

IRON SHIPS.

Recd 27/9/69 31 weeks p.p.

No. 10955 Survey held at Newcastle Date April 12 to September 20 1869

on the Iron Steamer "Newarth" Master J. Staples

Tonnage under tonnage deck 407.67 Built at Newcastle When built 1869 Launched 10 August

Ditto of quarter deck
Ditto of poop, fore-castle, &c. other erections on upper deck } 36.51
Ditto of spar deck
Ditto of engine room 167.74
Gross tonnage, less } 490.62
Ditto of crew space }
Net Register tonnage, } 330.00
Ditto of crew space } 25.56

By whom built Wm. Mitchell & Co. Owners John Masson
Port belonging to London Destined Voyage Hawana

If Surveyed while Building, Afloat, or in Dry Dock while building

	Feet.	Inches.	Feet.	Inches.	Depth from top of Upper Deck Beam to top of Floor	Feet.	Inches.	Horse.	N ^o . of Decks		
Length aloft	<u>100</u>	<u>0</u>	Extreme Breadth	<u>24</u>	<u>0</u>	<u>15</u>	<u>3</u>	Power of Engines	<u>80</u>	N ^o . of Decks	<u>one</u>
<i>(Dimensions of Ship per Register, length <u>119.3</u> breadth <u>24</u> depth <u>15</u>)</i>											
Keel, $\frac{1}{2}$ bar iron, depth and thickness	<u>6 x 2 3/4</u>		Inches in Ship		Inches required per Rule for 400 tons Scale						
Stem, $\frac{1}{2}$ bar iron, moulding and thickness	<u>6 x 2 3/4</u>		<u>6 3/4 x 2 1/2</u>								
Stern-post, $\frac{1}{2}$ bar iron, moulding and thickness	<u>4 x 5 1/2</u>		<u>6 3/4 x 5</u>								
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>23</u>		<u>23</u>								
Frames, Size of Angle Iron, single or double	<u>3 1/2</u>	<u>2 1/2</u>	<u>7/16</u>	<u>3 1/2</u>	<u>2 1/2</u>	<u>7/16</u>					
Floors, depth and thickness of Floor Plate at mid line	<u>1 1/4</u>	<u>4 x 6</u>	<u>1/16</u>	<u>1 1/4</u>	<u>4 x 6</u>	<u>1/16</u>					
Beams, Deck (N ^o . <u>47</u>) double Angle Iron, Plate, Tee, or Bulb Iron	<u>6 1/2</u>	<u>3 1/2</u>	<u>3/8</u>	<u>6 1/2</u>	<u>3 1/2</u>	<u>3/8</u>					
Hold, or Lower Deck (N ^o . <u>15</u>) double Angle, Tee, Plate, or Bulb Iron	<u>6 1/2</u>	<u>3 1/2</u>	<u>3/8</u>	<u>6 1/2</u>	<u>3 1/2</u>	<u>3/8</u>					
Keelson, single or double plate, box, or intercostal	<u>2 1/2 x 3/8</u>		<u>11 3/4 x 9/16</u>								
Side, single or double, plate, box, or intercostal	<u>3 1/2</u>	<u>3 1/2</u>	<u>1 3/8</u>	<u>14</u>	<u>3</u>	<u>3/8</u>					

	Inches. In Ship.	16ths. In Ship.	Inches. required per Rule.	16ths. required per Rule.
Plates in Garboard Strakes, breadth and thickness	<u>35</u>	<u>8/16</u>	<u>24</u>	<u>9/16</u>
Ditto from Garboard to upper part of Bilges	<u>7/16</u>			<u>8/16</u>
from upper part of Bilge to a perpendicular height from upper side of Keel of 3/4ths the entire depth of Hold	<u>6/16</u>			<u>7/16</u>
from 3/4ths depth of Hold to lower edge of Sheerstrake	<u>5/16</u>			<u>6/16</u>
Sheerstrake, breadth and thickness	<u>29</u>	<u>9/16</u>	<u>24</u>	<u>10 5/16</u>
Butt Straps to outside plating, breadth and thickness	<u>8 1/2</u>	<u>5 5/8</u>	<u>8 1/4</u>	<u>6 x 9/16</u>
Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness	<u>25</u>	<u>4/16</u>	<u>25</u>	<u>7/16</u>
Angle Iron on ditto	<u>3 1/2 x 3 1/2</u>	<u>3/8</u>	<u>3 1/2 x 3 1/2</u>	<u>3/8</u>
Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways	<u>10</u>	<u>7/16</u>	<u>9 3/4</u>	<u>7/16</u>
Diagonal Tie Plates on ditto	<u>10</u>	<u>7/16</u>	<u>9 3/4</u>	<u>7/16</u>
Plank-sheer, materials and scantlings	<u>gutter</u>			
Waterway ditto ditto	<u>gutter</u>			
Flat of Upper Deck, thickness and material	<u>3</u>	<u>4</u>	<u>3</u>	
how fastened to Beams	<u>secured with bolts and nuts below</u>			
Ceiling betwixt Decks and in Hold, thickness and material	<u>2 1/2</u>	<u>Red pine & battens</u>		
Clamps or Spirketting ditto	<u>ditto</u>			
Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness	<u>19</u>	<u>7/16</u>	<u>19</u>	<u>7/16</u>
Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams	<u>3 1/2</u>	<u>3 1/2</u>	<u>3</u>	<u>4 x 3 x 3/8</u>
Stringers in Hold	<u>not required</u>			
Flat of Lower Deck, thickness and material				
Main piece of Rudder, diameter at head	<u>4 1/4</u>	<u>4 1/4</u>		
" " " at heel	<u>2 1/2</u>	<u>2 1/2</u>		
(Can the Rudder be unshipped afloat)	<u>Yes</u>			
Bulkheads, N ^o . <u>4</u> Thickness of	<u>5/16</u>			
Height up	<u>upper deck</u>			
how secured to the sides of the ship	<u>rivetted to double frames</u>			
size of vertical angle irons	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>
and their distance apart	<u>30</u>			

The Frames extend in one length from Keel to gunwale rivetted through plates with (5/8 in.) rivets, about (5) apart.

