

# IRON SHIPS.

Rec'd 2/10/71

No. 10216 Survey held at Sunderland Date, First Survey June 12<sup>th</sup> Last Survey Octob 6<sup>th</sup> 1871

On the Barque "Umzinto" Master John Zealand

Tonnage under Tonnage Deck <u>264.72</u>	ONE, OR TWO DECKED, SPAR, OR AWNING-DECKED VESSELS.	THREE DECKED VESSELS.	Built at <u>Sunderland</u>
Ditto of Third Spar, or Awning Deck. <u>23.53</u>	Half moulded breadth .... <u>12.83</u>	Half Moulded Breadth....	When built <u>1871</u> Launched <u>3<sup>rd</sup> Oct/71</u>
Ditto of <del>Beam</del> Raised Qr. Dk. <u>15.77</u>	Depth from upper part of Keel to top of Upper Deck Beams ..... <u>14.25</u>	Total Depth if three or more Decks .....	By whom built <u>Messrs. Gale &amp; Co</u>
Ditto of House on Deck ..... <u>15.77</u>	Girth of Half Midship Frame (as per Rule) .. <u>22.41</u>	Total Girth of Half Midship Frame .....	Owners <u>Messrs. Bullard &amp; King</u>
Ditto of Forecastle	1st Number ..... <u>49.49</u>	3rd Number .....	Port belonging to <u>London</u>
Gross Tonnage <u>304.02</u>	Length ..... <u>130</u>	Length .....	Destined Voyage <u>atal</u>
Crew Space, as per Rule <u>22.32</u>	2nd Number .... <u>6433</u>	4th Number ....	<input checked="" type="checkbox"/> Surveyed while Building, Afloat, or in Dry Dock.
Register Tonnage, out on Beam... <u>281.70</u>	Depths to Length. <u>9</u>	Breadths to Length ..... <u>5</u>	
Engine Room			
Register Tonnage, as a Steamer, cut on Beam			

Length on deck as per Rule, <u>130</u>	Feet. <u>130</u> Inches. <u>0</u>	Moulded Breadth, <u>25</u>	Feet. <u>25</u> Inches. <u>6</u>	Depths from top of Floors to Upper and Main Deck Beams, as per Rule .....	Feet. <u>12</u> Inches. <u>11</u>	Power of Engines, <u>—</u>	Horse. <u>—</u>	No. of Decks with flat laid <u>one</u>	No. of Tiers of Beams <u>one</u>
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Dimensions of Ship per Register, length, 138.4 breadth, 25.7 depth, 12.65

