keelson, how are the various lengths of plates or angle irons connected? See midship section
 Plates, Garboard, double rivetted to keel & at upper edge, with rivets (1/2 in.) diameter averaging (4 1/2 in.) from centre to centre of rivet.
 Edges from Garboards to upper part of bilge, worked carvel with a lining piece (1/2 in.) thick, or clencher, double rivetted; rivets (3/4 in.) diameter, averaging (3 ins.) from centre to centre of rivets.

Butts from Keel to turn of bilge, worked carvel with a lining piece (2/16) thick, double rivetted; rivets (3/4 in.) diameter, averaging (3 ins.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? Yes by secondary rivets
 Edges from bilge to planksheer, worked carvel with a lining piece (1/2 in.) thick, double rivetted; rivets (3/4 in.) diameter, averaging (3 in.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? Yes by secondary rivets

Butts from bilge to planksheers, worked carvel with a lining piece (2/16) thick, double rivetted; rivets (3/4 in.) diameter averaging (3 ins.) from centre to centre of rivets. Breadth of laps in double rivetting (4) Breadth of laps in single rivetting (2 1/2)
 Planksheer, how secured to the plating of the sides Edge of sheerstrake double rivetted
 Waterway " " planksheer and to the Beams if necessary } by screw bolts & nuts & stringer plate
 Side trussing " " breadth and thickness of plates " how secured? Bolts this side plating

Deck trussing " " " " " " Spans of diagonal plates 13 ins x 9/16
 Deck Beams, how secured to the side? by Bulb knees rivetted to frames
 Hold or Lower Deck " " " " " " dibs
 Paddle " " " " " " " "

No. of breasthooks 4 ✓ crutches three how are pointers compensated? " " " " " " " "
 What description of iron is used for the angle iron and plate iron in the vessel?
Frames marked L.W.B. Walker also Angle Iron of Beams.
Reverse frames, Keelson Angle Iron & Beam plates marked
Outside plates J.B. Richardson Shotley Bridge



IRON 36-0392

3237 *INOM*

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? *Yes*
 Do the edges of the earvel 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*
 Do the holes for rivetting plate to frames, lining pieces, or plate to plate, &c., conform well to each other? *Yes* and are the rivet holes well and sufficiently countersunk in the outer plate? *Yes*
 Are there any rivets which either break into or have been put through the seams or butts of the plating? *very few*

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.	
<i>Eleven Sails</i>	Fore Sails,	Chain	270	1 3/8	Bower,	3 19.0.0
	Fore Top Sails,	<i>Stream</i>	90	1 1/4		18.2.7
	Fore Topmast Stay Sails,	Hempen Stream Cable	90	8	Stream,	1 7.0.6
	Main Sails,	Hawser	90	6		
	Main Top Sails,	Towlines	90	5	Kedge,	2 3.2.5
and <i>13 spare ones</i>		Warp	90	4		1.5.4
		All of <i>Good</i> quality.				

Her Standing and Running Rigging is *wire & hemp* sufficient in size and *Good* in quality.

She has *2 life boats* ~~Long Boat~~ and *2 cutters & one gig*
 The present state of the Windlass is *Good* Capstan *Good* and Rudder *Good* Pumps *one in each compartment*

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

- 1st. On the several parts of the frame, when in place, and before the plating was wrought
 2nd. On the plating during the progress of rivetting
 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
 5th. After the ship was launched

Special Survey
per order No 390.

*She has a Raised Quarter deck 78 feet long & 3ft 4ins high
 and a short forecastle 4ft 10ins high
 beams of Raised Quarter deck same as upper deck stringer
 27 ins x 5/16. deckties each side of Hatchways 10 1/2 x 5/16
 Alternate frames of Forecastle extend only to height of Forecastle
 plates 7/16 ins - arrangement allowed per See 40 letter.*

*Certificates of Testing Chains as follows 270 fms 1 3/8 Proved to 34 Tons
 90 - 7/8 13 1/4 -
 Two heavy bower Anchors proved to 18 1/2 Tons
 Three bower - - - - - 17 1/2 -*

Anchors allowed 2 per cent below weights specifying in Table 22 by See 40 letter to builders dated 16th April 1863

Midship section herewith -

In what manner are the surfaces preserved from oxidation? *Red lead and Perisocks composition outside
 inside in tanks, Day's asphalt, other parts red lead -*

I am of opinion this Vessel should be classed *GA 1*
 The amount of the Fee£ 5: - : - is received by me,
 Special£ 34: 18: -
 Certificate (required)£ - : - : -

Willm^{ts} & Co. Davey

Committee's Minute *7th August 1863*
 Character assigned *A 1 for 9 Years*

*I concur in the above recommendation
 6 Aug 1863 J.M.C.*

