

IRON SHIPS.

Rev 30/3/71

No. 11304 Survey held at Newcastle Date, first Survey 16th June 1870 Last Survey 15th March 1871

on the Steamer "Canton" Master John L. Jacques

Tonnage under Tonnage Deck	1845.30	ONE, OR TWO DECKED VESSELS.	THREE DECKED VESSELS.	Built at	Newcastle
Ditto of Spar Deck, or Lower Deck.		Half moulded breadth ... 17.6	Half Moulded Breadth ... 17.6	When built	1870
Ditto of Upper Deck		Depth from upper part of Keel to top of Upper Deck Beams ... 27.8	Total Depth if three or more Decks ... 27.8	Launched	Dec 22/70
Ditto of Houses on Deck ...	18.02	Girth of Half Midship Frame ... 39.2	Total Girth of Half Midship Frame ... 39.2	By whom built	C. Mitchell & Co
Ditto of Forecastle	17.35	1st Number ... 70.6 x 84.6	3rd Number ... 70.6 x 84.6	Owners	Edmund H. Watts
Gross Tonnage	1880.67	Length ... 287.5	Length ... 287.5	Port belonging to	London
Crew Space, as per Rule	13.17	2nd Number ... 20.25 x 17.2	4th Number ... 20.25 x 17.2	Destined Voyage	India
Register Tonnage, as per Rule	610.18	2nd Number ... 20.25 x 17.2	4th Number ... 20.25 x 17.2	If Surveyed while Building, Afloat, or in Dry Dock	While building
Register Tonnage, as a Steamer, put on the Beam	1215.69	Depths to Length ... 15.6 x 18	Breadths to Length ... 8.2 x 18		

Length on deck as per Rule, 287 6 Moulded Breadth, 35 1 Depth from top of Keel to Deck Beam, as per Rule ... 27 9 Power of Engines, 200 No. of Decks, Two No. of Tiers of Beams, Three

Dimensions of Ship per Register, length, 290.6 breadth, 35.3 depth, 25.4

Keel, if bar iron, depth and thickness	8 x 3	10 x 2 1/2	Inches in Ship	Inches required per Rule
Do. if centre through plate, depth and thickness	8 x 3	10 x 2 1/2		
Stem, if bar iron, moulding and thickness	8 x 3	10 x 2 1/2		
Stern-post do. do. do.	8 x 6 1/2	10 x 5		
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24		
Frames, size of Angle Iron, for 2/3 length amidships	4 1/2 x 3	7 1/2 x 4 1/2		
Do. for 1/3 at each end	4 1/2 x 3	7 1/2 x 4 1/2		
Reversed Frames, size of Angle Iron	3 x 3	7 x 3		
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	25	10		
Do. at the ends	25	9 1/2		
Do. do. do. at Bilge Keelson	10	10		
Do. height extended at the Bilges	4 1/2	4 1/2		
Beams, Three Decked, Spar, or Awaiting Decked (No. 5) single or double Angle Iron, Plate or Tee Bulb Iron	7 1/2 x 7	7 1/2 x 7		
Single or double Angle Iron on Upper edge	2 3/4 x 2 3/4	5 x 5		
Average space	4 1/2	4 1/2		
Beams, Upper or Middle Deck (No. 5 1/2) single, or double Angle Iron, Plate or Tee Bulb Iron	8 1/2 x 8	8 1/2 x 8		
Single, or double Angle Iron, on Upper Edge	3 1/4 x 3 1/4	6 x 6		
Average space	4 1/2	4 1/2		
Beams, Lower Deck or Orlop (No. 3 1/2) single, or double Angle Iron, Plate or Tee Bulb Iron	8 1/2 x 8	8 1/2 x 8		
Single or double Angle Iron on Upper Edge	3 1/4 x 3 1/4	6 x 6		
Average space	4 1/2	4 1/2		
Keelson Centre line, single or double plate, box, or intercostal, size of Plates	24	10		
Do. Bulb Plate to intercostal Keelson	8 1/2 x 8	8 1/2 x 8		
Do. Size of Angle Irons	6 x 4	9 x 6		
Do. Side intercostal Keelson, size of Plates	5 1/2 x 4	9 x 5 1/2		
Do. Angle Irons on tops of Floors	5 1/2 x 4	9 x 5 1/2		
Do. Bilge Keelson, Bulb Iron	8 1/2 x 8	8 1/2 x 8		
Do. do. Angle Irons	5 1/2 x 4	9 x 5 1/2		
Do. Side Stringers (No. 5 1/2) size of Angle Irons	5 1/2 x 4	9 x 5 1/2		
Plating material	Iron	or, if none, in what manner compensated for.		

ht-heads Iron Hawse Timbers Iron

Glass Iron plate Pall Bitt none

ames extend in one length from Keel to mainmast

The Reverse Angle Irons on the floors extend across the middle line

Frames and to the gunwale on alternate frames

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

Plates, Garboard, double Riveted to Keel, double at upper edge, with Rivets (1/2 in.) diameter, averaging (5 1/2 ins.) from centre to centre.

