

IRON SHIP

No. 3600 Survey held at Glasgow
on the S.S. Glenlyon

Date, first Survey 11th Sept. 1872

Last Survey 6th Decr 1872

Master Auld

Tonnage under Tonnage Deck 2083.17

Ditto of Spar Deck, or Awning Deck —

Ditto of Poop, or Raised Qr. Dk. —

Ditto of Houses on Deck 34.97

Ditto of Forecastle —

Gross Tonnage 2118.14

Crew Space, as per Rule 67.32

Net Tonnage, for Fees 2083.17

Engine Room 677.80

Register Tonnage, as a 1373.02

ONE, OR TWO DECKED VESSELS

Half moulded breadth 17.0

Depth from upper part of Keel to top of Upper Deck Beams 19.5

Girth of Half Midship Frame 31.2

1st Number 67.7

Length 328.5

2nd Number 22239

Depths to Length 13.4 x 18.7

THREE DECKED VESSELS.

Half Moulded Breadth 17.0

Total Depth of three or more Decks 26.5

Total Girth of Half Midship Frame 38.2

3rd Number 81.7

Length 328.5

4th Number 26838

Breadths to Length 9.6

Built at Glasgow

When built 1871-72 Launched 19th Oct 1872

By whom built London & Glasgow

Owners A. C. Gow & Co.

Port belonging to Glasgow

Destined Voyage Glasgow to China

Surveyed while Building, Afloat, or in Dry Dock

Length on deck as per Rule 328 Feet. 6 Inches. Moulded Breadth 34 Feet. — Inches. Depth from top of Keel to Upper Deck Beam, as per Rule 24 Feet. 6 Inches. Power of Engines 275 Horse. No. of Decks 2 No. of Tiers of Beams 3

Dimensions of Ship per Register, length 329.0 breadth 34.3 depth 24.8

	Inches in Ship.	Inches required per Rule.
Keel, if bar iron, depth and thickness	11 x 2 3/4	11 x 2 3/4
Do. if centre through plate, depth and thickness	10 x 2 3/4	10 x 2 3/4
Stem, if bar iron, moulding and thickness	10 x 5 1/2	10 x 5 1/2
Stern-post do. do. do.	24	24
Distance of Frames from moulding edge to moulding edge, all fore and aft	100	100
Frames, size of Angle Iron, for 1/2 length amidships	4 x 3	4 x 3
Do. for 1/2 at each end	4 x 3	4 x 3
Reversed Frames, size of Angle Iron	3 x 3	3 x 3
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	24 x 10	24 x 10
Do. at the ends	9-8	9-8
Do. do. do. at Bilge Keelson	10-9-8	10-9-8
Do. height extended at the Bilges	Twice	Twice
Beams, Three Decked, Spar, or Awning Deck (No.) single or double Angle Iron, Plate or Tee Bulb Iron	6 1/2 x 6	6 1/2 x 6
Single or double Angle Iron on Upper edge	2 1/2 x 5	2 1/2 x 5
Average space	48	48
Beams, Upper or Middle Deck (No.) single or double Angle Iron, Plate or Tee Bulb Iron	8 1/2 x 8	8 1/2 x 8
Single or double Angle Iron on Upper Edge	3 x 6	3 x 6
Average space	48	48
Beams, Lower Deck or Orlop (No.) single or double Angle Iron, Plate or Tee Bulb Iron	8 1/2 x 8	8 1/2 x 8
Single or double Angle Iron on Upper Edge	3 x 6	3 x 6
Average space	2-4	2-4
Keelson Centre line, single or double plate, or Intercoastal, size of Plates	18 1/4 x 1 1/2	18 x 1 1/2
Do. Plate to Intercoastal Keelson	9 x 1 1/2	9 x 1 1/2
Do. Size of Angle Irons	6 1/2 x 4	6 1/2 x 4
Do. Side Intercoastal Keelson, size of Plates	10 1/2	10 1/2
Do. Angle Irons on tops of Floors	6 x 4	6 x 4
Do. Bilge Keelson, Bulb Iron	8 1/2 x 8	8 1/2 x 8
Do. do. Angle Irons	6 x 4	6 x 4
Do. Side Stringers (No. 1) size of Angle Irons	6 x 4	6 x 4

Transoms, material Iron or, if none, in what manner compensated for.

