

IRON SHIP.

No. 3386 Survey held at Hartlepool Date, First Survey 20th April Last Survey 10th Dec 1874
 On the Steamer "Vreeze" Yard Number 49 Master Mrs. R. Holman

TONNAGE under Tonnage Deck 794.75
 Ditto of Third Spar, or Awaiting Deck, 00.00
 Ditto of Poop, or Raised Or. Dk. 00.00
 Ditto of Houses, on Deck & S. Spar. 297.39
 Ditto of Forecastle 22.26
 Gross Tonnage 1010.37
 Less Crew Space 43.04
966.40
 Less Engine Room 323.32
 Register Tonnage as cut on Beam 643.08

ONE, OR TWO DECKED, THREE DECKED VESSEL.
 SPAR, OR AWNING DECKED VESSEL.
 HALF BREADTH (moulded) 14.5
 DEPTH from upper part of Keel to top of Upper Deck Beams 18-1
 GIRTH of Half Midship Frame (as per Rule) 28-5
 1st NUMBER 60.11
 1st NUMBER, if a THREE-DECKED VESSEL deduct 7 feet 219.6
 LENGTH 133.69
 2nd NUMBER 133.69
 PROPORTIONS—Breadths to Length within 13
 Depths to Length—Upper Deck to Keel within 13
 Main Deck ditto within 13

Built at Hartlepool
 When built 1874 Launched 10th Oct
 By whom built E. & W. Withy & Co.
 Owners Thos. Appleby
 Port belonging to West Hartlepool
 Destined Voyage Lynn
 If Surveyed while Building, Afloat, or in Dry Dock.

LENGTH	Feet.	Inches.	BREADTH—	Feet.	Inches.	DEPTH	Feet.	Inches.	Power of	Horse.	No. of Decks with flat laid	No. of Tiers of Beams
on deck as per Rule	219	6	Moulded	20	10	top of Floors to Upper Deck Beams	16	7 1/2	Engines	99	One	Two
Do. do. Main Deck Beams												
Dimensions of Ship per Register, length	220		breadth	29		depth	16	3				
KEEL, depth and thickness	8 1/2	2 3/8	Inches in Ship.	8 1/2	2 3/8	Inches per Rule.						
STEM, moulding and thickness	7 1/4	2 3/8		7 1/4	2 3/8							
STERN-POST for Rudder do. do.	8	4 3/8		8	4 3/8							
for Propeller	8	4 3/8		8	4 3/8							
Distance of Frames from moulding edge to moulding edge, all fore and aft	23			23								
FRAMES, Angle Iron, for 1/2 length amidships	3 1/2	3	Inches in Ship.	3 1/2	3	Inches per Rule.						
Do. for 1/2 at each end	3 1/2	3		3 1/2	3							
REVERSED FRAMES, Angle Iron	3	2 1/2		3	2 1/2							
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	1 1/2	+		1 1/2	+							
thickness at the ends of vessel	1 1/2	+		1 1/2	+							
depth at 1/2 the half-bdth. as per Rule	1 1/2	+		1 1/2	+							
height extended at the Bilges	3 5			3 5								
BEAMS, Upper, Spar, or Awaiting Deck Single or double Angle Iron, Plate or Tee Bulb Iron	7	+		7	+							
Single or double Angle Iron on Upper edge	2 1/2	2 1/2		2 1/2	2 1/2							
Average space	46			46								
BEAMS, Main or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron	7	+		7	+							
Single or double Angle Iron, on Upper Edge	2 1/2	2 1/2		2 1/2	2 1/2							
Average space	46			46								
BEAMS, Lower Deck, Hold or Orlop Single or double Angle Iron, Plate or Tee Bulb Iron	7	+		7	+							
Single or double Angle Iron on Upper Edge	2 1/2	2 1/2		2 1/2	2 1/2							
Average space	46			46								
KEELSONS Centre line, single or double plate, box, or intercostal, Plates	13 1/2	+		13 1/2	+							
Rider Plate	8 1/4	+		8 1/4	+							
Bulb Plate to Intercostal Keelson	5	3 1/2		5	3 1/2							
Angle Irons	5	3 1/2		5	3 1/2							
Double Angle Iron Side Keelson	5	3 1/2		5	3 1/2							
Side Intercostal Plate	5	3 1/2		5	3 1/2							
do. Angle Irons	5	3 1/2		5	3 1/2							
Attached to outside plating with angle iron	5	3 1/2		5	3 1/2							
BILGE Angle Irons	5	3 1/2		5	3 1/2							
do. Bulb Iron	5	3 1/2		5	3 1/2							
do. Intercostal plates riveted to plating for length	5	3 1/2		5	3 1/2							
BILGE STRINGER Angle Irons	5	3 1/2		5	3 1/2							
Intercostal plates riveted to plating for length	5	3 1/2		5	3 1/2							
SIDE STRINGER Angle Irons	5	3 1/2		5	3 1/2							
Transoms, material. Knight-heads. Hawse Timbers.	Plates			Plates								
Windlass Emerson & Walker Pall Bitt												