	Inches in Ship.			Inches required per Rule.			Flat Keel Plates, breadth and thickness .....	Inches in Ship.	16ths in Ship.	Inches required per Rule.	16ths required per Rule.
	Inches in Ship.	Inches in Ship.	16ths in Ship.	Inches required per Rule.	Inches required per Rule.	16ths required per Rule.					
Keel, if bar iron, depth and thickness .....	<u>5</u>	<u>1 1/2</u>		<u>7</u>	<u>15 1/2</u>		Plates in Garboard Strakes, breadth and thickness	<u>30</u>	<u>8</u>	<u>30</u>	<u>8</u>
Do. if centre through plate, depth and thickness							Do. from Garboard to upper part of Bilges ..		<u>7</u>		<u>7</u>
Stem, if bar iron, moulding and thickness .....	<u>6</u>	<u>1 7/8</u>		<u>6 1/4</u>	<u>15 7/8</u>		Do. of doubling at Bilge, or increased thickness, and length applied .....				
Stern-post for Rudder do. do. ....	<u>6 1/4</u>	<u>15 7/8</u>		<u>6 1/4</u>	<u>15 7/8</u>		Do. fm up. part of Bilge to lr. edge of Sh'rstrake		<u>6</u>		<u>6</u>
Stern-post for Propeller .....							Do. Main Sheerstrake, breadth and thickness				
Distance of Frames from moulding edge to moulding edge, all fore and aft .....	<u>21</u>	<u>ins</u>		<u>21</u>	<u>ins</u>		Do. of d'bling at Sh'rstrake, & length applied				
							Do. from Mn. to Up. or Spar Dk. Sh'rstrake.				
							Do. Up. on Spar Dk Sh'rstrake, brdth & thickness	<u>30</u>	<u>8</u>	<u>30</u>	<u>8</u>
Frames, size of Angle Iron, for 1/2 length amidships	<u>3</u>	<u>2 1/2</u>	<u>3</u>	<u>2 1/2</u>	<u>6</u>		Butt Straps to outside plating, breadth & thickness	<u>8 1/2</u>	<u>3</u>	<u>8 1/2</u>	<u>3</u>
Do. for 1/3 at each end .....	<u>3</u>	<u>2 1/2</u>	<u>3</u>	<u>2 1/2</u>	<u>5</u>		Lengths of Plating .....	<u>10ft. 6ins</u>			
Reversed Frames, size of Angle Iron .....	<u>2 1/2</u>	<u>2 1/2</u>	<u>5</u>	<u>2 1/2</u>	<u>5</u>		Shifts of Plating, and Stringers .....	<u>2 spaced</u>			
Floors, depth and thickness of Floor Plate at mid line for half the length amidships .....		<u>16</u>	<u>6</u>		<u>13 1/2</u>	<u>6</u>	Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness ..	<u>18 1/2</u>	<u>6</u>	<u>18 1/2</u>	<u>6</u>
Do. at the ends .....			<u>5</u>			<u>5</u>	Angle Iron on ditto .....	<u>3x3</u>	<u>6</u>	<u>3x3</u>	<u>6</u>
Do. do. do. at Bilge Keelson		<u>6 1/2</u>	<u>6</u>			<u>6</u>	Tie Plates (fore and aft), outside Hatchways....	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>
Do. height extended at the Bilges .....							Diagonal Tie Plates on Beams (No. of Pairs, 3 )	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>
Beams, Upper, Spar, or Awning Deck (No. <u>38</u> )		<u>6</u>	<u>6</u>		<u>6</u>	<u>6</u>	Planksheer material and scantling .....				
single or double Angle Iron, Plate or Tee Bulb Iron .....							Waterways do. do. ....				
Single or double Angle Iron on Upper edge .....	<u>2 1/4</u>	<u>2 1/4</u>	<u>5</u>	<u>2 1/4</u>	<u>2 1/4</u>	<u>5</u>	Flat of Upper Deck do. do. ....				
Average space .....							How fastened to Beams ...				
Beams, Main or Middle Deck (No. <u>—</u> ) single, or double Angle Iron, Plate or Tee Bulb Iron		<u>6</u>	<u>6</u>		<u>6</u>	<u>6</u>	Stringer Plate on ends of Main or Middle Deck				
Single or double Angle Iron, on Upper Edge .....	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>	Beams, breadth and thickness .....				
Average space .....							(Is the Stringer Plate attached to the outside plating?)				
Beams, Lower Deck, Hold or Orlop (No. <u>—</u> ) single or double Ang. Iron, Plate or Tee Bulb Iron							Angle Irons on ditto (No. ) .....				
Single or double Angle Iron on Upper Edge....							Tie Plates, outside Hatchways .....				
Average space .....							Diagonal Tie Plates on Beams (No. of pairs, )				
Keelson Centre line, single or double plate, box, or intercostal, size of Plates .....		<u>16</u>	<u>5</u>			<u>5</u>	Waterways materials and scantlings .....				
Do. Bulb Plate to Intercostal Keelson .....		<u>7 1/2</u>	<u>6</u>		<u>7 1/2</u>	<u>6</u>	Flat of Middle Deck do. do. ....				
