

IRON SHIPS.

Rev 10/4/65

No. 1368 Survey held at Sunderland Date April 5th 1865
 on the Steam Trawler "Achilles" Master Robinson
 Tonnage under tonnage deck 899.09 Built at Sunderland When built 1864-5 Launched Feb 25th 1865
 Ditto of poop on spar deck 86-14 By whom built James Laing Owners Mr. Gourley & Co.
 Ditto of engine room 204.35 Port belonging to Sunderland Destined Voyage Mediterranean
 Total Register tonnage 985.23
 Surveyed while Building, Afloat, or in Dry Dock While building

Length aloft	Feet.	Inches.	Extreme Breadth	Inches.	Depth from top of Upper Deck Beam to top of Floor	Feet.	Inches.	Power of Engines	Horse.	N ^o . of Decks
	235	0	32	0	18	8 1/2		140		One
<i>(Dimensions of Ship per Register, length 235.0 breadth 32.0 depth 18.5)</i>										
Keel, if bar iron, depth and thickness	7 1/2 x 3		7 1/2 x 3		7 1/2 x 3		7 1/2 x 3		Plates in Garboard Strakes, breadth and thickness 30 11/16 30 11	
„ if plate iron, breadth and thickness	7 1/2 x 3		7 1/2 x 3		7 1/2 x 3		7 1/2 x 3		Ditto from Garboard to upper part of Bilges. 10/16 10	
Stem, if bar iron, moulding and thickness	7 1/2 x 3		7 1/2 x 3		7 1/2 x 3		7 1/2 x 3		„ from upper part of Bilge to a perpendicular height from upper side of Keel of 3/4ths the entire depth of Hold 9/16 9	
„ if plate iron, breadth and thickness	7 1/2 x 3		7 1/2 x 3		7 1/2 x 3		7 1/2 x 3		„ from 3/4ths depth of Hold to lower edge of Sheerstrake 8/16 8	
Stern-post, if bar iron, moulding and thickness	10 1/2 x 4 1/2		10 1/2 x 4 1/2		10 1/2 x 4 1/2		10 1/2 x 4 1/2		„ Sheerstrake, breadth and thickness 30 12/16 12	
„ if plate iron, breadth and thickness	10 1/2 x 4 1/2		10 1/2 x 4 1/2		10 1/2 x 4 1/2		10 1/2 x 4 1/2		Butt Straps to outside plating, breadth and thickness 8 1/2 8 1/2 8 1/2 8 1/2	
Distance of Frames from moulding edge to moulding edge, all fore and aft	23		23		23		23		Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness 33 1/2 11/16 33 1/2 11	
Frames, Size of Angle Iron, single or double	4 1/2 3 8/16		4 1/2 3 8/16		4 1/2 3 8/16		4 1/2 3 8/16		Angle Iron on ditto 5 x 4 1/2 9/16 5 x 4 1/2 9	
Reversed Iron, 3 to every frame	3 3 7/16		3 3 7/16		3 3 7/16		3 3 7/16		Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways 12 9/16 12 9	
„ every other frame	3 3 7/16		3 3 7/16		3 3 7/16		3 3 7/16		Diagonal Tie Plates on ditto 12 9/16 12 9	
Floors, depth and thickness of Floor Plate at mid line	20 9/16		20 9/16		20 9/16		20 9/16		Planksheer, materials and scantlings	
„ Ditto ditto at Bilge Keelson	8 9/16		8 9/16		8 9/16		8 9/16		Waterway ditto ditto	
„ Size of Reversed Angle Iron, and No. at top of Floor Plate	3 3 7/16		3 3 7/16		3 3 7/16		3 3 7/16		Flat of Upper Deck, thickness and material 3 1/2 3 1/2	
Beams, Deck, double Angle Iron, Plate, Tee, or Bulb Iron	8 8/16		8 8/16		8 8/16		8 8/16		„ how fastened to Beams 3 1/2 3 1/2	
„ double or single Angle Iron, on upper edge	3 3 4/16		3 3 4/16		3 3 4/16		3 3 4/16		Ceiling betwixt Decks and in Hold, thickness and material 2 1/2 2 1/2	
„ average space between	3 10		3 10		3 10		3 10		Clamps or Spirketting ditto	
„ Hold, or Lower Deck (N ^o . double Angle, Tee, Plate, or Bulb Iron)	8 8/16		8 8/16		8 8/16		8 8/16		Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness 25 9/16 25 9	
„ double or single Angle Iron, on upper edge	3 3 7/16		3 3 7/16		3 3 7/16		3 3 7/16		Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams 12 9/16 12 9	
„ average space between	3 10		3 10		3 10		3 10		Stringers in Hold 5 x 4 1/2 9/16 5 x 4 1/2 9	
„ Paddle, sided and moulded, thickness of Plate size of Angle Iron	3 10		3 10		3 10		3 10		Flat of Lower Deck, thickness and material 5 1/2 5 1/2	
„ Engine	3 10		3 10		3 10		3 10		Main piece of Rudder, diameter at head 5 1/2 5 1/2	
Keelson, single or double plate, box, or intercostal	13 1/4 11/16		13 1/4 11/16		13 1/4 11/16		13 1/4 11/16		„ at heel 3 3	
„ Size of Plates	13 1/4 11/16		13 1/4 11/16		13 1/4 11/16		13 1/4 11/16		(Can the Rudder be unshipped afloat Yes)	
„ Size of Angle Irons	5 4 1/2 9/16		5 4 1/2 9/16		5 4 1/2 9/16		5 4 1/2 9/16		Bulkheads, N ^o . 4 Thickness of 6/16	
„ Side, single or double, plate, box, or intercostal	5 4 1/2 9/16		5 4 1/2 9/16		5 4 1/2 9/16		5 4 1/2 9/16		„ Height up To upper deck	
„ Bilge (No. 200) at each Bilge, single, or double, plate, or box	5 4 1/2 9/16		5 4 1/2 9/16		5 4 1/2 9/16		5 4 1/2 9/16		„ how secured to the sides of the ship Believed Double frames	

