

IRON SHIPS.

Survey held at Sunderland Date 29th June 1864
 the Ship "HOWRAH" Master Hawkins
 Tonnage Gross 1097.70 Engine Room Register 1097.70 Built at Sunderland
 When Built 1864 Launched 4th June 1864 By whom built W. Pile, Hay & Co
 Owners Syzer Port belonging to London Destined Voyage Cape of Good Hope & Negapatam
 Surveyed Afloat or in Dry Dock Whilst Building

Length aloft	Feet. Inches	Extreme Breadth	Feet. Inches	Depth from top of Upper Deck	Feet. Inches	Beam to top of Floor	Feet. Inches	Power of Engines
201	1	33	65	21	2			
Distance of Frames or Ribs from moulding edge to moulding edge, all fore and aft	23		23					
Floors, Size of Angle Iron, and No. at bottom of Floor Plate	4 1/2	3 1/2	8	4 1/4	3	8		
depth and thickness of Floor Plate at mid line	22		10	22 1/2		10		
depth and thickness of Floor Plate at Bilge Keelson	12 1/4		10			10		
Size of Reversed Angle Iron, and No. at top of Floor Plate	3	3	7	3 1/4	3	7		
Frames, Size of Angle Iron, single or double	4 1/2	3 1/2	8	4 1/4	3	8		
Reversed Iron, to every frame	3	3	7	3 1/4	3	7		
Beams, Deck (No. 52) double Angle Iron, Plate, or Bulb Iron	8		8	8		8		
double or single Angle Iron, on upper edge	3	3	7	3	3	6		
average space between	3/10			3/10				
if wood (No.) sided & moulded								
Hold, or Lower Deck (No. 51) double Angle Iron, Plate, or Bulb Iron	8		8	8 1/4		8		
double or single Angle Iron, on upper edge	3	3	7	3	3	6		
average space between	3/10			3/10				
if wood (No.) sided & moulded								
Side plates, Keelson, Plate, or Bulb Iron	18		10			10		
Paddle, wood, sided and moulded, or double angle iron, size of Plate	5 1/2	4 1/2	10	5	4 1/4	9		
Engine								
Keelson, single plate, box, or intercostal	15 1/4		12	15		13		
Size of Plates on top	9 1/4		8					
Size of Angle Irons	5 1/2	4 1/8	10	5	4 1/4	9		
Ditto Bilge (No. 1) double angle iron with Bulb plate between	5 1/8	4 1/8	9	5	4 1/4	9		
Transoms, material Iron or, if none, in what manner compensated for								
Knight-heads, and Hawse Timbers								
The Frames or Ribs extend in one length from Keel to Gunwale								
The reverse angle irons on the floors extend in one length across the middle line from Keel to Gunwale								
on the frames								
Keelson, how are the various lengths of plates or angle irons connected?								
Plates, Garboard, double or single rivetted to keel & at upper edge, with rivets 1 1/8 in. diameter averaging 5 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 or single rivetted; rivets 1/2 in. diameter, averaging 3 1/2 ins. from centre to centre of rivets.								
Butts from Keel to turn of bilge, worked carvel with a lining piece 1 1/2 in. thick, double or single rivetted; rivets 1/2 in. diameter, averaging 3 1/2 ins. from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? at alternate strakes								
Edges from bilge to sheerstrake, worked carvel with a lining piece () thick, or clencher, double or single rivetted; rivets 1/2 in. diameter, averaging 3 1/2 in. from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? at alternate strakes								
Edge of Sheerstrake, double or single rivetted?								
Butts from bilge to planksheers, worked carvel with a lining piece 1 1/2 in. thick, double or single rivetted; rivets 1/2 in. diameter averaging 3 1/2 ins. from centre to centre of rivets. Breadth of laps in double rivetting (5) Breadth of laps in single rivetting (3)								
Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted?								
Planksheer, how secured to the plating of the sides								
Waterway								
Deck Beams, how secured to the side?								
Hold or Lower Deck								
Paddle								
No. of breasthooks								
What description of iron is used for the angle iron and plate iron in the vessel?								

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? Solid 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 in the butts.

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

N ^o .		CABLES, &c.		ANCHORS, and their weights.	
		Certificates produced <i>test strain in tons</i>	Fathoms. Inches.	Certificates produced <i>test strain in tons</i>	N ^o . Weight.
✓ Double Sail and	Fore Sails,	Chain	300 1 3/4	Bower,	3 39.3.2
	Fore Top Sails,	Hempen-Stream Cable	75 5/8	2 34	39.2.0
	Fore Topmast Stay Sails,	Hawser	90 7 1/2	Stream,	1 11.2.14
	Main Sails,	Towlines	90 10		
	Main Top Sails,	Warp	90 6	Kedge,	2 6.2.22
		All of <u>Good</u> quality.			2.3.20

Her Standing and Running Rigging Wire Ropes & Manilla sufficient in size and Good in quality.
 She has one Long Boat and three others
 The present state of the Windlass is Good Capstan Good and Rudder Good Pumps two Metal 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
 - 2nd. On the plating during the progress of rivetting Survey between the 30th of November 1863
 - 3rd. When the beams were in and fastened, and before the decks were laid and the present date.
 - 4th. When the ship was complete, and before the plating was finally coated
 - 5th. After the ship was launched

The Fore & Mainmasts and Boomsprit are of Iron constructed with plates 7/16 thick & quadruple rivetted in the Butts, single rivetted in the seams, stiffened with 3 Angle-irons 4 x 3 x 7/16.

It will be seen that the floor plates are 1/2 inch less in depth than required by the Rules the reverse angle-iron 7/8 small & the frames 7/8 large, some of the angle-iron on deck beams 7/8 small on the flanges, while some is 1/6 thicker, the keelson plate in the centre is 1/6 thin and 3/4 deeper, with the angle-irons at top & bottom edges 1/6 in excess, and a flat plate on the top not required by the Rules. The garboard strakes are 3 narrow & the Sheestakes 4 1/2 broad, butt shaped 1/2 wide, the Deck & Hold Beams Stringers on ends and part of the tie plates on top in excess. In other respects the vessel is eligible for the Class recommended below.

In what manner are the surfaces preserved from oxidation? Portland Cement to the turn of the Bidges & Red lead above internally, Oxide of Iron & McQuinn's Paint externally.

I am of opinion this Vessel should be classed 12 A. 1?

The amount of the Fee£ 5 : " : " is received by me,
Order No. 1498 Special£ 54 : 17 : "
 Certificate (if required)£ . : " : "

Committee's Minute 12th July 1864
 Character assigned A

as this vessel has been constructed according to the Regulations of the Lloyd's Register of Shipping
 11 July 1864

3691 given