

IRON SHIPS.

Rec'd 2/10/71

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

On the Barque "Umzinto" Master John Zealand

Tonnage under Tonnage Deck 264.72

Ditto of Third Spar, or Awning Deck. 23.53

Ditto of ~~Raised~~ Raised Qr. Dk. 15.77

Ditto of House on Deck 15.77

Ditto of Forecastle 304.02

Gross Tonnage 304.02

Crew Space, as per Rule 22.32

Register Tonnage, out on Beam 281.70

Engine Room 281.70

Register Tonnage, as a Steamer, cut on Beam

ONE, OR TWO DECKED, SPAR, OR AWNING-DECKED VESSELS.

Half moulded breadth 12.83

Depth from upper part of Keel to top of Upper Deck Beams 14.25

Girth of Half Midship Frame (as per Rule) ... 22.41

1st Number 49.49

Length 130

2nd Number 6433

Depths to Length. 9

THREE DECKED VESSELS.

Half Moulded Breadth

Total Depth if three or more Decks

Total Girth of Half Midship Frame

3rd Number

Length

4th Number

Breadths to Length 5

Built at Sunderland

When built 1871 Launched 3rd Oct 71

By whom built Messrs. Sile & Co

Owners Messrs. Bullard & King

Port belonging to London

Destined Voyage Catal

and

Surveyed while Building, Afloat, or in Dry Dock.

Length on deck as per Rule, 130 Feet. Inches. Moulded Breadth, 25 Feet. Inches. 6 Depths from top of Floors to Upper and Main Deck Beams, as per Rule 12 Feet. Inches. 11 Power of Engines, — Horse. No. of Decks with flat laid one No. of Tiers of Beams one

Dimensions of Ship per Register, length, 138.4 breadth, 25.7 depth, 12.65

	Inches in Ship.	Inches required per Rule.
Keel, if bar iron, depth and thickness	<u>5 x 1 1/2</u>	<u>7 x 1 5/8</u>
Do. if centre through plate, depth and thickness	<u>6 x 1 7/8</u>	<u>6 1/4 x 1 7/8</u>
Stem, if bar iron, moulding and thickness	<u>6 1/4 x 1 5/8</u>	<u>6 1/4 x 1 5/8</u>
Stem-post for Rudder do. do.	<u>21 ins</u>	<u>21 ins</u>
Stem-post for Propeller	<u>21 ins</u>	<u>21 ins</u>
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>21 ins</u>	<u>21 ins</u>
Frames, size of Angle Iron, for 1/2 length amidships	<u>3 1/2 x 3 1/2</u>	<u>3 1/2 x 3 1/2</u>
Do. for 1/4 at each end	<u>3 1/2 x 3 1/2</u>	<u>3 1/2 x 3 1/2</u>
Reversed Frames, size of Angle Iron	<u>2 1/2 x 2 1/2</u>	<u>2 1/2 x 2 1/2</u>
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	<u>16 6</u>	<u>13 1/2 6</u>
Do. at the ends	<u>6 1/2 6</u>	<u>6 1/2 6</u>
Do. do. do. at Bilge Keelson	<u>6 1/2 6</u>	<u>6 1/2 6</u>
Do. height extended at the Bilges	<u>twice midship depth</u>	<u>twice midship depth</u>
Beams, Upper, Spar, or Awning Deck (No. <u>38</u>) single or double Angle Iron, Plate or Tee Bulb Iron	<u>2 1/4 2 1/4 5</u>	<u>2 1/4 2 1/4 5</u>
Single or double Angle Iron on Upper edge	<u>as per sketch</u>	<u>as per sketch</u>
Average space	<u>as per sketch</u>	<u>as per sketch</u>
Beams, Main or Middle Deck (No. <u>—</u>) single, or double Angle Iron, Plate or Tee Bulb Iron	<u>3 3 6</u>	<u>3 3 6</u>
Single or double Angle Iron, on Upper Edge	<u>3 3 6</u>	<u>3 3 6</u>
Average space	<u>3 3 6</u>	<u>3 3 6</u>
Beams, Lower Deck, Hold or Orlop (No. <u>—</u>) single or double Angle Iron, Plate or Tee Bulb Iron	<u>3 3 6</u>	<u>3 3 6</u>
Single or double Angle Iron on Upper Edge	<u>3 3 6</u>	<u>3 3 6</u>
Average space	<u>3 3 6</u>	<u>3 3 6</u>
Keelson Centre line, single or double plate, <u>box</u> , or Intercoastal, size of Plates	<u>16 5</u>	<u>16 5</u>
Do. Bulb Plate to Intercoastal Keelson	<u>7 1/2 6</u>	<u>7 1/2 6</u>
Do. Size of Angle Irons <u>double</u>	<u>3 3 6</u>	<u>3 3 6</u>
Do. Side Intercoastal Keelson, size of Plates ..	<u>3 3 6</u>	<u>3 3 6</u>
Do. Angle Irons on tops of Floors	<u>3 3 6</u>	<u>3 3 6</u>
Do. Bilge Keelson, Bulb Iron	<u>3 3 6</u>	<u>3 3 6</u>
Do. do. Intercoastal plates riveted to plating for <u>—</u> length	<u>3 3 6</u>	<u>3 3 6</u>
Do. do. Angle Irons	<u>3 3 6</u>	<u>3 3 6</u>
Side Stringers (No. <u>—</u>) size of Angle Irons <u>as per sketch</u>	<u>as per sketch</u>	<u>as per sketch</u>
Do. Intercoastal plates riveted to plating for length.	<u>as per sketch</u>	<u>as per sketch</u>

