

# IRON SHIPS.

See annexed Report.

No. 18 Survey held at Sunderland Date, First Survey 1869 Last Survey 1869

On the Iron Screw Steamer "Pelaw" Master W. R. M. Moutrey

Tonnage under Tonnage Deck <u>693.70</u>	ONE, OR TWO DECKED, SPAR, OR AWNING-DECKED VESSELS.	THREE DECKED VESSELS.	Built at <u>Sunderland</u>
Ditto of Third Spar, or Awning Deck. <u>44.40</u>	Half moulded breadth .... <u>14.5</u>	Total Depth if three or more Decks ..... <u>18.33</u>	When built <u>1869</u> Launched <u>10th. / 69</u>
Ditto of Poop, or Raised Qr. Dk. <u>54.60</u>	Depth from upper part of Keel to top of Upper Deck Beams ..... <u>30.25</u>	Total Girth of Half Mid-ship Frame ..... <u>63.08</u>	By whom built <u>James King</u>
Ditto of Houses on Deck ..... <u>29.36</u>	Girth of Half Midship Frame (as per Rule) .. <u>198.5</u>	3rd Number ..... <u>12.621</u>	Owners <u>J. S. Hill &amp; Co.</u>
Gross Tonnage <u>792.70</u>	1st Number ..... <u>10</u>	Length ..... <u>6</u>	Port belonging to <u>London</u>
Crew Space, as per Rule <u>162.61</u>	2nd Number .... <u>12.621</u>	4th Number .... <u>6</u>	Destined Voyage <u>Coasting</u>
Register Tonnage, cut on Beam .. <u>600.73</u>	Depths to Length. <u>10</u>	Breadths to Length ..... <u>6</u>	If Surveyed while Building, Afloat, or in Dry Dock.
Engine Room <u>162.61</u>			
Register Tonnage, as a Steamer, cut on Beam <u>600.73</u>			

