

# IRON SHIPS.

Rec 14/12/71

No. 3413 Survey held at Glasgow Date, First Survey 2<sup>nd</sup> Feby Last Survey 6<sup>th</sup> Decr 1871

On the S. S. Glenroy Master H. W. Auld

Tonnage under Tonnage Deck	2085.43	ONE, OR TWO DECKED, SPAR, OR AWNING-DECKED VESSELS.	THREE DECKED VESSELS.	Built at <u>Glasgow</u>
Ditto of Third Spar, or Awning Deck.	—	Half moulded breadth ...	17.0	When built <u>1871</u> Launched <u>14<sup>th</sup> Oct 1871</u>
Ditto of Poop, or Raised Qr. Dk.	—	Depth from upper part of Keel to top of Upper Deck Beams ...	19.5	By whom built <u>London &amp; Glasgow Engineering &amp; Shipbuilding Co.</u>
Ditto of Houses on Deck ...	36.50	Girth of Half Midship Frame (as per Rule) ...	31.2	Owners <u>A. C. Gow &amp; Co.</u>
Ditto of Forecastle	—	1st Number ...	67.7	Port belonging to <u>Glasgow</u>
Gross Tonnage	2121.93	Length ...	328.5	Destined Voyage <u>Glasgow to China</u>
Crew Space, as per Rule	72.74	2nd Number ...	22,239	and <u>Surveyed while Building, Afloat, or in Dry Dock</u>
Register Tonnage, as a Steamer, cut on Beam	1370.17	4th Number ...	26,838	
Engine Room	679.02	Depths to Length. 13.4 & 18.7		
Register Tonnage, as a Steamer, cut on Beam	1370.17	Breadths to Length ...	9.6	

Length on deck as per Rule,	Feet. 328	Inches. 6	Moulded Breadth,	Feet. 34	Inches.	Depths from top of Floors to Upper and Main Deck Beams, as per Rule.	Feet. 24	Inches. 6	Power of Engines,	Horse. 250	No. of Decks with flat laid	2
Dimensions of Ship per Register, length, <u>331.2</u> breadth, <u>34.4</u> depth, <u>24.45</u>												