	Inches in Ship.	16ths in Ship.	Inches required per Rule.	16ths required per Rule.
Flat Keel Plates, breadth and thickness	<u>30</u>	<u>8</u>	<u>30</u>	<u>8</u>
Plates in Garboard Strakes, breadth and thickness	<u>30</u>	<u>8</u>	<u>30</u>	<u>8</u>
Do. from Garboard to upper part of Bilges ..	<u>7</u>	<u>—</u>	<u>7</u>	<u>—</u>
Do. of doubling at Bilge, or increased thickness, and length applied	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Do. fm up. part of Bilge to lr. edge of Sh'rstrake	<u>6</u>	<u>—</u>	<u>6</u>	<u>—</u>
Do. Main Sheerstrake, breadth and thickness	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Do. of d'bling at Sh'rstrake, & length applied	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Do. from Mn. to Up. or Spar Dk. Sh'rstrake.	<u>30</u>	<u>8</u>	<u>30</u>	<u>8</u>
Do. Up. or Spar Dk Sh'rstrake, brdth & thickns	<u>30</u>	<u>8</u>	<u>30</u>	<u>8</u>
Butt Straps to outside plating, breadth & thickness	<u>8 1/2 x 3/4</u>	<u>8 1/2 x 3/4</u>	<u>8 1/2 x 3/4</u>	<u>8 1/2 x 3/4</u>
Lengths of Plating	<u>10 ft 6 in</u>	<u>10 ft 6 in</u>	<u>10 ft 6 in</u>	<u>10 ft 6 in</u>
Shifts of Plating, and Stringers	<u>2 spaced</u>	<u>2 spaced</u>	<u>2 spaced</u>	<u>2 spaced</u>
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness ..	<u>18 1/2 x 6</u>	<u>18 1/2 x 6</u>	<u>18 1/2 x 6</u>	<u>18 1/2 x 6</u>
Angle Iron on ditto	<u>3 x 3 x 6</u>	<u>3 x 3 x 6</u>	<u>3 x 3 x 6</u>	<u>3 x 3 x 6</u>
Tie Plates (fore and aft), outside Hatchways ..	<u>6 6 6 6</u>	<u>6 6 6 6</u>	<u>6 6 6 6</u>	<u>6 6 6 6</u>
Diagonal Tie Plates on Beams (No. of Pairs, <u>3</u>)	<u>6 6 6 6</u>	<u>6 6 6 6</u>	<u>6 6 6 6</u>	<u>6 6 6 6</u>
Planksheer material and scantling	<u>Butter gunwale</u>	<u>Butter gunwale</u>	<u>Butter gunwale</u>	<u>Butter gunwale</u>
Waterways do. do.	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>
Flat of Upper Deck do. do.	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>
How fastened to Beams ... <u>Iron screw bolts and nuts</u>	<u>Iron screw bolts and nuts</u>	<u>Iron screw bolts and nuts</u>	<u>Iron screw bolts and nuts</u>	<u>Iron screw bolts and nuts</u>
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
(Is the Stringer Plate attached to the outside plating?)	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Angle Irons on ditto (No. <u>—</u>)	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Tie Plates, outside Hatchways	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Diagonal Tie Plates on Beams (No. of pairs, <u>—</u>)	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Waterways materials and scantlings	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Flat of Middle Deck do. do.	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
How fastened to Beams	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	<u>nil</u>	<u>nil</u>	<u>nil</u>	<u>nil</u>
(Is the Stringer Plate attached to the outside plating?)	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Angle Irons on ditto (No. <u>—</u>)	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Stringer or Tie Plates, outside Hatchways	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Flat of Lower Deck	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Ceiling betwixt Decks, thickness and material ..	<u>1 1/2 Battic fir</u>	<u>1 1/2 Battic fir</u>	<u>1 1/2 Battic fir</u>	<u>1 1/2 Battic fir</u>
Do. in hold do. do.	<u>2 1/2</u>	<u>2 1/2</u>	<u>2 1/2</u>	<u>2 1/2</u>
Main piece of Rudder, diameter at head	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>
Do. do. at heel	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>
(Can the Rudder be unshipped afloat? <u>Yes</u>)	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>
Bulkheads No. <u>1</u> Thickness of <u>4/16</u>	<u>4/16</u>	<u>4/16</u>	<u>4/16</u>	<u>4/16</u>
Do. Height up <u>Upper deck</u>	<u>Upper deck</u>	<u>Upper deck</u>	<u>Upper deck</u>	<u>Upper deck</u>
Do. How secured to the sides of the ship <u>between double frames</u>	<u>between double frames</u>	<u>between double frames</u>	<u>between double frames</u>	<u>between double frames</u>
Do. Size of Vertical Angle Irons <u>2 1/2 x 2 1/2</u> and their distance apart, <u>30 ins</u>	<u>2 1/2 x 2 1/2</u>	<u>2 1/2 x 2 1/2</u>	<u>2 1/2 x 2 1/2</u>	<u>2 1/2 x 2 1/2</u>
Do. Are the outside Plates doubled two spaces of Frames in length? <u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>

Transoms, material Iron plate or, if none, in what manner compensated for.