Transoms, material _____ or, if none, in what manner compensated for _____
 Knight-heads, and Hawse Timbers _____
 The Frames extend in one length from Keel to gunwale rivetted through plates with (3/4 in.) rivets, about (6 in.) apart.
 The reverse angle irons on the floors extend in one length across the middle line from Hold beams stringer angle iron to ditto
 „ „ „ on the frames „ „ „ from Keelson to gunwale or alternate frames.
 Keelson, how are the various lengths of plates or angle irons connected? With butt straps
 Plates, Garboard, double or rivetted to keel, double or and at upper edge, with rivets (1/4 in.) diameter, averaging (3 1/2 in.) apart.
 „ Edges from Garboards to upper part of bilge, worked clencher, double or single rivetted; with rivets (3/4 in.) diameter, averaging (2 1/2 in.) apart.
 „ Butts from Keel to turn of bilge, worked carvel with butt straps (1 1/16) thick, double or single rivetted; with rivets (3/4 in.) diameter, averaging (2 1/2 in.) 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 (2 1/2 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 & angle iron At lower edge Double
 „ Butts from bilge to planksheers, worked carvel with butt straps (8/16) thick, double or single rivetted; with rivets (3/4 in.) diameter, averaging (2 1/2 in.) apart. Breadth of laps in double rivetting (4/4) Breadth of laps in single rivetting (2 3/4)
 Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted? Double
 Planksheer, how secured to the plating of the sides { Explain by sketch } See sketch herewith
 Waterway „ „ planksheer and to the Beams { if necessary. }
 Deck Beams, how secured to the side? Turned down and rivetted to frames
 Hold or Lower Deck ditto Do
 Paddle „ „ No. of breasthooks Five crutches Four
 What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.?
 Manufacturer's name or trade mark Hopkins & Co. Loch & Macmillan. Corbett Iron Co.
 We certify that the above is a correct description of the several particulars therein given.
 Builder's Signature James Laing Surveyor's Signature Prof. Marshall

IRON 438-0192

Workmanship. Are the lands or laps of the clenchwork 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.)

4036 Len

She has SAILS.		CABLES, &c.			ANCHORS, and their weights.				
N ^o .			Fathoms.	Inches.	Tested to Tons.	N ^o .	Weight. Ex. Test Tons.	Tested to Tons.	
<u>She</u>	Fore Sails,	Chain <u>Tested to 40 1/2</u>	<u>270</u>	<u>1 5/8</u>	<u>40 1/2</u>	Bowers,	<u>1</u>	<u>21.0.0</u>	<u>21 1/2</u>
	Fore Top Sails,	Hempen Stream Cable	<u>80</u>	<u>9</u>			<u>1</u>	<u>21.0.0</u>	<u>21 1/2</u>
<u>full</u>	Fore Topmast Stay Sails,	Hawser <u>Chain</u>	<u>90</u>	<u>7/8</u>			<u>1</u>	<u>18.1.21</u>	<u>19</u>
<u>out</u>	Main Sails,	Towlines	<u>90</u>	<u>7/8</u>		Stream,	<u>1</u>	<u>9.1.14</u>	
	Main Top Sails,	Warp	<u>90</u>	<u>5</u>		Kedges,	<u>1</u>	<u>4.1.18</u>	
and		All of <u>good</u> quality.	<u>90</u>	<u>5</u>			<u>1</u>	<u>2.1.12</u>	

Her Standing and Running Rigging off Main Mast sufficient in size and good in quality.

She has Two Life Long Boats and Three others

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

Order for Special Survey No. 1612 Date September 23/64 while building

Order for Ordinary Survey No. _____ Date _____ as per Section 18.

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

Build and special survey from June 2/64 to the present date

State if she has a Spar Deck No Poop Yes or Forecastle Yes

General Remarks,

The testing certificate of the Chain cables and Anchors signed by Mr John Thompson, have been produced.

This vessel is above 12, and not exceeding 13 depth in length. The main sheerstrake is increased, ^{in thickness} two sixteenths of an inch amidships, for 3/4 the length of the vessel. The stringer plate upon ends of upper deck beams is increased two sixteenths of an inch in thickness for half the ship's length amidships, and in lieu of a bulk plate between bilge keelson completion, an extra keelson is fitted of double angle iron 5 x 1/2 x 3/16 as shown in the accompanying sketch.

In what manner are the surfaces preserved from oxidation? Inside Portland Cement & Gypsum & paint

Ditto ditto Outside Three coats of paint

I am of opinion this Vessel should be Classed A 1

The amount of the Fee£ 5 : : : is received by me,

Special£ 49 : 5 : .

Certificate (if required)£ " : : .

Committee's Minute 11th April 18 65

Character assigned B 1

By Marshall

This vessel steamer built & don't appear eligible for Classification as recommended above