

# 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

<b>TONNAGE</b> under Tonnage Deck	1668.38	ONE, OR TWO DECKED, THREE DECKED VESSEL.	Built at <u>Newcastle</u>
<b>DEPTH</b> from upper part of Keel to top of Upper Deck Beam	17.00	SPAR, OR AWNING DECKED VESSEL.	When built <u>1877</u> Launched <u>Nov 1877</u>
<b>GIRTH</b> of Half Midship Frame (as per Rule)	26.40		By whom built <u>Palmers Ship &amp; Iron Co</u>
<b>1st NUMBER</b>	82.45		Owners <u>Hugh Roberts</u>
<b>1st NUMBER, if a THREE-DECKED VESSEL</b>	7.00		Port belonging to <u>London</u>
<b>LENGTH</b>	263.5		Destined Voyage <u>✓</u>
<b>2nd NUMBER</b>	19881		Surveyed while Building, Afloat, or in Dry Dock. <u>and</u>
<b>PROPORTIONS</b> —Breathths to Length	7.7		
Depths to Length—Upper Deck to Keel	9.9		
Main Deck ditto	13.5		

LENGTH on deck as per Rule	263.6	BREADTH—Moulded	34.0	DEPTH top of Floors to Upper Deck Beams	24.6	Power of Engines	175	Horse.	175	No. of Decks with flat laid	two	No. of Tiers of Beams	three
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	Inches in Ship.		Inches per Rule.		Flat Keel Plates, breadth and thickness	Inches. In Ship.	16ths. In Ship.	Inches. per Rule.	16ths. per Rule.
	Inches.	16ths.	Inches.	16ths.					
<b>KEEL</b> , depth and thickness	9 1/2	2 1/2	9 1/2	2 1/2	<b>PLATES</b> in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges	36	12	36	12
<b>STEM</b> , moulding and thickness	9	2 1/2	9	2 1/2	of doubling at Bilge, or increased thickness, and length applied	10 1/2	11	10 1/2	11
<b>STERN-POST</b> for Rudder do. do. for Propeller	9	5	9	5	fm up. part of Bilge to lr. edge of Sh'rstrake	10 1/2	11	10 1/2	11
Distance of Frames from moulding edge to moulding edge, all fore and aft	24				<b>Main Sheerstrake</b> , breadth and thickness of doubling at Sh'rstrake, & length applied from Mn. to Upr. or Spar Dk. Sh'rstrake				
<b>FRAMES</b> , Angle Iron, for 3/4 length amidships	5	3	5	3	Up. or Spar Dk Sh'rstrake, brdth & thickness	40	13	40	13
Do. for 1/2 at each end	5	3	5	3	Butt Straps to outside plating, breadth & thickness	16 3/4	5	9 3/4	13 1/6
<b>REVERSED FRAMES</b> , Angle Iron	3	3	3	3	Lengths of Plating	10 ft		10 ft	
<b>FLOORS</b> , depth and thickness of Floor Plate at mid line for half length amidships	2 3/2	9	2 3/2	9	Shifts of Plating, and Stringers	4		4	
thickness at the ends of vessel					Gunwale Plate on ends of <u>Awning, Spar, or</u> Upper Deck Beams, breadth and thickness	56	9	56	9
depth at 3/4 the half-bdth. as per Rule	11 3/4		11 3/4		Angle Iron on ditto	4.4	9	4.4	9
height extended at the Bilges	47		47		Tie Plates fore and aft, outside Hatchways	13	9	13	9
<b>BEAMS</b> , Upper, Spar, or Awning Deck Single or Dble Ang. Iron, Plate or Tee Bulb Iron	7	7	7	7	<b>Diagonal Tie Plates</b> on Beams No. of Pairs				
Single or double Angle Iron on Upper edge	3	3	3	3	Planksheer material and scantling	Iron Lutter			
Average space	48		48		Waterways do. do.	Iron			
<b>BEAMS</b> , Main, or Middle Deck Single or Dble Ang. Iron, Plate or Tee Bulb Iron	6	3	6	3	Flat of Upper Deck do. do.	4" J.P. 4"			
Single, or double Angle Iron, on Upper Edge					How fastened to Beams	nut & screw bolts			
Average space	24		24		Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	37 1/2	10	37 1/2	10
<b>BEAMS</b> , Lower Deck, Hold or Orlop Single or Dble Ang. Iron, Plate or Tee Bulb Iron	9 1/2	9	9 1/2	9	Is the Stringer Plate attached to the outside plating?	Yes		Yes	
Single or double Angle Iron on Upper Edge	4	4	4	4	Angle Irons on ditto, No. 2	4.4	9	4.4	9
Average space	10 <sup>th</sup> frames		10 <sup>th</sup> frames		Tie Plates, outside Hatchways				
<b>KEELSONS</b> Centre line, single or double plate, and box, or Intercostal, Plates	12	13	12	13	Diagonal Tie Plates on Beams, No. of pairs	Iron deck			
" Rider Plate	12	13	12	13	Waterways materials and scantlings	Iron			
" Bulb Plate to Intercostal Keelson	8		8		Flat of Middle Deck do. do.	6/16 iron 6/6			
" Angle Irons	5 1/2	4	5 1/2	4	How fastened to Beams	rivets			
" Double Angle Iron Side Keelson					Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	34	9	34	9
" Side Intercostal Plate					Is the Stringer Plate attached to the outside plating?	Yes		Yes	
" do. Angle Irons	5 1/2	4	5 1/2	4	Angle Irons on ditto, No. 2	4.4	9	4.4	9
" Attached to outside plating with angle iron	3	3	3	3	Stringer or Tie Plates, outside Hatchways				
<b>BILGE</b> Angle Irons	5 1/2	4	5 1/2	4	Flat of Lower Deck				
" do. Bulb Iron	8		8		Ceiling betwixt Decks, thickness and material	wood spar			
" do. Intercostal plates riveted to plating for length	Tank Sider				in hold do. do.	2 1/2		2 1/2	
<b>BILGE STRINGER</b> Angle Irons	5 1/2	4	5 1/2	4	Main piece of Rudder, diameter at head	6 1/2		6 1/2	
Intercostal plates riveted to plating for half length					do. at heel	3 1/2		3 1/2	
<b>SIDE STRINGER</b> Angle Irons					Can the Rudder be unshipped afloat?	Yes			
Transoms, material. Knight-heads. Hawse Timbers.	Iron				Bulkheads No. 5 Thickness of	6/16			
Windlass Iron patent Pall Bitt	Iron				Height up	4 to upper Dk after one to main decks			