	Inches in Ship.		Inches required per Rule.			Inches in Ship.		Inches required per Rule.	
	Inches.	16ths.	Inches.	16ths.		Inches.	16ths.	Inches.	16ths.
Keel, if bar iron, depth and thickness	11	23/4	11	23/4	Flat Keel Plates, breadth and thickness	—	—	—	—
Do. if centre through plate, depth and thickness	—	—	—	—	Plates in Garboard Strakes, breadth and thickness	38	12/16	36	12/16
Stem, if bar iron, moulding and thickness	10	23/4	10	23/4	Do. from Garboard to upper part of Bilges	—	—	—	—
Stern-post for Rudder do.	—	—	—	—	Do. of doubling at Bilge, or increased thickness, and length applied	Three strakes	13/16 for 1/2 length	Three strakes	13/16 for 1/2 length
Stern-post for Propeller	10	5 1/2	10	5 1/2	Do. from up. part of Bilge to lr. edge of Sh'rstrake	—	—	—	—
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	—	24	—	Do. Main Sheerstrake, breadth and thickness	38	13/16	36	13/16
Frames, size of Angle Iron, for 2/3 length amidships	4	3 7/16	4	3 7/16	Do. of d'bling at Sh'rstrake, & length applied	—	—	—	—
Do. for 1/3 at each end	4	3 7/16	4	3 7/16	Do. from Mn. to Upr. or Spar Dk. Sh'rstrake.	—	—	—	—
Reversed Frames, size of Angle Iron	3	3 7/16	3	3 7/16	Do. Up. or Spar Dk Sh'rstrake, brdth & thickns	36	12/16	36	12/16
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	24	10/16	24	10/16	Butt Straps to outside plating, breadth & thickness	16 1/2	10 1/2 x 4 1/2	15	8 1/2
Do. at the ends	—	9/16	—	9/16	Lengths of Plating	12 feet	—	12 feet	—
Do. do. do. at Bilge Keelson	10 1/2	9/16	10 1/2	9/16	Shifts of Plating, and Stringers	6 feet	—	6 feet	—
Do. height extended at the Bilges	Twice depth	8/16	Twice depth	8/16	Gunwale Plate on ends of <u>Awning, Spar, or</u>	82	10/16	82	10/16
Beams, Upper, Spar, or Awning Deck (No. — )	6 1/2	6/16	6 1/2	6/16	Upper Deck Beams, breadth and thickness	—	—	—	—
single or double Angle Iron, Plate or Tee Bulb Iron	—	—	—	—	Angle Iron on ditto	3 1/2 x 3 1/2	7/16	3 1/2 x 3 1/2	7/16
Single or double Angle Iron on Upper edge	2 1/2	2 1/2	5/16	2 1/2	Tie Plates (fore and aft), outside Hatchways	27	8/16	27	8/16
Average space	48	—	48	—	Diagonal Tie Plates on Beams (No. of Pairs, )	None	—	None	—
Beams, Main or Middle Deck (No. — )	8 1/2	8/16	8 1/2	8/16	Planksheer material and scantling	—	—	—	—
single or double Angle Iron, Plate or Tee Bulb Iron	—	—	—	—	Waterways do. do.	Waterways of Deck	—	—	—
Single or double Angle Iron, on Upper Edge	3	3	6/16	3	Flat of Upper Deck do. do.	4	—	4	—
Average space	48	—	48	—	How fastened to Beams	Nut & Screw Bolts	—	—	—
Beams, Lower Deck, Hold or Orlop (No. — )	8 1/2	8/16	8 1/2	8/16	Stringer Plate on ends of Main or Middle Deck	65	10/16	65	10/16
single or double Ang. Iron, Plate or Tee Bulb Iron	—	—	—	—	Beams, breadth and thickness	—	—	—	—
Single or double Angle Iron on Upper Edge	3	3	6/16	3	(Is the Stringer Plate attached to the outside plating?)	Yes	—	Yes	—
Average space	48	—	48	—	Angle Irons on ditto (No. 2 )	4 x 4 x 9/16	—	4 x 4 x 9/16	—
Keelson Centre line, single or double plate, box, or intercostal, size of Plates	18 1/4	14/16	18	14/16	Tie Plates, outside Hatchways	22	10/16	22	10/16
Do. Bulb Plate to Intercostal Keelson	—	—	—	—	Diagonal Tie Plates on Beams (No. of pairs, )	None	—	None	—
Do. Size of Angle Irons	6 1/2	4 9/16	6 1/2	4 9/16	Waterways materials and scantlings	4 gutter	—	4 gutter	—
Do. Side Intercostal Keelson, size of Plates	9 1/2	10/16	9 1/2	10/16	Flat of Middle Deck do. do.	Iron	—	Iron	—
Do. Angle Irons on tops of Floors	6	4 9/16	6	4 9/16	How fastened to Beams	Nut & Screw Bolts	—	Nut & Screw Bolts	—
Do. Bilge Keelson, Bulb Iron	8 1/2	9/16	8 1/2	9/16	Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	39	9/16	38	9/16
Do. do. Intercostal plates riveted to plating for length	—	—	—	—	(Is the Stringer Plate attached to the outside plating?)	Yes	—	Yes	—
