

IRON SHIPS.

No. 2128 Survey held at Belfast

Date, first Survey 1st Nov 83

Last Survey 6th Nov 83 1883

on the Iron S.S. South Western

Master J. J. Kearney

Tonnage under Tonnage Deck 390.49
 Ditto of Spar Deck, or Awning Deck. -
 Ditto of Poop, or 49.00
 Ditto of Houses on Deck 20.89
 Ditto of Forecastle -
 Gross Tonnage 460.38
 Crew Space, as per Rule 26.19
 Register Tonnage, as per Rule -
 Engine Room 174.30
 Register Tonnage, as a Steamer, cut on the Beam 259.89

ONE, OR TWO DECKED VESSELS.
 Half moulded breadth 13.00
 Depth from upper part of Keel to top of Upper Deck Beams 14.58
 Girth of Half Midship Frame 23.75
 1st Number 51.33
 Length 188.9
 2nd Number 96.96
 Depths to Length 12.95
 THREE DECKED VESSELS.
 Half Moulded Breadth -
 Total Depth if three or more Decks -
 Total Girth of Half Midship Frame -
 3rd Number -
 Length -
 4th Number -
 Breadths to Length -

Built at Port Glasgow
 When built 1870 Launched 28th July 1870
 By whom built Black & Gordon
 Owners Robert Henderson and Son
 Port belonging to Bedrossan
 Destined Voyage Belfast to Bedrossan
 If Surveyed while Building, Afloat, or in Dry Dock

Length on deck as per Rule 188 7/10 Feet. Inches. Moulded Breadth 26 Feet. Inches. Depth from top of Keel to Deck Beam, as per Rule 13 Feet. Inches. Power of Engines 120 Horse. Effective 600 N^o. of Decks Two N^o. of Tiers of Beams Two

Dimensions of Ship per Register, length, 195 1/2 breadth, 26 1/2 depth, 12.85

	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	<u>-</u>	<u>-</u>
Do. if centre through plate, depth and thickness	<u>-</u>	<u>-</u>	Plates in Garboard Strakes, breadth and thickness	<u>3 1/4</u>	<u>1 9/16</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>-</u>	<u>8/16</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>-</u>	<u>-</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>-</u>	<u>7/16</u>
Frames, size of Angle Iron, for 1/2 length amidships	<u>3 1/2</u>	<u>3</u>	Do. Sheerstrake, breadth and thickness	<u>30</u>	<u>8/16</u>
Do. for 1/4 at each end	<u>3 1/2</u>	<u>3</u>	Do. of doubling at Sheerstrake, and length applied	<u>23</u>	<u>7/16</u>
Reversed Frames, size of Angle Iron	<u>2 1/2</u>	<u>2 1/4</u>	Butt Straps to outside plating, breadth and thickness	<u>9</u>	<u>10.5.7</u>
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	<u>-</u>	<u>16 1/2</u>	Lengths of Plating	<u>10 ft. 6 ins.</u>	<u>9 ft. 2 ins.</u>
Do. at the ends	<u>-</u>	<u>6 1/2</u>	Shifts of Plating, and Stringers	<u>3 ft. 6 ins.</u>	<u>3 ft. 8 ins.</u>
Do. do. do. at Bilge Keelson	<u>-</u>	<u>7/16</u>	Gunwale Plate on ends of Awning, or Spar Deck Beams, breadth and thickness	<u>-</u>	<u>-</u>
Do. height extended at the Bilges	<u>33</u>	<u>28</u>	Angle Iron on ditto	<u>-</u>	<u>-</u>
Beams, Three Decked, Spar, or Awning Decked (No.) single or double Angle Iron, Plate or Tee Bulb Iron	<u>-</u>	<u>-</u>	Tie Plates (fore and aft), outside Hatchways	<u>-</u>	<u>-</u>
Single or double Angle Iron on Upper edge	<u>-</u>	<u>-</u>	Diagonal Tie Plates on Beams (No. of Pairs,)	<u>-</u>	<u>-</u>
Average space	<u>-</u>	<u>-</u>	Planksheer material and scantling	<u>-</u>	<u>-</u>
Beams, Upper or Middle Deck (No.) single or double Angle Iron, Plate or Tee Bulb Iron	<u>-</u>	<u>6 1/2</u>	Waterways do. do.	<u>-</u>	<u>-</u>
Single or double Angle Iron, on Upper Edge	<u>2 1/2</u>	<u>2 1/2</u>	Flat of Deck do. do.	<u>-</u>	<u>-</u>
Average space	<u>42</u>	<u>44</u>	How fastened to Beams	<u>-</u>	<u>-</u>
Beams, Lower Deck or Orlop (No.) single or double Angle Iron, Plate or Tee Bulb Iron	<u>-</u>	<u>6 1/2</u>	Stringer Plate on ends of Upper or Middle Deck Beams, breadth and thickness	<u>27</u>	<u>10 1/16</u>
Single or double Angle Iron on Upper Edge	<u>2 1/2</u>	<u>2 1/2</u>	Angle Irons on ditto (No.)	<u>4 1/2 x 3</u>	<u>4 x 3</u>
Average space	<u>42</u>	<u>-</u>	Tie Plates, outside Hatchways	<u>10</u>	<u>8 1/16</u>
Keelson Centre line, single or double plate, box, or intercostal, size of Plates	<u>-</u>	<u>16 1/2</u>	Diagonal Tie Plates on Beams (No. of pairs,)	<u>10</u>	<u>8 1/16</u>
Do. Bulb Plate to Intercostal Keelson	<u>5</u>	<u>8</u>	Waterways materials and scantlings	<u>13 x 4 1/2</u>	<u>-</u>
Do. Size of Angle Irons	<u>3</u>	<u>3</u>	Flat of Deck do. do.	<u>3 1/2</u>	<u>3 1/2</u>
Do. Side Intercostal Keelson, size of Plates	<u>3</u>	<u>3</u>	How fastened to Beams	<u>-</u>	<u>-</u>
Do. Angle Irons on tops of Floors	<u>4 1/2</u>	<u>3</u>	Stringer Plates on ends of Lower Deck or Orlop Beams	<u>21</u>	<u>8 1/16</u>
Do. Bilge Keelson, Bulb Iron	<u>4 1/2</u>	<u>3</u>	Angle Irons on ditto (No.)	<u>4 1/2 x 3</u>	<u>4 x 3</u>
Do. do. Angle Irons	<u>4 1/2</u>	<u>3</u>	Stringer or Tie Plates, outside Hatchways	<u>4 1/2 x 3</u>	<u>4 x 3</u>
Do. Side Stringers (No.)	<u>-</u>	<u>-</u>	Flat of Deck	<u>2 1/2</u>	<u>2 1/2</u>
Angle Irons	<u>-</u>	<u>-</u>	Ceiling betwixt Decks, thickness and material	<u>9 x 1 1/2</u>	<u>-</u>
	<u>-</u>	<u>-</u>	Do. in hold do. do.	<u>2 1/2</u>	<u>2 1/2</u>
	<u>-</u>	<u>-</u>	Clamps or Spirketting	<u>-</u>	<u>-</u>
	<u>-</u>	<u>-</u>	Main piece of Rudder, diameter at head	<u>4 3/4</u>	<u>4 1/2</u>
	<u>-</u>	<u>-</u>	Do. do. at heel	<u>3 3/4</u>	<u>2 3/4</u>
	<u>-</u>	<u>-</u>	(Can the Rudder be unshipped afloat?)	<u>Yes</u>	<u>-</u>
	<u>-</u>	<u>-</u>	Bulkheads No. <u>5</u> Thickness of	<u>-</u>	<u>7/16</u>
	<u>-</u>	<u>-</u>	Do. Height up	<u>-</u>	<u>-</u>
	<u>-</u>	<u>-</u>	Do. How secured to the sides of the ship	<u>-</u>	<u>-</u>
	<u>-</u>	<u>-</u>	Do. Size of Vertical Angle Irons	<u>-</u>	<u>-</u>
	<u>-</u>	<u>-</u>	Do. Are the outside Plates doubled two spaces of Frames in length?	<u>Yes</u>	<u>-</u>

