

IRON SHIP

No. *1818.19* Survey held at *Newcastle* Date, First Survey *2 Jan 1878* Last Survey *21 June 1879*
 On the *S.S. "Wheatfield"* Master *D. Munroe*
 Tonnage under *1818.19* ONE, OR TWO DECKED, THREE DECKED VESSEL.
6.39 SPAR, OR AWNING DECKED VESSEL.
 Ditto of *66.62* HALF BREADTH (moulded) *17.50*
 Ditto of Poop, *26.65* DEPTH from upper part of Keel to top of Upper Deck Beams *26.50*
 Ditto of Houses on Deck *45.01* GIRTH of Half Midship Frame (as per Rule) *39.45*
 Ditto of Forecastle *1962.86* 1st NUMBER *83.45*
 Gross Tonnage *57.14* 1st NUMBER, THREE-DECKED VESSEL *76.45*
 Less Cargo Space *1905.72* LENGTH *268.5*
 Less Engine Room *628.09* 2nd NUMBER *20526*
 Register Tonnage *1274.63* PROPORTIONS—Breadths to Length *7.64*
 as cut on Beam Depths to Length—Upper Deck to Keel *10.13*
 Main Deck ditto *14.32*

Built at *Newcastle*
 When built *1879* Launched *May 21st*
 By whom built *Palmer & Co*
 Owners *Hunting & Patterson*
 Port belonging to *Laudow*
 Destined Voyage *Genoa*
 If Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule *268* Feet. *6* Inches. BREADTH—Moulded... *35* Feet. *0* Inches. DEPTH top of Floors to Upper Deck Beams *24* Feet. *6* Inches. Do. do. Main Deck Beams *16* Feet. *9* Inches. Power of Engines *200* Horse. No. of Decks with flat laid *2* No. of Tiers of Beams *3*

Dimensions of Ship per Register, length, *270* breadth, *35.35* depth, *24*.

	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	<i>9 1/2 x 2 1/2</i>	<i>9 1/2 x 2 1/2</i>
STEM, moulding and thickness	<i>9 x 2 1/2</i>	<i>9 x 2 1/2</i>
STERN-POST for Rudder do. do.	<i>9 x 5</i>	<i>9 x 5</i>
for Propeller	<i>9 x 5</i>	<i>24</i>
Distance of Frames from moulding edge to moulding edge, all fore and aft	<i>24</i>	
FRAMES, Angle Iron, for $\frac{3}{4}$ length amidships	<i>5 3/4 x 3</i>	<i>5 3/4 x 3</i>
Do. for $\frac{1}{2}$ at each end	<i>5 3/4 x 3</i>	<i>5 3/4 x 3</i>
REVERSED FRAMES, Angle Iron	<i>3 1/2 x 3</i>	<i>3 1/2 x 3</i>
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	<i>24 x 9</i>	<i>24 x 9</i>
thickness at the ends of vessel	<i>12</i>	<i>12</i>
depth at $\frac{3}{4}$ the half-bdth. as per Rule	<i>12</i>	<i>12</i>
height extended at the Bilges	<i>40</i>	<i>40</i>
BEAMS, Upper, Spar, or Lower Deck	<i>7 x 7</i>	<i>7 x 7</i>
Single or Angle Iron, Plate or Tee Bulb Iron	<i>3 x 3</i>	<i>3 x 3</i>
Single or double Angle Iron on Upper edge	<i>3 x 3</i>	<i>3 x 3</i>
Average space	<i>40</i>	<i>40</i>
BEAMS Main, or Middle Deck	<i>6 x 3</i>	<i>6 x 3</i>
Single or Angle Iron, Plate or Tee Bulb Iron	<i>6 x 3</i>	<i>6 x 3</i>
Single or double Angle Iron on Upper Edge	<i>24</i>	<i>24</i>
Average space	<i>24</i>	<i>24</i>
BEAMS Lower Deck, Hold, or Upper	<i>8 1/2 x 8</i>	<i>8 1/2 x 8</i>
Single or double Angle Iron, Plate or Tee Bulb Iron	<i>3 x 3</i>	<i>3 x 3</i>
Single or double Angle Iron on Upper Edge	<i>3 x 3</i>	<i>3 x 3</i>
Average space	<i>40</i>	<i>40</i>
KEELSONS Centre line, single or double plate, or Intercoastal Plate	<i>10 x 13</i>	<i>10 x 13</i>
" Rider Plate	<i>12 x 13</i>	<i>12 x 13</i>
" Bulb Plate to Intercoastal Keelson	<i>5 1/2 x 4</i>	<i>5 1/2 x 4</i>
" Angle Irons	<i>5 1/2 x 4</i>	<i>5 1/2 x 4</i>
" Double Angle Iron Side Keelson	<i>5 1/2 x 4</i>	<i>5 1/2 x 4</i>
" Side Intercoastal Plate	<i>5 1/2 x 4</i>	<i>5 1/2 x 4</i>
" do. Angle Irons	<i>5 1/2 x 4</i>	<i>5 1/2 x 4</i>
" Attached to outside plating with angle iron	<i>3 x 3</i>	<i>3 x 3</i>
BILGE Angle Irons	<i>5 1/2 x 4</i>	<i>5 1/2 x 4</i>
" do. Bulb Iron	<i>5 1/2 x 4</i>	<i>5 1/2 x 4</i>
" do. Intercoastal plates riveted to plating for length	<i>5 1/2 x 4</i>	<i>5 1/2 x 4</i>
BILGE STRINGER Angle Irons	<i>5 1/2 x 4</i>	<i>5 1/2 x 4</i>
Intercoastal plates riveted to plating for length	<i>5 1/2 x 4</i>	<i>5 1/2 x 4</i>
SIDE STRINGER Angle Irons		

