

IRON SHIP

No. 4096 Survey held at Bowling Date, First Survey 27th April Last Survey 26th August 1875
 On the Sc. "Eastward" Master D. Wilkie
 Tonnage under Tonnage Deck 144.41 ONE, OR TWO DECKED, THREE DECKED VESSEL.
 Ditto of Upper Deck 144.41 SPAR, OR AWNING DECKED VESSEL.
 Ditto of Lower Deck 144.41 HALF BREADTH (moulded)... .. Feet. 11
 Ditto of Houses on Deck 144.41 DEPTH from upper part of Keel to top of Upper Deck Beams 11.75
 Ditto of Portonale 144.41 GIRTH of Half Midship Frame (as per Rule) 19.75
 Gross Tonnage 144.41 1st NUMBER 42.5
 Less Crew Space 7.51 2nd NUMBER 39.5
 Less Engine Room 136.90 PROPORTIONS—Breadths to Length 4.2
 Register Tonnage as cut on Beam 136.90 Depths to Length—Upper Deck to Keel 3.9
 Main Deck ditto 3.9

Official Number 4096

LENGTH on deck as per Rule 93 Feet. Inches. BREADTH—Moulded... .. Feet. Inches. 22 DEPTH top of Floors to Upper Deck Beams 10.6 Feet. Inches. Power of Engines... .. Horse. No. of Decks with flat laid 2 No. of Tiers of Beams 2

Dimensions of Ship per Register, length, 90.2 breadth, 22 depth, 10.5

	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	<u>7 x 1 1/4</u>	<u>6 1/2 x 1 1/4</u>				
STEM, moulding and thickness	<u>7 x 1 1/2</u>	<u>6 x 1 1/4</u>				
STERN-POST for Rudder do. do.	<u>6 1/2 x 1 1/2</u>	<u>6 x 1 1/4</u>				
for Propeller						
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>20</u>	<u>20</u>				
FRAMES, Angle Iron, for 1/2 length amidships	<u>3</u>	<u>2 1/2</u>	<u>5</u>	<u>3</u>	<u>2 1/2</u>	<u>5</u>
Do. for 1/2 at each end	<u>2 1/2</u>	<u>2 1/2</u>	<u>4</u>	<u>2 1/2</u>	<u>2 1/2</u>	<u>4</u>
REVERSED FRAMES, Angle Iron	<u>12</u>	<u>6</u>	<u>12</u>	<u>6</u>	<u>6</u>	<u>6</u>
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	<u>6</u>	<u>6</u>	<u>24</u>	<u>24</u>		
thickness at the ends of vessel						
depth at 3/4 the half-bdth. as per Rule						
height extended at the Bilges						
BEAMS, Upper, Spar, or Awning Deck	<u>5 1/2</u>	<u>3</u>	<u>0</u>	<u>5 1/2</u>	<u>3</u>	<u>0</u>
Single or double Ang. Iron, Plate or Tee Bulb Iron						
Single or double Angle Iron on Upper edge	<u>40</u>					
Average space						
BEAMS, Main, or Middle Deck						
Single or double Ang. Iron, Plate or Tee Bulb Iron						
Single or double Angle Iron, on Upper Edge						
Average space						
BEAMS, Lower Deck, Hold, or Orlop						
Single or double Ang. Iron, Plate or Tee Bulb Iron						
Single or double Angle Iron on Upper Edge						
Average space						
KEELSONS Centre line, single or double plate, bow, or intercostal plates	<u>6 1/2</u>	<u>7</u>	<u>6 1/2</u>	<u>7</u>		
Rider Plate	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>
Bulb Plate to Intercostal Keelson						
Angle Irons						
Double Angle Iron Side Keelson						
Side Intercostal Plate						
Angle Irons						
Attached to outside plating with angle iron						
BILGE Angle Irons	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>
do. Bulb Iron						
do. Intercostal plates riveted to plating for length						
BILGE STRINGER Angle Irons	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>
Intercostal plates riveted to plating for length						
SIDE STRINGER Angle Irons						

	Inches in Ship.	16ths in Ship.	Inches required	16ths required
Flat Keel Plates, breadth and thickness	<u>30</u>	<u>7</u>	<u>30</u>	<u>7</u>
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilge	<u>7</u>	<u>6</u>		<u>6</u>
of doubling at Bilge, or increased thickness, and length applied				
from upper part of Bilge to l.r. edge of Sh'rstrake	<u>36</u>	<u>7</u>	<u>30</u>	<u>7</u>
Main Sheerstrake, breadth and thickness of doubling at Sh'rstrake, & length applied from Main to Upper or Spar Deck Sh'rstrake				
Upper Spar Deck Sh'rstrake, breadth & thickness	<u>23</u>	<u>6</u>	<u>20</u>	<u>6</u>
Butt Straps to outside plating, breadth & thickness	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>
Lengths of Plating	<u>6.5</u>	<u>9</u>	<u>frames</u>	
Shifts of Plating, and Stringers	<u>2</u>	<u>frames</u>		
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>
Angle Iron on ditto	<u>7</u>	<u>6</u>		
Tie Plates fore and aft, outside Hatchways				
Diagonal Tie Plates on Beams No. of Pairs				
Planksheer material and scantling	<u>3</u>	<u>PPine</u>	<u>3</u>	
Waterways do. do.				
Flat of Upper Deck do. do.				
How fastened to Beams				
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.				
How fastened to Beams				
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams				
Is the Stringer Plate attached to the outside plating?				
Angle Irons on ditto, No.				
Stringer or Tie Plates, outside Hatchways				
Flat of Lower Deck				
Ceiling between Decks, thickness and material	<u>2</u>	<u>PPine</u>	<u>2</u>	
in hold do. do.				
Main piece of Rudder, diameter at head	<u>3</u>		<u>3</u>	
do. at heel	<u>2</u>		<u>2</u>	
Can the Rudder be unshipped afloat?	<u>Yes</u>			
Bulkheads No. <u>2</u> Thickness of <u>4/16</u>				<u>4</u>
Height up <u>to deck</u>				
How secured to sides of ship	<u>double frames</u>			
Size of Vertical Angle Irons <u>2 1/2 x 3 1/2</u> and distance apart <u>30</u> ins.				
Are the outside Plates doubled two spaces of Frames in length?	<u>Yes</u>			