Do. do. Angle Irons	6	4 9/16	6	4 9/16	Angle Irons on ditto (No. 2 )	4 x 4 x 9/16	—	4 x 4 x 9/16	—
Side Stringers (No. 1 ) size of Angle Irons	6	4 9/16	6	4 9/16	Stringer or Tie Plates, outside Hatchways	4 x 4 x 9/16	—	4 x 4 x 9/16	—
Do. Intercostal plates riveted to plating for 3/4 length.	10 x 9/16 attached to stem for 3/4 length	10/16 attached to stem for 3/4 length	10 x 9/16 attached to stem for 3/4 length	10/16 attached to stem for 3/4 length	Flat of Lower Deck	—	—	—	—
Transoms, material <u>Iron</u> or, if none, in what manner compensated for.	—	—	—	—	Ceiling betwixt Decks, thickness and material	Sparring	—	Sparring	—
Knight-heads <u>Iron</u> Hawse Timbers <u>Iron</u>	—	—	—	—	Do. in hold do. American do. Iron	2 1/2	—	2 1/2	—
Windlass <u>Patent</u> Pall Bitt <u>Iron</u>	—	—	—	—	Main piece of Rudder, diameter at head	7 1/4	—	7 1/4	—
The Frames extend in one length from <u>Middle line</u> to <u>Upper Deck</u>	—	—	—	—	Do. do. at heel	3 3/4	—	3 3/4	—
The Reverse Angle Irons on the floors and frames extend from the middle line to <u>Main</u> and to <u>Upper Deck</u> alternately	—	—	—	—	(Can the Rudder be unshipped afloat?)	Yes	—	Yes	—
Keelsons. Are the various lengths of Plates and Angle Irons properly connected? <u>Yes</u> And are their butts properly shifted? <u>Yes</u>	—	—	—	—	Bulkheads No. <u>6</u> Thickness of <u>7/16</u> & <u>6/16</u>	—	—	—	—
Plates, Garboard, double <u>or</u> Riveted to Keel, double <u>or</u> at upper edge, with Rivets ( <u>7/8</u> in.) diameter, averaging ( <u>3 1/2</u> ins.) from centre to centre.	—	—	—	—	Do. Height up <u>To deck</u>	—	—	—	—
Do. Edges from Garboards to upper part of Bilge, worked Clencher, double <u>or</u> Riveted; with Rivets ( <u>7/8</u> in.) diameter, averaging ( <u>3 5/8</u> ins.) from centre to centre.	—	—	—	—	Do. How secured to the sides of the ship <u>Riveted to Frame</u>	—	—	—	—
Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes ( <u>1/16</u> thick, double <u>or</u> Riveted; with Rivets ( <u>7/8</u> in.) diameter averaging ( <u>3 7/8</u> ins.) from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? <u>No</u>	—	—	—	—	Do. Size of Vertical Angle Irons, <u>3 x 3 x 7/16</u> and their distance apart, <u>30</u> ins	—	—	—	—
Do. of <u>3</u> Strakes at Bilge for <u>1/2</u> length, treble riveted with Butt Straps <u>1/16</u> thicker than their plates.	—	—	—	—	Do. Are the outside Plates doubled two spaces of Frames in length? <u>Yes</u>	—	—	—	—
Do. Edges from bilge to Main Sheerstrake, worked <u>carvel</u> ( <u>1/16</u> thick, double <u>or</u> Riveted; with rivets ( <u>7/8</u> in.) diameter, averaging ( <u>3 5/8</u> ins.) from centre to centre.	—	—	—	—		—	—	—	—
Do. Edges of Sheerstrake, Main, double or single Riveted. Upper, double or single Riveted. At upper edge <u>Single</u> At lower edge <u>Double</u>	—	—	—	—		—	—	—	—
Do. Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps ( <u>1/16</u> thick, double <u>or</u> Riveted; with Rivets ( <u>7/8</u> in.) diameter, averaging ( <u>3 5/8</u> ins.) from centre to centre.	—	—	—	—		—	—	—	—
Do. Butts of Main Sheerstrake, double <u>or</u> Riveted. Butts of Upper <u>or</u> Sheerstrake, and Upper Deck Stringer Plate, double <u>or</u> treble Riveted for <u>1/2</u> length amidships. Breadth of laps of plating in double Riveting ( <u>6</u> times) Breadth of laps of plating in single Riveting ( <u>3 1/2</u> times)	—	—	—	—		—	—	—	—
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? <u>Treble and Double</u>	—	—	—	—		—	—	—	—
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? <u>Riveted to Frames</u> No. of Breasthooks, <u>5</u> Crutches, <u>5</u>	—	—	—	—		—	—	—	—
What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? <u>B. Boiler</u>	—	—	—	—		—	—	—	—
Manufacturer's name <u>Conssett and Blochearn</u>	—	—	—	—		—	—	—	—