	Inches in Ship.	16ths in Ship.	Inches per Rule.	16ths per Rule.
Flat Keel Plates, breadth and thickness	<i>36</i>	<i>12</i>	<i>36</i>	<i>12</i>
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges	<i>10 x 11</i>		<i>10 x 11</i>	
of doubling at Bilge, or increased thickness, and length applied	<i>as per section</i>			
fm up. part of Bilge to edge of Sh'rstrake	<i>10 x 11</i>		<i>10 x 11</i>	
Main Sheerstrake, breadth and thickness	<i>40</i>	<i>13</i>	<i>40</i>	<i>13</i>
of doubling at Sh'rstrake, & length applied from Main to Upper or Spar Deck Sh'rstrake				
Upper or Spar Deck Sh'rstrake, breadth & thickness	<i>9 3/4</i>	<i>8 1/4</i>	<i>9 3/4</i>	<i>8 1/4</i>
Butt Straps to outside plating, breadth & thickness	<i>16 3/4</i>		<i>16 3/4</i>	
Lengths of Plating	<i>144</i>		<i>144</i>	
Shifts of Plating, and Stringers	<i>40</i>		<i>40</i>	
Gunwale Plate on ends of Upper Spar, or Upper Deck Beams, breadth and thickness	<i>53</i>	<i>9</i>	<i>53</i>	<i>9</i>
Angle Iron on ditto	<i>4 x 4</i>	<i>9</i>	<i>4 x 4</i>	<i>9</i>
Tie Plates fore and aft, outside Hatchways	<i>14</i>	<i>9</i>	<i>14</i>	<i>9</i>
Diagonal Tie Plates on Beams No. of Pairs				
Plank-shear material and scantling				
Waterways do. <i>Sine gutter</i>				
Flat of Upper Deck do. <i>Yellow pine</i>	<i>4</i>		<i>4</i>	
How fastened to Beams	<i>list and men bolts</i>			
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	<i>30</i>	<i>10</i>	<i>30</i>	<i>10</i>
Is the Stringer Plate attached to the outside plating?	<i>Yes</i>			
Angle Irons on ditto, No. <i>2</i>	<i>4 x 4 x 9</i>		<i>4 x 4 x 9</i>	
Tie Plates, outside Hatchways				
Diagonal Tie Plates on Beams, No. of Pairs				
Waterways materials and scantlings				
Flat of Middle Deck do. <i>Iron</i>	<i>6</i>		<i>6</i>	
How fastened to Beams	<i>Riveted</i>			
Stringer Plates on ends of Lower Deck, Hold, or Orlop Beams	<i>35</i>	<i>9</i>	<i>35</i>	<i>9</i>
Is the Stringer Plate attached to the outside plating?	<i>Yes</i>			
Angle Irons on ditto, No. <i>2</i>	<i>4 x 4 x 9</i>		<i>4 x 4 x 9</i>	
Stringer or Tie Plates, outside Hatchways				
Flat of Lower Deck				
Ceiling betwixt Decks, thickness and material	<i>2 1/2</i>	<i>fir</i>	<i>2 1/2</i>	<i>fir</i>
in hold do. do.	<i>3 3/4</i>		<i>3 3/4</i>	
Main piece of Rudder, diameter at head	<i>6 3/4</i>		<i>6 3/4</i>	
do. at heel	<i>3 1/2</i>		<i>3 1/2</i>	
Can the Rudder be unshipped afloat?	<i>Yes</i>			
Bulkheads No. <i>4</i> Thickness of	<i>7</i>		<i>7</i>	
Height up to main and fore and aft upper deck				
How secured to sides of ship	<i>double frame and bracket pieces</i>			
Size of Vertical Angle Irons	<i>3 1/2 x 3</i>		<i>30</i>	<i>ins.</i>
and distance apart				
Are the outside Plates doubled two spaces of Frames in length?	<i>Yes</i>			

