

# IRON SHIP

No. 389 Survey held at Hayle Date, First Survey April 1877 Last Survey October 1877

On the Steam Tug Hawley Master Harvey

TONNAGE under Tonnage Deck	39	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.		HALF BREADTH (moulded) <u>6.7 1/2</u> Feet.
Ditto of Houses on Deck		DEPTH from upper part of Keel to top of Upper Deck Beams <u>7.7 1/2</u>
Ditto of Forecastle		GIRTH of Half Midship Frame (as per Rule) <u>26.1</u>
Gross Tonnage	32	1st NUMBER <u>26-1</u>
Less Crew Space		1st NUMBER, if a THREE-DECKED VESSEL [deduct 7 feet] <u>61</u>
Less Engine Room	10-21	LENGTH <u>61.6</u>
Register Tonnage as cut on Beam	21.79	2nd NUMBER <u>1566</u>
		PROPORTIONS—Breathths to Length <u>159.21</u>
		Depths to Length—Upper Deck to Keel
		Main Deck ditto

Built at Hayle  
 When built 1877 Launched August 1877  
 By whom built Harvey & Co  
 Owners Dartmouth & Torbay Steam Navigation Co  
 Port belonging to Dartmouth  
 Destined Voyage for Towage  
 If Surveyed while Building, Afloat, or in Dry Dock. on Blocks building

Official Number 73-421

LENGTH on deck as per Rule 61 Feet. Inches. BREADTH—Moulded... 13 Feet. Inches. DEPTH top of Floors to Upper Deck Beams 6 Feet. Inches. 9 1/2 Power of Engines 15 Horse. N° of Decks with flat laid One N° of Tiers of Beams 20

	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								
STEM, moulding and thickness	<u>6 x 1</u>							
STERN-POST for Rudder do. do. for Propeller	<u>5 1/2 x 2 1/4</u>							
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>20</u>							
FRAMES, Angle Iron, for length amidships	<u>2 1/4</u>	<u>2 1/4</u>	<u>5</u>					
REVERSED FRAMES, Angle Iron	<u>2 1/4</u>	<u>2 1/4</u>	<u>5</u>					
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	<u>10</u>		<u>6</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 Single or double Ang. Iron, Plate or Tee Bulb Iron	<u>4 1/2 x 3</u>		<u>6</u>					
Single or double Angle Iron on Upper edge								
Average space	<u>40</u>		<u>40</u>					
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, box, or Intercostal, Plates	<u>12 1/2</u>		<u>7</u>		<u>7 1/2</u>		<u>6</u>	
" Rider Plate								
" Bulb Plate to Intercostal Keelson								
" Angle Irons								
" Double Angle Iron Side Keelson								
" Side Intercostal Plate								
" do. Angle Irons								
" Attached to outside plating with angle iron								
BILGE Angle Irons								
" 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								
Transoms, material. Knight-heads. Hawse Timbers.								<u>Iron</u>
Windlass	<u>Iron</u>							
Pall Bitt								

Flat Keel Plates, breadth and thickness 35 Inches. In Ship. 7 16ths. In Ship. 30 Inches. required. 6 16ths. required.

PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied 5 ft. up. part of Bilge to Ir. 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. 30 6 16ths. 17 8 16ths. 8 16ths. 6 16ths.

Up. or Spar Dk Sh'rstrake, brdth & thickns 8 7 8 6

Butt Straps to outside plating, breadth & thickness 11 1/2 feet

Lengths of Plating 40

Shifts of Plating, and Stringers 18 5 6

Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness 9 5

Angle Iron on ditto 3 x 3 6

Tie Plates fore and aft, outside Hatchways 9 5

Diagonal Tie Plates on Beams No. of Pairs, Planksheer material and scantling

Waterways do. do.

Flat of Upper Deck do. do. 2 1/2 Yellow Pine

How fastened to Beams Bolts and screws

Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness 4 1/2

Is the Stringer Plate attached to the outside plating? Yes

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

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 betwixt Decks, thickness and material in hold do. do.