Do. Size of Angle Irons <u>double</u> .....	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>	How fastened to Beams .....				
Do. Side Intercostal Keelson, size of Plates ..							Stringer Plates on ends of Lower Deck, Hold or Orlop Beams .....	<u>nil</u>			
Do. Angle Irons on tops of Floors .....	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>	(Is the Stringer Plate attached to the outside plating?)				
Do. Bilge Keelson, Bulb Iron .....							Angle Irons on ditto (No. ) .....				
Do. do. Intercostal plates riveted to plating for length							Stringer or Tie Plates, outside Hatchways ....				
Do. do. Angle Irons .....	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>	Flat of Lower Deck .....				
Side Stringers (No. ) size of Angle Irons							Ceiling betwixt Decks, thickness and material ..	<u>1 1/2 Baltic fir</u>			
Do. Intercostal plates riveted to plating for length.							Do. in hold do. do. ....	<u>2 1/2</u>	<u>0 1/2</u>		
Transoms, material <u>Iron</u> or, if none, in what manner compensated for.							Main piece of Rudder, diameter at head .....	<u>3 1/2</u>		<u>3 1/2</u>	
Knight-heads <u>Iron</u> Hawse Timbers <u>Iron</u>							Do. do. at heel .....	<u>2</u>		<u>2</u>	
Windlass <u>Iron</u> Pall Bitt <u>Iron</u>							(Can the Rudder be unshipped afloat? <u>Yes</u> )				
The Frames extend in one length from <u>Keel</u> to <u>Gunwale</u>							Bulkheads No. <u>1</u> Thickness of <u>4/16</u>				
The Reverse Angle Irons on the floors and frames extend <u>near</u> the middle line to <u>Upper turn of Bilge</u> and to <u>Gunwale</u> alternately							Do. Height up <u>Upper deck</u>				
Keelsons. Are the various lengths of Plates and Angle Irons properly connected? <u>Yes</u> And are their butts properly shifted? <u>Yes</u>							Do. How secured to the sides of the ship <u>between double frames</u>				
Plates, Garboard, double or Riveted to Keel, double or at upper edge, with Rivets ( <u>3/4</u> in.) diameter, averaging ( <u>3 1/4</u> ins.) from centre to centre.							Do. Size of Vertical Angle Irons, <u>2 1/2 x 2 1/2</u> and their distance apart, <u>30 ins</u>				
Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets ( <u>5/8</u> in.) diameter, averaging ( <u>2 3/4</u> ins.) from centre to centre.							Do. Are the outside Plates doubled two spaces of Frames in length? <u>Yes</u>				
Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes ( <u>7/16</u> ) thick, double or single Riveted; with Rivets ( <u>3/8 x 5/8</u> in.) diameter averaging ( <u>2 3/8</u> 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 Strakes at Bilge for length, treble riveted with Butt Straps thicker than their plates.											
Do. Edges from bilge to Main Sheerstrake, worked carvel with a lining piece ( ) thick, or clencher, double or single riveted; with rivets ( <u>5/8</u> in.) diameter, averaging ( <u>2 3/4</u> 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 ( <u>5/16</u> ) thick, double or single Riveted; with Rivets ( <u>5/8</u> in) diameter, averaging ( <u>2 3/4</u> ins.) from centre to centre.											
Do. Butts of Main Sheerstrake, double or single Riveted. Butts of Upper Sheerstrake, and Upper Deck Stringer Plate, double or treble Riveted for 1/2 length amidships. Breadth of laps of plating in double Riveting ( <u>3 1/2 to 4</u> ) Breadth of laps of plating in single Riveting ( <u>2 3/8</u> )											
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? <u>overlapped &amp; double riveted</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.)											
Beams of the various Decks, how secured to the sides? <u>Turned down ends &amp; riveted</u> No. of Breasthooks, <u>3</u> Crutches, <u>2</u> London											
What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? <u>Angled Tysack &amp; Co</u>											
Manufacturer's name or trade mark, <u>Beams by Hopper, Rodcliffe &amp; Co; Plating by Fox, Head &amp; Co</u>											

