

# 5869 IRON SHIPS.

Rec'd 21/11/67

No. 10454 Survey held at Newcastle Date 26<sup>th</sup> Nov: 1866 to 18<sup>th</sup> Nov: 1867  
 on the Paddle Boat "Achilles" Master Cunningham  
 Tonnage under tonnage deck 114.15 Built at Newcastle When built 1864 Launched 18<sup>th</sup> May 67  
 Ditto of poop on spar deck  
 Ditto of engine room 81.65 By whom built Richardson & Co. Owners Laws, Clough & Co.  
 Total Register tonnage 35.50  
 Gross Tonnage 114.15 Port belonging to Newcastle Destined Voyage Constantinople  
 If Surveyed while Building, Afloat, or in Dry Dock While building

Length aloft 105.0 Extreme Breadth 18.6 Depth from top of Upper Deck Beam to top of Floor 10.0 Power of Engines 52 N<sup>o</sup>. of Decks one

(Dimensions of Ship per Register, length 105.3 breadth 18.4 depth 9.7)

	Inches in Ship.		Inches required per Rule for 100 tons Scale.		Inches in Ship.		Inches required per Rule for 100 tons Scale.						
	In Ship.	In Ship.	In Ship.	In Ship.	In Ship.	In Ship.	In Ship.	In Ship.					
Keel, if bar iron, depth and thickness ..	6	1 1/4	6	1 1/4					Plates in Garboard Strakes, breadth and thickness ..	31	5/8	24	5/8
„ if plate iron, breadth and thickness ..	6	1 1/4	6	1 1/4					Ditto from Garboard to upper part of Bilges..		5/8		5/8
Stem, if bar iron, moulding and thickness ..	6	1 1/4	6	1 1/4					„ from upper part of Bilge to a perpendicular height from upper side of Keel of 3/4ths the entire depth of Hold ..		4/8		4/8
„ if plate iron, breadth and thickness ..	6	1 1/4	6	1 1/4					„ from 3/4ths depth of Hold to lower edge of Sheerstrake ..		4/8		4/8
Stern-post, if bar iron, moulding and thickness ..									„ Sheerstrake, breadth and thickness ..	35	9/8	24	5/8
„ if plate iron, breadth and thickness ..									Butt Straps to outside plating, breadth and thickness ..	7	6/8 to 4/8		
Distance of Frames from moulding edge to moulding edge, all fore and aft ..	18		21						Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness ..	15	5/8	15	5/8
Frames, Size of Angle Iron, single or double ..	3	2 1/2	5/8	2 1/2	2 1/2	5/8			Angle Iron on ditto ..	2 1/2 x 2 1/2	5/8	3 x 3	5/8
„ „ Reversed Iron, to every frame or every ..	2 1/2	2 1/2	5/8	2 1/2	2 1/2	5/8			Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways ..	7	5/8	7	5/8
Floors, depth and thickness of Floor Plate at mid line ..	10	5/8	12	5/8					Diagonal Tie Plates on ditto ..				
„ Ditto ditto at Bilge Keelson ..									Planksheer, materials and scantlings ..	9	2 1/2	R. Pine	
„ Size of Reversed Angle Iron, and No. 1 & 2 at top of Floor Plate ..	2 1/2	2 1/2	5/8	2 1/2	2 1/2	5/8			Waterway ditto ditto ..				
Beams, Deck (N <sup>o</sup> . 32) double Angle Iron, Plate, Tee, or Bulb Iron ..	4	3	5/8	4	3	5/8			Flat of Upper Deck, thickness and material ..	2 1/2	4/8	2 1/2	
„ „ double or single Angle Iron, on edge ..									„ „ how fastened to Beams ..				Nut & screw bolts
„ „ average space between ..	3	feet							Ceiling betwixt Decks and in Hold, thickness and material ..	2	Red Pine		
Hold, or Lower Deck (N <sup>o</sup> . ..) double Angle, Tee, Plate, or Bulb Iron ..									Clamps or Spirketting ditto ..				
„ „ double or single Angle Iron on edge ..									Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness ..				
„ „ average space between ..									Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams ..				
„ Paddle, sided and moulded, thickness of Plate size of Angle Iron ..	3	13	5/8						Stringers in Hold ..				
„ Engine „ „ „ ..	3	13	5/8						Flat of Lower Deck, thickness and material ..				
Keelson, single or double plate, box, or intercostal ..	3	2 1/2	5/8						Main piece of Rudder, diameter at head ..	3		3	
„ Size of Plates for 4.5 ft. amidships ..		13	4/8	13	4/8				„ „ „ at heel ..	2		2	
„ Size of Angle Irons ..	3	2 1/2	5/8	3	3	5/8			(Can the Rudder be unshipped afloat <u>Yes</u> )				
„ Side, single or d'ble, plate, box, or intercostal ..									Bulkheads, N <sup>o</sup> . <u>3</u> Thickness of <u>4/8</u>				
„ Bilge (No. <u>1</u> ) at each Bilge, single, or double, plate, or box ..	2 1/2	2 1/2	5/8	3	3	5/8			„ Height up <u>to upper deck</u>				

