

IRON SHIP.

No. 691 Survey held at Port Glasgow Date, First Survey 6th May 1875 Last Survey 19th July 1876
On the screw steamer "Strathleven"

Master Charles Pearson

TONNAGE under Tonnage Deck 1538.77

Ditto of Third, Spar, Awning Deck 710.55

Ditto of Poop, Lower or H. 112.

Ditto of House, Deck 16.19

Ditto of Forecastle 30.04

Gross Tonnage 2435.55

Less Cross Space 67.75

2367.80

Less Engine Room 719.38

Register Tonnage 1580.42 as cut on Beam

Official Number 43811

ONE, OR TWO DECKED, THREE DECKED VESSEL.

SPAR, OR AWNING DECKED VESSEL.

HALF BREADTH (moulded) 17.07

DEPTH from upper part of Keel to top of Upper Deck Beams 20.25

GIRTH of Half Midship Frame (as per Rule) 41.75

1st NUMBER 17.07

1st NUMBER, if a THREE-DECKED VESSEL [deduct 7 feet] 80.87

LENGTH 318.95

2nd NUMBER 25.73.6

PROPORTIONS—Breadths to Length 8.90

Depths to Length—Upper Deck to Keel 11.26

Main Deck ditto 15.52

Built at Port Glasgow

When built 1875 Launched 30th April 1875

By whom built Blackwood & Gordon

Owners William Burnell

Port belonging to Glasgow

Destined Voyage India via Liverpool

If Surveyed while Building, Afloat, or in Dry Dock

LENGTH	feet.	inches.	BREADTH	feet.	inches.	DEPTH	top of Floors to Upper	feet.	inches.	Power of	Horse.	N. of Decks with flat laid	Type	
on deck as per Rule	310.25 <th></th> <th>Moulded</th> <td>35</td> <td>74</td> <th>Deck Beams</th> <td>26</td> <td>21</td> <td>Engines</td> <td>220</td> <th>N. of Tiers of Beams</th> <th>Three</th>		Moulded	35	74	Deck Beams	26	21	Engines	220	N. of Tiers of Beams	Three		
Dimensions of Ship per Register, length 320.9 breadth, 36 depth, 26.15														
KEEL, depth and thickness	10	2 3/4	Inches in Ship	10	2 3/4	Inches per Rule	10	2 3/4	1874	Flat Keel Plates, breadth and thickness	41	12	36 12	
STEM, moulding and thickness	10	2 3/4	Do. do. Main Deck Beams	10	2 3/4	Do. do. 1874	PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges	—	—	—	—	—	11	
STERN-POST for Rudder do. do. for Propeller	11 x 5		10 x 5 1/2	10 x 5 1/2		of doubling at Bilge, or increased thickness, and length applied	—	—	—	—	—	—	—	
Distance of Frames from moulding edge to moulding edge, all fore and aft	24		24	24		from up. part of Bilge to lr. edge of Sh'rstrake	—	—	—	—	—	—	—	
FRAMES, Angle Iron, for $\frac{1}{2}$ length amidships	3	3 1/2	(Class 100A)	5	3 1/2	Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied	42	14	40	14	—	—	—	
Do. for $\frac{1}{2}$ at each end	5	3 1/2	10 x 2 3/4	5	3 1/2	from Mn. to Upr. or Spar Dk. Sh'rstrake	—	—	—	—	—	—	—	
EVERSED FRAMES, Angle Iron	3 1/2	3 1/2	10 x 2 3/4	3 1/2	3 1/2	Up. or Spar Dk Sh'rstrake, brth & thickns	—	—	—	—	—	—	—	
LOORS, depth and thickness of Floor Plate at mid line for half length amidships	24	—	10	11 1/2	10	Butt Straps to outside plating, breadth & thickness	11 1/2	11 1/2	11 1/2	11 1/2	11 1/2	11 1/2	11 1/2	
thickness at the ends of vessel	—	—	—	—	—	Lengths of Plating	6 ft 10 in	6 ft 10 in	6 ft 10 in	5 Splices	5 Splices	5 Splices	5 Splices	
depth at $\frac{1}{2}$ the half-bdth. as per Rule	12 1/2	—	12 1/2	12 1/2	—	Shifts of Plating, and Stringers	—	—	—	—	—	—	—	
height extended at the Bilges	50	—	49	49	—	Gunwale Plate on ends of <u>Awning, Spar, or</u>	52	9	48	9	—	—	—	
EAMS, Upper, Spar, or Awning Deck	7	—	7	7	—	Upper Deck Beams, breadth and thickness	—	—	—	—	—	—	—	
