

IRON SHIPS.

9574

Rec 9/11/71

No. 2128 Survey held at Belfast

Date, first Survey 1st Nov 70

Last Survey 6th Nov 70 1871

on the Iron S.S. South Western

Master W. Tennant

Tonnage under Tonnage Deck	390.49	ONE, OR TWO DECKED VESSELS.	THREE DECKED VESSELS.	Built at	<u>Port Glasgow</u>
Ditto of Spar Deck, or Awning Deck.	-	Half moulded breadth	Half Moulded Breadth	When built	<u>1870</u> Launched <u>28th July 1870.</u>
Ditto of Poop, or Reared Or. De.	49.00	Depth from upper part of Keel to top of Upper Deck Beams	Total Depth if three or more Decks	By whom built	<u>Blackwood and Gordon.</u>
Ditto of Houses on Deck	20.89	Girth of Half Midship Frame	Total Girth of Half Midship Frame	Owners	<u>Robert Henderson and Son.</u>
Ditto of Forecastle	-	1st Number	3rd Number	Port belonging to	<u>Ardrossan</u>
Gross Tonnage	460.38	Length	Length	Destined Voyage	<u>Belfast to Ardrossan</u>
Crew Space, as per Rule	26.19	2nd Number	4th Number	If Surveyed while Building, Afloat, or in Dry Dock	
Register Tonnage, as per Rule	-	Depths to Length	Breadths to Length		
Engine Room	174.30				
Register Tonnage, as a Steamer, cut on the Beam	259.89				

Length on deck as per Rule 188 7/16 Feet. Inches. Moulded Breadth 26 Feet. Inches. Depth from top of Keel to Deck Beam, as per Rule 13 Feet. Inches. Horse. 120 No. of Decks Two No. of Tiers of Beams Two
 Dimensions of Ship per Register, length, 195 1/2 breadth, 26 1/2 depth, 12.85 Effective - 600

