

# IRON SHIP.

No. 12921 Survey held at London Date, First Survey 12 Aug 73 Last Survey 30 June 1874  
 On the General M. Caroline Yard Number 33939 Master L. A. Chambers  
 Tonnage under Deck 468.21 ONE, OR TWO DECKED, THREE DECKED VESSEL.  
 Ditto of Third, Spar, or Awning Deck. — SPAR, OR AWNING-DECKED VESSEL.  
 Ditto of Poop, or Raised Qr. Dk. —  
 Ditto of House on Deck 30.91  
 Ditto of Forecastle 26.90  
 Gross Tonnage 526.03  
 Less Crew Space 57.87  
 Less Engine Room 41.59  
 Register Tonnage 402.54  
 as cut on Beam 402.54  
 Built at Millwall  
 When built 1853 Launched —  
 By whom built Scott Russell  
 Owners W. Henley  
 Port belonging to London  
 Destined Voyage Telegraph Service  
 Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 146 Breadth Moulded 28 DEPTH top of Floors to Upper Deck Beams 15 3 Power of Engines 70 Horse 250 N° of Decks with flat laid One N° of Tiers of Beams Two

Dimensions of Ship per Register, length 153 3/4 breadth 28 3/4 depth 15 1/2

KEEL, depth and thickness 6 1/2 x 1 7/8  
 STEM, moulding and thickness 6 1/2 x 3 1/2  
 STERN-POST for Rudder do. do. 6 1/2 x 3 1/2  
 for Propeller 6 1/2 x 3 1/2  
 Distance of Frames from moulding edge to moulding edge, all fore and aft — 24 —

FRAMES, Angle Iron, for 1/2 length amidships 4 3 7/16  
 Do. for 1/4 at each end 4 3 7/16  
 REVERSED FRAMES, Angle Iron 3 1/2 3 7/16  
 FLOORS, depth and thickness of Floor Plate at mid line for half length amidships 15 9/16  
 thickness at the ends of vessel 4 9/16  
 depth at 1/4 the half-bdth. as per Rule 15  
 height extended at the Bilges —

BEAMS, Upper, Spar, or Awning Deck Single or double Angle Iron, Plate or Tee Bulb Iron See  
 Single or double Angle Iron on Upper edge See  
 Average space See  
 BEAMS, Main or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron See  
 Single, or double Angle Iron, on Upper Edge See  
 Average space See

BEAMS, Lower Deck, Hold or Orlop Single or double Angle Iron, Plate or Tee Bulb Iron See  
 Single or double Angle Iron on Upper Edge See  
 Average space See

KEELSONS Centre line, single or double plate, box, or Intercoastal Plates See  
 Rider Plate See  
 Bulb Plate to Intercoastal Keelson See  
 Angle Irons See  
 Double Angle Iron Side Keelson See  
 Side Intercoastal Plate See  
 do. Angle Irons See  
 Attached to outside plating with angle iron See

BILGE Angle Irons See  
 do. Bulb Iron See  
 do. Intercoastal plates riveted to plating for length See

BILGE STRINGER Angle Irons See  
 Intercoastal plates riveted to plating for length See

SIDE STRINGER Angle Irons See  
 Transoms, material. Knight-heads. Hawse Timbers. See  
 Windlass See Pall Bitt See

The FRAMES extend in one length from Keel to Cannal  
 The REVERSED ANGLE IRONS on floors and frames extend across middle line to upper part of bilge and to cannal alternately

KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? yes And butts properly shifted? One Space Shift

PLATING. Garboard, double riveted to Keel, with rivets 2 1/2 in. diameter, averaging 24 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 2 1/2 in. diameter, averaging 24 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 2 1/2 in. diameter averaging 24 ins. from centre to centre.

Butts of — Strakes at Bilge for — length, treble riveted with Butt Straps — thicker than the plates they connect.

Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 2 1/2 in. diameter, averaging 24 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 2 1/2 in. diameter, averaging 24 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 whole length amidships. Butts of Upper or Spar Sheerstrake, treble riveted — length amidships.

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

Breadth of laps of plating in double riveting — Breadth of laps of plating in single riveting 24 in.