Transoms, material plate or, if none, in what manner compensated for.  
 Knight-heads, and Hawse Timbers Plate  
 The Frames extend in one length from Keel to Gunwale rivetted through plates with (5/8 in.) rivets, about (5 1/4) apart.  
 The reverse angle irons on the floors extend in one length across the middle line from Keel to above the bilges, and on  
 „ „ „ on the frames „ „ „ from Keel to alternate frames to upper deck.  
 Keelson, how are the various lengths of plates or angle irons connected? by butt straps  
 Plates, Garboard, double or rivetted to keel, double or single at upper edge, with rivets (5/8 in.) diameter, averaging (3 1/4 in.) apart.  
 „ Edges from Garboards to upper part of bilge, worked clencher, double or single rivetted; with rivets (5/8 in.) diameter, averaging (2 ins.) apart.  
 „ Butts from Keel to turn of bilge, worked carvel with butt straps (5/8 & 5/8) thick, double or single rivetted; with rivets (5/8 in.) diameter, averaging (2 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 (5/8 in.) diameter, averaging (2 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 single At lower edge single  
 „ Butts from bilge to planksheers, worked carvel with butt straps (5/8 & 4/8) thick, double or single rivetted; with rivets (5/8 in.) diameter, averaging (2 ins.) apart. Breadth of laps in double rivetting ( ) Breadth of laps in single rivetting (2 1/8 )  
 Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted? double rivetted  
 Planksheer, how secured to the plating of the sides { Explain by sketch } Bolted to stringer & side.  
 Waterway „ „ planksheer and to the Beams { if necessary. }  
 Beams, how secured to the side? Bracket ends, rivetted to beams and frames.  
 „ Lower Deck ditto  
 „ „ Keel plates inside, hanging frames outside No. of breasthooks 2 crutches 2  
 at description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.?  
 Manufacturer's name or trade mark James & Beames, L. W. & B. Walker Plates A.C. & Co.

We certify that the above is a correct description of the several particulars therein given.  
 Builder's Signature William Richardson & Co. Surveyor's Signature A. Harding  
 IRON 44-0331

5869 Iron

**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? long lengths  
 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 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.

*Chains and Anchors, tested at Lloyd's Home proving house, signed Robt. Burnett, Sup.*

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 .....	120	3/4	10.2.2.0	3/4	10.2.0.0	Bowers .....	1	2.3.11	5.7.2.0	2.3.0	5.5.0.0
	Fore Top Sails,								1	2.3.0	5.5.0.0	2.3.0	5.5.0.0
	Fore Topmast Stay Sails	Hempen Stream Cable	60	3/16	---	3/16							
	Main Sails,	Hawser .....	40	1 1/4	---	5		Stream .....	1	1.2.8			
	Main Top Sails,	Towlines .....	25	1/6	---	3					In stock		
	and	Warp .....	25	1/6	---	3							
		All of <u>good</u> quality.	36	2				Kedges .....	1	0.3.18			

Her Standing and Running Rigging is sufficient in size and good in quality.

She has one Long Boat and

The present state of the Windlass is good Capstan and Rudder good Pumps two hand.

Order for Special Survey DATES of  
 No. 588 Surveys held  
 Date 24 Nov 1866 while building  
 Order for Ordinary Survey as per  
 No. --- Section 18.  
 Date ---  
 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

State if she has a Spar Deck --- Poop --- or Forecastle ---

**General Remarks,**

*This vessel has been built in accordance with the Midship <sup>Section</sup> and per Secretary's letter 14<sup>th</sup> Decr 1866.*

In what manner are the surfaces preserved from oxidation? Inside Portland Cement and Paint  
 Ditto ditto Outside Paint

I am of opinion this Vessel should be Classed A 1  
 The amount of the Fee .....£ 2 : 0 : 0 is received by me,  
 Certificate  required) .....£ 0 : 10 : 0  
 Committee's Minute 22<sup>nd</sup> Nov 18 66

Character assigned A 1  
 P.C.P.

*On reference to accompanying Midship Section it will be observed the Angle Irons for Bilge Keelsons have not been increased in size as Heron recommended, and in Feb<sup>r</sup> Letter of Dec 14/66, and it appears she has no diagonal struts or beams, but in the absence of Rules for this class sought, the Committee may be induced to consider her eligible for A 1 as recommended above.*

H. Moore J. W. Richardson Esq, New Water, Newcastle on Tyne

