

IRON SHIP.

16/4/6
Reg. 12/6/78

Survey held at Newcastle Date, First Survey 27 August 1876 Last Survey 26 May 1876

on the Spr Rigged Iron Screw Steamer "Silurian" Master John Collins

Tonnage under Tonnage Deck 1072.09 ONE, OR TWO DECKED, THREE DECKED VESSEL.

of Third, Spar, or Awning Deck. 126.10 SPAR, OR AWNING DECKED VESSEL.

Ditto of Peep, or Raised Qr. Dk. 12.31 HALF BREADTH (moulded) 16.4

Ditto of Houses on Deck 38.47 DEPTH from upper part of Keel to top of Upper Deck Beam 9.4

Ditto of Forecastle 1248.97 GIRTH of Half Midship Frame (as per Rule) 32.25

Gross Tonnage 57.42 1st NUMBER 67.95

Less Crew Space 1191.25 1st NUMBER, if a THREE DECKED VESSEL 67.95

Less Engine Room 399.67 LENGTH 241.7

Register Tonnage as cut on Beam 791.58 2nd NUMBER 164.23

PROPORTIONS—Breadths to Length 7.5

Depths to Length—Upper Deck to Keel 12.2

Main Deck ditto 12.2

When built 1876 Launched 11 April 1876

By whom built Schlesinger Davis & Co.

Owners J. Edwards & Partners

Port belonging to Cardiff

Destined Voyage White building

If Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 241.9 BREADTH Moulded 32.0 DEPTH top of Floors to Upper Deck Beams 17.11 1/2 Power of Engines 120 Horse. 120 N° of Decks with flat laid One N° of Tiers of Beams Two