Transoms, material. Knight-heads. Hawse Timbers *Shaw*
 Windlass *Shaw patent* Pall Bitt *Shaw*
 The FRAMES extend in *2* length from *Keel* to *gunwale*
 The REVERSED ANGLE IRONS on floors and frames extend *from keelsons* middle line to *M. D. 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 *7/8* in. diameter, averaging *3 3/4* ins. from centre to centre.
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets *7/8* in. diameter averaging *3 3/4* ins. from centre to centre.
 Butts of *3* Strakes at Bilge for *1/2* length, treble riveted with Butt Straps *1 1/2* 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 *3 3/4* ins. from cr. to cr.
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets *7/8* in. diameter, averaging *3 3/4* 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 for length amidships.~~
 Butts of Main Stringer Plate, treble riveted for *1/2* length amidships. Butts of Upper ~~or~~ Stringer Plate, treble riveted for *1/2* length.
 Breadth of laps of plating in double riveting *5 1/4* Breadth of laps of plating in single riveting *5 1/4*
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? *double and treble riveted.*
 Waterway, how secured to Beams *Riveted* (Explain by Sketch, if necessary.)
 Beams of the various Decks, how secured to the sides? *by welded knees* No. of Breasthooks, *6* Crutches, *5*
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c. *Iron, & beams, and angles from*
 Manufacturer's name or trade mark, *Palmer & Co, and the plating from Palmer & Co.*
 The above is a correct description.
 Builder's Signature, *W. H. Munroe* Surveyor's Signature, *R. J. R.*
 Surveyor to Lloyd's Register of British and Foreign Shipping.

Workmanship. Are the butts of plating planed or otherwise fitted? *planed*

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? *fairly so*

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.*

24014 Iron

Masts, Bowsprit, Yards, &c., are *iron* 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 70' 6" diam 24" Mainmast 72' diam 23" 1/2*

These are three plate masts 1/16 and 1/16" thick, with lands double and all butts treble riveted, and the plating is doubled in way of portures. The material is from Messrs Palmer & Co, Glasgow & Tyne.