	Inches in Ship.	Inches required per Rule.		Inches in Ship.	Inches required per Rule.
Keel, if bar iron, depth and thickness	<u>7 x 2 1/2</u>	<u>7 1/2 x 2 1/8</u>	Flat Keel Plates, breadth and thickness	-	-
Do. if centre through plate, depth and thickness	-	-	Plates in Garboard Strakes, breadth and thickness	<u>3 1/4</u>	<u>10 1/16</u> <u>30</u> <u>9 1/16</u>
Stem, if bar iron, moulding and thickness	<u>7 x 2 1/2</u>	<u>8 3/4 x 2 1/8</u>	Do. from Garboard to upper part of Bilges	-	<u>8 1/16</u>
Stern-post do. do. do.	<u>8 1/2 x 4 1/2</u>	<u>7 1/2 x 4 1/2</u>	Do. of doubling at Bilge, or increased thickness, and length applied	-	<u>Two Strakes at Bilge 7 1/2 x 1 1/16 thick. 5 ft. long.</u>
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>21</u>	<u>22</u>	Do. from upper part of Bilge to lower edge of Sheerstrake	-	<u>7 1/16</u>
Frames, size of Angle Iron, for 1/2 length amidships	<u>3 1/2</u> <u>3</u> <u>7 1/16</u>	<u>3</u> <u>2 1/2</u> <u>6 1/16</u>	Do. Sheerstrake, breadth and thickness	<u>30</u>	<u>8 1/16</u> <u>11 1/16</u>
Do. for 1/3 at each end	<u>3 1/2</u> <u>3</u> <u>7 1/16</u>	<u>3</u> <u>2 1/2</u> <u>6 1/16</u>	Do. of doubling at Sheerstrake, and length applied for 1/2 length amidships	<u>23</u>	<u>7 1/16</u> <u>Not required by rule.</u>
Reversed Frames, size of Angle Iron	<u>2 1/2</u> <u>2 1/2</u> <u>6 1/16</u>	<u>2 1/4</u> <u>2 1/4</u> <u>5 1/16</u>	Butt Straps to outside plating, breadth and thickness	<u>9</u>	<u>10 5/16</u> <u>7 1/16</u> <u>8 1/16</u> <u>9 1/16</u> <u>11 1/16</u>
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	-	<u>16 1/2</u> <u>7 1/16</u>	Lengths of Plating	<u>10 ft. bins</u>	<u>9 ft. - 2 ins.</u>
Do. at the ends	-	<u>6 1/16</u>	Shifts of Plating, and Stringers	<u>3 ft. bins</u>	<u>3 ft. 8 ins.</u>
Do. do. do. at Bilge Keelson	-	<u>7 1/16</u>	Gunwale Plate on ends of Awning, or Spar Deck Beams, breadth and thickness	-	-
Do. height extended at the Bilges	<u>33</u>	<u>28</u>	Angle Iron on ditto	-	-
Beams, Three Decked, Spar, or Awning Decked (No.) single or double Angle Iron, Plate or Tee Bulb Iron	-	-	Tie Plates (fore and aft), outside Hatchways	-	-
Single or double Angle Iron on Upper edge	-	-	Diagonal Tie Plates on Beams (No. of Pairs,)	-	-
Average space	-	-	Planksheer material and scantling	-	-
Beams, Upper or Middle Deck (No.) single or double Angle Iron, Plate or Tee Bulb Iron	-	<u>6 1/2</u> <u>8 1/16</u>	Waterways do. do.	-	-
Single or double Angle Iron, on Upper Edge	<u>2 1/2</u> <u>2 1/2</u> <u>5 1/16</u>	<u>2 1/2</u> <u>2 1/2</u> <u>5 1/16</u>	Flat of Deck do. do.	-	-
Average space	<u>42</u>	<u>44</u>	How fastened to Beams	-	-
Beams, Lower Deck or Orlop (No.) single or double Angle Iron, Plate or Tee Bulb Iron	-	<u>6 1/2</u> <u>8 1/16</u>	Stringer Plate on ends of Upper or Middle Deck Beams, breadth and thickness	<u>27</u>	<u>10 1/16</u> <u>27</u> <u>8 1/16</u>
Single or double Angle Iron on Upper Edge	<u>2 1/2</u> <u>2 1/2</u> <u>5 1/16</u>	<u>2 1/2</u> <u>2 1/2</u> <u>5 1/16</u>	Angle Irons on ditto (No. Bulb)	<u>4 1/2 x 3 x 7 1/16</u>	<u>4 x 3 x 6 1/16</u>
Average space	<u>42</u>	<u>44</u>	Tie Plates, outside Hatchways	<u>10</u>	<u>8 1/16</u> <u>9</u> <u>7 1/16</u>
Keelson Centre line, single or double plate, box, or intercostal, size of Plates	-	<u>16 1/2</u> <u>7 1/16</u>	Diagonal Tie Plates on Beams (No. of pairs, -)	<u>10</u>	<u>8 1/16</u> <u>9</u> <u>7 1/16</u>
Do. Bulb Plate to Intercostal Keelson	-	<u>8</u> <u>7 1/16</u>	Waterways materials and scantlings	<u>13 x 4 1/2</u>	-
Do. Size of Angle Irons	<u>3</u> <u>3</u> <u>7 1/16</u>	<u>40</u> <u>3</u> <u>6 1/16</u>	Flat of Deck do. do. Pitch: <u>1/4</u>	<u>3 1/2</u>	<u>3 1/2</u>
Do. Side Intercostal Keelson, size of Plates	<u>3</u> <u>3</u> <u>7 1/16</u>	<u>40</u> <u>3</u> <u>6 1/16</u>	How fastened to Beams	<u>By galvanised iron screws bolted on to ribs.</u>	-
Do. Angle Irons on tops of Floors	<u>4 1/2</u> <u>3</u> <u>7 1/16</u>	<u>4</u> <u>3</u> <u>6 1/16</u>	Stringer Plates on ends of Lower Deck or Orlop Beams	<u>21</u>	<u>8 1/16</u>
Do. Bilge Keelson, Bulb Iron for 1/2 length	-	<u>6 1/2</u> <u>8 1/16</u>	Angle Irons on ditto (No. Bulb)	<u>4 1/2 x 3 x 7 1/16</u>	<u>Not required by rule.</u>
Do. do. Angle Irons	<u>4 1/2</u> <u>3</u> <u>7 1/16</u>	<u>40</u> <u>3</u> <u>6 1/16</u>	Stringer or Tie Plates, outside Hatchways	<u>4 1/2 x 3 x 7 1/16</u>	<u>3</u>
Do. Side Stringers (No.) size of	-	-	Flat of Deck	<u>2 1/2</u>	-
