

IRON SHIP.

1999

No. 13026 Survey held at *Newcastle* Date, First Survey *28 May 1877* Last Survey *3 Jan 1878*

On the *Iron S. Steamer "North Britain"* Master *J*

TONNAGE under Tonnage Deck } *1668.38* ONE, OR TWO DECKED, THREE DECKED VESSEL.
SPAR, OR AWNING DECKED VESSEL.

Built at *Newcastle*

Ditto of Third, Spar, or Awning Deck }
Ditto of Deep, on Raised or Bl. }
Ditto of Houses on Deck }
Ditto of *Plating* }
Gross Tonnage *1728.95*
Less Crew Space *57.50*
Less Engine Room *553.26*
Register Tonnage as cut on Beam } *1118.39*

HALF BREADTH (moulded) *17.00*

DEPTH from upper part of Keel to top of Upper Deck Beam: *26.45*

GIRTH of Half Midship Frame (as per Rule) *24.00*

1st NUMBER *82.45*

1st NUMBER, if a THREE-DECKED VESSEL *7.00*

LENGTH *263.5*

2nd NUMBER *19881*

PROPORTIONS—Breaths to Length *7.7*

Depths to Length—Upper Deck to Keel *9.9*

Main Deck ditto *13.5*

When built *1877* Launched *Nov 1877*

By whom built *Palmers Ship & Iron Co*

Owners *Hugh Roberts*

Port belonging to *London*

Destined Voyage *✓*

Surveyed while Building, Afloat, or in Dry Dock. *and*

LENGTH on deck as per Rule .. *263.6* BREADTH—Moulded .. *34.0* DEPTH top of Floors to Upper Deck Beams .. *24.6* Do. do. Main Deck Beams .. *17.6* Power of Engines .. *175* Horse. No. of Decks with flat laid *two* No. of Tiers of Beams *three*

Dimensions of Ship per Register, length *265.0* breadth, *34.2* depth, *24.3*

	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	<i>9 1/2 x 2 1/2</i>	<i>9 1/2 x 2 1/2</i>
STEM, moulding and thickness	<i>9 x 2 1/2</i>	<i>9 x 2 1/2</i>
STERN POST for Rudder do. do. for Propeller	<i>9 x 5</i>	<i>9 x 5</i>
Distance of Frames from moulding edge to moulding edge, all fore and aft	<i>24</i>	<i>24</i>
FRAMES, Angle Iron, for 1/2 length amidships	<i>5 3 8</i>	<i>5 3 8</i>
Do. for 1/2 at each end	<i>5 3 7</i>	<i>5 3 7</i>
REVERSED FRAMES, Angle Iron	<i>3 3 7</i>	<i>3 3 7</i>
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	<i>2 3/2 9</i>	<i>2 3/2 9</i>
thickness at the ends of vessel	<i>7</i>	<i>7</i>
depth at 1/2 the half-bdth. as per Rule	<i>11 3/4</i>	<i>11 3/4</i>
height extended at the Bilges	<i>47</i>	<i>47</i>
BEAMS, Upper, Spar, or Awning Deck Single or double Angle Iron, Plate or Tee Bulb Iron	<i>7 7 7</i>	<i>7 7 7</i>
Single or double Angle Iron on Upper edge	<i>3 3 6</i>	<i>3 3 6</i>
Average space	<i>48</i>	<i>48</i>
BEAMS, Main, or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron	<i>6 3 7</i>	<i>6 3 7</i>
Single or double Angle Iron on Upper Edge	<i>6 3 7</i>	<i>6 3 7</i>
Average space	<i>24</i>	<i>24</i>
BEAMS, Lower Deck, Hold or Orlop Single or double Angle Iron, Plate or Tee Bulb Iron	<i>9 1/2 9</i>	<i>9 1/2 9</i>
Single or double Angle Iron on Upper Edge	<i>4 4 8</i>	<i>4 4 8</i>
Average space	<i>10th frame</i>	<i>10th frame</i>
KEELSONS Centre line, single or double plate, and box, or Intercoastal, Plates	<i>12 13 12</i>	<i>12 13 12</i>
" Rider Plate	<i>12 13</i>	<i>12 13</i>
" Bulb Plate to Intercoastal Keelson	<i>8</i>	<i>8</i>
" Angle Irons	<i>5 1/2 4 9</i>	<i>5 1/2 4 9</i>
" Double Angle Iron Side Keelson	<i>8</i>	<i>8</i>
" Side Intercoastal Plate	<i>8</i>	<i>8</i>
" do. Angle Irons	<i>5 1/2 4 9</i>	<i>5 1/2 4 9</i>
" Attached to outside plating with angle iron	<i>3 3 7</i>	<i>3 3 7</i>
BILGE Angle Irons	<i>5 1/2 4 9</i>	<i>5 1/2 4 9</i>
" do. Bulb Iron	<i>8</i>	<i>8</i>
" do. Intercoastal plates riveted to plating for	<i>8</i>	<i>8</i>
BILGE STRINGER Angle Irons	<i>5 1/2 4 9</i>	<i>5 1/2 4 9</i>
Intercoastal plates riveted to plating for half length	<i>8</i>	<i>8</i>
SIDE STRINGER Angle Irons		