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? See  
 Waterway, how secured to Beams gutter plate (Explain by Sketch, if necessary.)  
 Beams of the various Decks, how secured to the sides? by face plate No. of Breasthooks, Five Crutches, Two

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Unknown  
 Manufacturer's name or trade mark, Could not see any

The above is a correct description.  
 Builder's Signature, — Surveyor's Signature, —

IRON 457-0444 (112)



Workmanship. Are the butts of plating planed or otherwise fitted? *Excellently well fitted. (Made adopted under)*  
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 & here seen.*  
Are the rivet holes well and sufficiently countersunk in the plate and punched from the facing surfaces? *Yes & here seen.*  
Do any rivets break into or through the seams or butts of the plating? *None seen.*

Masts, Bowsprit, Yards, &c., are *Ritchie* 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 *Foremast 53 ft 17 in dia Main Mast 64 ft 17 in dia*

*12921 Iron*  
*Tested at Trinity House London - 1st June 1874. signed by L.R. Smith Superintendent.*  
*Proving House Chester - 12th July 1874. and S. Laack Superintendent.*  
*Proving House London - 13th June 1874. L.R. Smith Superintendent.*  
*Proving House Cardiff - 20th June 1874. R. W. H. P. Superintendent.*

NUMBER FOR EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	No.	Weight.	Test per Certificate.	Weight per Rule.	Test req'd per Rule.
No.	SAILS.	CABLES, &c.										
	Fore Sails,	Chain ...	1 3/8	25 3/8	25 3/8	1 1/8	Bowers ...	405	13. 4. 2 1/2	15. 10. 0. 0	10. 0. 0	12 tons
	Fore Top Sails,	(Machine where, date, and name of Superintendent.)	1 3/8	25 3/8	25 3/8	1 1/8	Stream ...	239	13. 0. 1. 0	14. 16. 2. 7	10. 0. 0	12 tons
	Fore Topmast Stay Sails,	Hempen Stream	1 3/8	25 3/8	25 3/8	1 1/8	(Machine where, date, and name of Superintendent.)	239	13. 0. 1. 0	14. 16. 2. 7	10. 0. 0	12 tons
	Main Sails,	Cable	1 3/8	25 3/8	25 3/8	1 1/8	- do -	239	13. 0. 1. 0	14. 16. 2. 7	10. 0. 0	12 tons
	Main Top Sails,	Hawser ...	90	9	8 1/2	8 1/2	Kedges ...	239	13. 0. 1. 0	14. 16. 2. 7	10. 0. 0	12 tons
	and	Towlines	90	9	8 1/2	8 1/2						
		Warp quality	90	8 1/2								

Standing and Running Rigging *Good* and *Keel* sufficient in size and *Good* in quality. She has *Two* Long Boats and  
The Windlass is *Superior* *Revolving* *Cast* *Iron* *Capstan* and Rudder *Efficient* *Pumps* *Three* *besides* *Engine* *pumps*  
Engine Room Skylights. How constructed? *Of East India Lead* How secured in ordinary weather? *Secured to the angle cross.*  
What arrangements for deadlights in bad weather? *Brass shutters with strong tarpaulins.*  
Coal Bunker Openings. How constructed? *Iron framed* How are lids secured? *Iron Straps* Height above deck? *Six inches*  
Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? *In addition to the scuppers*  
*she has four large ports and two breast pipes aft and two forward*  
Cargo Hatchways. How formed? *Deep iron plates and Angle cross*  
State size Main Hatch *24 ft by 14 ft* Forehatch *None* Quarterhatch *8 ft by 7 ft 6 in*  
If of extraordinary size, state how framed and secured? *Substantial portable iron beams, partially decked over.*  
What arrangement for shifting beams? *One in main hatch - very substantially secured.*  
Hatches, If strong and efficient? *Yes.*

Order for Special Survey No.	DATES of	1st.	On the several parts of the frame, when in place, and before the plating was wrought
Date	Surveys held	2nd.	On the plating during the progress of riveting
Order for Ordinary Survey No.	while building	3rd.	When the beams were in and fastened, and before the decks were laid
Date	as per	4th.	When the ship was complete, and before the plating was finally coated or cemented
No. in builder's yard.	Section 18.	5th.	After the ship was launched and equipped