double Angle Irons <u>4 x 3 x 7 1/16</u> one pair having a bulb iron fitted between for 1/2 length amidships	-	<u>42</u> <u>3</u> <u>6 1/16</u>	Ceiling betwixt Decks, thickness and material	<u>9 x 1 1/2</u>	-
Transoms, material <u>Iron</u> or, if none, in what manner compensated for.	-	-	Do. in hold do. do.	<u>2 1/2</u>	<u>2 1/2</u>
Knight-heads <u>Iron</u> Hawse Timbers <u>Iron</u>	-	-	Clamps or Spircketting	-	-
Windlass <u>Brown and Sharpley's Patent</u> Pall Bitt	-	-	Main piece of Rudder, diameter at head	<u>4 3/4</u>	<u>4 1/2</u>
The Frames extend in one length from <u>Keel</u> to <u>Summit</u>	-	-	Do. do. at heel	<u>3 3/4</u>	<u>2 3/4</u>
The Reverse Angle Irons on the floors extend across the middle line	-	-	(Can the Rudder be unshipped afloat?)	<u>Yes</u>	-
On all the Frames and to <u>Keel only requires reversed frames to be found across middle line to upper part of Bilges on dry frame</u>	-	-	Bulkheads No. <u>5</u> Thickness of	-	<u>5 1/16</u>
Keelsons. Are the various lengths of Plates and Angle Irons properly connected?	<u>Yes</u>	<u>Yes</u>	Do. Height up <u>Four</u> upper deck one to Cabin. Sole with Iron top.	-	-
Plates, Garboard, double or <u>single</u> Riveted to Keel, double or <u>single</u> at upper edge, with Rivets (<u>1 1/2</u> in.) diameter, averaging (<u>5</u> ins.) from centre to centre.	-	-	Do. How secured to the sides of the ship <u>Between double frames.</u>	-	-
Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets (<u>3/4</u> in.) diameter, averaging (<u>5 1/4</u> ins.) from centre to centre.	-	-	Do. Size of Vertical Angle Irons <u>2 1/2 x 3 1/2</u> and their distance apart, <u>20</u> inches.	-	-
Do. Butts from Keel to turn of Bilge, worked carvel with butt straps (<u>1 1/16</u> thick), double or single Riveted; with Rivets (<u>3/4</u> in.) diameter averaging (<u>3 3/4</u> ins.) from centre to centre.	-	-	Do. Are the outside Plates doubled two spaces of Frames in length?	<u>Yes</u>	-
Do. Edges of Sheerstrake, double or single Riveted. At upper edge <u>Single at Angle Iron</u> At lower edge <u>Double.</u>	-	-	The Frames riveted through plates with (<u>3/4</u> in.) Rivets, about <u>6</u> in. apart.	-	-
Do. Butts from Bilge to Planksheers, worked Carvel with Butt Straps (<u>1 1/16</u> thick), double or single Riveted; with Rivets (<u>3/4</u> in.) diameter, averaging (<u>3 3/4</u> ins.) from centre to centre. Breadth of laps in double Riveting (<u>4 1/4</u>) Breadth of laps in single Riveting (<u>2 1/2</u>)	-	-	The Reverse Angle Irons on the floors extend across the middle line	-	-
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted?	<u>Double riveted.</u>	-	On all the Frames and to	-	-
Planksheer, how secured to the plating of the sides, { Explain by Sketch, }	-	-	Keelsons. Are the various lengths of Plates and Angle Irons properly connected?	-	-
Waterway ,, ,, planksheer and to the Beams, { if necessary. }	-	-	Plates, Garboard, double or <u>single</u> Riveted to Keel, double or <u>single</u> at upper edge, with Rivets (<u>1 1/2</u> in.) diameter, averaging (<u>5</u> ins.) from centre to centre.	-	-
Beams of the various Decks, how secured to the sides? <u>Beam ends turned down</u> No. of Breasthooks, <u>Four</u> Crutches, <u>Four</u> .	-	-	Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets (<u>3/4</u> in.) diameter, averaging (<u>5 1/4</u> ins.) from centre to centre.	-	-
What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.?	-	-	Do. Butts from Keel to turn of Bilge, worked carvel with butt straps (<u>1 1/16</u> thick), double or single Riveted; with Rivets (<u>3/4</u> in.) diameter averaging (<u>3 3/4</u> ins.) from centre to centre.	-	-
Manufacturer's name or trade mark,	-	-	Do. Edges of Sheerstrake, double or single Riveted. At upper edge <u>Single at Angle Iron</u> At lower edge <u>Double.</u>	-	-
We certify that the above is a correct description of the several particulars therein given.	-	-	Do. Butts from Bilge to Planksheers, worked Carvel with Butt Straps (<u>1 1/16</u> thick), double or single Riveted; with Rivets (<u>3/4</u> in.) diameter, averaging (<u>3 3/4</u> ins.) from centre to centre. Breadth of laps in double Riveting (<u>4 1/4</u>) Breadth of laps in single Riveting (<u>2 1/2</u>)	-	-
Builder's Signature,	-	-	Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted?	-	-
Surveyor's Signature,	-	-	Planksheer, how secured to the plating of the sides, { Explain by Sketch, }	-	-

