

# IRON SHIP.

22233  
Reg 2/12/78

No. 4094 Survey held at Stockton Date, First Survey 2<sup>d</sup> June Last Survey 26<sup>th</sup> Nov 1878  
On the Screw Steamer "St. Mark" Master George E Parkins

TONNAGE under Tonnage Deck 1559.18 ONE, OR TWO DECKED, THREE DECKED VESSEL.  
 Ditto of Third Spar, or Awning Deck. 3.82 SPAR, OR AWNING DECKED VESSEL.  
 Ditto of Poop, or Raised Or. Dk. 41.50 HALF BREADTH (moulded) 14.0 Feet.  
 Ditto of Houses 3.82 DEPTH from upper part of Keel to top of Upper Deck Beams 25.5 1/2  
 Ditto of Deck Hatchways 26.50 GIRTH of Half Midship Frame (as per Rule) 38.9  
 Ditto of Forecastle 41.23 1st NUMBER 81.2 1/2  
 Gross Tonnage 1707.68 1st NUMBER, if a THREE-DECKED VESSEL 74.2 1/2  
 Less Crew Space 63.49 LENGTH 256.5  
 Less Engine Room 546.40 2nd NUMBER 19032  
 Register Tonnage as cut on Beam 1094.78 PROPORTIONS—Breadths to Length Under Eight  
 Depths to Length—Upper Deck to Keel Under Eleven  
 Main Deck ditto Under Fifteen

Built at Stockton  
 When built 1878 Launched 26<sup>th</sup> October  
 By whom built Richardson Duck & Co  
 Owners G Jinnan & Co  
 Port belonging to London  
 Destined Voyage Special Survey during building  
 If Surveyed while Building, Afloat, or in Dry Dock.

PLANS CASE

LENGTH on deck as per Rule 256 Feet. 5 Inches. BREADTH—Moulded 34 Feet. 3 Inches. DEPTH top of Floors to Upper Deck Beams 23 Feet. 6 Inches. Do. do. Main Deck Beams 18 Feet. 6 Inches. Power of Engines 190 Horse. N<sup>o</sup>. of Decks with flat laid Two N<sup>o</sup>. of Tiers of Beams Three

Dimensions of Ship per Register, length 256 breadth, 34.25 depth, 23.3

	Inches in Ship.		Inches per Rule.		Inches in Ship.		Inches per Rule.	
	Inches	16ths	Inches	16ths	Inches	16ths	Inches	16ths
KEEL, depth and thickness	9 1/2	2 1/2	9 1/2	2 1/2	9 1/2	2 1/2	9 1/2	2 1/2
STEM, moulding and thickness	9	2 1/2	9	2 1/2	9	2 1/2	9	2 1/2
STERN-POST for Rudder do. do.	9	5	9	5	9	5	9	5
" " for Propeller	9	5	9	5	9	5	9	5
Distance of Frames from moulding edge to moulding edge, all fore and aft	24		24		24		24	
FRAMES, Angle Iron, for 3/4 length amidships	5	3	5	3	5	3	5	3
Do. for 1/2 at each end	5	3	5	3	5	3	5	3
REVERSED FRAMES, Angle Iron	3	3	3	3	3	3	3	3
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships & spaces	23 1/2	9	23 1/2	9	23 1/2	9	23 1/2	9
" thickness at the ends of vessel	12		12		12		12	
" depth at 3/4 the half-bdth. as per Rule	12		12		12		12	
" height extended at the Bilges	47		47		47		47	
BEAMS, Upper, Spar, or Awning Deck Single or double Angle Iron, Plate or Tee Bulb Iron	7	7	7	7	7	7	7	7
Single or double Angle Iron on Upper edge	3	3	3	3	3	3	3	3
Average space	48		48		48		48	
BEAMS, Main, or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron	5 1/2	3	5 1/2	3	5 1/2	3	5 1/2	3
Single or double Angle Iron, on Upper Edge	5 1/2	3	5 1/2	3	5 1/2	3	5 1/2	3
Average space	24		24		24		24	
BEAMS, Lower Deck, Hold, or Orlop Single or double Angle Iron, Plate or Tee Bulb Iron	9 1/2	9	9 1/2	9	9 1/2	9	9 1/2	9
Single or double Angle Iron on Upper Edge	9	8	9	8	9	8	9	8
Average space	48		48		48		48	
KEELSONS Centre line, single or double plate, box, or Intercostal, Plates	18	13	18	13	18	13	18	13
" Rider Plate	12	13	12	13	12	13	12	13
" Bulb Plate to Intercostal Keelson	5 1/2	4	5 1/2	4	5 1/2	4	5 1/2	4
" Angle Irons	5 1/2	4	5 1/2	4	5 1/2	4	5 1/2	4
" Double Angle Iron Side Keelson	5 1/2	4	5 1/2	4	5 1/2	4	5 1/2	4
" Side Intercostal Plate	25	8	25	8	25	8	25	8
" do. Angle Irons	5 1/2	4	5 1/2	4	5 1/2	4	5 1/2	4
" Attached to outside plating with angle iron	3	3	3	3	3	3	3	3
BILGE Angle Irons	5 1/2	4	5 1/2	4	5 1/2	4	5 1/2	4
" do. Bulb Iron	5 1/2	4	5 1/2	4	5 1/2	4	5 1/2	4
" do. Intercostal plates riveted to plating for length	8 1/2	8	8 1/2	8	8 1/2	8	8 1/2	8
BILGE STRINGER Angle Irons	5 1/2	4	5 1/2	4	5 1/2	4	5 1/2	4
Intercostal plates riveted to plating for 1/2 length.	3	3	3	3	3	3	3	3
SIDE STRINGER Angle Irons	3	3	3	3	3	3	3	3