General Remarks, *This vessel has been surveyed in accordance with the require-*  
*ments of the rules for Iron vessels as set forth in the Special Survey rule*  
*No. 3, and found or put in thoroughly good and efficient condition*  
*She has also been strengthened in conformity with the Com-*  
*missioners' Requirements, as set forth in the Secretary's Letter dated the*  
*2nd Sept. 1873, and the accompanying tracing of this ship's section. As a*  
*"Double Bottom" extending for a length of 48 ft amidships, the same*  
*being fitted with Rods and boxes for pumping water off the top of the*  
*Tank, also with Cocks for bringing the Engine room pumps & gear*  
*on this compartment if ever found necessary. - The double bottom*  
*is also fitted with the necessary air-pipes, and has been tested with*  
*water and found practically tight.*

*She is fitted with large Iron Tanks for storing Telegraph*  
*Cable; and as many hold-beams as practicable under the*  
*circumstances have been fitted. Six in number; in addition*  
*she has three pairs of parallel Bulkheads of Iron and three upper*  
*Deck-beams of like construction connected thereto. See Section. -*  
*The deficiencies of the Scantlings of the Floor have been com-*  
*pensated for by fitting an extra number of deep vertical plates for carrying*  
*State if one, two or three decked vessel, or if gear or running deck, and lengths of poop, fore-castle or raised quarter-deck, or of double or part double bottom.*

How are the surfaces preserved from oxidation? Inside *Painted* Outside *Painted*  
Reare of opinion this Vessel should be Classed *S.S. A. 1 (Immaterial) 1874*  
The amount of the Entry Fee ... *£ 3 : 0 : 0* is received by me, *W. W. M. E.*  
Special ... *£ 10 : 10 : 0*  
Certificate ... *0 : 5 : 0*  
(Travelling Expenses) (if any) £ *—*  
Committee's Minute *14th July 1874*  
Character assigned *1874*  
*S.S. No 3-74*  
*ITBW*

and supporting the top of double-bottom, and by adding the bracket-plates, fitted  
in the top of the Section. - Among the principal repairs and additions now  
effected the following may be enumerated: - A number of new Side-plates,  
and frames: a quantity of new rivets in the bottom. An additional  
angle iron added to every beam where they were only of single angle iron  
originally. added a Reverse frame to every frame between the  
upper tank of Side and gunwale alternately, excepting in Engine space  
where all extend to the gunwale. - Increased the width of upper  
Deck Stringers on Beam-ends, and added fore and aft Lie-plates.  
Fitted an additional Side-Stringer in hold, also side Stringers  
formed of double angle Irons 4 x 3 x 7/8, arranged as the Committee  
required. The Sleepers doubled fore and aft with 30 x 4 1/2  
plates. - The Skelsons new throughout Machinery space. also the  
Floor with plate 30 x 4 1/2. Fitted a Rubbing-plate on the outside  
of the second shaft of plating as arranged with the Committee and  
extending fore and aft. New Coal Bunkers, new Waterballast Tanks.  
*all*

IRON 457-0661 (2/2)



Workmanship. Are the butts of plating planed or otherwise fitted? Excellently well fitted. (mode adopted under)  
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 & here seen.  
Are the rivet holes well and sufficiently countersunk in the plate and punched from the facing surfaces? Yes & here seen.  
Do any rivets break into or through the seams or butts of the plating? None seen.

Masts, Bowsprit, Yards, &c., are Ritch Rive in Good condition, and sufficient in size and length. If of Iron or Steel give  
Seantlings 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 Foremast 55 ft 17 in dia Main Mast 64 ft 17 in dia

12921 Iron

x Tested at Trinity House London - 12th June 1874 signed by L.R. Smith Superintendent

Proving House Chester - 12th July 1874 - and S. Laed Superintendent  
Trinity Proving House London - 13th June 1874 - L.R. Smith Superintendent  
Ritch Proving House Cardiff - 20th June 1874 - Geo H. King Superintendent

