

IRON SHIPS.

No. 5008 Survey held at Middlesboro Date, First Survey 1st May Last Survey 20th November 1881
 On the Steamer "Richmond" Master John Gilbert Edwards
 Tonnage under Tonnage Deck 1048.40 **ONE, OR TWO DECKED, SPAR, OR AWNING-DECKED VESSELS.**
 Ditto of Third Spar, or Awning Deck. 1.05 Half moulded breadth 30.0 **THREE DECKED VESSELS.**
 Ditto of Poop, or Raised Or. Dk. 1.05 Depth from upper part of Keel to top of Upper Deck Beams 11.0 Total Depth if three or more Decks 23.19
 Ditto of Houses on Deck 1.05 Girth of Half Midship Frame (as per Rule) 28.45 Total Girth of Half Midship Frame 35.19
 Ditto of Forecastle 1.05 3rd Number 13.90 Length 220
 Gross Tonnage 1049.81 1st Number 60.40 Length 220
 Crew Space, as per Rule 58.13 2nd Number 13.30 4th Number 16.21
 Register Tonnage, as a 646.11 Depths to Length. Over 12 to upper Deck, 18 to Main Deck.
 Built at Middlesboro When built 1881 Launched 11th Oct 1881
 By whom built Blackhouse & Dufon Owners J. Dufon junr
 Port belonging to London Destined Voyage Venice
 If Surveyed while Building, Afloat, or in Dry Dock.

Length on deck as per Rule, 220 Feet. Inches. 0 Moulded Breadth, 30 Feet. Inches. 0 Depths from top of Floors to Upper and Main Deck Beams, as per Rule 220 Feet. Inches. 0 Power of Engines, 150 Horse. No. of Decks with flat laid two No. of Tiers of Beams two

Dimensions of Ship per Register, length, 220 breadth, 30 depth, 23.19

	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.
Keel, if bar iron, depth and thickness	8 x 2 3/8	8 x 2 3/8				
Do. if centre through plate, depth and thickness	1 1/4 x 2 3/8	1 1/4 x 2 3/8				
Stem, if bar iron, moulding and thickness	10 1/4 x 1 1/2	8 x 2 3/8				
Stern-post for Rudder do. do.	10 1/4 x 1 1/2	8 x 2 3/8				
Stern-post for Propeller	10 1/4 x 1 1/2	8 x 2 3/8				
Distance of Frames from moulding edge to moulding edge, all fore and aft	28	(Class 90A)				
Frames, size of Angle Iron, for 1/2 length amidships	4 x 3	4 x 3				
Do. for 1/4 at each end	4 x 3	4 x 3				
Reversed Frames, size of Angle Iron	3 x 3	3 x 3				
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	2 1/2	2 1/2				
Do. at the ends	2 1/2	2 1/2				
Do. do. do. at Bilge Keelson	1 1/2	1 1/2				
Do. height extended at the Bilges	4 3/8	4 3/8				
Beams, Upper, Spar, or Awning Deck (No. 59)	6 1/2	6 1/2				
single or double Angle Iron, Plate or Tee Bulb Iron	2 1/2	2 1/2				
Single or double Angle Iron on Upper edge	4 1/2	4 1/2				
Average space	1 1/2	1 1/2				
Beams, Main or Middle Deck (No. 50) single, or double Angle Iron, Plate or Tee Bulb Iron	4 1/2	4 1/2				
Single or double Angle Iron, on Upper Edge	3	3				
Average space	1 1/2	1 1/2				
Beams, Lower Deck, Hold or Orlop (No. 51) single or double Angle Iron, Plate or Tee Bulb Iron	See Midship Section					
Single or double Angle Iron on Upper Edge						
Average space						
Keelson Centre line, single or double plate, box, or intercostal, size of Plates	2 1/2	2 1/2				
Do. Bulb Plate to Intercostal Keelson	5	5				
Do. Size of Angle Irons	3 1/2	3 1/2				
Do. Side Intercostal Keelson, size of Plates	8 1/2	8 1/2				
Do. Angle Irons on tops of Floors	5	5				
Do. Bilge Keelson, Bulb Iron	1 1/2	1 1/2				
Do. do. Intercostal plates riveted to plating for length	5	5				
Do. do. Angle Irons	5 1/2	5 1/2				
Side Stringers (No. One) size of Angle Irons	5 1/2	5 1/2				
Do. Intercostal plates riveted to plating for length	See Midship Section					
Transoms, material <u>Plating</u> or, if none, in what manner compensated for.						
Knight-heads <u>and</u> Hawse Timbers <u>Angles & plating</u>						
Windlass <u>Hampden's Patent</u> Pull Ditt						
The Frames extend in one length from <u>Keel</u> to <u>gunwale</u>						
The Reverse Angle Irons on the floors and frames extend <u>across</u> the middle line to <u>Main Deck</u> and to <u>Upper Deck</u> alternately						
Keelsons. Are the various lengths of Plates and Angle Irons properly connected? <u>Yes</u> And are their butts properly shifted? <u>Yes</u>						
Plates, Garboard, double or Riveted to Keel, double or at upper edge, with Rivets (1/8 in.) diameter, averaging (5 3/4 ins.) from centre to centre.						
Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets (3/4 in.) diameter, averaging (3 1/2 ins.) from centre to centre.						
Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes (1/2 in.) thick, double or single Riveted; with Rivets (3/4 in.) diameter averaging (3 1/2 ins.) from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? <u>No</u>						
Do. of three Strakes at Bilge for <u>one half</u> length, treble riveted with Butt Straps <u>1/16</u> thicker than their plates.						
Do. Edges from bilge to Main Sheerstrake, worked <u>carvel with a lining piece</u> () thick, or clencher, double or single riveted; with rivets (3/4 in.) diameter, averaging (3 1/2 ins.) from centre to centre.						
Do. Edges of Sheerstrake, Main, double or single Riveted. Upper, double or single Riveted. At upper edge <u>Single</u> At lower edge <u>Double</u>						
Do. Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps (8/10) thick, double or single Riveted; with Rivets (3/4 in.) diameter, averaging (3 1/2 ins.) from centre to centre.						
Do. Butts of Main Sheerstrake, double or treble Riveted. Butts of Upper or Spar Sheerstrake, and Upper Deck Stringer Plate, double or treble Riveted for <u>one half</u> length amidships. Breadth of laps of plating in double Riveting (1 1/4) Breadth of laps of plating in single Riveting (2 3/4)						
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? <u>treble & double</u>						
Planksheer, how secured to the plating of the sides. Waterway, how secured to the planksheer and to the Beams. (Explain by Sketch, if necessary.) <u>Gutter</u>						
Beams of the various Decks, how secured to the sides? <u>Beam ends turned & welded</u> No. of Breasthooks, <u>four</u> Crutches, <u>three</u>						
What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? <u>good</u>						
Manufacturer's name or trade mark, <u>Richardson & Co. of Leeds & Whitnam & Co.</u>						
We certify that the above is a correct description of the several particulars therein given.						
Builder's Signature, <u>Richardson & Co.</u> Surveyor's Signature, <u>W. J. M. M. M.</u>						