Flat Keel Plates, breadth and thickness ... 36 12 36 12  
 PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied ... 11x10 11x10  
 " 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 15 1/4 14 1/2 15 1/4 14 1/2  
 Lengths of Plating ... 120  
 Shifts of Plating, and Stringers ... 48  
 Gunwale Plate on ends of Awning Spar, or Upper Deck Beams, breadth and thickness ... 56 9 56 9  
 Angle Iron on ditto ... 4x4 9 4x4 9  
 Tie Plates fore and aft, outside Hatchways ... 13 9 13 9  
 Diagonal Tie Plates on Beams No. of Pairs, Planksheer material and scantling  
 Waterways do. do.  
 Flat of Upper Deck do. do. Yellow pine 4 8 4 8  
 How fastened to Beams both with and below  
 Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness ... 37 10 37 10  
 Is the Stringer Plate attached to the outside plating? 4x4x9 4x4x9  
 Angle Irons on ditto, No. 2 ... 4x4 9 4x4x9  
 Tie Plates, outside Hatchways ...  
 Diagonal Tie Plates on Beams, No. of pairs  
 Waterways materials and scantlings ...  
 Flat of Middle Deck do. do. 6 6  
 How fastened to Beams ...  
 Stringer Plates on ends of Lower Deck, Hold or Orlop Beams ... 34 9 34 9  
 Is the Stringer Plate attached to the outside plating? 4x4x9 4x4x9  
 Angle Irons on ditto, No. 3 ... 5 1/2 x 4 9 5 1/2 x 4 x 9  
 Stringer or Tie Plates, outside Hatchways ...  
 Flat of Lower Deck ...  
 Ceiling betwixt Decks, thickness and material in hold do. do. 2 2  
 Main piece of Rudder, diameter at head 8 3/4 8 3/4  
 do. at heel 3 1/2 3 1/2  
 Can the Rudder be unshipped afloat? Yes  
 Bulkheads No. 5 Thickness of plates 605 605  
 " Height up fore to upper strake to main deck  
 " How secured to sides of ship Double frames riveted  
 " Size of Vertical Angle Irons 3 x 3 x 7/16 and distance apart 30" ins.  
 " Are the outside Plates doubled two spaces of Frames in length? Yes

Transoms, material. Knight-heads. Hawse Timbers. Iron

Windlass Iron Pall Bitt Iron

The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 7/8 in. Rivets, about 7 apart.

The REVERSED ANGLE IRONS on floors and frames extend across middle line to top of main deck stringer edge 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 3/16 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 7/8 in. diameter, averaging 4 ins. from centre to centre.

" Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 4 ins. from centre to centre.

" Butts of 3 Strakes at Bilge for 1/2 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 7/8 in. diameter, averaging 4 ins. from cr. to cr.

" Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 4 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 1/2 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted 1/2 length amidships.

" Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for 1/2 length.

