

IRON SHIPS.

No. 1187 Survey held at Glasgow Date, first Survey 24th Jan Last Survey 10th August 1870
on the Steamer "Atholl" (Three decked) Master Butcher
Tonnage under Tonnage Deck 1391 91 ONE, OR TWO DECKED THREE DECKED VESSELS.
Built at Glasgow
When built 1870 Launched 30th June
By whom built A. Stephen & Sons
Owners Warrack
Port belonging to Leith
Destined Voyage Glasgow Calcutta
If Surveyed while Building, Afloat, or in Dry Dock White building and afloat

Gross Tonnage 1394.56 Half moulded breadth 16.03 Total length of three or more Decks 25.87
Net Space, as per Rule 54.59 Depth from upper part of Keel to top of Deck Beams 10.87 Total Girth of Half Mid-ship Frame 38.16
Engine Room 263.71 1st Number 66.16 3rd Number 80.16 Length 243.67
Register Tonnage, as a Steamer, cut on the Beam 1076.26 2nd Number 16.196 4th Number 192.00 Breadths to Length 7.6
Depths to Length 14.3

Dimensions of Ship per Register, length 244.7 breadth 32.3 depth 24.4
Keel, if bar iron, depth and thickness 9 x 3 Inches in Ship, Inches required per Rule, 16ths required per Rule, for 100
Do. if centre through plate, depth and thickness 9 x 3 1/2
Stem, if bar iron, moulding and thickness 4 1/2 x 3
Stern-post do. do. do. 10 x 5 1/2
Distance of Frames from moulding edge to moulding edge, all fore and aft 21
Frames, size of Angle Iron, for 1/2 length amidships 4 1/2 x 3
Do. for 1/2 at each end 4 1/2 x 3
Reversed Frames, size of Angle Iron 3 x 3
Floors, depth and thickness of Floor Plate at mid line for half the length amidships 23 1/2
Do. at the ends 30
Do. do. do. at Bilge Keelson 12
Do. height extended at the Bilges 46
Beams, Three Decked, Spar, or Awaiting Decked (No. 1) single or double Angle Iron, Plate or Tee Bulb Iron 6
Do. double Angle Iron on Upper edge 2 1/2 x 3 1/2
Average space 42
Do. Upper or Middle Deck (No. 1) single or double Angle Iron, Plate or Tee Bulb Iron 8
Average space 42
Beams, Lower Deck or Orlop (No. 1) single or double Angle Iron, Plate or Tee Bulb Iron 8
Single or double Angle Iron on Upper Edge 3 x 3
Average space 20 1/2
Keelson Centre line, single or double plate, box, or Intercoastal, size of Plates 27
Do. Bulb Plate to Intercoastal Keelson 8
Do. Size of Angle Irons 5 1/2 x 4 1/2
Do. Side Intercoastal Keelson, size of Plates 22 1/2
Do. Angle Irons on tops of Floors 5 1/2 x 4 1/2
Do. Bilge Keelson, Bulb Iron for half length 8
Do. do. Angle Irons 5 1/2 x 4 1/2
Do. Side Stringers (No. one pair) size of Angle Irons 5 1/2 x 4 1/2
Transoms, material Iron plate or, if none, in what manner compensated for.
Knight-heads Iron plate Hawse Timbers Iron & Wood chocks
Windlass Iron, Patent Pall Bitt None
Frames extend in one length from Keel to Upper deck stringer Riveted through plates with (3/4 in.) Rivets, about 6 apart.
Reverse Angle Irons on the floors extend across the middle line From flat on alternate sides to above main deck stringer
On all the Frames and to Upper deck stringer on alternate beams
Keelsons. Are the various lengths of Plates and Angle Irons properly connected? They are And are their butts properly shifted? They are
Plates, Garboard, double or single Riveted to Keel, double or single at upper edge, with Rivets (1 1/4 in.) diameter, averaging (5 1/4 ins.) 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 (3 1/4 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 or single Riveted; with Rivets (1 1/2 in.) diameter averaging (3 1/2 ins.) from centre to centre.
Do. Edges of Sheerstrake, double or single Riveted. At upper edge Main double riveted At lower edge Main double riveted
Do. Butts from Bilge to Planksheers, worked Carvel with Butt Straps (1 1/2 in.) thick, double or single Riveted; with Rivets (3/4 in.) diameter, averaging (3 1/4 ins.) from centre to centre. Breadth of laps in double Riveting (5 in.) Breadth of laps in single Riveting (2 1/2 in.)
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Butts of Upper Deck stringer and Sheerstrake and of Main deck stringer treble riveted for half length the two former have butt straps to thicker than the plates they connect - the rest double riveted
Planksheer, how secured to the plating of the sides, Explain by Sketch, Main deck stringer treble riveted for half length the two former have butt straps to thicker than the plates they connect - the rest double riveted
Waterway Seal section if necessary
Beams of the various Decks, how secured to the sides? Angled bracket knees No. of Breasthooks, 5 Crutches, 3
What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Mosson & Bates' plates
Manufacturer's name or trade mark, Mosson & Bates