1201449-0449

See Secretary's Letters dated April and 2nd August 1891

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
Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses? Solid pieces
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes and are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? Yes
Are there any rivets which either break into or have been put through the seams or butts of the plating? Some in Butts

Her Masts, Bowsprit, Yards, &c., are in good condition, and sufficient in size and length. If they are of Iron or Steel give the 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 69' x 20" Fore Mast 73' x 20" S. Sprit & Bowsprit 95' x 5" Dia

Number for equipment		15500	Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N ^o .	Weight. Ex. Stock.	Test as per Certificate.	W't req'd per Rule.	Test req'd per Rule.
N ^o .	SAILES.	CABLES, &c.											
	Fore Sails,	Chain	240	1 1/16	34 1/2	1 1/16	3 1/2	Bowers	3	18 x 2 1/4	19.15-1.11	18	19
	Fore Top Sails,	(State Machine where Tested, and name of Superintendent).	Staffordshire		Public Chain		Seeking for	(State Machine where Tested, and name of Superintendent).		18 x 2 1/4	19.10-2.21	18	19
	Fore Topmast Stay Sails	Hempen Stream Cable	90	3/4	Samuel Gregerma	Sup	1841	Same as chain.		16.0.0-1 1/4	14.9.2-21	15 1/4	16 1/2
	Main Sails,	Hawser	90	6				Stream	1	8 x 0.0			
	Towlines		90	8	15/16	16	August 20th 1841						
	Main Top Sails,	Warp	90	4	9 5/8			Kedges	2	18 x 0.12			
and		All of good quality.	100	3 1/2									

Her Standing and Running Rigging Wm. Adams sufficient in size and good in quality. She has two Life Boats and two others
The present state of the Windlass is good Capstan winches and Rudder and Pumps (3 of Metal) good
Engine Room Skylights. How constructed? Iron casing 5/16 x 5 feet above deck How secured in ordinary weather? Dead lights
What arrangements are there for deadlights in such for bad weather? Dead lights
Coal Bunker Openings. How constructed? Wood casings fastened How are lids secured? By Bars How high above deck? 8 1/2 inches
Scuppers, &c. What arrangements are there beyond the scuppers on deck, for clearing upper deck of water, in case of a sea coming on board? Five Scuppers and six scupper ports
Cargo Hatchways. How formed? Iron casings 1/16 x 22 above deck State size 22' x 10' and 12' x 8' - 6"
If of extraordinary size, state how framed and secured? Yes
What arrangement for shifting beams? Centre plates 18" x 1/16 x two angle irons on upper edges 2 1/2 x 2 1/2 x 5/16
Hatches, themselves, whether strong and efficient? Yes **Main Hatchways.** State size 23' x 12' - 6"

Order for Special Survey No. 349 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought
Date 1st May 1891 Surveys held 2nd. On the plating during the progress of riveting Seven times
Order for Ordinary Survey No. while building 3rd. When the beams were in and fastened, and before the decks were laid each week
Date as per 4th. When the ship was complete, and before the plating was finally coated or cemented during building
No. 11 in builder's yard. Section 18. 5th. After the ship was launched and equipped

General Remarks,
The Butt straps of the upper deck beam stringer plate, sheers, keels and three strakes of plating round the bilges for one half the Vessel's length amidships are one-sixteenth of an inch thicker than the plates they connect and make riveted.
Iron Deck 5/16 between Bulkheads in Engine Spaces

Blanchard Dixon

State if one, two or three decked vessel, or if open or awning decked, and length of poop, fore-castle or raised quarter deck, or of double or part double bottom.
In what manner are the surfaces preserved from oxidation? Inside By benzol & Paint Outside Paint
I am of opinion this Vessel should be Classed GOA-1
The amount of the Entry Fee£ 5 : : is received by me,
Nov 1891 Special£ 50 : 10 : 6
Certificate " : " : "

(Travelling Expenses) (if any) £
Committee's Minute 21st Nov 1891
Character assigned GOA-1
3 Deck
1870
Lloyd's Register Foundation