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Workmanship.

Are the butts of plating planed or otherwise fitted? 95142m

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 _____

No.	Number for equipment	Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	No.	Weight. Ex. Stock.	Test as per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
	SAILS.											
	CABLES, &c.											
	Chain	210	1 3/8	25 1/2 Lond			Bowers	1	12.2.7	14.5.1.20	10.0.0	12 Lond
	Fore Sails, (State Machine where Tested, and name of Superintendent).						Stream	1	12.1.27	14.6.1.0	10.0.0	12 --
	Fore Top Sails, Hempen Stream Cable							1	10.3.26	12.7.2.0	8.2.0	10 9/20 --
	Fore Topmast Stay Sails							1	5.0.14	6.9.0.0	4.3.0	--
	Main Sails, Hawser							1	2.2.0	4.9.0.0	2.1.0	--
	Main Top Sails, Towlines ...							1	1.1.0	3.9.0.0	1.0.0	--
	Warp											
	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 _____
- Date _____ Surveys held _____
- Order for Ordinary Survey No. _____ while building _____
- Date _____ as per _____
- No. _____ in builder's yard. Section 18. _____
- 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 riveting _____
 - 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 or cemented _____
 - 5th. After the ship was launched and equipped _____

General Remarks, with reference to the Secretary's instructions contained in his letter dated 28th ultimo - and the accompanying application from the Owner dated 26th ultimo - relating to the classing this vessel 100 A.I. in lieu of A.I. I have on the opposite side of this report, compared her Scantlings and arrangements, as given on the first entry report and Midship Section herewith returned, with those for a vessel of her dimensions under the present hulls. - There is excess of the present requirements are unfulfilled with red-ink, and those not equal to the hulls with black-ink with a red-ink cross in the margin.

On reference thereto it will be observed that the principal deficiencies in the vessel are, two pairs of double angle iron side stringers, and a hulls-iron between one pair for 35th vessels length; two shakes of plating at Bilge racks off their; and the main Sheerstrake 3/8th inch thick.

The principal scantlings and arrangements in excess of the hulls are the whole of the lower deck beams, stringer-plates on ends, and double angle iron for tie-plates; the Sheerstrake doubling-plate; spar-deck floors, frames, and reverse-frames and the latter also extend from Bilge to lower and upper-deck beams on alternate frames higher than required: - Extra sized deck beams, middle-line and Bilge-keelsons; and upper-deck stringer and tie-plates; and the outside fender not noticed in the original report - which is fitted on shake below Sheerstrake extends for three-fourths length of vessel amidships, and is formed of 1 1/2 x 9th American rock claw fitted between two 4 x 3 7/8 angle irons.

In my opinion, the numerous excesses very much more than counterbalance the deficiencies - and I therefore, respectfully recommend her claims for the 100 A.I. class, to be favorable consideration of the Committee.

In what manner are the surfaces preserved from oxidation? Inside _____ Outside _____

Sketches in good and efficient condition, and, _____

I am of opinion this Vessel should be Classed 100 A.I.

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

Travelling Expenses (if any)£ - : - : - _____

Special£ 2 : 2 : 0 _____

Certificate 0 : 5 : 0 _____

Committee's Minute 10th Nov 1871

Character assigned 100 A.I.

[Handwritten signatures and stamps]

[Blue stamp: I concur in the opinion that this vessel is worthy of the 100 A.I. class. 10/11/71. Lloyd's Register Foundation]