Knight-heads Iron Hawse Timbers Iron

Windlass Patent Pall Bitt Iron

The Frames extend in one length from Middle line to Upper Deck

The Reverse Angle Irons on the floors extend across the middle line to Main and to Upper Deck

On all the Frames and

Keelsons. Are the various lengths of Plates and Angle Irons properly connected? Yes

Plates, Garboard, double 4 Riveted to Keel, double 4 at upper edge, with Rivets (7/8 in.) diameter, averaging (3 1/2 ins.) from centre to centre.

Do. Edges from Garboards to upper part of Bilge, worked Clencher, double 4 Riveted; with Rivets (7/8 in.) diameter, averaging (3 1/2 ins.) from centre to centre.

Do. Butts from Keel to turn of Bilge, worked carvel with butt straps (1 1/2 in.) thick, treble, double 4 Riveted; with Rivets (7/8 in.) diameter averaging (3 1/2 ins.) from centre to centre.

Do. Edges of Sheerstrake, double 4 Riveted. At upper edge Single At lower edge Double

Do. Butts from Bilge to Planksheers, worked Carvel with Butt Straps (1 1/4 in.) thick, double 4 Riveted; with Rivets (7/8 in.) diameter, averaging (3 1/2 ins.) from centre to centre.

Do. Butts of Upper Sheerstrake and Upper Bulk Stringer Plate double and treble riveted for 1/2 length amidships from centre to centre. Breadth of laps in double Riveting (6 times) Breadth of laps in single Riveting (3 1/2 times)

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Treble and Double

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? Riveted to Frames

What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? B. Boiler

Manufacturer's name or trade mark, Consett & Blochairn

We certify that the above is a correct description of the several particulars therein given.

Builder's Signature, Signal for the Company Surveyor's Signature, Saml. Lanthorn

	Inches in Ship.	16ths in Ship.	Inches required per Rule.	16ths required per Rule.
Flat Keel Plates, breadth and thickness	38	12	36	12
Plates in Garboard Strakes, breadth and thickness	38	11	36	11
Do. from Garboard to upper part of Bilges	38	11	36	11
Do. of doubling at Bilge, or increased thickness, and length applied	38	11	36	11
Do. from upper part of Bilge to lower edge of Sheerstrake	38	11	36	11
Do. Sheerstrake, breadth and thickness	38	13	36	13
Do. of doubling at Sheerstrake, and length applied	38	13	36	13
Upper deck Sheerstrake	38	13	36	13
Butt Straps to outside plating, breadth and thickness	38	13	36	13
Lengths of Plating	12 feet	12 feet	12 feet	12 feet
Shifts of Plating, and Stringers	6 feet	6 feet	6 feet	6 feet
Gunwale Plate on ends of Upper Deck	82	10	82	10
Deck Beams, breadth and thickness	3 1/2 x 7	3 1/2 x 7	3 1/2 x 7	3 1/2 x 7
Angle Iron on ditto	2 1/2 x 8	2 1/2 x 8	2 1/2 x 8	2 1/2 x 8
Tie Plates (fore and aft), outside Hatchways	2 1/2 x 8	2 1/2 x 8	2 1/2 x 8	2 1/2 x 8
Diagonal Tie Plates on Beams (No. of Pairs,)	2 1/2 x 8	2 1/2 x 8	2 1/2 x 8	2 1/2 x 8
Planksheer material and scantling	13 1/2	13 1/2	13 1/2	13 1/2
Waterways do. do.	13 1/2	13 1/2	13 1/2	13 1/2
Flat of Deck do. do.	13 1/2	13 1/2	13 1/2	13 1/2
How fastened to Beams	13 1/2	13 1/2	13 1/2	13 1/2
Stringer Plate on ends of Upper or Middle Deck	65	10	65	10
Beams, breadth and thickness	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9
Angle Irons on ditto (No. 2)	22	10	22	10
Tie Plates, outside Hatchways	22	10	22	10
Diagonal Tie Plates on Beams (No. of pairs,)	22	10	22	10
Waterways materials and scantlings	22	10	22	10
Flat of Deck do. do.	22	10	22	10
How fastened to Beams	22	10	22	10
Stringer Plates on ends of Lower Deck or Orlop	39	9	38	9
Beams attached to outside plating	39	9	38	9
Angle Irons on ditto (No. 2)	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9
Stringer or Tie Plates, outside Hatchways	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9
Flat of Deck	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9
Ceiling between Decks, thickness and material	2 1/2	2 1/2	2 1/2	2 1/2
Do. in hold do. do.	2 1/2	2 1/2	2 1/2	2 1/2
Clamps or Spirketting	2 1/2	2 1/2	2 1/2	2 1/2
Main piece of Rudder, diameter at head	7 1/4	7 1/4	7 1/4	7 1/4
Do. do. at heel	3 3/4	3 3/4	3 3/4	3 3/4
(Can the Rudder be unshipped afloat?)	Yes	Yes	Yes	Yes
Bulkheads No. 6 Thickness of <u>7 1/2</u>	7 1/2	7 1/2	7 1/2	7 1/2
Do. Height up <u>To Deck</u>	To Deck	To Deck	To Deck	To Deck
Do. How secured to the sides of the ship	Between double frames	Between double frames	Between double frames	Between double frames
Do. Size of Vertical Angle Irons, <u>3 x 3 x 7</u> and their distance apart, <u>30 in</u>	3 x 3 x 7	30 in	3 x 3 x 7	30 in
Do. Are the outside Plates doubled two spaces of Frames in length? <u>Yes</u>	Yes	Yes	Yes	Yes