We certify that the above is a correct description of the several particulars therein given.
Surveyor's Signature, A. Stephen & Sons

IRON 446-0438

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? *They do*
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? *They do* and are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *They are*
Are there any rivets which either break into or have been put through the seams or butts of the plating? *A few at the butts*

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. *8194 Lin*

State also Length and Diameter of Lower Masts and Bowsprit

Fore Mast 83 1/2 feet in length 24 ins diam. 76 plates 2 in the section.

Main " 77 1/2 " " " " " "

Edges double, and Butts treble riveted without angle irons. Pressed Sea

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 per 1
SAILS.												
N ^o .	CABLES, &c.											
100	Fore Sails, Chain No. 4256	300	1 3/4	44 tons	1 3/4	44	Bowers	4517	24.1.57	24.4.	23 1/2	23 1/2
101	Fore Top Sails, (State Machine where Tested, and name of Superintendent)	PT. Co. T. (Orders links submitted to 256 Cent. where Tested, and name of Superintendent)						4518	23.3.10	23.16.27		
102	Fore Topmast Stay Sails, Hammer Stream Cable	60	1 1/2		10-1		Stream	4516	20.2.9	21.5.3.21	19.3.28	20 1/2
103	Main Sails, Hawser	90	9		10-10				10.0.1		10-	
104	Main Top Sails, Towlines	90	3 1/2		10-6				5.0.18		5-	
105	Warp	90	4 1/4				Kedges		2.1.26		2 1/2	
and	All of good quality.											

Her Standing and Running Rigging is *Good* sufficient in size and *Good* quality. She has *2* Long Boat and *Three* Others

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

Engine Room Skylights.—How constructed? *Trunked from main deck up to the height of the main ship deck houses*

What arrangements are there for deadlights in such for bad weather? *Small ports and ventilators*

Coal Bunker Openings.—How constructed? *Flush in deck* How are lids secured? *by cross bars* 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?

No bulwarks beyond sea stations and rails fast

Cargo Hatchways.—How formed? *Iron comings* State size *17 x 8 and 13 x 8*

If of extraordinary size, state how framed and secured? *2 thrusting beams and 2 fore and aft in each*

What arrangement for shifting beams? *in the shore hatches at each deck*

Hatches, themselves, whether strong and efficient? *Yes* Main Hatchways.—State size *17 feet x 8 feet*

Order for Special Survey No. <i>660</i>	DATES of	1st.	On the several parts of the frame, when in place, and before the plating was wrought	<i>Built under</i>
Date <i>14th Dec/70</i>	surveys held	2nd.	On the plating during the progress of riveting	<i>Special survey between</i>
Order for Ordinary Survey No. <i>660</i>	while building	3rd.	When the beams were in and fastened, and before the decks were laid	<i>24th January</i>
Date <i>14th Dec/70</i>	as per	4th.	When the ship was complete, and before the plating was finally coated or cemented	<i>and</i>
No. <i>145</i> in builder's yard.	Section 18.	5th.	After the ship was launched and equipped	<i>44th May 1870</i>

General Remarks, This vessel has been built to accord with the requirements as approved by the Committee in the Secretary's letter dated 11th December 1869 for the *B* class, with the alterations further required in order to obtain the *Q5 A* grade, in accordance with the letter dated 12th March 1870 viz. the treble riveting of the butts of three strakes of Bridge plating, upper deck sheer-strakes and stringer plates, and their butt straps increased one sixteenth of an inch. In half the vessels length amidships, all plating below the keelson deck double riveted in its edges. Purling beams added where required. The compensations for the imperfect connection of the old beam stringers and the reversed angle irons on the frames in the range of the water-tall tank, have also been given, as required in the Secretary's letter dated 1st June 1870, the engine room openings are trunked up with iron from the main deck to above the upper deck where they are included in the deck house amidships.

The further requirements of the Committee, in order to entitle her to the *Q5 A* class, as per letter dated 17th May 1870, were not entered into. It will be seen that the hausers vary in size from the rule but are *up* in number. In what manner are the surfaces preserved from oxidation? Inside *Alumina Cement* Outside *Paint and other coating*

I am of opinion this Vessel should be Classed *Q5 A* and 10 pint

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

Travelling Expenses (if any)£ : : :

Aug. *M/S* Special£ 69.12. :
Certificate *Printed*

Committee's Minute *23rd August 1870*

Character assigned *Q5 A 1*

A + 01

Under the circumstances stated above her day is entered in the favorable list for the class.