Length on deck as per Rule <u>178</u>	Feet. <u>6</u> Inches.	Moulded Breadth <u>29</u>	Feet. <u>0</u> Inches.	Depths from top of Floors to Upper and Main Deck Beams, as per Rule ..... <u>16</u>	Feet. <u>10</u> Inches.	Power of Engines, <u>90</u>	Horse.	Nº. of Decks with flat laid <u>two</u>	Nº. of Tiers of Beams <u>two</u>
Dimensions of Ship per Register, length, <u>204.7</u> breadth, <u>29.0</u> depth, <u>16.8</u>									
Keel, if bar iron, depth and thickness ..... <u>7 1/4 x 2 3/4</u>	Inches in Ship.	Inches required per Rule.	Stem, if bar iron, moulding and thickness ..... <u>7 1/4 x 2 3/4</u>	Inches in Ship.	Inches required per Rule.	Stern-post for Rudder do. do. .... <u>7 1/4 x 4 1/4</u>	Inches in Ship.	Inches required per Rule.	Stern-post for Propeller ..... <u>22 ins</u>
Distance of Frames from moulding edge to moulding edge, all fore and aft ..... <u>21 ins</u>	Inches in Ship.	Inches required per Rule.	Frames, size of Angle Iron, for 1/2 length amidships Do. for 1/2 at each end ..... <u>4 3/4 x 7</u>	Inches in Ship.	Inches required per Rule.	Reversed Frames, size of Angle Iron ..... <u>3 3/4 x 6</u>	Inches in Ship.	Inches required per Rule.	Floors, depth and thickness of Floor Plate at mid line for half the length amidships ..... <u>18 3/4 x 8</u>
Do. at the ends ..... <u>7</u>	Inches in Ship.	Inches required per Rule.	Do. do. do. at Bilge Keelson ..... <u>10 8</u>	Inches in Ship.	Inches required per Rule.	Do. height extended at the Bilges ..... <u>twice midship depth</u>	Inches in Ship.	Inches required per Rule.	Beams, Upper, Spar, or Awning Deck (No. <u>29</u> ) single or double Angle Iron, Plate or Tee Bulb Iron ..... <u>7 7</u>
Single or double Angle Iron on Upper edge ..... <u>2 3/4 x 5</u>	Inches in Ship.	Inches required per Rule.	Average space ..... <u>42 ins</u>	Inches in Ship.	Inches required per Rule.	Beams, Main or Middle Deck (No. ) single, or double Angle Iron, Plate or Tee Bulb Iron ..... <u>2 3/4 x 5</u>	Inches in Ship.	Inches required per Rule.	Single, or double Angle Iron, on Upper Edge ..... <u>2 3/4 x 5</u>
Average space ..... <u>42 ins</u>	Inches in Ship.	Inches required per Rule.	Beams, Lower Deck, Hold or Orlop (No. <u>29</u> ) single or double Angle Iron, Plate or Tee Bulb Iron ..... <u>7 7</u>	Inches in Ship.	Inches required per Rule.	Single or double Angle Iron on Upper Edge ..... <u>2 3/4 x 5</u>	Inches in Ship.	Inches required per Rule.	Average space ..... <u>42 ins</u>
Keelson Centre line, single or double plate, box, or Intercoastal, size of Plates ..... <u>13 11</u>	Inches in Ship.	Inches required per Rule.	Do. Bulb Plate to Intercoastal Keelson ..... <u>3 1/2 x 5</u>	Inches in Ship.	Inches required per Rule.	Do. Size of Angle Irons ..... <u>3 1/2 x 5</u>	Inches in Ship.	Inches required per Rule.	Do. Side Intercoastal Keelson, size of Plates .. <u>3 1/2 x 5</u>
Do. Bulb Plate to Intercoastal Keelson ..... <u>3 1/2 x 5</u>	Inches in Ship.	Inches required per Rule.	Do. Angle Irons on tops of Floors ..... <u>3 1/2 x 5</u>	Inches in Ship.	Inches required per Rule.	Do. Bilge Keelson, Bulb Iron ..... <u>7 7</u>	Inches in Ship.	Inches required per Rule.	Do. do. Intercoastal plates riveted to plating for length ..... <u>not required</u>
Do. do. Angle Irons ..... <u>3 1/2 x 5</u>	Inches in Ship.	Inches required per Rule.	Side Stringers (No. <u>1</u> ) size of Angle Irons ..... <u>3 1/2 x 5</u>	Inches in Ship.	Inches required per Rule.	Do. Intercoastal plates riveted to plating for length. .... <u>not required</u>	Inches in Ship.	Inches required per Rule.	Transoms, material or, if none, in what manner compensated for.
Knight-heads <u>Hawse Timbers</u>			Windlass <u>Pall Bitt</u>			The Frames extend in one length from to Riveted through plates with ( in. ) Rivets, about apart.			The Reverse Angle Irons on the floors and frames extend the middle line to and to alternately
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 to strakes ( ) thick, double or single Riveted; with Rivets ( in. ) diameter averaging ( ins. ) from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below?
Do. of Strakes at Bilge for length, treble riveted with Butt Straps thicker than their plates.			Do. Edges from bilge to Main Sheerstrake, worked carvel with a lining piece ( ) thick, or clencher, double or single riveted; with rivets ( in. ) diameter, averaging ( ins. ) from centre to centre.			Do. Edges of Sheerstrake, Main, double or single Riveted. Upper, double or single Riveted. At upper edge At lower edge			Do. Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps ( ) thick, double or single Riveted; with Rivets ( in. ) diameter, averaging ( ins. ) from centre to centre.
Do. Butts of Main Sheerstrake, double or treble Riveted. Butts of Upper or Spar Sheerstrake, and Upper Deck Stringer Plate, double or treble Riveted for length amidships. Breadth of laps of plating in double Riveting ( ) Breadth of laps of plating 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. Waterway, how secured to the planksheer and to the Beams. (Explain by Sketch, 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.?			Manufacturer's name or trade mark,			We certify that the above is a correct description of the several particulars therein given.			Builder'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

Should the Committee decide to give this vessel the new class, it will be seen that the chains and anchors are equal to the requirements of the rules per Table 22 dated 28th July 1870

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.					Bowers ....					
	Fore Sails,	Chain .....					(State Machine where Tested, and name of Superintendent).					
	Fore Top Sails,	Hempen Stream					Stream ....					
	Fore Topmast Stay Sails	Cable										
	Main Sails,	Hawser .....										
	Main Top Sails,	Towlines ....										
		Warp .....										
	and	All of quality.					Kedges ....					

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.	Section 18.	5th.	After the ship was launched and equipped

General Remarks, On comparing the Scantlings of this vessel with the requirements for the 100 A grade, I find the outside plating from the keel to gunwale, except one strake next the sheerstrake, fully up to the above requirements. The strake next the sheerstrake is  $\frac{1}{16}$  less than required, & the sheerstrake is  $\frac{1}{16}$  thicker, & 3 in. broader than required. The keel, keelsons, beams and stringers are in excess of the rules. The spacing of frames one inch less than required. Deficiencies from the rules are: The reverse bars are  $\frac{1}{4}$  of an inch less than rule in one flange. The vessel has no rider plate, & the hold stringer plates are not connected to the outside plating. One strake of plating is  $\frac{1}{16}$  less.

Considering the great excess, & slight deficiency, I am of opinion that this vessel merits the favorable consideration of the Committee for the 95 A grade.

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

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,  
Special .....£ : :  
Certificate .... : :

(Travelling Expenses)  
(if any) £

Committee's Minute 18

Character assigned



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