

# IRON SHIPS.

No. 11860 Survey held at Newcastle Date, First Survey 17 July 71 Last Survey 12 Aug 18

On the S.S. "YIBILIA" new locotra Master C. A. Baker

Tonnage under Tonnage Deck	1894.94	ONE, OR TWO DECKED, SPAR, OR AVING-DECKED VESSEL.	THREE DECKED VESSELS.
Ditto of Upper Deck		Half moulded breadth . . . . . 18.0	Half Moulded Breadth . . . . .
Ditto of Lower Deck		Depth from upper part of Keel to top of Upper Deck Beams . . . . . 19.0	Total Depth if three or more Decks . . . . .
Ditto of Houses on Deck . . . . .	52.40	Girth of Half Midship Frame (as per Rule) . . . . . 32.2	Total Girth of Half Midship Frame . . . . .
Ditto of Engine Room		1st Number . . . . . 19.2	3rd Number . . . . .
Gross Tonnage	1947.34	Length . . . . . 28.3	Length . . . . .
Crew Space, as per Rule	83.70	2nd Number . . . . . 19.5	4th Number . . . . .
Engine Room	623.15	Depths to Length . . . . . 14.8	Breadths to Length . . . . . 7.8
Register Tonnage, as a Steamer, out on Beam	1240.41		

Built at Newcastle  
 When built 1872 Launched April 24<sup>th</sup>  
 By whom built J. B. Richardson & Co  
 Owners Arthur Irving  
 Port belonging to Newcastle  
 Destined Voyage India  
 If Surveyed while Building, Afloat, or in Dry Dock. While building

Length on deck as per Rule	Feet. 283	Inches. -	Moulded Breadth	Feet. 36	Inches. -	Depths from top of Floors to Upper and Main Deck Beams, as per Rule	Feet. 25	Inches. 1 1/2	Power of Engines	Horse. 200	Nº. of Decks with flat laid	Nº. of Tiers of Beams
											TWO	THREE