We certify that the above is a correct description of the several particulars therein given.

Builder's Signature, W. C. ... Surveyor's Signature, James ...



RCN449-0387

**Workmanship.** Are the butts of plating planed or otherwise fitted? Planed 9474 Iron  
 Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? a few not quite  
 Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses? solid with single 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? a few

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

No.	Number for equipment	Fathoms.	Inches.	Test req'd per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	No.	Weight. Ex. Stock.	Test as per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
	6433											
	SAILS.											
2	Fore Sails,	210	1 3/16	25 1/2	1 1/16	22 1/16	Bowers ....	1	12.1.16	14.6.1.0	10.0.0	12.0.0.0
4	Fore Top Sails,						(State Machine where Tested, and name of Superintendent).					
2	Fore Topmast Stay Sails						P.H.S. John Hartness					
1	Main Sails,	70	6				Stream ....	1	5.0.14		4 3/4	
4	Main Top Sails,	60	7 3/4		7		Kedges ....	1	2.2.0		2 1/4	
	and other as usual	70	3 1/2		5				1.1.4		1	
	CABLES, &c.											
	Chain .....											
	Hempen Stream Cable											
	Hawser Chain											
	Towlines ....											
	Warp .....											
	All of quality.											

Her Standing and Running Rigging Wool & Hemp sufficient in size and good in quality. She has one Long Boat and 2 others  
 The present state of the Windlass is good Capstan Witch and Rudder good Pumps 2 Metal & good  
**Engine Room Skylights.**—How constructed? \_\_\_\_\_ How secured in ordinary weather? \_\_\_\_\_  
 What arrangements are there for deadlights in such for bad weather? \_\_\_\_\_  
**Coal Bunker Openings.**—How constructed? \_\_\_\_\_ How are lids secured? \_\_\_\_\_ How high above deck? \_\_\_\_\_  
**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?  
3 Scuppers & 2 ports on each side  
**Cargo Hatchways.**—How formed? Iron plate State size 4ft x 5ft and 4ft x 3ft-6 in  
 If of extraordinary size, state how framed and secured? \_\_\_\_\_  
 What arrangement for shifting beams? \_\_\_\_\_  
**Hatches, themselves, whether strong and efficient?** yes **Main Hatchways.**—State size 10ft-6 x 9ft-2 in

Order for Special Survey No. 2312 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought Builds under S.P. and  
 Date June 28<sup>th</sup> 1871 Surveys held 2nd. On the plating during the progress of riveting at various dates 1871. June 21 25 27 30 July  
 Order for Ordinary Survey No. \_\_\_\_\_ while building 3rd. When the beams were in and fastened, and before the decks were laid 4 10 11 12 21 24 26 27 Aug 2 5 7 10 11 13 17  
 Date \_\_\_\_\_ as per 4th. When the ship was complete, and before the plating was finally coated or cemented 21 23 28 30 Sep 12 14 17 18 18  
 No. 210 in builder's yard. Section 18. 5th. After the ship was launched and equipped 20 21 22 25 27 Oct 6 6.

**General Remarks,** In addition to the collision bulkhead, this vessel is fitted with two temporary bulkheads of Iron in the hold, for the purpose of dividing the cargo, the foremost one about 15ft 8ins before main hatch, the after one about 10ft 6 ins abaft 8<sup>th</sup>, & the height about 7ft 3 in above the floors, these bulkheads are constructed with 1/16 plate, strengthened with angles.  
 The Butts straps of one strake of plating round the Bilges are not 1/16 thicker than the plating, as required by the rules, and one of the lands of plating at Bilges, is single rivetted in lieu of being double rivetted as required; The above has been compensated for, by the introduction of an additional stringer at upper turn of Bilges of double angle iron's 3x3 x 1/16 for about one half the vessel's length amidships (Please see Secretary's letter dated 9<sup>th</sup> Sept. 1871)  
 There are three Butts of outside plating on the Port side and 4 do. on the S. side not quite close throughout their entire length, but have been made good with Iron Slips.

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.  
 In what manner are the surfaces preserved from oxidation? Inside Portland cement to upper part Outside 3 coats of paint  
 I am of opinion this Vessel should be Classed 100 A.T. of Bilges and paint above

The amount of the Entry Fee .....£ 3 : : is received by me,  
 Special .....£ 10 : :  
 Certificate .... : :  
 (Travelling Expenses) 24/10/71  
 (if any) £ \_\_\_\_\_

Committee's Minute 24<sup>th</sup> October 1871  
 Character assigned 100 A.T.

*James Sibson*  
 I concur in the opinion that this vessel is eligible to be classed 100 A.T.  
 Rules 1871  
 26/10/71  
 Lloyd's Register Foundation