" Breadth of laps of plating in double riveting 5/4 Breadth of laps of plating in single riveting

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Yes And angle iron properly shifted & strapped

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

is of the various Decks, how secured to the sides? With welded & Bracket Iron riveted No. of Breasthooks, Five Crutches, Iron

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Best March, Hopkins

Manufacturer's name or trade mark, West Stockton and Bowersfield

The above is a correct description.

Builder's Signature, Richardson Duck & Co Surveyor's Signature, Wm Davidson

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

IRON 481-0344

Workmanship. Are the butts of plating planed or otherwise fitted? Planed 22233 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? Yes Several in Butts at Seam Structure

Masts, Bowsprit, Yards, &c., are Iron & 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

Fore Mast Length 79' 6" plating 9/16 & 5/16 diameter at Feet 2 1/2" head 16" as per plan

Main Mast Length 43.9 plating 9/16 & 5/16 " " " " " " " " " "

Bowsprit Iron and tested Cold

NUMBER for EQUIPMENT 22910		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS.	N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.	
N. SAILS. (State Machine where Tested, Date, & name of Superintendent.)	CABLES, &c. Chain	2 1/4	3/4	74.2.2-0 85.2.2-0	2 1/4 - 1 1/4	4 1/2 tons 5 1/2 "	Bowers	3	30.2.18 29.3.18 35.2.18	29.3.3-0 28.12.2-0 35.5.3-21	30.0-0 30.0-0 25.2-0	28 1/2 tons 25 4/10 "	
	Fore Sails, -												
	Fore Top Sails,												
	Fore Topmast Stay Sails												
	Main Sails,												
	Main Mast Sails,												
	and other as by?												
	Stream								1	9.3.16	13.0.0-0	9 1/2 cwt	11 1/2 tons
	Kedges								3	4.3.13	7.5.0-0	4 3/4 "	7 2/10 "
										2.2.2	5.2.2-0	2 1/2 "	5 "

Standing and Running Rigging Wrought Iron sufficient in size and good in quality. She has two Long Boats and three others

The Windlass is Emerson & Walker Capstan Iron and Rudder Iron Pumps Iron

Engine Room Skylights.—How constructed? Leak and Bull Eye How secured in ordinary weather? —

What arrangements for deadlights in bad weather? Parpaning

Coal Bunker Openings.—How constructed? Iron How are lids secured? Solid Hatches Height above deck? 16" & 24"

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? Five Ports Gangways mooring pipes and scuppers on each side between Poop and Forecastle

Cargo Hatchways.—How formed? Iron

State size Main Hatch 24' x 12' Forehatch 14 x 10 Quarterhatch 18 x 12

If of extraordinary size, state how framed and secured? Main two deep lock plates & three fore & afters

What arrangement for shifting beams? Afters the deep lock plate & three fore and afters

Hatches, If strong and efficient? Yes Solid 3" pine

Order for Special Survey No. <u>490</u>	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	} First Survey 21 <sup>st</sup> June 1878
✓ Date <u>9<sup>th</sup> May 1878</u>		2nd. On the plating during the process of riveting	
Order for Ordinary Survey No. _____		3rd. When the beams were in and fastened, and before the decks were laid....	
Date _____		4th. When the ship was complete, and before the plating was finally coated or cemented.	
No. <u>250</u> in builder's yard.		5th. After the ship was launched and equipped	

General Remarks (State quality of workmanship, &c.) Good

I finished with short Poop and Toppellant Forecastle all frames extended to the Top height plating 9/16  
Panting beams fitted as required and stanchions fitted inside of Tunnels. Strakes under Sheertrake and three other alternate (inner) strakes from Stem aft doubled for 13 ft extending down to 10 ft water mark

Richardson Dicks & Co.

State if one, two, or three decked vessel, or if spar, or running decked; and the lengths of poop, fore-castle, or raised quarter deck, and the length of double, or part double bottom.

How are the surfaces preserved from oxidation? Inside with Cement & Paint Outside with Paint

I am of opinion this Vessel should be Classed 100 A 1

The amount of the Entry Fee ... £ 5 : - : - is received by me, 118  
Special ... £ 66 : 2 : - 28<sup>th</sup> Nov 1878  
Certificate ... : : :

(Travelling Expenses, if any, £ \_\_\_\_\_)

Committee's Minute 3rd December, 1878.

Character assigned 100 A 1  
Lloyd's Reg

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