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	W't req'd per Rule.	Test req'd per Rule.
SAILES.							Bowers	3	33.0.7	30.18.12	32.0.0	30' 10
CABLES, &c.									32.1.20	30.9.0.7	32.0.0	
Chain		270	1 1/2	59 1/10	210-1 1/2	59 1/10			27.2.20	26.17.27	27.0.23	26 1/2
Fore Sails,					75-1 1/2	82 3/4						
Fore Top Sails,					90-12							
Fore Topmast Stay Sails					90-11							
Main Sails,					90-7							
Main Top Sails,												
Standing and Running Rigging							Stream	1	10.2.26	12.13.0.4	13.1.0	
The Windlass is							Kedges	2	5.3.24	8 1/4	6.2.0	
									2.2.03	5	3.1.0	

Capstan *good* and Rudder *good* Pumps *good and sufficient*

Engine Room Skylights.—How constructed? *solid shutter & ball eyes* How secured in ordinary weather? *bolted down*

What arrangements for deadlights in bad weather? *Tarpaulins*

Coal Bunker Openings.—How constructed? *wrought iron* How are lids secured? *by iron latches* Height above deck? *34"*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Nine ports and mooring-pipes on each side*

Cargo Hatchways.—How formed? *iron comings and head bays riveted together*

State size Main Hatch *20' 0" x 20' 0"* Fore hatch *No 2 = 22' 0" x 11' 10"* Quarter hatch *No 3 = 16' 0" x 11' 10" No 4 = 10' 0" x 11' 10"*

If of extraordinary size, state how framed and secured?

What arrangement for shifting beams? *as per plan*

Hatches, If strong and efficient? *Yes - solid.*

Order for Special Survey No. <i>212</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>1878 Dec 2. 21. 1879 Jan 2. 6. 13. 20. 24. 28.</i>
Date <i>20 Nov 1878</i>		2nd. On the plating during the process of riveting	<i>Feb 4. 10. 13. 20. March 1. 7. 10. 13. 28. April 1. 5.</i>
Order for Ordinary Survey No. <i>386</i>		3rd. When the beams were in and fastened, and before the decks were laid	<i>10. 10. 21. 23. 29. May 11. 14. 16. 21. 22. 26. 31.</i>
Date <i>—</i>		4th. When the ship was complete, and before the plating was finally coated or cemented	<i>June 6. 9. 17. 18. 20. 21.</i>
No. <i>386</i> in builder's yard.		5th. After the ship was launched and equipped	

General Remarks (State quality of workmanship, &c.) *This is a three decked vessel built in accordance with the plans attached, and in other respects in accordance with the Rules. She has a water ballast tank in the after hold 81' 6" long, and another extending through the engine room into the fore hold for a length altogether of 56 feet, both having been duly tested and found tight and satisfactory. She has a full poop 30 feet long, a top gallant forecastle 36 feet long, and a short deckhouse 14 feet long. A half plate is fitted at the side intercostal keelson as shown on Section; and the fore bulkhead of the engine room is attached to the floor plates as per Rule. The poop, and engine and boiler casings are well built, sufficient in thickness and stiffening, and the deck openings at other parts are also efficiently protected, whilst the workmanship throughout is good. The doublings below the Sheerstrake, and the one strake at bulges have been carried out as shown.*

Easter vessel to the "R. J. Matthews". Report No 14 348.

State if one, two, or three, decked vessel, or if spar, or arming 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 *by cement and paint* Outside *paint & composition.*

I am of opinion this vessel should be Classed *100 A.I.*

The amount of the Entry Fee ... £ 5 : : : received by me, *Spring R. Reed.*

Special ... £ 72 : 10 : : *July 1879*

Certificate ... : : : : : *—*

(Travelling Expenses, if any, £ : : : : :)

Committee's Minute

Character assigned

100 A.I.

100 A.I.

100 A.I.

15th July 1879

100 A.I.

100 A.I.

100 A.I.

100 A.I.

This vessel appears eligible to be classed as recommended by 200 A.I.

"Iron Deck"

"Skeets of Iron"

"Skeets of Iron"

"Skeets of Iron"

"Skeets of Iron"

Lloyd's Register Foundation