Main piece of Rudder, diameter at head 3 do. at heel 2

Can the Rudder be unshipped afloat? Yes

Bulkheads No. 3 Thickness of 4 Height up to Deck

How secured to sides of ship Frames and Gaskets

Size of Vertical Angle Irons 2 1/2 x 2 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 Middle Line to Gunwale Riveted through plates with 5/8 in. Rivets, about 5 apart.

The REVERSED ANGLE IRONS on floors and frames extend from middle line to 1/2 midship height and to very frame 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 7/8 in. diameter, averaging 4 1/4 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 5/8 in. diameter, averaging 2 1/2 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 5/8 in. diameter averaging 2 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 5/8 in. diameter, averaging 2 1/2 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 5/8 in. diameter, averaging 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 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 2 1/4 Breadth of laps of plating in single riveting 2 1/4

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double

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

Beams of the various Decks, how secured to the sides? by Gussat Plates No. of Breasthooks, One Crutches, —

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

Manufacturer's name or trade mark, Morrison and Mauley

The above is a correct description.

Builder's Signature, Harvey & Co Surveyor's Signature, John G. ...

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

IRON 474-0399

**Workmanship.** Are the butts of plating planed or otherwise fitted? chipped and filed  
 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? No 19566 Jon

Masts, Bowsprit, Yards, &c., are good 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 One Pole Mast only

NUMBER for EQUIPMENT		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 <sup>o</sup> .	SAILS.	CABLES, &c.					Bowers	2	2.1-11	4.17.2		
1	Fore Sails,	Chain	80	9/16	7 1/2				2.1-10	5.14-		
	Fore Top Sails,	<u>Netherton</u>										
	Fore Topmast Stay Sails	<u>July 1877</u>										
1	Main Sails,	Hmpn Strm Cbl	90	D. G.	Lewis							
	Main Top Sails,	Hawser ...	90		sup-							
	and <u>good</u>	Towlines ...	90				Stream ...					
		Warp ...					Kedges ...					
		quality										

Standing and Running Rigging are sufficient in size and good in quality. She has One Life Boat and one The Windlass is Iron Capstan Iron and Rudder Iron Pumps Two Iron  
**Engine Room Skylights.**—How constructed? Iron Cornings. Wood Sashes How secured in ordinary weather? by Iron Quadrants  
 What arrangements for deadlights in bad weather? Weather Boarding  
**Coal Bunker Openings.**—How constructed? Cast Iron Framing How are lids secured? Secured Both Height above deck? Flush  
**Scuppers, &c.**—What arrangements for clearing upper deck of water, in case of shipping a sea? Two Scuppers each side

**Cargo Hatchways.**—How formed? As per Section 18.  
 State size **Main Hatch** Forehatch **Quarterhatch**  
 If of extraordinary size, state how framed and secured?  
 What arrangement for shifting beams?

**Hatches,** If strong and efficient?

Order for Special Survey No.	Date	1st.	2nd.	3rd.	4th.	5th.
		On the several parts of the frame, when in place, and before the plating was wrought	On the plating during the process of riveting	When the beams were in and fastened, and before the decks were laid...	When the ship was complete, and before the plating was finally coated or cemented..	After the ship was launched and equipped
Order for Ordinary Survey No.	<u>April</u>	<u>April</u>	<u>May</u>	<u>July</u>	<u>August</u>	<u>October</u>
No. <u>26</u>						

**General Remarks** (State quality of workmanship, &c.) This little vessel has been constructed according to the dimensions specified in the enclosed Midship section workmanship very good - a sketch of the Engines has been forwarded to the Registry Office - The dimensions for Register has been furnished by the Board of Trade Surveyor: as she will not be registered until she arrives at Dartmouth at which port she will be employed and registered -

State if one, two, or three, decked vessel, or if spar, or awning 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 Portland cement & Paint Outside Paint

I am of opinion this Vessel should be Classed A 90

The amount of the Entry Fee ... £ 1 : - : - is received by me,  
 Special ... £ 6 : 6 : - Oct<sup>r</sup> 1877  
 Certificate ... : 15 :  
 (Travelling Expenses, if any, £ - 10.0) - 10

Committee's Minute 16th October, 1877

Character assigned 90 A H  
W. D. W.