single or dble Ang. Iron, Plate or Tee Bulk Iron	3	3	6	3	3	Angle Iron on ditto	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	
single or double Angle Iron on Upper edge	3	3	6	3	3	Tie Plates fore and aft, outside Hatchways	16	9	16	9	9	9	9	
Average space	40	—	40	—	—	Diagonal Tie Plates on Beams No. of Pairs, 3	18	9	16	9	9	9	9	
EAMS, Main, or Middle Deck	6	3	8	6	3	Planksheer material and scantling	Iron Gutter	—	—	—	—	—	—	—
single or double Ang. Iron, Plate or Tee Bulk Iron	6	3	8	6	3	Waterways do. do.	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	
single, or double Angle Iron, on Upper Edge	6	4	8	8	3 1/2	Flat of Upper Deck do. do.	Teak	—	—	—	—	—	—	—
Average space	24	—	24	—	—	How fastened to Beams	—	—	—	—	—	—	—	
EAMS, Lower Deck, Hold, or Orlop	8 1/2	—	8	8 1/2	—	Stringer Plate on ends of Main or Middle Deck	—	—	—	—	—	—	—	
single or dble Ang. Iron, Plate or Tee Bulk Iron	8 1/2	—	8	8 1/2	—	Beams, breadth and thickness	46	10	48	10	—	—	—	
single or double Angle Iron on Upper Edge	8 1/2	—	8	8 1/2	—	Is the Stringer Plate attached to the outside plating?	Yes	—	—	—	—	—	—	
Average space	41	—	40	—	—	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	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	
EELSONS Centre line, single or double plate, box, or Intercostal, Plates	24	—	13	2 3/4	—	Diagonal Tie Plates on Beams, No. of pairs	3	—	—	—	—	—	—	
Rider Plate	12 1/2	—	13	2 3/4	—	Waterways materials and scantlings	—	—	—	—	—	—	—	
Bulk Plate to Intercostal Keelson	6	4	8	6	—	Flat of Middle Deck do. do.	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	
Angle Irons	6	4	8	6	—	How fastened to Beams	—	—	—	—	—	—	—	
Double Angle Iron Side Keelson	6	4	9	6	4	Stringer Plates on ends of Lower Deck, Hold or	—	—	—	—	—	—	—	
Side Intercostal Plate	24	—	—	—	—	Orlop Beams	41	9	41	9	41	9	9	
do. Angle Irons	6	4	9	6	4	Is the Stringer Plate attached to the outside plating?	Yes	—	—	—	—	—	—	
Attached to outside plating with angle iron	3 1/2	3 1/2	8 1/2	8 1/2	8 1/2	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	4 x 4 x 9	4 x 4 x 9	4 x 4 x 9	
BILGE Angle Irons	8 1/2	—	8	8	—	Stringer or Tie Plates, outside Hatchways	16	10	16	10	16	10	10	
do. Bulk Iron	8 1/2	—	8	8	—	Flat of Lower Deck	—	—	—	—	—	—	—	
do. Intercostal plates riveted to plating for $\frac{3}{5}$ length	21	—	9	—	—	Ceiling betwixt Decks, thickness and material	2 ft 6 in	2 ft 6 in	2 ft 6 in	2 ft 6 in	2 ft 6 in	2 ft 6 in	2 ft 6 in	
BILGE STRINGER Angle Irons	6	4	9	6	4	in hold	do. do.	—	—	—	—	—	—	
Intercostal plates riveted to plating for $\frac{3}{5}$ length	12	—	9	—	—	Main piece of Rudder, diameter at head	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	
IDE STRINGER Angle Irons	—	—	—	—	—	do. at heel	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2	
ransoms, material. Knight-heads. Hawse Timbers.	—	—	—	—	—	Can the Rudder be unshipped afloat?	Yes	—	—	—	—	—	—	
Windlass	—	—	—	—	—	Bulkheads No. 6 Thickness of 1 1/2 in	—	—	—	—	—	—	—	
Pall Bitt	—	—	—	—	—	Height up to Middle Deck, one to upper deck	—	—	—	—	—	—	—	
						How secured to sides of ship	Double frames	—	—	—	—	—	—	—
						Size of Vertical Angle Irons $3\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$ and distance apart 20	—	—	—	—	—	—	—	
						Are the outside Plates doubled two spaces of Frames in length? Yes	—	—	—	—	—	—	—	