Dimensions of Ship per Register, length, 243.2 breadth, 32.4 depth, 18.2

	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule
KEEL, depth and thickness	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2
STEM, moulding and thickness	8 x 2 1/2	8 x 2 1/2	8 x 2 1/2	8 x 2 1/2	8 x 2 1/2	8 x 2 1/2	8 x 2 1/2	8 x 2 1/2
STERN-POST for Rudder do. do.	8 1/2 x 5	8 1/2 x 5	8 1/2 x 5	8 1/2 x 5	8 1/2 x 5	8 1/2 x 5	8 1/2 x 5	8 1/2 x 5
for Propeller	8 1/2 x 5	8 1/2 x 5	8 1/2 x 5	8 1/2 x 5	8 1/2 x 5	8 1/2 x 5	8 1/2 x 5	8 1/2 x 5
Distance of Frames from moulding edge to moulding edge, all fore and aft	23	23	23	23	23	23	23	23
FRAMES, Angle Iron, for 1/2 length amidships	4 3 4	4 3 4	4 3 4	4 3 4	4 3 4	4 3 4	4 3 4	4 3 4
Do. for 1/2 at each end	4 3 6	4 3 6	4 3 6	4 3 6	4 3 6	4 3 6	4 3 6	4 3 6
REVERSED FRAMES, Angle Iron	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	20 1/2 x 8	20 1/2 x 8	20 1/2 x 8	20 1/2 x 8	20 1/2 x 8	20 1/2 x 8	20 1/2 x 8	20 1/2 x 8
thickness at the ends of vessel	12	12	12	12	12	12	12	12
depth at 3/4 the half-bdth. as per Rule	12	12	12	12	12	12	12	12
height extended at the Bilges	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2
BEAMS, Upper, Spar, or Awning Deck Single or double Ang. Iron, Plate or Tee Bulb Iron	5 1/2 3 7	5 1/2 3 7	5 1/2 3 7	5 1/2 3 7	5 1/2 3 7	5 1/2 3 7	5 1/2 3 7	5 1/2 3 7
Single or double Angle Iron on Upper edge	23	23	23	23	23	23	23	23
Average space	23	23	23	23	23	23	23	23
BEAMS, Main, or Middle Deck Single or double Ang. Iron, Plate or Tee Bulb Iron	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8
Single or double Angle Iron on Upper Edge	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6
Average space	2nd and 4th frames	2nd and 4th frames	2nd and 4th frames	2nd and 4th frames	2nd and 4th frames	2nd and 4th frames	2nd and 4th frames	2nd and 4th frames
BEAMS, Lower Deck, Hold, or Orlop Single or double Ang. Iron, Plate or Tee Bulb Iron	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8
Single or double Angle Iron on Upper Edge	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6
Average space	2nd and 4th frames	2nd and 4th frames	2nd and 4th frames	2nd and 4th frames	2nd and 4th frames	2nd and 4th frames	2nd and 4th frames	2nd and 4th frames
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates	18 1/2 x 11	18 1/2 x 11	18 1/2 x 11	18 1/2 x 11	18 1/2 x 11	18 1/2 x 11	18 1/2 x 11	18 1/2 x 11
Rider Plate	20 1/2 x 5	20 1/2 x 5	20 1/2 x 5	20 1/2 x 5	20 1/2 x 5	20 1/2 x 5	20 1/2 x 5	20 1/2 x 5
Bulb Plate to Intercoastal Keelson	10 3/4 x 12	10 3/4 x 12	10 3/4 x 12	10 3/4 x 12	10 3/4 x 12	10 3/4 x 12	10 3/4 x 12	10 3/4 x 12
Angle Irons	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9
Double Angle Iron Side Keelson	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9
Side Intercoastal Plate	15 x 8	15 x 8	15 x 8	15 x 8	15 x 8	15 x 8	15 x 8	15 x 8
do. Angle Irons	3 3 7	3 3 7	3 3 7	3 3 7	3 3 7	3 3 7	3 3 7	3 3 7
Attached to outside plating with angle iron	3 3 7	3 3 7	3 3 7	3 3 7	3 3 7	3 3 7	3 3 7	3 3 7
BILGE Angle Irons	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9
do. Bulb Iron	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8
do. Intercoastal plates riveted to plating for length	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9
BILGE STRINGER Angle Irons	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9
Intercoastal plates riveted to plating for length	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9
SIDE STRINGER Angle Irons	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9	5 3 1/2 9
Transoms, material. Knight-heads. Hawse Timbers.	Iron	Iron	Iron	Iron	Iron	Iron	Iron	Iron
Windlass	Iron Patent	Iron Patent	Iron Patent	Iron Patent	Iron Patent	Iron Patent	Iron Patent	Iron Patent
Pall Bitt	Iron	Iron	Iron	Iron	Iron	Iron	Iron	Iron

Flat Keel Plates, breadth and thickness 36 10 36 10

PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, of increased thickness, and length applied 1/2 length fm up. part of Bilge to lr. edge of Sh'rstrake

Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Upr. or Spar Dk. Sh'rstrake. Up. or Spar Dk Sh'rstrake, brdth & thickness

Butt Straps to outside plating, breadth & thickness 9 1/2 19 9 1/2 15 9 1/2 19 9 1/2 15

Lengths of Plating Six frame spaces

Shifts of Plating, and Stringers Two frame spaces

Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness 3 1/2 10 3 1/2 10

Angle Iron on ditto 5 x 3 1/2 x 9 5 x 3 1/2 x 9

Tie Plates fore and aft, outside Hatchways

Diagonal Tie Plates on Beams No. of Pairs

Planksheer material and scantling

Waterways do. do. Iron

Flat of Upper Deck do. do. 6

How fastened to Beams Riveted

Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness

Is the Stringer Plate attached to the outside plating?

Angle Irons on ditto, No.

Tie Plates, outside Hatchways

Diagonal Tie Plates on Beams, No. of pairs

Waterways materials and scantlings

Flat of Middle Deck do. do.

How fastened to Beams

Stringer Plates on ends of Lower Deck, Hold or Orlop Beams 3 1/2 9 3 1 9

Is the Stringer Plate attached to the outside plating?