Do. Edges from Garboards to upper part of Bilge, worked Clencher, double Riveted; with Rivets (7/8 in.) diameter, averaging (3 3/4 ins.) from centre to centre.

Do. Butts from Keel to turn of Bilge, worked carvel with butt straps (1/16) thick, treble, double Riveted; with Rivets (7/8 in.) diameter averaging (3 3/4 ins.) from centre to centre.

Do. Edges of Sheerstrake, double or single Riveted. At upper edge Single Riveted At lower edge Double Riveted

Do. Butts from Bilge to Planksheers, worked Carvel with Butt Straps (5/16) thick, double Riveted; with Rivets (3/4 in.) diameter, averaging (5 1/2 ins.) from centre to centre. Breadth of laps in double Riveting (4 1/4 x 4 1/4) Breadth of laps in single Riveting (2 3/4) one edge only

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

Planksheer, how secured to the plating of the sides, Explain by Sketch,

Waterway " planksheer and to the Beams, if necessary.

Beams of the various Decks, how secured to the sides? Turned down No. of Breasthooks, 5 Crutches, 5

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

Manufacturer's name or trade mark, Angle plate iron by John Mitchell & Co. Plating by Colett & Co.

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

Builder's Signature, L. C. Mitchell & Co. Surveyor's Signature, J. L. Mitchell

L70-848-0217

Workmanship. Are the butts of plating planed or otherwise fitted? Planed

8863 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? 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 Mainmast 62 ft x 23 in dia. Foremast 70 ft x 23 in dia

The four Mainmasts are of iron, formed of two plates in breadth. The edges are double riveted and the butts double riveted. The plates are $7/16$ and $9/16$ at head, and 12 feet long.

Number for equipment <u>24355</u>		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.	Wt req'd per Rule.	Test req'd per Rule.	
N ^o .	SAILS.	CABLES, &c.	300	1 ¹¹ / ₁₆	57.4.0.0	1 ¹¹ / ₁₆	57 ⁵ / ₂₀	Bowers	1	27.3.12	26.19.2.21	27.3.0	26 ¹⁵ / ₂₀
	Fore Sails,	Chain						(State Machine where Tested, and name of Superintendent).	1	27.3.6	26.18.3.6	27.3.0	26 ¹⁵ / ₂₀
	Fore Top Sails,	(State Machine where Tested, and name of Superintendent).							1	26.1.0	24.1.3.14	23.2.10	23 ¹ / ₂₀
	Fore Topmast Stay Sails	Hempen Stream Cable	90	11			Stream	1	11.2.0		11.0.0		
	Main Sails,	Hawser	90	1			Kedges	1	5.1.10		5.2.0		
	Main Top Sails,	Towlines ...	90	7					1	2.8.4	2.3.0		
		Warp	90	5									
		All of good quality.											

Her Standing and Running Rigging off the hump sufficient in size and good in quality. She has Two Life Long Boat and 5 others

The present state of the Windlass is Iron Capstan and Rudder good Pumps 5 in the good

Engine Room Skylights.—How constructed? Iron How secured in ordinary weather? Solid shutters

What arrangements are there for deadlights in such for bad weather? Solid Leak shutters

Coal Bunker Openings.—How constructed? Iron How are lids secured? Studs How high above deck? 14 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? Ports on each side

Cargo Hatchways.—How formed? Iron State size 20 x 12 and 16 x 10

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

What arrangement for shifting beams? Iron iron shifting beams in Main Hatch

Hatches, themselves, whether strong and efficient? Yes Main Hatchways.—State size 20 x 12

Order for Special Survey No. 468 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought
Date 4 June 1870 Surveys held 2nd. On the plating during the progress of riveting
Order for Ordinary Survey No. — while building 3rd. When the beams were in and fastened, and before the decks were laid
Date — as per 4th. When the ship was complete, and before the plating was finally coated or cemented
No. 241 in builder's yard. Section 18. 5th. After the ship was launched and equipped

General Remarks,

This ship has been built strictly in accordance with the Rules and the accompanying Working Official section, submitted and approved by the Committee.

In what manner are the surfaces preserved from oxidation? Inside Pattand Cement Outside Pumch

I am of opinion this Vessel should be Classed 100 A

The amount of the Entry Fee£ 5: .. is received by me,

Travelling Expenses (if any)£ 4: ..

Special£ 70: 9: ..

Certificate : : ..

Committee's Minute 31st March 1871

Character assigned 100 A

Three decks

TRIN M.C.

This report is built according to the sketch of Midship Section sanctioned by the Committee and in other respects to the Rules. I concur in the opinion that she should be classed 100 A Three decks.

31/3/71