Dimensions of Ship per Register, length, 292 breadth, 36.2 depth, 25.55

Keel, if bar iron, depth and thickness	Inches in Ship.	Inches required per Rule.	Plates in Garboard Strakes, breadth and thickness	Inches. In Ship.	16ths. In Ship.	Inches. required per Rule.	16ths. required per Rule.
Do. if centre through plate, depth and thickness	9 1/2 x 2 1/2	9 1/2 x 2 1/2	Do. from Garboard to upper part of Bilge	36	12	36 x 12/16	
Stem, if bar iron, moulding and thickness	29 x 1 1/16	29 x 1 1/16	Do. of doubling at Bilge, or increased thickness, and length applied	-	11	11/16	
Stern-post for Rudder do. do.	9 x 2 1/2	9 x 2 1/2	Do. in up. part of Bilge to l. edge of Sh'rstrake	-	10	10/16	
Stern-post for Propeller	9 1/2 x 5 1/2	9 1/2 x 5 1/2	Do. Main Sheerstrake, breadth and thickness	36	14	36 x 14/16	17/16
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	(Class 7/16)	Do. of d'bling at Sh'rstrake, & length applied	-	7	7/16	
Frames, size of Angle Iron, for 1/2 length amidships	4 1/2 x 3	4 1/2 x 3 x 7/16	Do. from Mn. to Upper Spar Dk. Sh'rstrake	-	10	10/16	
Do. for 1/2 at each end	4 1/2 x 3	4 1/2 x 3 x 4/16	Do. Upper Spar Dk Sh'rstrake, brdth & thickness	-	10	36 x 10/16	
Reversed Frames, size of Angle Iron	3 x 3	3 x 3 x 4/16	Butt Straps to outside plating, breadth & thickness	9 1/2 x 10 1/2	9 1/2 x 10 1/2	9 1/2 x 10 1/2	
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	19 1/2	19 1/2 x 9 1/4 x 5/16	Lengths of Plating	10	10	10	
Do. at the ends	19	8 1/2	Shifts of Plating, and Stringers	4	4	4	
Do. do. do. at Bilge Keelson	3	3	Gunwale Plate on ends of Awning Spar, or Upper Deck Beams, breadth and thickness	56	8	56 x 8/16	
Do. height extended at the Bilges	3	3	Angle Iron on ditto	4 x 4	9/16	4 x 4 x 9/16	
Beams, Upper, Spar, or Awning Deck (No. 71)	6 1/2	6	Tie Plates (fore and aft), outside Hatchways	13	8	13 x 8/16	
Single or double Angle Iron, Plate or Tee Bulb Iron	6 1/2	6	Diagonal Tie Plates on Beams (No. of Pairs)	-	-	-	
Single or double Angle Iron on Upper edge	2 1/2	2 1/2	Planksheer material and scantling	3	3	3	
Average space	4	4	Waterways do. do.	3	3	3	
Beams, Main or Middle Deck (No. 72)	9	9	Flat of Upper Deck do. do.	2 1/2	2 1/2	2 1/2	
Single or double Angle Iron, Plate or Tee Bulb Iron	9	9	How fastened to Beams	-	-	-	
Single or double Angle Iron, on Upper Edge	3 1/2	3 1/2	Stringer Plate on ends of Main or Middle Deck	56	12	56 x 12/16	
Average space	4	4	Beams, breadth and thickness	-	-	-	
Beams, Lower Deck, Hold or Orlop (No. 73)	9	9	(Is the Stringer Plate attached to the outside plating?)	Yes			
Single or double Angle Iron, Plate or Tee Bulb Iron	9	9	Angle Irons on ditto (No. 2)	4 x 4	9	4 x 4 x 9/16	
Single or double Angle Iron on Upper Edge	9/16	9/16	Tie Plates, outside Hatchways	13	10	13 x 10/16	
Average space	3 1/4	3 1/4	Diagonal Tie Plates on Beams (No. of pairs)	-	-	-	
Keelson Centre line, single or double plate, box or intercostal, size of Plates	33	10	Waterways materials and scantlings	3 1/2	3 1/2	3 1/2	
Do. Bulb Plate to Intercostal Keelson	12	9	Flat of Middle Deck do. do.	2 1/2	2 1/2	2 1/2	
Do. Size of Angle Irons	5 1/2	4	How fastened to Beams	-	-	-	
Do. Side Intercostal Keelson, size of Plates	20	8 1/2	Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	36	9	36 x 9/16	
Do. Angle Irons on tops of Floors	5 1/2	4	(Is the Stringer Plate attached to the outside plating?)	Yes			
Do. Bilge Keelson, Bulb Iron	-	9	Angle Irons on ditto (No. 2)	4 x 4	9	4 x 4 x 9/16	
Do. do. Intercostal plates riveted to plating for length	-	9	Stringer or Tie Plates, outside Hatchways	-	-	-	
Do. do. Angle Irons	5 1/2	4	Flat of Lower Deck	-	-	-	
Side Stringers (No. 74) size of Angle Irons	5 1/2	4	Ceiling betwixt Decks, thickness and material	2 1/2	2 1/2	2 1/2	
Do. Intercostal plates riveted to plating for 1/5 length	-	9/16	Do. in hold do. do.	2 1/2	2 1/2	2 1/2	

Transoms, material iron or, if none, in what manner compensated for.  
 Knight-heads iron Hawse Timbers iron  
 Windlass iron Patent Pall Bitt

The Frames extend in one length from Keel to funnel Riveted through plates with ( 1/4 in.) Rivets, about 6 apart.  
 The Reverse Angle Irons on the floors and frames extend across the middle line at 18° angle iron and to W & S ditto 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 Riveted to Keel, double or at upper edge, with Rivets ( 1/8 - 1/2 in.) diameter, averaging ( 5 x 3 1/2 ins.) from centre to centre.  
 Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets ( 1/2 in.) diameter, averaging ( 3 1/4 ins.) from centre to centre.  
 Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes ( 1/16 ) thick, double or single Riveted; with Rivets ( 7/16 in.) diameter averaging ( 3 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 3 Strakes at Bilge for half length, treble riveted with Butt Straps 1/16 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 ( 3/4 in.) diameter, averaging ( 3 1/4 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 ( 1/16 ) thick, double or single Riveted; with Rivets ( 3/4 in.) diameter, averaging ( 3 1/4 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 1/2 length amidships. Breadth of laps of plating in double Riveting ( 4 1/2 x 5 ) Breadth of laps of plating in single Riveting ( 2 1/8 )

