

# IRON SHIPS.

See previous Report No. 9893

Rec 23/8/70

No. 111 Survey held at Sunderland Date, first Survey 10<sup>th</sup> August Last Survey 12<sup>th</sup> August 1870  
 on the Screw Steamer "Frankland" Master R. Fowler  
 Tonnage under Tonnage Deck 663.96 ONE, OR TWO DECKED THREE DECKED VESSELS.  
 of Spar Deck, 21.96 Half moulded breadth 14.37 Half Moulded Breadth....  
 of Awning Deck, 19.92 Depth from upper part of Keel to top of Upper Deck Beams 18.33 Total Depth if three or more Decks....  
 of Houses 19.92 Girth of Half Midship Frame 30.08 Total Girth of Half Midship Frame....  
 of Forecastle 19.92 1st Number 62.78 3rd Number....  
 Tonnage 705.84 Length 194.5 Length....  
 Space, as per Rule 28.10 2nd Number 12,210 4th Number....  
 Register Tonnage, cut on Beam... 136.71 Depths to Length 11 Breadths to Length 6  
 Engine Room 136.71 Register Tonnage, as a Steamer, cut on the Beam 541.03

Built at Sunderland  
 When built 1869 Launched 23 Sept. 69  
 By whom built James Laing  
 Owners A. T. Norton  
 Port belonging to Sunderland  
 Destined Voyage Coasting  
 If Surveyed while Building, Afloat, or in Dry Dock

Length on deck as per Rule 194 Feet. 6 Inches. Moulded Breadth 28 Feet. 9 Inches. Depth from top of Keel to Deck Beam, as per Rule 18 Feet. 4 Inches. Power of Engines, 90 Horse. No. of Decks, One No. of Tiers of Beams Two  
 Dimensions of Ship per Register, length, 196.8 breadth, 28.95 depth, 16.8

	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.
Keel, if bar iron, depth and thickness	7 x 2 3/4	8 x 2 3/8				
Do. if centre through plate, depth and thickness	7 x 2 3/4	8 x 2 3/8				
Stern-post do. do. do.	9 x 4 1/2	9 x 4 1/8				
Distance of Frames from moulding edge to moulding edge, all fore and aft	21 ins	22 ins				
Frames, size of Angle Iron, for 1/2 length amidships	4 3	7 4	3 7	4 3	7 4	3 7
Do. for 1/2 at each end	4 3	7 4	3 7	4 3	7 4	3 7
Reversed Frames, size of Angle Iron	3 2 3/4	6 3	3 7	3 2 3/4	6 3	3 7
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	19 1/2	7 full	18 3/4	5		
Do. at the ends	9	7	7			
Do. do. do. at Bilge Keelson	9 1/2	7 full	8			
Do. height extended at the Bilges						
Beams, Three Decked, Spar, or Awning Decked (No. ) single or double Angle Iron, Plate or Tee Bulb Iron						
Single or double Angle Iron on Upper edge						
Average space						
Beams, Upper or Middle Deck (No. ) single, or double Angle Iron, Plate or Tee Bulb Iron						
Single, or double Angle Iron, on Upper Edge	2 1/2	2 3/4	5	2 1/2	2 3/4	5
Average space	2 1/2	2 3/4	5	2 1/2	2 3/4	5
Beams, Lower Deck (No. ) single, or double Angle Iron, Plate or Tee Bulb Iron						
Single or double Angle Iron on Upper Edge	3	2 3/4	6	2 1/2	2 3/4	5
Average space	2 1/2	2 3/4	5	2 1/2	2 3/4	5
Keelson Centre line, single or double plate, bar, or Intercoastal Keelson	13	10	13	10		
Do. Bulb Plate to Intercoastal Keelson						
Do. Size of Angle Irons	4 1/2	3 1/2	7	4 1/2	3 1/2	7
Do. Side Intercoastal Keelson, size of Plates						
Do. Angle Irons on tops of Floors	4 1/2	3 1/2	7	4 1/2	3 1/2	7
Do. Bilge Keelson, Bulb Iron						
Do. do. Angle Irons	4 1/2	3 1/2	7	4 1/2	3 1/2	7
Do. Side Stringers (No. ) size of Angle Irons						

