

# IRON SHIP.

No. 4381 Survey held at Port Glasgow Date, First Survey 9<sup>th</sup> June 1877 Last Survey 8<sup>th</sup> July 1878

On the Barque Cadrow Forest Master John Pollock

TONNAGE under Tonnage Deck } 995.48 ONE, OR TWO DECKED, THREE DECKED VESSEL.  
SPAR, OR AWNING-DECKED VESSEL.

Bitto of Third, Spar, or Awning Deck } 69.96 HALF BREADTH (moulded) . . . . . 16.95  
Ditto of Poop, or Raised C. Dk. } 19.42 DEPTH from upper part of Keel to top of Upper Deck Beams 23.45  
Ditto of Houses on Deck } 31.05 GIRTH of Half Midship Frame (as per Rule) . . . . . 3.5

of Forecastle } 1115.91 1st NUMBER . . . . . 7  
Tonnage } 40.13 1st NUMBER, if a THREE-DECKED VESSEL [deduct 7 feet] . . . . . —  
Open Space } 1067.70 2nd NUMBER . . . . . 15.442

Less Engine Room } — PROPORTIONS—Breathths to Length . . . . . 6.01  
Register Tonnage } — Depths to Length—Upper Deck to Keel . . . . . —  
as cut on Beam } — Main Deck ditto . . . . . 8.69

Built at Port Glasgow

When built 1877:70 Launched 23<sup>rd</sup> Jan 1878

By whom built Russell & Co

Owners John Pollock & Sons  
Cardenside Valley, Waddington

Port belonging to Glasgow

Destined Voyage Melbourne

Surveyed while Building, Afloat, or in Dry Dock.

Official Number

LENGTH on deck as per Rule 204 Breadth Moulded 33.9 DEPTH top of Floors to Upper Deck Beams 21.2 Power of Engines — No. of Decks with flat laid Two  
Do. do. Main Deck Beams — Do. do. Tiers of Beams Two

Dimensions of Ship per Register, length 207.7 breadth, 34 depth, 21.05

	Inches in Ship.			Inches per Rule.		
	Inches.	Inches.	16ths.	Inches.	Inches.	16ths.
	In Ship.	In Ship.	In Ship.	per Rule.	per Rule.	per Rule.
KEEL, depth and thickness	0	2	3	8	2	3
STEM, moulding and thickness	1	2	3	4	2	3
STERN-POST for Rudder do. do.	1	2	3	4	2	3
for Propeller	1	2	3	4	2	3
Distance of Frames from moulding edge to moulding edge, all fore and aft	23	—	—	33	—	—
FRAMES, Angle Iron, for 3/4 length amidships	5	3	0	5	3	0
Do. for 1/4 at each end	5	3	0	5	3	0
REVERSED FRAMES, Angle Iron	3	3	0	3	3	0
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	2	—	—	23	—	—
thickness at the ends of vessel	—	—	—	—	—	—
depth at 3/4 the half-bdth. as per Rule	13	—	—	11	—	—
height extended at the Bilges	5	—	—	4	—	—
BEAMS, Upper, Spar, or Awning Deck Single or double Angle Iron, Plate or Tee Bulb Iron	—	—	—	—	—	—
Single or double Angle Iron on Upper edge	—	—	—	—	—	—
Average space	—	—	—	—	—	—
BEAMS, Main, or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron	0	—	—	0	—	—
Single or double Angle Iron, on Upper Edge	3	3	6	3	3	6
Average space	46	—	—	46	—	—
BEAMS, Lower Deck, Hold, or Orlop Single or double Angle Iron, Plate or Tee Bulb Iron	0	—	—	0	—	—
Single or double Angle Iron on Upper Edge	3	3	6	3	3	6
Average space	46	—	—	46	—	—
KEELSONS Centre line, single or double plate, box, or Intercostal, Plates	15	—	—	15	—	—
Rider Plate	11	—	—	10	—	—
Bulb Plate to Intercostal Keelson	—	—	—	—	—	—
Angle Irons	5	3	0	5	3	0
Double Angle Iron Side Keelson	5	3	0	5	3	0
Side Intercostal Plate (Wash)	—	—	—	—	—	—
do. Angle Irons	—	—	—	—	—	—
Attached to outside plating with angle iron	—	—	—	—	—	—
BILGE Angle Irons	5	3	0	5	3	0
do. Bulb Iron	—	—	—	—	—	—
do. Intercostal plates riveted to plating for length	—	—	—	—	—	—
BILGE STRINGER Angle Irons	5	3	0	5	3	0
Intercostal plates riveted to plating for length	—	—	—	—	—	—
SIDE STRINGER Angle Irons	—	—	—	—	—	—

