

# IRON SHIP.

Survey held at Glasgow Date, First Survey 12 Feb 1882 Last Survey 28 May 1883

Ship Screw Steamer "Pathan" (Two masts, schooner rig)

Master J. Rowley

Built at Whiteinch Glasgow

When built 1883 Launched 9th March

By whom built Messrs. Aitken & Mansel

Owners Gallagher, Hankey, Barrett & Co.

Residence London

Port belonging to Glasgow

Destined Voyage Australia

If Surveyed while Building, Afloat, or in Dry Dock. While building & afloat.

ONE OR TWO DECKED, THREE DECKED VESSEL, SPAN, OR AWNING-DECKED VESSEL.

Half Breadth (moulded) 18.85 Feet.

Depth from upper part of Keel to top of Upper Deck Beams 28.25

Girth of Half Midship Frame (as per Rule) 42.05

1st Number, if a 3-Decked Vessel .. deduct 7 feet 7.0

Length 82.15

2nd Number 27.766

Proportions— Breadths to Length .. 8.9

Depths to Length— Upper Deck to Keel .. 11.9

Main Deck ditto .. 15.9

Net Tonnage 2708.72

Gross Tonnage 2628.82

Engine Room 866.72

Register Tonnage 1762.10

DEPTH top of Floors to Upper Deck Beams	26	Inches. 2	Power of Engines	350	Horse.	No. of Decks with flat laid	2
Do. do. Main Deck Beams	19	Inches. 3				No. of Tiers of Beams	3

Dimensions of Ship per Register, length, 340.0 breadth, 38.15 depth, 26.3

	Inches in Ship.	Inches per Rule.						
KEEL, depth and thickness	9 1/2 x 3 1/2	9 1/2 x 3 1/2	9 1/2 x 3 1/2	9 1/2 x 3 1/2	9 1/2 x 3 1/2	9 1/2 x 3 1/2	9 1/2 x 3 1/2	9 1/2 x 3 1/2
KEEL, moulding and thickness	9 1/2 x 3 1/2	9 1/2 x 3 1/2	9 1/2 x 3 1/2	9 1/2 x 3 1/2	9 1/2 x 3 1/2	9 1/2 x 3 1/2	9 1/2 x 3 1/2	9 1/2 x 3 1/2
POST for Rudder do. do.	10 1/2 x 6	10 1/2 x 6	10 1/2 x 6	10 1/2 x 6	10 1/2 x 6	10 1/2 x 6	10 1/2 x 6	10 1/2 x 6
POST for Propeller	10 1/2 x 6	10 1/2 x 6	10 1/2 x 6	10 1/2 x 6	10 1/2 x 6	10 1/2 x 6	10 1/2 x 6	10 1/2 x 6
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24	24	24	24	24	24	24
FRAMES, Angle Iron, for length amidships	5	3 1/2	8	5	3 1/2	8	5	3 1/2
FRAMES, Angle Iron, for 1/2 at each end	5	3 1/2	7	5	3 1/2	7	5	3 1/2
REVERSED FRAMES, Angle Iron	3 1/2	3 1/2	8	3 1/2	3 1/2	8	3 1/2	3 1/2
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	24 1/2	10	24 1/2	10	24 1/2	10	24 1/2	10
thickness at the ends of vessel	8	8	8	8	8	8	8	8
depth at 1/2 the half-bdth. as per Rule	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2
light extended at the Bilges	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2
SPARS, Upper, Spar, on Upper Deck	8	8	8	8	8	8	8	8
SPARS, Angle Iron, Plate or Tee Bulb Iron	3	3	6	3	3	6	3	3
SPARS, or double Angle Iron on Upper edge	4	4	9	4	4	9	4	4
Average space	48	48	48	48	48	48	48	48
BEAMS, Main, or Middle Deck	6	3	9	6	3	9	6	3
BEAMS, Lower Deck	10	10	10	10	10	10	10	10
BEAMS, Hold, or Orlop	4	4	9	4	4	9	4	4
Average space	16 feet	16 feet						
KEELSONS Centre line, single or double plate, box, or intercostal, Plates	26 1/2	14	26 1/2	14	26 1/2	14	26 1/2	14
Rider Plate	14	14	14	14	14	14	14	14
Bulk Plates to intercostal Keelson	14	8	14	8	14	8	14	8
Angle Irons	6 1/2	4	9	6 1/2	4	9	6 1/2	4
Double Angle Iron Side Keelson	6 1/2	4	9	6 1/2	4	9	6 1/2	4
Side Intercostal Plate	11	11	11	11	11	11	11	11
Attached to outside plating with angle iron	3 1/2	3 1/2	8	3 1/2	3 1/2	8	3 1/2	3 1/2
BILGE Angle Irons	6 1/2	4	9	6 1/2	4	9	6 1/2	4
do. Bulb Iron	11	8	11	8	11	8	11	8
do. Intercostal plates riveted to plating for 3/5 length	9	9	9	9	9	9	9	9
LOWER STRINGER Angle Irons	6 1/2	4	9	6 1/2	4	9	6 1/2	4
Intercostal plates riveted to plating for 3/5 length	9	9	9	9	9	9	9	9
UPPER STRINGER Angle Irons	6 1/2	4	9	6 1/2	4	9	6 1/2	4