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double ditto as per Rule  
 Planks, or, 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 No. of Breasthooks, 5 Crutches, 4

What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Angles, Plates, Iron, Wires, etc.  
 Manufacturer's name or trade mark, W. & A. Mitchell & Co., Glasgow

We certify that the above is a correct description of the several particulars therein given.  
 Builder's Signature, W. & A. Mitchell & Co. Surveyor's Signature, J. R. Mitchell

IRON 451-0338



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 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? Very 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 Iron Mast & Bowsprit Iron 81 x 23' diam

Plates 7/16" thick. Edges double riveted. Butts treble riveted.  
10343.2m

Number for equipment		Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N <sup>o</sup> .	Weight. Ex. Stock.	Test as per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
SAILS.		300	13/4	55 3/4	1 1/2	55 3/4	Bowers ....	3	30.0.16	28 1/2	30	28 1/2
CABLES, &c.							Stream ....	1	30.0.7	28 1/2	30	28 1/2
Chain .....									25.2.0	25 3/4	25 3/4	25 3/4
(State Machine where Tested, and name of Superintendent).							Sunderland T.A. J. Hartness superl.					
Fore Sails,		90	1									
Fore Top Sails,		120	12	11								
Fore Topmast Stay Sails		90	10	11								
Main Sails,		90	7	7								
Main Top Sails,		90	5									
All of good quality.												

Her Standing and Running Rigging Wire Rope sufficient in size and good in quality. She has 2 Life, 2 Long Boats and 1 Pig and one Dingy  
The present state of the Windlass is Eumens's Capstan and Rudder good Pumps three 7 inch

Engine Room Skylights.—How constructed? Iron coverings How secured in ordinary weather? Shutters & which pass

What arrangements are there for deadlights in such for bad weather? Wood shutter for bad weather

Coal Bunker Openings.—How constructed? Iron framing How are lids secured? atches How high above deck? 21 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? Open bulwarks

Cargo Hatchways.—How formed? Iron coverings State size 24 x 12 and 14 x 10

If of extraordinary size, state how framed and secured? Properly framed with half beams

What arrangement for shifting beams? Iron shifting beams

Hatches, themselves, whether strong and efficient? yes Main Hatchways.—State size 24 x 12 and 14 x 10

Order for Special Survey No. <u>84</u> DATES of	1st. On the several parts of the frame, when in place, and before the plating was wrought	
Date <u>5 July 1871</u> Surveys held	2nd. On the plating during the progress of riveting	<u>Build</u>
Order for Ordinary Survey No. <u>—</u> while building	3rd. When the beams were in and fastened, and before the decks were laid	<u>under</u>
Date <u>—</u> as per	4th. When the ship was complete, and before the plating was finally coated or cemented	<u>special</u>
No. <u>77</u> in builder's yard. Section 18.	5th. After the ship was launched and equipped	<u>Survey</u>

General Remarks,  
There is a double bottom in the after hold of the length of 70 feet. Plates of inner bottom 7/16".  
Flange plates 7/16" thick.  
This vessel has been built in accordance with midship section & plans attached—

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 Cumulated Bottom Paints Outside Paint

I am of opinion this Vessel should be Classed 100 A. 1. marked "SPAR DECKED"

The amount of the Entry Fee .....£ 5 : : : is received by me,  
Special .....£ 71 : 12 : :  
Certificate .....£ : : :  
James Purdie

(Travelling Expenses)  
(if any) £ —

Committee's Minute 16<sup>th</sup> July 1872

Character assigned 100 A. 1.

James Purdie  
15/7/72  
1871