	Inches.	16ths.	Inches.	16ths.
	In Ship.	In Ship.	per Rule.	per Rule.
Flat Keel Plates, breadth and thickness	—	—	—	—
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied	34	11	34	11
fm up. part of Bilge to lr. edge of Sh'rstrake	—	—	—	—
Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake.	36	11	36	11
Up. or Spar Dk Sh'rstrake, brdth & thickness	—	—	—	—
Butt Straps to outside plating, breadth & thickness	1 1/2	10	1 1/2	10
Lengths of Plating	6	—	—	—
Shifts of Plating, and Stringers	2	—	—	—
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	—	—	—	—
Angle Iron on ditto	—	—	—	—
Tie Plates fore and aft, outside Hatchways	—	—	—	—
Diagonal Tie Plates on Beams No. of Pairs,	—	—	—	—
Planksheer material and scantling	—	—	—	—
Waterways do. do.	—	—	—	—
Flat of Upper Deck do. do.	—	—	—	—
How fastened to Beams	—	—	—	—
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	42	9	42	9
Is the Stringer Plate attached to the outside plating?	Yes	—	—	—
Angle Irons on ditto, No. <u>me</u>	5	3	5	3
Tie Plates, outside Hatchways	12	9	12	9
Diagonal Tie Plates on Beams, No. of pairs	—	—	—	—
Waterways materials and scantlings	Gutter	—	3 1/2	—
Flat of Middle Deck do. do.	—	—	—	—
How fastened to Beams	4	—	—	—
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	30	0	30	0
Is the Stringer Plate attached to the outside plating?	Yes	—	—	—
Angle Irons on ditto, No. <u>2</u>	3	3	3	3
Stringer or Tie Plates, outside Hatchways	12	9	12	9
Flat of Lower Deck do. do.	—	—	—	—
Ceiling betwixt Decks, thickness and material in hold do. do.	2 1/2	—	2 1/2	—
Main piece of Rudder, diameter at head do. at heel	5 1/2	—	3	—
Can the Rudder be unshipped afloat?	Yes	—	—	—
Bulkheads No. <u>1</u> Thickness of <u>1/4</u>	—	—	—	—
Height up <u>Main Deck</u>	—	—	—	—
How secured to sides of ship <u>Double Frames</u>	—	—	—	—
Size of Vertical Angle Irons <u>3x3x7/16</u> and distance apart <u>30</u> ins.	—	—	—	—
Are the outside Plates doubled two spaces of Frames in length?	Yes	—	—	—

Transoms, material. Knight-heads. Hawse Timbers. Iron  
Windlass Iron Patent Pall Bitt —

The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 3/4 in. Rivets, about 6 apart.

The REVERSED ANGLE IRONS on floors and frames extend from middle line to Main Deck on every frame and to 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 1/2 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 3/4 in. diameter, averaging 3 1/2 ins. from centre to centre.  
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 1/2 ins. from centre to centre.  
Butts of three Strakes at Bilge for half length, treble riveted with Butt Straps 1/16 thicker than the plates they connect.  
Edges from bilge to Main Sheerstrake, worked clencher, double single riveted; with rivets 3/4 in. diameter, averaging 3 1/2 ins. from cr. to cr.  
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 1/2 ins. from cr. to cr.  
Edges of Main Sheerstrake, double single riveted. Upper Sheerstrake, double or single riveted.  
Butts of Main Sheerstrake, treble riveted for half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted — length amidships.  
Butts of Main Stringer Plate, treble riveted for half length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for — length.  
Breadth of laps of plating in double riveting 3 1/2 Breadth of laps of plating in single riveting —

Butt Straps of Keelsons, Stringer and Tie Plates, treble double Riveted? —

Waterway, how secured to Beams Iron gutter (Explain by Sketch, if necessary.)  
Beams of the various Decks, how secured to the sides Beam ends turned down No. of Breasthooks, 4 Crutches, 4