The FRAMES extend in one length from Keel to Gunwale Riveted through plates with $\frac{1}{2}$ in. Rivets, about $\frac{7}{16}$ apart.

The REVERSED ANGLE IRONS on floors and frames extend from middle line to above Middle Deck Stringer and to Gunwale alternately

KEELONS. 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 $\frac{1}{2}$ in. diameter, averaging $5\frac{1}{2}$ ins. from centre to centre.

Workmanship. Are the butts of plating planed or otherwise fitted? *Planed*

Do the edges of the carvel work and of the butts fay 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 *Iron* 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 *Fore Main Mast, 81 ft dia 2 5/8 in. Mizen Mast 67 ft dia 19"*
Fore & Main Mast 3 plates 6 1/8 to 5 1/2" Edges double riveted butts lapped, with butt straps, butts overlapped and tabled.
Mizen Mast 2 plates 5 1/8 to 4 1/2" than plates & plates doubled in way of weagry.
Lower Yards, 71 ft dia 16" in two plates edges double riveted, butts overlapped and tabled.
riiveted plates, doubled in way of flings
30.330

NUMBER for EQUIPMENT		athens.	Inches.	Test per Certificate	Length & Size req'd pr Rule	Test req'd per Rule	ANCHORS.	N.	Weight Ex Stock	Test per Certificate	Weight req'd per Rule	Test req'd per Rule	No. of revolutions per minute
SAILS.	CABLES, &c.	Chain	150' 18 1/2	Im 1m 300 ft 1m 675 ft 1m 10 1/2	675 ft 10 1/2	13 1/4 ft	Bowers	1/13	37.0.6	33.15.5.0	36.2.0	33.8	
Fore Sails,		Chain	150' 18 1/2	675 ft 10 1/2	10 1/2	14 1/4 ft		1/21	36.2.10	33.11.3.0	31.0.3	19 2/0	
Fore Top Sails,		Netting	Wetherton Piering House 154 ft 10 ft long 10 1/2	10 1/2	10 1/2	14 1/4 ft		1/22	31.0.0	29.7.2.0	19 2/0		
Fore Topmast		Netting	Wetherton Piering House 154 ft 10 ft long 10 1/2	10 1/2	10 1/2	14 1/4 ft		1/23	31.0.0	29.7.2.0	19 2/0		
Stay Sails		Netting	Wetherton Piering House 154 ft 10 ft long 10 1/2	10 1/2	10 1/2	14 1/4 ft		1/24	31.0.0	29.7.2.0	19 2/0		
Main Sails,		Netting	Wetherton Piering House 154 ft 10 ft long 10 1/2	10 1/2	10 1/2	14 1/4 ft		1/25	31.0.0	29.7.2.0	19 2/0		
Main Top Sails,		Netting	Wetherton Piering House 154 ft 10 ft long 10 1/2	10 1/2	10 1/2	14 1/4 ft		1/26	31.0.0	29.7.2.0	19 2/0		
and	quality	quality	quality	quality	quality	quality	Stream	1	14.1.7	14.0.0	13.0.0		
							Kedges	1	6.3.6	6.0.0	5.2.0		
									3.2.25				