Transoms, material. Knight-heads. Hawse Timbers. Iron
 Windlass British Oak Pall Bitt British Oak
 The FRAMES extend in one length from Keel to Deck Stringer Riveted through plates with 3/8 in. Rivets, about 5 apart.
 The REVERSED ANGLE IRONS on floors and frames extend from middle line to upper part of Bilge and to Beam Knees 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 in. diameter, averaging 4 1/2 ins. from centre to centre.
 Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 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 in. diameter averaging 3 1/4 ins. from centre to centre.
 Butts of one Strake at Bilge for 2 1/2 length, double 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, double riveted for 2 1/2 length amidships. Butts of Upper or Spar Sheerstrake, double riveted length amidships.
 Butts of Main Stringer Plate, double riveted for 2 1/2 length amidships. Butts of Upper or Spar Stringer Plate, double riveted for length.
 Breadth of laps of plating in double riveting 4 1/2 Breadth of laps of plating in single riveting 2 1/2
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? double and Park bolts riveted
 Waterway, how secured to Beams Gutter Waterway (Explain by Sketch, if necessary.)
 Beams of the various Decks, how secured to the sides? Knee plates riveted to beams No. of Breasthooks, three Crutches, three
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Messrs. Coates best Clifton
 Manufacturer's name or trade mark, Messrs. Coates best Clifton

The above is a correct description.
 Builder's Signature, Scott & Macgillivray Surveyor's Signature, [Signature]
 Surveyor to Lloyd's Register of British and Foreign Shipping.

Workmanship. Are the ribs and plates planed or otherwise fitted? *Jointed close*
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? *Solid single pieces*
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 at corners of butts* 15025 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

Schooner rigged. Masts and Bowsprit of Pitch Pine.

NUMBER for EQUIPMENT 3952		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.	No.	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
N ^o .	SAILS.	CABLES, &c.										
	Fore Sails,	Chain	90. 1 1/2	15	165. 14	13 1/2	Bowers	9237	7.1.23	9.13.50	5 1/2	
	Fore Top Sails,	LPHN. W. K. Rende	138 3/4	2.2			LPHN.	April 1875	6.1.23	8.15.3	7.75	
	Fore Topmast Stay Sails	Clude NPH. 12. 0.75	13.5				111. CN. 73	6.1.23	8.15.3			
	Main Sails,	William G. Mason dated 12. 0.75	12. 0.75				Clude NPH. 12. 0.75					
	Main Top Sails,	Warp ...	90	7	90 7/8	5 1/2	William G. Mason dated 12. 12	73				
		Hawser ...	90	7			Stream ...	2 3/4			2	
		Towlines ...	90	7			Kedges ...	1 1/4			1	
		Warp ...	90	7								
		quality good	4		3							

Standing and Running Rigging *good* sufficient in size and *good* in quality. She has *1* Long Boat and *one other*.

The Windlass is *good* Capstan and Rudder *good* Pumps *good*

Engine Room Skylights. How constructed?

How secured in ordinary weather?

What arrangements for deadlights in bad weather?

Coal Bunker Openings. How constructed?

How are lids secured?

Height above deck?

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *2 scuppers and 2 ports on each side*

Cargo Hatchways.—How formed? *See comings*

State size Main Hatch *10x7* Forehatch *3/4 x 2/6* Quarterhatch *3/4 x 4/1*

If of extraordinary size, state how framed and secured? *Wood fast after in main hatch*

What arrangement for shifting beams?

Hatches, If strong and efficient? *Yes*

Order for Special Survey No. *1072*

Date *15th April 1875*

Order for Ordinary Survey No. *1072*

Date *15th April 1875*

No. *33* in builder's yard.

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
- 2nd. On the plating during the process of riveting
- 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 or cemented..
- 5th. After the ship was launched and equipped

April 27. May 5. 10. 20. June 4 11 10. 25
July 1. 6. 13 August 6. 26. 1075

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

The Workmanship is good. She is built in accordance with the accompanying approved midship section and the secretary's letter of 4th March 1875

State if one, two, or three, decked vessel, or if open, or awning decked, and the lengths of poop, forecabin, or raised quarter deck, and the length of double, or part double bottom.

How are the surfaces preserved from oxidation? Inside *Cement in bottom & Paint above* Outside *Paint*

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

The amount of the Entry Fee ... £ *2* : : : is received by me, *W. J. M.*

Special ... £ *6* : *14* : *2 1/2* *1875*

Certificate ... *British* *See original fee list*

(Travelling Expenses, if any, £ *4.4/6*.)

Committee's Minute *7th September 1875*

Character assigned *100A*

H. J. M. J. M.
James M. J.

This little vessel has been built in accordance with the approved sketch of midship section appended, and appears worthy to be classed 100A as recommended.
One D. J. Foundation
6/9/75