Angle Irons on ditto, No. Two

Stringer or Tie Plates, outside Hatchways

Flat of Lower Deck

Ceiling between Decks, thickness and material in hold 1 3/4 do.

Main piece of Rudder, diameter at head 5 3/4 do. at heel 3

Can the Rudder be unshipped afloat? Yes

Bulkheads No. 6 Thickness of 6

Height up Three to upper deck & after one to height of

How secured to sides of ship Double frames

Size of Vertical Angle Irons 3 x 3 x 6 1/2 and distance apart 30 ins.

Are the outside Plates doubled two spaces of Frames in length? Yes

The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 3/4 in. Rivets, about 5 1/2 apart.

The REVERSED ANGLE IRONS on floors and frames extend from Keel middle line to H. B. S. A. I and to Gunwale alternately

KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? Yes And butts properly shifted? Yes

PLATING. Garboard, double riveted to Keel, with rivets 1 1/2 in. diameter, averaging 5 1/2 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 3/4 x 3/4 in. diameter, averaging 3 1/2 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 x 3/4 in. diameter averaging 3 1/2 x 3 1/2 ins. from centre to centre.

Butts of Three Strakes at Bilge for half length, treble riveted with Butt Straps 7/16 thicker than the plates they connect.

Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 3/4 in. diameter, averaging 3 1/2 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 1/2 ins. from cr. to cr.

Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted.

Butts of Main Sheerstrake, treble riveted for half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted half length amidships.

Butts of Main Stringer Plate, treble riveted for half length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for half length.

Breadth of laps of plating in double riveting 4 1/2 x 5 1/4 Breadth of laps of plating in single riveting 4 1/2

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Treble & double riveted

Waterway, how secured to Beams (Explain by Sketch, if necessary.)

Beams of the various Decks, how secured to the sides? Welded knees No. of Breasthooks, Five Crutches, Three

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Angled Bulbs / Abbott & Co. Gateshead

Manufacturer's name or trade mark, Erasmus Iron Co. Stockton. Plates: - Bolckow Vaughan & Co. Middlesbrough.

The above is a correct description.

Builder's Signature, Schlesinger Davis & Co. Surveyor's Signature, N. Mowbray & J. H. Cooke

Surveyor to Lloyd's Register of British and Foreign Shipping.

IRON 466-0426-1

Workmanship. Are the butts of plating planed or otherwise fitted? *Planed* 16446 Iron
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*
Are the fillings between the ribs and plates solid single pieces? *Yes*
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *Yes*
Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *Yes*
Do any rivets break into or through the seams or butts of the plating? *A few*

Masts, Bowsprit, Yards, &c., are *Pitch Pine* in *Good* condition, and sufficient in size and length. If of Iron or Steel give 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 riveting, quality of Materials, and if stamped with Maker's name.
State also Length and Diameter of Lower Masts and Bowsprit

NUMBER for EQUIPMENT		Fathoms.		Inches.		Test per Certificate.		Length & Size req'd pr Rule.		Test req'd per Rule.		ANCHORS.		N ^o .		Weight. Ex. Stock.		Test per Certificate		W'ght req'd per Rule.		Test req'd per Rule.	
N ^o .	SAILS.	CABLES, &c.		270	19/16	43 1/2	270-19/16	43 1/2	270-19/16	43 1/2	Bowers	1	23.3.0	23.13.3.0	23.2.0	23 1/2	23 1/2	23.2.0	23.10.3.21	23.2.0	20 1/2	20 1/2	
	Fore Sails,	(State Machine where Tested, Date, & name of Superintendent.)	Chain	Breaking Strain		61 1/2	61 1/2	61 1/2	River Wear P. & H. J. Hartness Supt.		1	23.2.7	23.10.3.21	23.2.0	20 1/2	20 1/2							
	Fore Top Sails,		Date of Certificate		15 th March 1876.	1	20.2.18	21.8.0.14	20.0.0	20 1/2	20 1/2												
	Fore Topmast Stay Sails																						
	Main Sails,																						
	Main Top Sails,																						
and	Hemp Strm Cbl	90	1 1/2	90-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10							
	Hawser ...	90	9 1/2	Hemp	90-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10							
	Towlines ...	90	8	Manilla	11-9 1/2	11-9 1/2	11-9 1/2	11-9 1/2	11-9 1/2	11-9 1/2	11-9 1/2	11-9 1/2	11-9 1/2	11-9 1/2	11-9 1/2	11-9 1/2							
	Warp ...	90	6	Hemp	11-6	11-6	11-6	11-6	11-6	11-6	11-6	11-6	11-6	11-6	11-6	11-6							
	quality	Good	240	6	Manilla																		