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
N <sup>o</sup> .	SAILS.	CABLES, &c.										
One	Fore Sails,	Chain ...	140 1/2	1 3/16	25 7/8 to 25 7/10	1 1/8	22 3/4 tons	415	13. 5. 2 1/2	15. 10. 0. 0	10. 0. 0	12 tons
One	Fore Top Sails,	(Machine where Tested, date, and name of Superintendent.)	136 1/16	1 3/16	23 3/4 to 23 7/8			239	13. 0. 1. 0	14. 16. 2. 7	10. 0. 0	12
One	Fore Topmast Stay Sails	Hempen Stream Cable	134	1 3/16	23 3/4 to 23 7/8			887	10. 3. 2. 0	12. 16. 0. 0	8. 2. 0	10 1/2
One	Main Sails,	Hawser ...	90	9		8 1/2		Stream	8. 3. 7		4. 3. 0	
One	Main Top Sails,	Towlines ...	90	7		6 1/2		- do -	2. 2. 16		2. 1. 0	
One	and	Warp ...	90	6 1/2				Kedges	1. 3. 19		1. 0. 0	
		quality	Good									

Standing and Running Rigging Good and strong sufficient in size and Good in quality. She has Two Long Boats and  
The Windlass is Harfield's Patent Good and Rudder Efficient Pumps Three besides Engine pumps  
Engine Room Skylights. How constructed? of East India Lead How secured in ordinary weather? Locked down angle iron.  
What arrangements for deadlights in bad weather? Brass guards with strong tarpaulins.  
Coal Bunker Openings. How constructed? Iron framed How are lids secured? Iron Straps Height above deck? Six inches  
Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? In addition to the scuppers  
she has four large ports and two brack pipes aft - and two forward  
Cargo Hatchways. How formed? Deep iron plates and Angle Irons  
State size Main Hatch 24 ft by 14 ft Forehatch None Quarterhatch 8 ft by 7 ft 6 ins  
If of extraordinary size, state how framed and secured? Substantially portable iron beams, partially decked down.  
What arrangement for shifting beams? One in Main Hatch - very substantially secured.  
Hatches, If strong and efficient? Yes.

Order for Special Survey No. _____	DATES of	1st.	On the several parts of the frame, when in place, and before the plating was wrought	} <u>Not Surveyed</u>
Date _____	Surveys held	2nd.	On the plating during the progress of riveting	
Order for Ordinary Survey No. _____	while building	3rd.	When the beams were in and fastened, and before the decks were laid	} <u>While Building</u>
Date _____	as per	4th.	When the ship was complete, and before the plating was finally coated or cemented	
No. _____ in builder's yard.	Section 18.	5th.	After the ship was launched and equipped	

all new framing of Iron, to Engine, and Boiler spaces and Cargo Hatchways  
the Bulwarks 4 ft thick and Bulwark Stays. - Newly cemented throughout  
in the Bottom. - the Linclass (Harfield's patent) and new horse pipes -  
the Pumps, Rudder, Engines and Boilers, decks, and the whole of  
the deck fittings, the Cabin, Masts, yards, Rigging, Sails, anchors  
Chain. Cables - the Forecastle ship is 31 ft 4 ins long, and the  
Aurricane deck and ships which is 23 ft 6 ins long - are all new.  
She is a Topsail Schooner rigged vessel.

She is now in good and efficient condition, and  
fit, in our opinion, for the safe conveyance of dry and perishable  
Cargoes to and from all parts of the world, and to be classed  
as recommended below.

William Lloyd  
7/6/1874

compensated for by fitting out extra number of deep vertical plates for carrying  
State of one, two or three decked vessel, or if spar or awning decked, and lengths of poop, forecabin or raised quarter deck, or of double or part double bottom.

How are the surfaces preserved from oxidation? Inside Asphalted 1873 Outside Paint.

of opinion this Vessel should be Classed 85. A. 1 Cemented in 1874

The amount of the Entry Fee ... £ 5 : 0 : 0 is received by me,  
Special ... £ 10 : 10 : 0  
Certificate ... 0 : 5 : 0  
H. W. M. E.

(Travelling Expenses)  
(if any) £ -

Committee's Minute 14th July 1874

Character assigned 85. A. 1

Mac S.S. No 3-74 ITBM

