

# IRON SHIPS.

Ru 14/9/68  
1868

Survey held at Sunderland Date August 29<sup>th</sup>  
 the Screw Steamer "Austin Friars" Master R. Newcomb  
 Built at Sunderland When built 1868 Launched 1<sup>st</sup> Aug<sup>t</sup> 1868  
 By whom built Mr. James Laing Owners R. Young & Co.  
 Port belonging to Misbeach Destined Voyage Mediterranean

Surveyed while Building, Afloat, or in Dry Dock Whilst Building

Length aloft 210 Feet. Extreme Breadth 30 Feet. Depth from top of Upper Deck Beam to top of Floor 16 Feet. Power of Engines 99 Horse. No. of Decks Two  
 Dimensions of Ship per Register, length 210 breadth 30.3 depth 16.6

	Inches in Ship.			Inches required per Rule for 600 tons Scale.				Inches. In Ship.	16ths. In Ship.	Inches. required per Rule.	16ths. required per Rule.
Plates in Garboard Strakes, breadth and thickness	7	2	3/4	7	2	3/4	Plates in Garboard Strakes, breadth and thickness	36	10	30	10
Ditto from Garboard to upper part of Bilges	7	2	3/4	7	2	3/4	Ditto from Garboard to upper part of Bilges	-	9	-	9
from upper part of Bilge to a perpendicular height from upper side of Keel of 3/4ths the entire depth of Hold	9 1/2	4	1/2	9 1/2	4	1/2	from upper part of Bilge to a perpendicular height from upper side of Keel of 3/4ths the entire depth of Hold	-	8	-	8
from 3/4ths depth of Hold to lower edge of Sheerstrake	21	0	0	21	0	0	from 3/4ths depth of Hold to lower edge of Sheerstrake	-	8	-	8
Sheerstrake, breadth and thickness	4	3	7	4	3	7	Sheerstrake, breadth and thickness	37 1/2	10	30	11
Butt Straps to outside plating, breadth and thickness	4	3	7	4	3	7	Butt Straps to outside plating, breadth and thickness	9	8, 9 & 10	8	8, 9 & 10
Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness	22	8	8	22	8	8	Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness	43	9	30	10
Angle Iron on ditto	9	8	8	9	8	8	Angle Iron on ditto	4 1/2 x 3 1/2 x 7	4 1/2 x 3 1/2 x 7		
Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways	3	2 3/4	6	3	2 3/4	6	Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways	11	8	11	8
Diagonal Tie Plates on ditto	7 1/2	8	8	7 1/2	8	8	Diagonal Tie Plates on ditto	11	8	11	8
Planksheer, materials and scantlings	3	2 3/4	6	3	2 3/4	6	Planksheer, materials and scantlings				
Waterway ditto ditto	3	2 3/4	6	3	2 3/4	6	Waterway ditto ditto				
Flat of Upper Deck, thickness and material	7 1/2	8	8	7 1/2	8	8	Flat of Upper Deck, thickness and material				
how fastened to Beams	3	2 3/4	6	3	2 3/4	6	how fastened to Beams				
Ceiling betwixt Decks and in Hold, thickness and material	7 1/2	8	8	7 1/2	8	8	Ceiling betwixt Decks and in Hold, thickness and material				
Clamps or Spirketting ditto	3	2 3/4	6	3	2 3/4	6	Clamps or Spirketting ditto				
Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness	3	2 3/4	6	3	2 3/4	6	Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness	22 1/2	8	22 1/2	8
Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams	3	2 3/4	6	3	2 3/4	6	Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams	11	8	11	8
Stringers in Hold	15	12	12	15	12	12	Stringers in Hold				
Flat of Lower Deck, thickness and material	5	4 1/2	9	5	4 1/2	9	Flat of Lower Deck, thickness and material				
Main piece of Rudder, diameter at head	5	4 1/2	9	5	4 1/2	9	Main piece of Rudder, diameter at head	6	-	5 3/4	-
" " " " at heel	5	4 1/2	9	5	4 1/2	9	" " " " at heel	3	-	3	-
(Can the Rudder be unshipped afloat)							(Can the Rudder be unshipped afloat)				
Bulkheads, No. 4 Thickness of							Bulkheads, No. 4 Thickness of				
" Height up							" Height up				
" how secured to the sides of the ship							" how secured to the sides of the ship				
" size of vertical angle irons and their distance apart							" size of vertical angle irons and their distance apart				

Bulkheads, and Hawse Timbers plated & angles  
 Frames extend in one length from Keel to Spar deck stringers rivetted through plates with (3/4 in.) rivets, about (6 in) apart.  
 Reverse angle irons on the floors extend in one length across the middle line from Keel to above main deck stringers angle iron  
 " " " on the frames " " " from Keel and to the Spar deck stringers on alternate frames  
 how are the various lengths of plates or angle irons connected? with Butt straps  
 Garboard, double or rivetted to keel, double or at upper edge, with rivets (3/4 ins.) diameter, averaging (3 in.) apart.  
 Edges from Garboards to upper part of bilge, worked clencher, double or single rivetted; with rivets (3/4 in.) diameter, averaging (3 in.) apart.  
 Butts from Keel to turn of bilge, worked carvel with butt straps (9 & 10/16) thick, double or single rivetted; with rivets (3/4 in.) diameter, averaging (3 ins.) apart. Do the butt straps lap over and rivet through the lands of the strake below? No  
 Edges from bilge to sheerstrake, worked carvel with a lining piece ( ) thick, or clencher, double or single rivetted; with rivets (3/4 in.) diameter, averaging (3 in.) apart. Do the butt straps lap over and rivet through the lands of the strake below? No  
 Edges of Sheerstrake, double or single rivetted? At upper edge and At lower edge double rivetted  
 Butts from bilge to planksheers, worked carvel with butt straps (8 & 10/16) thick, double or single rivetted; with rivets (3/4 in.) diameter, averaging (3 ins.) apart. Breadth of laps in double rivetting (4 1/2) Breadth of laps in single rivetting (2 3/4)  
 Straps of Keelsons, Stringer and Tie Plates, double or single rivetted?  
 Planksheer, how secured to the plating of the sides { Explain by sketch }  
 Waterway " " planksheer and to the Beams { if necessary. }  
 Deck Beams, how secured to the side? With knee plates, rivetted to main frames and stringer plates  
 Upper or Lower Deck ditto With knee plates, rivetted to main frames & stringer plates  
 No. of breasthooks Five crutches Five  
 description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.? Angles & Bulb Iron by  
 Manufacturer's name or trade mark Palmer & Co. and the Plating by Pease, Hutchinson & Co.