Signature of the several particulars therein given.

Surveyor's Signature, Sam. Laphroon

IRON 450-0074

9625 *Planed*

**Workmanship.** Are the butts of plating planed or otherwise fitted? Planed  
 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  
 Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses? Single Pieces  
 Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes and are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? Yes  
 Are there any rivets which either break into or have been put through the seams or butts of the plating? A few

Her Masts, Bowsprit, Yards, &c., are in Good 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~~ Masts of Iron, Rigged as a Three Masted Schooner  
Topmasts of Pitch Pine

Tested at Newcastle by R. Burrell 30<sup>th</sup> June 1871 Tested at Newcastle by R. Burrell 7<sup>th</sup> July 1871

No.	SAILS.	CABLES, &c.	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.	Weight req'd per Rule.	Test req'd per Rule.
	Number for equipment	26838											
	Fore Sails,	Chain .....	300	1 3/4	55.2.0	1 3/4	55 1/10	Bowers ...	9690	30.1.11	28.18.0.14	30	28 7/10
	Fore Top Sails,	(State Machine where Tested, and name of Superintendent).	90	1 1/8		1 1/8		(State Machine where Tested, and name of Superintendent).	9691	30.0.0	28.12.2.0	30	28 7/10
	Fore Topmast Stay Sails	Hempen Stream Cable	180	11		11		Stream ....		12.1.0		12	
	Main Sails,	Hawser .....	90	7		7		Kedges ....		6.0.16		6	
	Main Top Sails,	Towlines ....								2.3.16		3	
		Warp .....											
		All of <u>Good</u> quality.											

Her Standing and Running Rigging Wool & Hemp sufficient in size and Good in quality. She has Six ~~Yong~~ Boats and two fitted as Life Boats

The present state of the Windlass is Good Capstan Good and Rudder Good Pumps Good & Efficient

Engine Room Skylights.—How constructed? Plank & Angle Iron with How secured in ordinary weather? By Bars

What arrangements are there for deadlights in such for bad weather? Thick Glass & Wire Guards

Coal Bunker Openings.—How constructed? Iron Castings How are lids secured? By Slot How high above deck? Flush

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? Flush Deck

Cargo Hatchways.—How formed? Plank and Angle iron State size 12 x 10 Fore — 16 x 10 after

If of extraordinary size, state how framed and secured? One shifting Beam to Fore & After Hatches, Two shifting Beams to Main Hatch properly secured

Hatches, themselves, whether strong and efficient? Yes. Main Hatchways.—State size 20 x 10

Order for Special Survey No. 455 DATES of  
 Date June 31/71 Surveys held  
 Order for Ordinary Survey No. ✓ while building  
 Date ✓ as per  
 No. 155 in builder's yard. Section 18.

- 1st. On the several parts of the frame, when in place, and before the plating was wrought Built under Special Survey from 2<sup>nd</sup> February to 6<sup>th</sup> December 1871
- 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,**  
 This vessel is a sister ship to the Rydal Hall Glasgow Report No 3380 built in accordance with approved midship section appended to that Report and Rules for 1870 with a view to the 100 A Class excepting that the main deck of this vessel is of Iron

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

In what manner are the surfaces preserved from oxidation? Inside Cement and Paint Outside Red Lead & Paint

I am of opinion this Vessel should be Classed \*100 A. 1. Three Decked

The amount of the Entry Fee .....£ 5 : : : is received by me,

Dec-1871 Special .....£ 2/8 : :  
 Certificate .... Plates

(Travelling Expenses)  
 (if any) £ ✓

Committee's Minute 15 December 1871

Character assigned 100 A. 1. A. O. C. P.

*Saml. Laphors*  
 I concur in the opinion that this vessel is eligible to be Classed 100 A. 1. Three Decked