Standing and Running Rigging *Wire & Hemp* sufficient in size and *good* in quality. She has *Multi* Long Boat and *Two* others
The Windlass is *Iron Patent Good* Capstan *Good* and Rudder *Good* Pumps *Good*
Engine Room Skylights.—How constructed? *Iron comings & Wood tops* How secured in ordinary weather? *Bolted to Angles*
What arrangements for deadlights in bad weather? *Solid shutters and Bulls eyes*
Coal Bunker Openings.—How constructed? *Cast iron pipes* How are lids secured? *By studs* Height above deck? *10"*
Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Six ports each side besides mooring pipes*
Cargo Hatchways.—How formed? *Iron Comings and headledges*
State size Main Hatch *23 ft x 11 ft* Forehatch *11 1/2 x 8 ft* Quarterhatch *19 1/2 x 10 ft* Ditto *7 1/2 x 10 ft*
If of extraordinary size, state how framed and secured? *Ordinary size*
What arrangement for shifting beams? *Intermediate headledges and wood fore & afters.*
Hatches, If strong and efficient? *Yes*

Order for Special Survey No. <i>109</i>	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	<i>Built under Special Survey</i>
Date <i>27 Aug 1875</i>		2nd.	On the plating during the process of riveting	<i>10.7.5 Aug 27.31. Sep 10.20. Oct 1.4.8.13.20.22.28.</i>
Order for Ordinary Survey No. —		3rd.	When the beams were in and fastened, and before the decks were laid...	<i>Nov 2.4.10.17.24.26 Dec 2.6.9.15.21.24.31.1876 Jan 1.14.20.22.27. Feb 1.4.8.11.14.22.28. March 2.4.7.</i>
Date —		4th.	When the ship was complete, and before the plating was finally coated or cemented..	<i>9.14.17.21.22.24. April 3.5.7.11.13.21.24.27. May 1.4.8.10.15.22.26.</i>
No. <i>64</i> in builder's yard.		5th.	After the ship was launched and equipped	

General Remarks (State quality of workmanship, &c.)
This vessel is built in accordance with approved plans attached and the Secretary's letter of the 23rd August 1875. She has a Raised quarter deck 128 feet long. Bridge house 13 feet, and Appallt forecastle 32 feet. She is fitted with water ballast tanks before and abaft the engine and boiler space. Fore tank 94 feet and the after tank 69 feet in length top plating 6/16 and side plates 7/16 in thickness. Tanks tested as required by the Rules to the load line and found satisfactory. The general quality of the Workmanship is good.

State if one, two, or three, decked vessel, or if spar, or awning decked; and the lengths of poop, forecastle, or raised quarter deck, and the length of double, or part double bottom.
How are the surfaces preserved from oxidation? Inside *Cement and Paint* Outside *Paint*
I am of opinion this Vessel should be Classed *90 A1. One deck and two tiers of beams.*
The amount of the Entry Fee ... £ 5 : : : is received by me, *J. Young*
Special Certificate ... £ 54 : 10 : 6 *10 June 1876*
Certificate ... : : : *Certificate of Machinery attached to report fee £ 3.0.0 paid.*
(Travelling Expenses, if any, £ —)
Committee's Minute *13th June 1876*
Character assigned *90 A1*
at Lloyd's Register