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

Manufacturer's name or trade mark Angle Iron Mossend. Plates Carruth

The above is a correct description.  
Builder's Signature, Russell & Co Surveyor's Signature, H. H. Wood

IRON 476-0114

**Workmanship.** Are the butts of plating planed or otherwise fitted? *Planned* 20170 Iron  
 Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making g  
 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? *Very good*

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 Mast 76ft dia 2 1/2" Main 77ft dia 2 1/2" Mizzen 76ft dia 2 1/2" Bowsprit 76ft dia 2 1/2"*  
*Fore, Main Mast & Bowsprit plates 6 1/2" 20ft dia 2 1/2" all in three plates, edges single riveted, but straps outside*  
*Mizzen Mast 5 1/2" 1/6" thicker and double & treble riveted, with 3 angle Irons in each*  
*15.500* all throughout 4x3x 1/6" depth in Mizzen Mast which are 3x3x 1/6"

N <sup>o</sup> .	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.		N <sup>o</sup> .	Weight Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
								Bowers	Stream					
	Fore Sails,	134.2	3 1/2	59	18 1/2	3 1/2	55	570	12	19.9	1.10	30.0	28 1/2	
	Fore Top Sails,	135 1/2	3 1/2	59	18 1/2	3 1/2	55	570	12	19.9	1.10	30.0	28 1/2	
	Fore Topmast Stay Sails,	90	15	15	16	15	16	15	16	15	16	15	16	
	Main Sails,	90	15	15	16	15	16	15	16	15	16	15	16	
	Main Top Sails,	90	15	15	16	15	16	15	16	15	16	15	16	
	and	90	15	15	16	15	16	15	16	15	16	15	16	

Standing and Running Rigging *Wool Hempen* sufficient in size and *good* in quality. She has *two* Long Boats and *3* others  
 The Windlass *Emmerson Walker Patent* and Rudder *Efficient* Pumps *2 Iron Patent*

Engine Room Skylights. How constructed? How secured in ordinary weather?

Coal Bunker Openings. How constructed? How are lids secured? Height above deck?

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

Cargo Hatchways. How formed? *Iron Casings*

State size Main Hatch *15' 4" x 10' 0"* Forehatch *7' 6" x 6' 0"* Quarterhatch *6' 6" x 6' 0"*

If of extraordinary size, state how framed and secured? *one shifting beam*

Hatches, If strong and efficient? *Yes*

Order for Special Survey No.	Date	Order for Ordinary Survey No.	Date	No.	in builder's yard.	1st.	2nd.	3rd.	4th.	5th.
86	6 Apr 1877			14		On the several parts of the frame, when in place, and before the plating was wrought	On the plating during the process of riveting	When the beams were in and fastened, and before the decks were laid...	When the ship was complete, and before the plating was finally coated or cemented..	After the ship was launched and equipped

General Remarks (State quality of workmanship, &c.) *This vessel has been built in conformity with the rules and Midship section & longitudinal plans herewith appended which were submitted and approved by the Committee in letter dated 31<sup>st</sup> March 1877. Bow Ports have been fitted as shown in accompanying sketch and sanctioned by the Committee in letter of 10<sup>th</sup> Oct 1877*

*Attached is submitted sketch of new lanyards for the lower rigging to each Mast. The workmanship & materials are of good quality.*

*Fore & Main lower Yards 74ft dia 18" plates 4 to 1/16" in two plates edges single riveted*  
*of lower Topsail 64ft dia 16" plates 4 to 1/16" with lapped & treble riveted. 2 angle Irons in each all throughout 2 1/2 x 2 1/2 x 1/6" three in Topsail Yards are 2 x 2 x 1/6" - 39ft 25ft*

State if one, two, or three, decked vessel, or if open, or awning decked; and the lengths of poop, fore-castle, or raised quarter deck, and the length of double, or part double bottom

How are the surfaces preserved from oxidation? Inside *Pattand Cement to above bilge* Outside *Red Lead & Paint*

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, *[Signature]*  
 Special ... £ 51: 13: 6  
 Certificate ... £ 0: 0: 0  
 (Travelling Expenses, if any, £ ...)

Committee's Minute 12th February, 1878.

Character assigned *100 A.1*

*H. J. S. Oldy*  
 It is submitted that the vessel appears eligible to be classed 100 A.1. as recommended by the Committee.  
 Lloyd's Register  
 Foundation