FRAMES extend in one length from keel to gunwale Riveted through plates with 7/8 in. Rivets, about 7 apart.

REVERSED ANGLE IRONS on floors and frames extend from middle line to upper deck and to middle deck alternately.

KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? yes And butts properly shifted? yes

PLATING. Garboard, double riveted to Keel, with rivets 1 1/8 in. diameter, averaging 5 1/2 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 7/8 in. diameter, averaging 3 3/4 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 1/2 ins. from centre to centre.

Butts of all Strakes at Bilge for half length, treble riveted with Butt Straps 1/16 in. thicker than the plates they connect.

Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 7/8 in. diameter, averaging 3 3/4 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from cr. to cr.

Edges of Main Sheerstrake, double or single riveted. (1 rivet) Upper Sheerstrake, double or single riveted.

Butts of Main Sheerstrake, treble riveted for 1/2 length amidships. (1 rivet) Butts of Upper or Spar Sheerstrake, treble riveted 1/2 length amidships.

Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for half length.

Breadth of laps of plating in double riveting 6 x 5. Breadth of laps of plating in single riveting —

Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted — No. of Breasthooks, 5 Crutches, deep floors

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

Manufacturer's name or trade mark, Frames, Goswend; Floors, Consett; Plates, Sherrin; Beams, Darman; Long 16

The above is a correct description.

Builder's Signature, Aitken & Mansel Surveyor's Signature, C. Stanbury

State clearly where plating is of alternate thicknesses, as being thinned from diminished thickness at ends of vessel.

\* If Iron Deck, state if whole or part, and if wood deck is laid thereon.

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**Workmanship.** Are the butts of plating planed or otherwise fitted? *Planed 6128 lbs*  
 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*  
 Are the fillings between the ribs and plates solid single pieces? *Yes*  
 Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *Yes*  
 Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *Yes*  
 Do any rivets break into or through the seams or butts of the plating? *A few*

Masts, Bowsprit, Yards, &c., are *in good* condition, and sufficient in size and length. If 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 *This vessel is to have a light auxiliary rig, (schooner). The masts are of iron manufactured by Consett and tested in accordance with the Rules. The scantlings and details are as shown on the accompanying sketch.*

NUMBER for EQUIPMENT	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Inches per Rule, as appd. June 1882.	Machine where Tested & Suprntd.	ANCHORS.		N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested & Suprntd.
								Bower Anchors	Stream Anchor					
	Chain	150-24	1 1/2	9 1/2 x 6 1/2	200-1 1/2	No. 9330		1	36.3.21	33 3/4	36 1/2	No. 13350		
	Fore Sails,	149-44	1 1/2	9 1/2 x 6 1/2		9339		2	36.1.9	33.7.0.21	36 1/2	No. 13352		
	Fore Top Sails,	300-4				June 1882		3	30.3.20	29.7.2.0	31	No. 13351		
	Fore Topmast Stay Sails,	90	1 3/8	3 1/2 x 2 1/2	90-1 3/8	10857		4	11.1.16	13.7.2.0	11 1/2	No. 13353		
	Main Sails,	100 fms 1/4" Steel wire		100 fms 1/4" Steel wire				5	6.0.6	8.7.2.0	5 1/2	No. 13348		
	Main Top Sails,	90 fms 3/8" Steel wire		90 fms 3/8" Steel wire				6	2.1.20	5.0.0.0	2 3/4	No. 13349		
	and	Warp	90 fms 8 1/2											