Transoms, material or, if none, in what manner compensated for.  
 Knight-heads Hawse Timbers  
 Windlass Pall Bitt  
 The Frames extend in one length from to  
 The Reverse Angle Irons on the floors extend across the middle line  
 On all the Frames and to  
 Keelsons. Are the various lengths of Plates and Angle Irons properly connected? And are their butts properly shifted?  
 Plates, Garboard, double or Riveted to Keel, double or at upper edge, with Rivets ( in.) diameter, averaging ( ins.) from centre to centre.  
 Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets ( in.) diameter, averaging ( ins.) from centre to centre.  
 Do. Butts from Keel to turn of Bilge, worked carvel with butt straps ( ) thick, treble, double or single Riveted; with Rivets ( in.) diameter averaging ( ins.) from centre to centre.  
 Do. Edges of Sheerstrake, double or single Riveted. At upper edge At lower edge  
 Do. Butts from Bilge to Planksheers, worked carvel with Butt Straps ( ) thick, double or single Riveted; with Rivets ( in.) diameter, averaging ( ins.) from centre to centre. Breadth of laps in double Riveting ( ) Breadth of laps in single Riveting ( )  
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single 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? No. of Breasthooks, Crutches,  
 What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Double 45 at middle line  
 Manufacturer's name or trade mark,  
 I certify that the above is a correct description of the several particulars therein given.  
 Owner's Signature, Surveyor's Signature,



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

Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies?

Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses?

Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? and are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces?

Are there any rivets which either break into or have been put through the seams or butts of the plating?

Her Masts, Bowsprit, Yards, &c., are in 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

8216 Lm

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.
N <sup>o</sup> .	SAILS.	CABLES, &c.										
	Fore Sails,	Chain .....					Bowers ....					
	Fore Top Sails,	<small>(State Machine where Tested, and name of Superintendent).</small>					<small>(State Machine where Tested, and name of Superintendent).</small>					
	Fore Topmast Stay Sails	Hempen Stream Cable					Stream ....					
	Main Sails,	Hawser .....					Kedges ....					
	Main Top Sails,	Towlines ....										
		Warp .....										
	and	All of quality.										

Her Standing and Running Rigging sufficient in size and in quality. She has Long Boat and

The present state of the Windlass is Capstan and Rudder Pumps

**Engine Room Skylights.** How constructed? How secured in ordinary weather?

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

**Coal Bunker Openings.** How constructed? How are lids secured? How high above deck?

**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?

**Cargo Hatchways.**—How formed? State size

If of extraordinary size, state how framed and secured?

What arrangement for shifting beams?

**Hatches,** themselves, whether strong and efficient? **Main Hatchways.**—State size

Order for Special Survey No.	DATES of	1st.	On the several parts of the frame, when in place, and before the plating was wrought
Date	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.	in builder's yard.	5th.	After the ship was launched and equipped

**General Remarks,**

This vessel having put into dry dock for the purpose of cleaning the Bottom, & recoating with paint, I felt it my duty to remind the Owner, that although the original report upon her had been forwarded to London, no character has been assigned, owing to the non payment of the fee. Finding on a subsequent interview with him that he would prefer having the vessel classed under the new iron rules, I measured her as required by the rule, & on the other side beg to forward a comparison of her scantlings as set forth in the original report, with the requirements of the amended rules for the 90 A scale, & as she is similar in almost every respect to the S.S. "Solent" report W. 9926, I would respectfully submit whether she is not entitled to a similar character Dist. 90 A, I

In what manner are the surfaces preserved from oxidation? Inside Outside  
I am of opinion this Vessel should be Classed

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

Travelling Expenses (if any) .....£ : : } See annexed Report

Special .....£ : : }

Certificate .... : : }

Committee's Minute 26<sup>th</sup> August 1870

Character assigned 90 A

James Brown  
I beg to recommend this Vessel to the favor of the Committee for the 90 A class  
Lloyd's Register  
28.8.70