IRON 452-0517

Workmanship. Are the butts of plates or otherwise fitted? Yes
Do the edges of the carvel work and of the plating lay close together throughout their length without requiring any making good of deficiencies? Yes
Do the fillings between the ribs and plates solid with single pieces? or are they in short lengths of various thicknesses? Solid 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 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 Plate Pine
10862

Tested at Newcastle by Ross, Burnell
25th June 1872

Tested at Newcastle by Ross, Burnell
22nd July 1872

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'ght req'd per Rule.	Test req'd per Rule.
N ^o .	SAILS.	CABLES, &c.										
	Fore Sails,	Chain	300	13/4	55.2.0	13/4	Bowers	1	31.0.13	29.9.1.14	30	28 6/10
	Fore Top Sails,	(State Machine where Tested, and name of Superintendent).						1	30.2.27	29.3.3.4	30	28 6/10
	Fore Topmast Stay Sails	Hempen-Stream	90	1 1/8		1 1/8	(State Machine where Tested, and name of Superintendent).	1	25.2.0	25.3.3.4	25 1/2	25 4/10
	Main Sails,	Iron Cable	180	11		11	Stream	1	12.0.127	12.6.2.7	12	
	Main Top Sails,	Hawser	90	7		7		1	6.2.0	7.11.3.14	6	
	and Spare	Towlines					Kedges	1	2.3.20	5.0.0.0	3	
		Warp										
		All of good quality.										

Her Standing and Running Rigging Wire & Hemp sufficient in size and good in quality. She has Two Life Boats and Four others.

The present state of the Windlass is good. Capstan good and Rudder good. Pumps good and efficient.

Engine Room Skylights.—How constructed? Plate & Angle Iron How secured in ordinary weather? By Bolts

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

Coal Bunker Openings.—How constructed? Iron castings How are lids secured? By Stots 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? Plate and Angle Iron State size 12' x 10' and 16' x 10'

If of extraordinary size, state how framed and secured? One shifting Beam to Fore and after Hatch

What arrangement for shifting beams? and 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. 791 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought Built under
Date 11th Sept 1871 Surveys held 2nd. On the plating during the progress of riveting Special Survey from 11th Sept 1871
Order for Ordinary Survey No. — while building 3rd. When the beams were in and fastened, and before the decks were laid to 6th Decr 1872
Date — as per 4th. When the ship was complete, and before the plating was finally coated or cemented
No. 163 in builder's yard. Section 18. 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 1870-71, with a view to the 100 A Class, except that the Main Deck of this vessel is of Iron and nearly the whole of the Upper Deck is Plated with Iron under the Wood Deck. The Butts of Topside Plating are also Triple riveted for 2/3rd length amidships with Butt straps 1/6 thicker than the plates they connect, the upper chinestrake and topside plating are also increased 1/6 in thickness.

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

I am of opinion this Vessel should be Classed ÷ 100 A 1 - Three decks

The amount of the Entry Fee£ 5 : 0 : 0 is received by me,

Travelling Expenses (if any)£ — : — : —

Special£ 77 : 1 : 6

Certificate Grated

Committee's Minute 14th Decr 1872

Character assigned 100 A 1

Saml. Laphorn

This vessel appears to be double bottomed as recommended by Lloyd's Register Rules 70-71