Flat Keel Plates, breadth and thickness	Inches. In Ship.	16ths. In Ship.	Inches. required	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	30	9/16	30	9/16
fin up. part of Bilge to l. edge of Sh'rstrake	30	9/16	30	9/16
Main Sheerstrake, breadth and thickness of doubling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake.	36	13/16	36	13/16
Up. or Spar Dk Sh'rstrake, breadth & thickness	36	13/16	36	13/16
Butt Straps to outside plating, breadth & thickness	9 3/4	2 3/8	9 3/4	2 3/8
Lengths of Plating	9 3/4	2 3/8	9 3/4	2 3/8
Shifts of Plating, and Stringers	46		46	
Gunwale Plate on ends of Awaiting, Spar, or Upper Deck Beams, breadth and thickness	3 5	9/16	3 5	9/16
Angle Iron on ditto	5	3 1/2	5	3 1/2
Tie Plates fore and aft, outside Hatchways	12	8/16	12	8/16
Diagonal Tie Plates on Beams No. of Pairs				
Planksheer material and scantling				
Waterways do. do.				
Flat of Upper Deck do. do.	12	8/16	12	8/16
How fastened to Beams	5/10	2 3/8	5/10	2 3/8
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. do.				
How fastened to Beams				
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	27	8/16	27	8/16
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	2 1/2	Fin	2 1/2	Fin
in hold do. do.	2 1/2		2 1/2	
Main piece of Rudder, diameter at head	3		3	
do. at heel	3		3	
Can the Rudder be unshipped afloat?				
Bulkheads No. 4 Thickness of				
Height up				
How secured to sides of ship				
Size of Vertical Angle Irons	5 1/2	2 3/8	5 1/2	2 3/8
and distance apart	30		30	
Are the outside Plates doubled two spaces of Frames in length?				

The FRAMES extend in one length from Keel to gunwale Riveted through plates with 3/4 in. Rivets, about 6 in. apart.
 The REVERSED ANGLE IRONS on floors and frames extend across middle line to upper part of bilge 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 in. diameter, averaging 5 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 3/8 ins. from centre to centre.
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 3/4 ins. from centre to centre.
 Butts of Two Strakes at Bilge for half length, treble riveted with Butt Straps 1 1/6 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 3/8 ins. from cr. to cr.
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 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 half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.
 Butts of Main Stringer Plate, treble riveted for half length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for length amidships.
 Breadth of laps of plating in double riveting 4 3/4 Breadth of laps of plating in single riveting 2 3/4
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double & Treble
 Waterway, how secured to Beams (Explain by Sketch, if necessary)
 Beams of the various Decks, how secured to the sides? Ends turned & pieces welded No. of Breasthooks, Five Crutches, Two
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Good
 Manufacturer's name or trade mark, Stockton, Hopkins & Morne Iron works.
 The above is a correct description.
 Builder's Signature, E. & W. Withy & Co. Surveyor's Signature, S. J. Gladstone

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? *They do*
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 in butts.*

Masts, Bowsprit, Yards, &c., are *all 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 *Main Mast 64 ft. Dia. 18 in. Fore Mast 66 ft. Dia.*

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	No.	Weight. Ex. Stock.	Test per Certificate.	Weight req'd per Rule.	Test req'd per Rule.
No.	SAILS.	CABLES, &c.										
	Fore Sails,	Chain	240	1 7/16	37 1/2 tons	240 fms	Bowers	3	18-2-12	19-10-3-21	10-0-0	19-5-0-0
	Fore Top Sails,	(State Machine where Tested, Date, & name of Superintendent.)	26 Sept. 1874	1 7/16	37 1/2 tons	240 fms	(State Machine where Tested, Date, and name of Superintendent.)		18-1-14	19-6-2-7	10-0-0	19-5-0-0
	Fore Topmast Stay Sails	Havn Strm Obl	60	1 5/16					16-2-0	19-5-1-7	15-1-6	19-5-0-0
	Main Sails,	Hawser	80	7			Stream	1	8-1-14		0-0-0	
	Main Top Sails,	Towlines	80	1 1/2			Kedges	2	4-0-0		1-0-0	
	and	Warp	80	1 1/2					2-0-21		2-0-0	
		quality	160	4								