Knight-heads Iron Hawse Timbers Iron

Windlass Imperial Patent Pall Bitt Iron

The Frames extend in one length from Keel to Gunwale Riveted through plates with (5/8 in.) Rivets, about 5 apart.

The Reverse Angle Irons on the floors and frames extend near the middle line to Upper turn of Bilge and to Gunwale alternately

Keelsons. Are the various lengths of Plates and Angle Irons properly connected? Yes And are their butts properly shifted? Yes

Plates, Garboard, double or single Riveted to Keel, double or single at upper edge, with Rivets (3/4 in.) diameter, averaging (3 1/4 ins.) from centre to centre.

Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets (5/8 in.) diameter, averaging (2 3/4 ins.) from centre to centre.

Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes (7/8) thick, double or single Riveted; with Rivets (3/4 in.) diameter averaging (2 3/4 ins.) from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? No

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 single riveted; with rivets (5/8 in.) diameter, averaging (2 3/4 ins.) from centre to centre.

Do. Edges of Sheerstrake, Main, double or single Riveted. Upper, double or single Riveted. At upper edge single At lower edge double

Do. Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps (5/16) thick, double or single Riveted; with Rivets (5/8 in) diameter, averaging (2 3/4 ins) from centre to centre.

Do. Butts of Main Sheerstrake, double or single Riveted. Butts of Upper Spar Sheerstrake, and Upper Deck Stringer Plate, double or single Riveted for 1/2 length amidships. Breadth of laps of plating in double Riveting (3 1/2 to 4) Breadth of laps of plating in single Riveting (2 3/8)

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? overlapped & double rivetted

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? Turned down ends & rivetted No. of Breasthooks, 3 Crutches, 2 & 1 London

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

Manufacturer's name or trade mark, Beams by Hopper, Rodcliffe & Co; Plating by Fox, Head & Co

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

Builder's Signature, W. Lee Surveyor's Signature, James Sibson

180449-0387

Lloyd's Register Foundation

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? Made 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.	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N°.	Weight. Ex. Stock.	Test as per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
2	Fore Sails,	Chain	210	1 3/16	25 1/2	1 3/16	22 1/2	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).	P.H.S. John Hattress					(State Machine where Tested, and name of Superintendent).	1	12.1.0	14.1.3.14	10.0.0	12.0.0.0
2	Fore Topmast Stay Sails	Hempen Stream Cable	70	6				Stream	1	10.1.14	12.6.2.7	8.2.0	10.12.0.0
1	Main Sails,	Hawser Chain	60	7 1/8		7				5.0.14		4 3/4	
4	Main Top Sails,	Towlines	60	7 3/4		5						2 1/4	
	and other as usual	Warp	70	5 1/2				Kedges	1	2.2.0			
		All of good quality.	70	3 1/2						1.1.4			

Her Standing and Running Rigging Wire & 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 Winch 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 4 ft x 5 ft and 4 ft x 3 ft 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 10 ft 6 x 9 ft 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 28th 1871 Surveys held 2nd. On the plating during the progress of riveting Completed 1871. June 12/13/27/30 July
Order for Ordinary Survey No. — while building 3rd. When the beams were in and fastened, and before the decks were laid 4/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30 Aug 25/7/10/11/12/13/14
Date — as per 4th. When the ship was complete, and before the plating was finally coated or cemented 21/22/23/24/25/26/27/28/29/30 Sep 12/13/14/15/16/17/18
No. 210 in builder's yard. Section 18. 5th. After the ship was launched and equipped 20/21/22/23/24/25/26/27/28/29/30 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 15 ft 8 in before main hatch, the after one about 10 ft 6 in abaft 8th, & the height about 7 ft 3 in above the floors, these bulkheads are constructed with 1/16 plate, strengthened with angles.

The Butts straps of our strike 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 3 x 3 x 1/16 for about one half the vessel's length amidships (Please see Secretary's letter dated 9th Sept. 1871)

There are three Butts of outside plating on the Port side and 4 on the Starboard 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 : 1 : :

Certificate : : :

(Travelling Expenses) (if any) £

Committee's Minute 24th October 1871

Character assigned 100 A.T.

I concur in the opinion that this vessel is eligible to be classed 100 A.T.

Rules 1871

26/10/71 J. H. Register Foundation