The reverse angle irons on the floors extend in one length across the middle line from upper part of bilge to upper part of on the frames " " from bilge and to gunwale alternately

Keelson, how are the various lengths of plates or angle irons connected? by double rivetted butt straps

Plates, Garboard, double rivetted to keel, double at upper edge, with rivets (3/4 in.) diameter, averaging (2 1/4 in.) apart.

Edges from Garboards to upper part of bilge, worked clencher, double single rivetted; with rivets (5/8 in.) diameter, averaging (2 1/4 ins.) apart.

Butts from Keel to turn of bilge, worked carvel with butt straps (5/16) thick, double or single rivetted; with rivets (5/8 in.) diameter, averaging (2 1/4 ins.) apart. Do the butt straps lap over and rivet through the lands of the strake below? no

Edges from bilge to sheerstrake, worked carvel with a lining piece () thick, or clencher, double or single rivetted; with rivets (5/8 in.) diameter, averaging (2 1/4 in.) apart. Do the butt straps lap over and rivet through the lands of the strake below? no

Edges of Sheerstrake, double or single rivetted? At upper edge single At lower edge double

Butts from bilge to plank-sheers, worked carvel with butt straps (5 to 9/16) thick, double or single rivetted; with rivets (5/8 in.) diameter, averaging (2 1/4 ins.) apart. Breadth of laps in double rivetting (3 1/2) Breadth of laps in single rivetting (2 1/4)

Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted? double rivetted

Plank-sheer, how secured to the plating of the sides } Explain by sketch } gutter
Waterway " " plank-sheer and to the Beams } if necessary. }

Deck Beams, how secured to the side? ends turned down and rivetted to frames

Hold or Lower Deck ditto ends turned down and rivetted to frames

Paddle " " No. of breasthooks 3 crutches 3

What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c. Beams, frames & angle
Manufacturer's name or trade mark Wm. Poulton, Nelson & Wells, and the plating from Coussett, J. Wals.

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

Builder's Signature P. Mitchell & Co. Surveyor's Signature H. P. Reed.

Workmanship. Are the lands or laps of the clenchwork in all cases in breadth at least five and a half times the diameter of the rivets in double rivetted edges and butts, and at least three and a quarter times the diameter of the rivets where single rivetting is admitted? Yes

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 rivetting plate to frames, butt straps, or plate to plate, &c., conform well to each other? fairly so and are the rivet holes well and sufficiently countersunk in the outer plate? 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 rivetting, quality of Materials, and if stamped with Maker's name.

Tested at Lloyd's Type P. H. signed R. Bunell Sept.

No.	She has SAILS.	CABLES, &c.	Fathoms	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	No.	Weight.	Test as per	Wght req'd	Test req'd
										Ex. Stock.	Certificate.	per Rule.	per Rule.
	Fore Sails,	Chain	210	1 3/16	25.10.00	1 3/16	25 4/10	Bowers	3	11. 3. 10	13. 16. 1. 0	12. 0. 0	13. 17. 2
	Fore Top Sails,	<u>shown</u>											
	Fore Topmast Stay Sails	Hawser	60	3/4		8/2		with Str	1	5. 2. 0		5. 0. 0	
	Main Sails,	Towlines	90	7/8		6 1/2							
	Main Top Sails,	Warp	90	5/8				with Str	2	2. 2. 7		2. 2. 0	
	and	All of <u>good</u> quality.	150	4 1/2				Kedges	2	1. 2. 13		1. 1. 0	
	Her Standing and Running Rigging	<u>heup</u>											
	She has	<u>one life</u> Long Boat and											
	The present state of the Windlass is	<u>good</u> Capstan	<u>good</u>					<u>good</u> Rudder				<u>3</u> and engine	

Order for Special Survey No. 406 Date 1st March 1869 while building

Order for Ordinary Survey No. --- Date --- as per Section 18.

DATES of Surveys held

- 1st. On the several parts of the frame, when in place, and before the plating was wrought
- 2nd. On the plating during the progress of rivetting
- 3rd. When the beams were in and fastened, and before the decks were laid
- 4th. When the ship was complete, and before the plating was finally coated
- 5th. After the ship was launched

built under Special Survey.

State if she has a Spar Deck no Poop yes or Forecastle monkey

General Remarks, *This vessel is built in accordance with the midship section attached, and her ballast-tanks extend through the engine room. Both edges of the garboard strakes, and the lower edges of the sheerstrakes, are double rivetted. It is trusted that the slight deficiency to be observed in the weights of the two lower anchors will not be accounted cause for delay in the vessel's classification.*

In what manner are the surfaces preserved from oxidation? Inside by cement and paint. Outside by paint and composition.

I am of opinion this Vessel should be Classed A I

The amount of the Fee£ 5 : : is received by me,
 * W. M. C. Special£ 24 : 19 :
 Certificate (required)£ : : :

Committee's Minute 28th September 1869

Character assigned A I

W. M. C.
A. J. Reed.
 It will be observed that Mr Reed has omitted to state whether the butts from bilge up are double or single rivetted. In other respects the vessel appears eligible for classification.
 27th Sept 1869

W. M. C. Newcastle-on-Tyne