Transoms, material Iron or, if none, in what manner compensated for.
 Knight-heads Iron Hawse Timbers Iron
 Windlass Brown and Sharpley's Patent Pall Bitt

The Frames extend in one length from Keel to Gunwale Riveted through plates with (3/4 in.) Rivets, about 6 in. apart.
 The Reverse Angle Irons on the floors extend across the middle line, From Lower Deck Beams to Gunwale alternately
 On all the Frames and to Shells only require reversed frames to extend across middle line to upper part of Bilges on dry frame

Keelsons. Are the various lengths of Plates and Angle Irons properly connected? Yes And are their butts properly shifted? Yes
 Plates, Garboard, double or - Riveted to Keel, double or - at upper edge, with Rivets (1 in. 3/4 in.) diameter, averaging (5 in. 3/4 in.) from centre to centre.
 Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets (3/4 in.) diameter, averaging (5 1/2 in.) from centre to centre.
 Do. Butts from Keel to turn of Bilge, worked carvel with butt straps (7/16 in.) thick, double or single Riveted; with Rivets (3/4 in.) diameter averaging (3 3/4 in.) from centre to centre.
 Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? No
 Do. Edges of Sheerstrake, double or single Riveted. At upper edge Single at Angle Iron At lower edge Double
 Do. Butts from Bilge to Planksheers, worked Carvel with Butt Straps (7/16 in.) thick, double or single Riveted; with Rivets (3/4 in.) diameter, averaging (5 1/2 in.) from centre to centre. Breadth of laps in double Riveting (4 1/4) Breadth of laps in single Riveting (2 1/2)

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double 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? Beam ends turned down No. of Breasthooks, Four Crutches, Four
 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, -

8240-644N021
 180N479-0428

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

N ^o .	Number for equipment	Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N ^o .	Weight. Ex. Stock.	Test as per Certificate.	W't req'd per Rule.	Test req'd per Rule.
	SAILS.											
	CABLES, &c.											
	Chain	210	1 3/8	25 1/2 Lons			Bowers	1	12.2.7	14.8.1.20	10.0.0	12 Lons
	(State Machine where Tested, and name of Superintendent).											
	Fore Sails,											
	Fore Top Sails,											
	Fore Topmast Stay Sails											
	Main Sails,											
	Main Top Sails,											
	and											
	Hawser											
	Towlines											
	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 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,

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 of the 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 rules. There is excess of the present requirements are indicated with red ink, and those not equal to the rules 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 hull. now between one pair for 3rd class vessels length, two shakes of plating at Bilge racks off this, and the main Sheerstrake 3rd class.

The principal scantlings and arrangements in excess of the rules are the whole of the lower deck beams, stringer-plates on ends, and double angle iron for tie-plates; the Sheerstrake, doubling-plate, heavier floors, frames, and reverse-frames, and the latter also extend from Bilge to lower upper-deck beams on alternate frames higher than required:—Extra sized deck beams, middle-line and Bilge-keelsons, and upper-deck stringer-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 and is formed of 10 x 9 American rock elm fitted between two 4 x 3 1/2 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 the 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.

I concur in the opinion that this vessel is worthy of the 100 A. I. class.

10/11/71. Lloyd's Register Foundation