	Inches in Ship.	16ths in Ship.	Inches per Rule.	16ths per Rule.
Flat Keel Plates, breadth and thickness	<i>36</i>	<i>12</i>	<i>36</i>	<i>12</i>
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied	<i>10 1/2 alter</i>	<i>10 1/2 alter</i>	<i>10 1/2 alter</i>	<i>10 1/2 alter</i>
fm up. part of Bilge to lr. edge of Sh'rstrake	<i>10 1/2 alter</i>	<i>10 1/2 alter</i>	<i>10 1/2 alter</i>	<i>10 1/2 alter</i>
Main Sheerstrake, breadth and thickness of doubling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake	<i>40</i>	<i>13</i>	<i>40</i>	<i>13</i>
Up. or Spar Dk Sh'rstrake, brdth & thickness	<i>16 3/4</i>	<i>5 3/4</i>	<i>13 1/6</i>	<i>5 9/16</i>
Butt Straps to outside plating, breadth & thickness	<i>10 1/2</i>	<i>10 1/2</i>	<i>10 1/2</i>	<i>10 1/2</i>
Lengths of Plating	<i>4</i>	<i>4</i>	<i>4</i>	<i>4</i>
Shifts of Plating, and Stringers	<i>56</i>	<i>9</i>	<i>56</i>	<i>9</i>
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	<i>4.4.9</i>	<i>4.4.9</i>	<i>4.4.9</i>	<i>4.4.9</i>
Angle Iron on ditto	<i>13</i>	<i>9</i>	<i>13</i>	<i>9</i>
Tie Plates fore and aft, outside Hatchways				
Diagonal Tie Plates on Beams No. of Pairs				
Planksheer material and scantling	<i>Iron</i>	<i>Butter</i>		
Waterways do. do.	<i>4" J.P.</i>	<i>4</i>		
Flat of Upper Deck do. do.	<i>Ant & screw bolts</i>			
How fastened to Beams	<i>37 1/2. 10</i>	<i>37 1/2. 10</i>		
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	<i>Is the Stringer Plate attached to the outside plating?</i>	<i>Is</i>		
Angle Irons on ditto, No. 2	<i>4.4.9</i>	<i>4.4.9</i>		
Tie Plates, outside Hatchways	<i>Iron</i>	<i>deck</i>		
Diagonal Tie Plates on Beams, No. of pairs	<i>Iron</i>	<i>6/16 iron</i>	<i>6/16</i>	
Waterways materials and scantlings	<i>How fastened to Beams</i>	<i>34 9</i>	<i>34 9</i>	
Flat of Middle Deck do. do.	<i>Is the Stringer Plate attached to the outside plating?</i>	<i>Is</i>		
How fastened to Beams	<i>4.4.9</i>	<i>4.4.9</i>		
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams				
Angle Irons on ditto, No. 2	<i>Stringer or Tie Plates, outside Hatchways</i>			
Tie Plates, outside Hatchways	<i>Flat of Lower Deck</i>			
Flat of Lower Deck	<i>Ceiling betwixt Decks, thickness and material</i>	<i>road spar</i>		
Ceiling betwixt Decks, thickness and material	<i>in hold</i>	<i>do.</i>	<i>2 1/2</i>	<i>2 1/2</i>
Main piece of Rudder, diameter at head	<i>do.</i>	<i>do.</i>	<i>6 1/2</i>	<i>6 1/2</i>
do. at heel	<i>Can the Rudder be unshipped afloat?</i>	<i>Is</i>		
Bulkheads No. 5 Thickness of <i>6/16</i>	<i>Height up</i>	<i>4 to upper Dk</i>	<i>after one to main decks</i>	
How secured to sides of ship	<i>How secured to sides of ship</i>	<i>between double frames</i>		
Size of Vertical Angle Irons <i>3. 3. 7</i> and distance apart <i>30 ins.</i>	<i>Are the outside Plates doubled two spaces of Frames in length?</i>	<i>Is</i>		

