

3611 IRON SHIPS.

Run 30/5/64

No. 8130 Survey held at Sunderland Date 3rd October 63 to 27th May 1864
 on the Barge Rosa River Wear Master Alcock
 Tonnage Gross 500.33 Under Deck 170.92 Register Built at Pallin
 When Built 1864 Launched 7th May 64 By whom built W Doxford
 Owners Hargreaves Port belonging to Sunderland Destined Voyage St Caldera
 If Surveyed Afloat or in Dry Dock While 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.
162.9		26.3		17.45			
Distance of Frames or Ribs from moulding edge to moulding edge, all fore and aft	Inches in Ships. 21	Inches required per Rule. 21					
Floors, Size of Angle Iron, and No. at bottom of Floor Plate	Inches. 3 1/2	Inches. 3	16ths. 7	Inches. 3 3/4	Inches. 2 3/4	16ths. 7	
depth and thickness of Floor Plate at mid line	10	8	1 1/2	8			
depth and thickness of Floor Plate at Bilge Keelson	8 1/4	8	1	8			
Size of Reversed Angle Iron, and No. at top of Floor Plate	2 1/2	2 1/2	6	3	2 1/2	6	
Frames, Size of Angle Iron, single or double	3 1/2	3	7	3 1/2	2 3/4	7	
Reversed Iron, to every frame or every alternate frame	4						
Beams, Deck (N ^o 40) double Angle Iron, Plate, or Bulb Iron	7	6	6 1/2	6			
double or single Angle Iron, on top edge	2 1/2	2 1/2	5	3 1/2	2 3/4	5	
average space between	3 1/2		3 1/2				
if wood (N ^o) sided & moulded							
Hold, Lower Deck (N ^o 20) double Angle Iron, Plate, or Bulb Iron	7	7	6 1/2	6			
double or single Angle Iron, on top edge	2 1/2	2 1/2	7	3	2 1/2	6	
average space between	6		6				
if wood (N ^o) sided & moulded							
Paddle, wood, sided and moulded, or if Iron, size of Plate							
Engine							
Keelson, single plate, box, or intercostal	15	X	8	13	10		
Size of Plates	14	X	8	11 1/2	8		
Size of Angle Irons	3	3	6	3	2 1/2	6	
Ditto Bilge (No. 1) double iron	6	3	8	4 1/2	3 1/2	7	
Transoms, material <u>Iron plate</u> or, if none, in what manner compensated for.							
Knight-heads, and Hawse Timbers							
The Frames or Ribs extend in one length from <u>keel</u> to <u>gunwale</u> 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 <u>flat</u> to <u>the upper part of bilge on every frame</u>							
on the frames, from <u>flat</u> to <u>deck stringer on alternate frames</u>							
Keelson, how are the various lengths of plates or angle irons connected? <u>double rivetted butt straps</u>							
Plates, Garboard, double or single rivetted to keel & at upper edge, with rivets (1 1/2 in.) diameter averaging (2 1/2 in.) from centre to centre of rivet.							
Edges from Garboards to upper part of bilge, worked <u>carvel with a lining piece</u> (1 in.) thick, or clencher, double or single rivetted; rivets (3/4 in.) diameter, averaging (2 3/4 ins.) from centre to centre of rivets.							
Butts from Keel to turn of bilge, worked carvel with a lining piece (1 1/16) thick, double or single rivetted; rivets (3/4 in.) diameter, averaging (2 3/4 ins) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? <u>Yes by being brought over</u>							
Edges from bilge to sheerstrake, worked <u>carvel with a lining piece</u> () thick, or clencher, double or single rivetted; rivets (3/4 in.) diameter, averaging (2 3/4 in.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? <u>Yes as above</u>							
Edge of Sheerstrake, double or single rivetted? <u>butt straps from frame to frame</u>							
Butts from bilge to planksheers, worked carvel with a lining piece (1 1/16) thick, double or single rivetted; rivets (3/4 in.) diameter averaging (3 ins.) from centre to centre of rivets. Breadth of laps in double rivetting (4 1/2) Breadth of laps in single rivetting ()							
Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted?							
Planksheer, how secured to the plating of the sides							
Waterway, planksheer and to the Beams							
Deck Beams, how secured to the side? <u>Fixed bracket plates</u>							
Hold or Lower Deck							
No. of breasthooks <u>seven</u> crutches <u>three</u> how are pointers compensated? <u>iron transom</u>							
What description of iron is used for the angle iron and plate iron in the vessel? <u>Iron Whitton Park & Bolton</u> Builder's Signature <u>William Doxford</u>							

IRON 437A - 0041

3611 Iron

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? They are

Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? They do

Do the fillings between the ribs and plates fill in solid with single pieces, or are they in short lengths of various thicknesses? Single pieces

Do the holes for rivetting plate to frames, lining pieces, or plate to plate, &c., conform well to each other? They do and are the rivet holes well and sufficiently countersunk in the outer plate? They are

Are there any rivets which either break into or have been put through the seams or butts of the plating? a few at corners of some butts

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

She has SAILS.		CABLES, &c.		ANCHORS, and their weights.			
No.			Fathoms.	Inches.	Calypers Judgment of best	No.	Weight.
	Fore Sails,	Chain	90	1 3/8	Bower,	3	19.1.14
	Fore Top Sails,	Iron Stream Cable	90	1			19.7.6
	Fore Topmast Stay Sails,	Hawser	90	6	Stream,	11	6.3.19
	Main Sails,	Towlines	90	8			
	Main Top Sails,	Warp	90	5	Kedge,	2	3.1.24
	and others as usual	All of <u>good</u> quality.	90	4			1.3.12

Her Standing and Running Rigging Very heavy sufficient in size and good in quality.

She has one Long Boat and two others

The present state of the Windlass is Good Capstan 2 and Rudder Good Pumps Good

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 Built under special survey
 - 2nd. On the plating during the progress of rivetting between the
 - 3rd. When the beams were in and fastened, and before the decks were laid 3rd October 1863
 - 4th. When the ship was complete, and before the plating was finally coated and 2nd May 1864
 - 5th. After the ship was launched

The stem being tapered at the head, to 5 1/2 x 2 3/8, additional keelstruts have been fitted in compensation -

The Bowspit, Gun and Main Masts are of iron, 22 inches diameter at the partners, formed of two plates, in the circumference, edges single rivetted butts double rivetted the plates are 3/8 thick, with three angle irons 2 x 3/8. Fore & Main Yards of steel, formed of two plates, in the circumference 1/4 to 3/16 thick with two angle irons 2 1/2 x 2 1/2 x 5/16.

The tonnage of this vessel exceeds that of the scale, on which she was built, which causes the deficiencies marked in red it will be seen that there are some parts in excess of the rules. (400 tons A)

The chains and Anchors are supplied in accordance with the 450 tons scale, respecting which, and the propriety of the vessel's excess of tonnage I am informed that Mr. Duxford had written to the Committee some time since, which I now respectfully draw attention to.

In what manner are the surfaces preserved from oxidation? Portland cement inside & upper part of hulls - No. 1 Iron Composition outside.

I am of opinion this Vessel should be classed A1 if the Committee feel satisfied by the circumstances of the case.

The amount of the Fee £ 5 : : : is received by me, Order No 1147 Special £ 25 : : :

Certificate (if required) £ : : : :

Committee's Minute 31st May 1864
2 June 1864
Character assigned A 1

[Signature]
I am of opinion this vessel is eligible for the A1 class - 20th 30th
The rules now require that all middle line log keelers should have a fore-lap plating - and as the mark for angle iron is not generally understood in numbers about 100