Standing and Running Rigging *Wire Hemp* sufficient in size and *good* in quality. She has two *Linen Boat*s and *14 others*

The Windlass *Wm Caldwells* Capstan *Iron* and Rudder *Efficient* Pumps one in each compartment

Engine Room Skylights. How constructed? *Iron* Comings 30 above Deck How secured in ordinary weather? *Wooden shutters with Ball*

What arrangements for deadlights in bad weather?

Coal Bunker Openings. How constructed *Cast Iron* How are lids secured? *Self locking* Height above deck? *6 inches*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Pated Scuppers*

Cargo Hatchways.—How formed? *Iron* *Carrings*

State size **Main Hatch** *20' 0" x 14' 0"* Fore hatch *14' 0" x 12' 0"* Quarter hatch *12' 0" x 12' 0"*

If of extraordinary size, state how framed and secured? *Iron deck from Hatch to stronger Plate*

What arrangement for shifting beams? *Two deep bitt plates in Main Hatch tone in fore hatch*

Hatches, If strong and efficient? *Yes*

Order for Special Survey No *743* *10th March 1875* *18* *Days of Surveys held while building as per Section 18.*

1st. On the several parts of the frame, when in place, and before the plating was wrought April 6, 12, 22, May 6, 10, 21, June 8, 11, 17, 22, 25, 29, July 12, 18, 27, 30 Augt 3, 10, 17, 20, 26 Sept 1, 7, 13, 23, 28 Oct 4, 11, 15, 16, 26 Nov 2, 14, 5, 16, 22, 25, 30 Dec 3, 9, 23, 28 1876 Jan 7, 10, 19, 21, 25, 28, 29, 31 Feb 4, 7, 14, 17, 19

Order for Ordinary Survey No *✓*

Date *✓*

No. *13-14* in builder's yard.

General Remarks (State quality of workmanship, &c.) *The Midship and longitudinal sections of the vessel which are here with appended were submitted and approved by the Committee in letter dated 26th May 1875; the web frames in Engine & boiler spaces referred to in said letter have been fitted as required; part Iron deck is fitted on the upper deck beams extending from the corner of Hatchways and Engine spaces to the stronger plates; the Middle deck beams are supported by an intercostal Bulkhead $8\frac{1}{2} \times 8\frac{1}{2}$ between two angle Irons $3\frac{1}{2} \times 3\frac{1}{2} \times 8\frac{1}{2}$ at the middle line all fore & aft; Middle Deck is Iron; The workmanship and materials of this vessel are of good quality.*

Appended is a certificate & letter as to the test of Steel Works houses as required by the Committee in letter dated 10th Jan 1876.

The objectionable plates at the bilge which the Committee noted on their recent visit to this district have been replaced with others of good quality.

State if one, two, or three, decked vessel, or if spar, or sprung decked; and the lengths of poop, forecastle, or raised quarter deck, and the length of double, or port double, etc.

*How are the surfaces preserved from oxidation? Inside *Pitted Cement to open big tanks* Outside *Red lead & Sheet & Paint* - composition on both sides.*

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

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

Special ... £ 84. 3 : 0 21 Feb 1876

Certificate ... 0. 0 : 0

(Travelling Expenses, if any, £ 5. 3 : 6)

Committee's Minute 25th February 1876

*Character assigned *100 A.1.**

LR FAP 3A9-3

100 A.1. 100 A.1. 100 A.1. 100 A.1.

100 A.1. 100 A.1. 100 A.1. 100 A.1.</