We certify that the above is a correct description of the several particulars therein given.  
 Surveyor's Signature James Laing Surveyor's Signature James Sibson  
 Lloyd's Register Foundation  
 IRON 442-0462

6496 Jun

**Workmanship.** Are the lands or laps of the clenwork in all cases in breadth at least five and a half times the diameter of the rivets in double rivetted edges and butts, and at least three and a quarter times the diameter of the rivets where single rivetting is admitted? Yes  
 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  
 Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses? Solid with single pieces  
 Do the holes for rivetting plate to frames, butt straps, 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? A very few

Her Masts, Bowsprit, Yards, &c., are in good condition, and sufficient in size and length. (If they are of Iron or Steel give the 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 rivetting, quality of Materials, and if stamped with Maker's name.

N <sup>o</sup> .	She has SAILS.	CABLES, &c.	Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N <sup>o</sup> .	Weight. Ex. Stock.	Test as per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
	Fore Sails,	Chain .....	270	1 7/16	40 1/2	1 8/16	40 1/2	Bowers .....	1	21.1.11	21.18.0.0	21.0.0	21.12.0
	Fore Top Sails,	<i>This chain has been adapted to the admitt'd strain for the size for which it is also tested &amp; a portion tested to breaking strain, which showed a margin of 40 p. cent above strain req'd for 1 7/16 in chain.</i>											
	Fore Topmast Stay Sails	Hempen Stream Cable	90	6									
	Main Sails,	Hawser Chain	90	1 5/16				Stream .....	1	9.2.0			
	Main Top Sails,	Towlines .....	80	8				Kedges .....	2	4.3.16			
		Warp .....	90	5						2.1.8			
		All of <u>good</u> quality.	90	4									
	Her Standing and Running Riggings <u>Wm &amp; Henry</u> sufficient in size and <u>good</u> in quality.												
	She has <u>One</u> <del>Two</del> Boat and <u>two others</u>												
	The present state of the Windlass is <u>firm</u> Capstan <u>5</u> & <u>Winch</u> and Rudder <u>&amp;</u> Pumps <u>New &amp; good</u>												

Order for Special Survey No. \_\_\_\_\_ Date \_\_\_\_\_ 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 Built under  
 2nd. On the plating during the progress of rivetting Ordinary Survey  
 3rd. When the beams were in and fastened, and before the decks were laid 1868 March 6, 13, 17, 23, 26, Apr 30, May 6, 9, 15, 21, 23, 28, June 5, 12, 23, 26, July 6, Aug 7, 10, 13, 29  
 4th. When the ship was complete, and before the plating was finally coated  
 5th. After the ship was launched  
 State if she has a Spar Deck Yes Poop \_\_\_\_\_ or Forecastle \_\_\_\_\_

**General Remarks,**  
 The Spar deck beams are of Bull iron  $6\frac{1}{2} \times \frac{5}{16}$  spaced at every alternate frame, with double angle iron on the upper edge  $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{5}{16}$ , with turned down ends, & rivetted to Main frames & Stinger plates; The Stinger plates on beam ends are  $30 \times \frac{7}{16}$  in, and angle iron  $3\frac{1}{2} \times 3\frac{1}{2} \times \frac{7}{16}$ . The fore & aft, and diagonal tie plates are  $10 \times \frac{5}{16}$ . The Sheer strake is  $4\frac{3}{8} \times \frac{8}{16}$  and the strake below  $\frac{7}{16}$  in.  
 The thickness of the main and spar decks, are reversed, vizt. the spar deck being  $3\frac{1}{2}$ , and the main deck 3 in thick; The side intercostal plates are rivetted with angle irons through outside plating, at the bottom, and between double angle irons on of floor plates.  
 This vessel is constructed in the same manner as No. 90 report No. 9384, please see sketch attached thereto, which was submitted by the Builder, W. Laing, and received the sanction of the Committee.  
 During her whole construction, this vessel was surveyed by the late Mr. Lawrence.  
 The testing certificate of Anchors & Chain & have been produced, issued from the Mean testing Machine & signed Mr. John Hartness.

In what manner are the surfaces preserved from oxidation? Inside Portland Cement to Bilges, & red-lead above  
 Ditto ditto Outside 3 Coats of Paint

I am of opinion this Vessel should be Classed AI  
 The amount of the Fee .....£ 5 : : : is received by me,  
 Special .....£ " : : :  
 Certificate (if required) .....£ " : 5 : "

Committee's Minute 15<sup>th</sup> Sept 1868  
 Character assigned B  
A & C P

*James Libun*  
 This iron built, Spar Decked  
 Screw Steamer appears to be No. 2  
 in my recent report to Committee  
 built in building at Sunderland  
 I am of opinion she is eligible  
 Classification as screw steamer  
 14/10/68