Standing and Running Rigging *Wire & Hemp* sufficient in size and *Good* in quality. She has *Four* Long Boats and *Good* The Windlass is *Good* Capstan *2 on each* and Rudder *Good* Pumps *Foot of 4 in Iron*
Engine Room Skylights.—How constructed? *3 in. Pine & ledges & studding* How secured in ordinary weather? *Wulley*
What arrangements for deadlights in bad weather? *Wulley*
Coal Bunker Openings.—How constructed? *Iron bonnets* How are lids secured? *Bars* Height above deck? *9 in*
Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Pots & scuppers*

Cargo Hatchways.—How formed? *7/16 Plate*
State size Main Hatch *19-2 x 11 ft bonnets 34* Fore hatch *7 ft 0 in x 7 ft bonnets 34* Quarter hatch *19-2 x 11 ft bonnets 26 in*
If of extraordinary size, state how framed and secured?
What arrangement for shifting beams? *7/16 Plate in centre the whole depth of bonnets double angles on top edges*
Hatches, If strong and efficient? *Strong & good*

Order for Special Survey No. <i>404</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>Special Survey during building 10/74</i>
Date <i>20th March 1874</i>		2nd. On the plating during the process of riveting	<i>April 20. 30 May 19 June 2. 9. 12. 14. 18. 23.</i>
Order for Ordinary Survey No.		3rd. When the beams were in and fastened, and before the decks were laid...	<i>July 2. 7. 10. 14. 20. 23 Aug. 5. 10. 16. 22. 26. 31</i>
Date		4th. When the ship was complete, and before the plating was finally coated or cemented...	<i>Sept. 3. 7. 10. 20 Oct. 2. 6. 9 Nov. 17. 25. 30 Dec. 4. 11. 18</i>
No. <i>44</i> in builder's yard.		5th. After the ship was launched and equipped	

General Remarks, (State quality of workmanship &c.) *Workmanship & material good.*
Has a Raised Quarter Deck frames all to the top height beams of bulk 6 1/2 x 6 1/6. Double angles on top edges 2 1/2 x 2 1/2 x 5/16. Stringer plates on and 3 9 x 0 1/6. Angles on top 4 x 3 x 7/16. Tie plates on beams 10 1/2 x 0 1/6. Plating outside 0 1/6 x 7/16 x 6 1/6. at after end flat of deck 3 1/2 x 4 Pine.
Forecastle frames all to the top height beams of single angles 3 1/2 x 3 1/2 x 7/16. Plates of bulk 6 1/2 x 6 1/6. Double angles on top edges 2 1/2 x 2 1/2 x 3/16. Stringer plates on and of beams 20 x 6 1/6. Angles on top 3 1/2 x 3 x 7/16. Tie plates on beams 7 x 6 1/6. Plating outside 0 1/6. Deck 3 in. 7/16 Pine Waterways 7 x 9 1/2 Oak.
Waterballast tanks fitted in fore & after hold frames at connection made up of three plates. Side plates 7/16 Angles on top 3 1/2 x 3 x 7/16 Web plates 6 1/6. Angles on top 2 1/2 x 2 1/2 x 5/16 top plating 6 1/6.
additional strengthening at break of raised deck sheers & trusses doubled for 20 ft. with plates 2 9 x 0 1/6. Main deck beam stringer plates extend of frame spaces abaft break. Raised deck to 4 frame spaces before break connected by vertical plate 0 1/6. 0 ft. in length Double angles top & bottom edges. Hold beam stringers overlap 10 ft.
Edw. Withy & Co.
length 24 ft 2 *8 1/2 ft 9 in* *length Fore tank 12 ft 6 in* *after tank 6 ft 6 in*

State if 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, &c.
How are the surfaces preserved from oxidation? Inside *Hot cemented with 1/2 in. of lead* Outside *with Paint*

I am of opinion this Vessel should be Classed *90 A1*
The amount of the Entry Fee ... £ *5* : 0 : 0 is received by me,
Special ... £ *48* : 6 : 0 *2 Dec. 1874*
Certificate ... : : :
(Travelling Expenses)
(if any) £

Committee's Minute *23rd March 1875*
Character assigned *90 A1*