Standing and Running Rigging *galvanized wire* sufficient in size and *good* in quality. She has *2* Long Boats and *4* others.  
 The Windlass is *Hanfield's patent* Capstan *—* and Rudder *good* Pumps *good*  
 Engine Room Skylights.—How constructed? *Teak hood on iron plate* How secured in ordinary weather? *glass and brass rods*  
 What arrangements for deadlights in bad weather? *tar paulins*  
 Coal Bunker Openings.—How constructed? *Round iron hoops* How are lids secured? *self locking* Height above deck? *4" and one ft*  
 Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *3 wash ports, 8 scuppers, 4 mousing pipes on each side, and part open bulwarks.*  
 Cargo Hatchways.—How formed? *iron plate coverings*  
 State size Main Hatch *20' x 12'* Forehatch *12' x 8'* Quarterhatch *16' x 12" and 12' x 8"*  
 If of extraordinary size, state how framed and secured *A deep web plate beam in the main hatch, and a built plate shipping beam in the after hatch.*  
 What arrangement for shifting beams?  
 Hatches, If strong and efficient? *Solid, 3" pine.*

Order for Special Survey No.	Date	Order for Ordinary Survey No.	Date	No. in builder's yard.	DATES of Surveys held while building as per Section 18.
1704	13 <sup>th</sup> Decr 1881			118	1st. On the several parts of the frame, when in place, and before the plating was wrought } 1882, Feb. 1, 10, 15, 21, 24; Mar. 1, 9, 14, 22, 30; April 14, 10, 17, 21, 25, 28, May 3, 10, 16, 19, 30; June 5, 12, 20, 22, 29; July 4, 5, 12, 27; Aug. 3, 8, 11, 21; Sept. 5, 15, 19, 22, 28; Oct. 2, 3, 10, 17, 24, 31; Nov. 3, 13, 17, 21, 24, 28; Dec. 6, 13, 20, 28; 1883 Jan. 11, 17, 25, 29; Feb. 6, 9, 13, 16, 20, 26; Mar. 7, 9, 15, 20, 27; April 14, 11, 18, 25; May 2, 12, 18, 21, 22, 24, 28 1/2

**General Remarks** (State quality of workmanship, &c.)  
*This vessel is built in accordance with the approved sketches (1, No. 1) herewith, and in conformity with the rules. The workmanship and materials throughout are good. She is fitted with a topgallant forecastle 42 ft long, a midship deck house 40 ft long (and 44 ft not decked in) besides having a short poop 37 ft long. The upper deck is plated for more than half the length amidships and the middle deck beams are plated all fore and aft. The fore and after peaks have been tested by being filled with water.  
 In reference to this vessel please see Secretaries' letters dated 16<sup>th</sup> Novr, 21<sup>st</sup> Novr, 25<sup>th</sup> Novr, 1881; 13<sup>th</sup> Jan, 9<sup>th</sup> Novr, 1882; and 1<sup>st</sup> Mar, 1883.*

State if one, two, or three decked vessel, or if span, or curving decked; and the lengths of poop, bridge, forecastle, or raised quarter deck. (If double bottom, state particulars on separate form.)  
 How are the surfaces preserved from oxidation? Inside *Cement & paint* Outside *paint*  
 I am of opinion this Vessel should be Classed *100 A. 1. Two decks, three tiers of beams, one iron dk, & pl. iron*  
 The amount of the Entry Fee ... £ *5: 0: 0* is received by me, *G. Stanbury*  
 Special ... £ *90: 14: 6* 30/5/ 1883  
 Certificate ... *Gratis*  
 (Travelling Expenses, if any, £ .....)  
 Committee's Minute *FRIDAY 1 JUNE 1883 18*  
 Character assigned *100 A 1 2 Dks, 1 Iron & 1 pl iron*

Reference should be made to any correspondence connected with the case.