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? Yes And butts properly shifted? Yes

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

**Edges of Garboards** and to upper part of Bilge, worked clencher, 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 clencher, 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 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. Mowbray

Surveyor to Lloyd's Register of British and Foreign Shipping

IRON 475-0428

**Workmanship.** Are the butts of plating planed or otherwise fitted? *Planed* 1999 Jun  
 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*  
 Are the fillings between the ribs and plates solid single pieces? *Yes*  
 Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *Yes*  
 Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *Yes*  
 Do any rivets break into or through the seams or butts of the plating? *a few*

Masts, Bowsprit, Yards, &c., are *all* in *Good* condition, and sufficient in size and length. If of Iron or Steel give 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 *Two masts, both of iron. Length of fore mast 80 feet, Dia 25 in. Main mast 77 feet, Dia 24 in. plates 7/16 to 9/16 thick. double riveted edges, double & treble riveted butts. plates by Palmer & Co.*

N <sup>o</sup> .	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.		N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate.	Wght req'd per Rule.	Test req'd per Rule.
								Bowers	Stream					
		Chain	270	1 3/4	55 7/8	270.1 3/4	55 7/8			1	30.0.14	28.14.14	30.0.0	28 12/20
	Fore Sails,				77 7/8		77 7/8			1	30.0.0	28 5/8	30.0.0	
	Fore Top Sails,									1	25.3.14	25.10.17	25.2.0	25 4/20
	Fore Topmast Stay Sails													
	Main Sails,		90	1 1/16		90.1 1/16								
	Main Top Sails,		90	11		90.11								
			90	8 1/2		90.7								
			90	5 1/2										
			90	5										

Standing and Running Rigging *Wire & Rump* sufficient in size and *good* in quality. She has *one* Life Boat and *three* others  
 The Windlass is *Good* Capstan *Good* and Rudder *Good* Pumps *Good*

Engine Room Skylights.—How constructed? *Iron enclosure* How secured in ordinary weather? *riveted*  
 What arrangements for deadlights in bad weather? *lights cut in the side of the iron bulkhead*

Coal Bunker Openings.—How constructed? *deep coaming* How are lids secured? *solid hatches* Height above deck? *2 feet*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *ports and scuppers cut in the bulwarks.*

Cargo Hatchways.—How formed? *of iron*  
 State size Main Hatch *20-0 x 10-0* Forehatch *12-0 x 10-0* Quarterhatch *16-0 x 10-0*

If of extraordinary size, state how framed and secured? *-*  
 What arrangement for shifting beams? *deep web plates in large hatches*

Hatches, If strong and efficient? *Yes*

Order for Special Survey No.	Date	Order for Ordinary Survey No.	Date	No.	1st.	2nd.	3rd.	4th.	5th.
11025	29 May 1877	-	-	256	On the several parts of the frame, when in place, and before the plating was wrought	On the plating during the process of riveting	When the beams were in and fastened, and before the decks were laid...	When the ship was complete, and before the plating was finally coated or cemented..	After the ship was launched and equipped
					1877 May 28. June 14. 22. July 2. 6. 17. 20. 23. 28.	30. Aug 3. 8. 11. 13. 16. 22. 25. 30. Sep 4. 6. 7. 12. 14.	18. 25. Oct 2. 4. 8. 10. 12. 15. 17. 18. 19. 22. 24.	20. Nov 1. 6. 7. Dec 3. 5. 6. 13. 17. 21. 24. 31.	1878 Jan 3.

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 23<sup>rd</sup> 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.*

State if one, two, or three, decked vessel, or if spar, or arcing decked; and the lengths of poop, forecabin, or raised quarter deck, and the length of double, or part double bottom.

How are the surfaces preserved from oxidation? Inside *Cement and paint* Outside *Paint*

I am of opinion this Vessel should be Classed *100 A 1*

The amount of the Entry Fee ... £ 5 : : : is received by me, *J. Young*  
 Special Certificate ... £ 66 : 16 : - 23<sup>rd</sup> June 1878  
 Certificate ...

(Travelling Expenses, if any, £ - - - - -)

Committee's Minute 18

Character assigned *100 A 1*  
*2 Dhs 3 Tr. Buns lower Deck Lloyd Mc D. B. W.*

# 11025 - Palmer's shipbuilding Co. Ltd. 1st Jan 1878

This vessel appears to be eligible to be classed as recommended viz: 100 A. 1  
 2 dhs. 3 tr. Buns. Iron deck. Double bottom.