Transoms, material. Knight-heads. Hawse Timbers. *Iron*
Windlass *Iron patent* Pall Bitt *Iron*

The FRAMES extend in one length from *Keel* to *Gunwale* Riveted through plates with *7/8* in. Rivets, about *7* apart.

The REVERSED ANGLE IRONS on floors and frames extend from middle line to *Mr Dk stringer* & *Iron* and to *Upper Dk* alternately

KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? *Is* And butts properly shifted? *Is*

PLATING. Garboard, double riveted to Keel, with rivets *1/8* in. diameter, averaging *5 1/2* ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clench, double riveted; with rivets *7/8* in. diameter, averaging *3 7/8* ins. from centre to centre.
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets *7/8* in. diameter averaging *3 7/8* ins. from centre to centre.
Butts of *three* Strakes at Bilge for *1/2* length, treble riveted with Butt Straps *1/16* thicker than the plates they connect.
Edges from bilge to Main Sheerstrake, worked clench, double or single riveted; with rivets *7/8* in. diameter, averaging *3 7/8* ins. from cr. to cr.
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets *7/8* in. diameter, averaging *3 7/8* ins. from cr. to cr.
Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted.
Butts of Main Sheerstrake, treble riveted for *1/2* length amidships. Butts of Upper or Spar Sheerstrake, treble riveted *1/2* length amidships.
Butts of Main Stringer Plate, treble riveted for *1/2* length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for *1/2* length.
Breadth of laps of plating in double riveting *6 times* Breadth of laps of plating in single riveting *✓*

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

Waterway, how secured to Beams *Rivets* (Explain by Sketch, if necessary.)

Beams of the various Decks, how secured to the sides? *Plates riveted to frame* No. of Breasthooks, *5* Crutches, *5*

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

Manufacturer's name or trade mark, *Shipbuilding & Iron Co*

The above is a correct description.

Builder's Signature, *Palmers Shipbuilding & Iron Co Ltd* Surveyor's Signature, *T. M. Mowbray*

Surveyor to Lloyd's Register of British and Foreign Shipping

IRON 475-0428

1999/9/20

Do any rivets break into or through the seams or butts of the plating? *a few*

State also Length and Diameter of Lower Masts and Bowspit. Two masts, both of iron. Length of fore mast 80 feet, Dia. 25 in. Main mast 77 feet, Dia. 24 in. plates $\frac{7}{16}$ to $\frac{9}{16}$ thick, double riveted edges, double & treble riveted butts. plates by Palmer & Co.

Hatches, If strong and efficient? *Yes*

General Remarks (State quality of workmanship, &c.)

This vessel has two decks and three tiers of beams. She is built in accordance with the appended approved tracings of midship section, longitudinal elevation & deck plan, the Secretary's letter of the 23rd May 1877, and in accordance with the rules for the class contemplated. She has a complete iron main deck; and is fitted with water ballast tanks in the fore and after holds and under the boilers, the fore tank is 88 ft long, the tank under the boilers 34 ft feet, and the after tank 78 ft feet, these tanks were satisfactorily tested to the load line in my presence. She has a bridge deck 30 feet in length - a strong beam is fitted at the height of the lower deck, between the engines & boilers. The workmanship throughout is very good.

Character assigned

18

Character assigned 100A ^{double bottom 200 ft} ^{Iron deck}
2 Dhs ^{double bottom 200 ft}
3 Tr. Buns ^{Iron deck} Lloyd Mc DBW