

# IRON SHIP.

No. 4208 Survey held at Glasgow Date, First Survey 24<sup>th</sup> June 1875 Last Survey 27<sup>th</sup> March 1876

On the S. Sir Walter Raleigh Master W. Purvis

TONNAGE under Tonnage Deck	1382.74	ONE, OR TWO DECKED, THREE DECKED VESSEL.
Ditto of Third Spar, or Awning Deck		SPAR, OR AWNING DECKED VESSEL.
Ditto of Poop, Raised Or. Dk.	96.24	HALF BREADTH (moulded) ... .. Feet. 19.3
Ditto of Houses on Deck	36.22	DEPTH from upper part of Keel to top of Upper Deck Beams 24.25
Ditto of Forecastle	63.36	GIRTH of Half Midship Frame (as per Rule) ... .. 37.5
Gross Tonnage	1578.56	1st NUMBER ... .. 81.05
Less Crew Space	86.17	1st NUMBER, if a THREE DECKED VESSEL
Less Engine Room		LENGTH ... .. 235
Register Tonnage as cut on Beam	1492.39	2nd NUMBER ... .. 19,035
		PROPORTIONS—Breadths to Length ... .. Under 7
		Depths to Length—Upper Deck to Keel ... .. —
		Main Deck ditto ... .. Under 10

Built at Glasgow  
 When built 1875-76 Launched 24 Feb 1876  
 By whom built J & G. Thomson  
 Owners Donaldson Rose & Co.  
 Port belonging to Aberdeen  
 Destined Voyage Glasgow to Melbourne  
 & Surveyed while Building, Afloat, or in Dry Dock.

Official Number

LENGTH on deck as per Rule ...	Feet. 235	Inches. —	BREADTH Moulded ...	Feet. 38	Inches. 6	DEPTH top of Floors to Upper Deck Beams ...	Feet. 22	Inches. 2 1/2	Power of Engines ...	Horse. —	Nº. of Decks with flat laid	Two	Nº. of Tiers of Beams	Two
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Dimensions of Ship per Register, length, 243.4 breadth, 38.9 depth, 21.9

	Inches in Ship.			Inches per Rule.		
	In Ship.	In Ship.	16ths required	Inches per Rule	Inches per Rule	16ths required
KEEL, depth and thickness ...	9 1/2	2 1/2	8	9 1/2	2 1/2	8
STEM, moulding and thickness ...	9 1/2	2 1/2	8	9	2 1/2	8
STERN-POST for Rudder do. do. for Propeller ...	9 1/2	2 1/2	8	9	2 1/2	8
Distance of Frames from moulding edge to moulding edge, all fore and aft ...	24			24		
FRAMES, Angle Iron, for 3/4 length amidships ...	5	3 1/2	8	5	3 1/2	8
Do. for 1/2 at each end ...	5	3 1/2	7	5	3 1/2	7
REVERSED FRAMES, Angle Iron ...	3 1/2	3 1/2	8	3 1/2	3 1/2	8
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships ...	24 1/2			24 1/2		
thickness at the ends of vessel ...	—		9-8	—		9-8
depth at 3/4 the half-bdth. as per Rule ...	12 1/4		—	12 1/4		—
height extended at the Bilges ...	Twice		—	Twice		—
BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron ...	—		—	—		—
Single or double Angle Iron on Upper edge ...	—		—	—		—
Average space ...	—		—	—		—
BEAMS, Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron ...	9 1/2	9	9	9 1/2	9	9
Single, or double Angle Iron, on Upper Edge ...	3 1/2	3 1/2	7	3 1/2	3 1/2	7
Average space ...	48		—	48		—
BEAMS, Lower Deck, Hold, or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron ...	9 1/2	9	9	9 1/2	9	9
Single or double Angle Iron on Upper Edge ...	3 1/2	3 1/2	7	3 1/2	3 1/2	7
Average space ...	48		—	48		—
KEELSONS Centre line, single or double plate, box, or Intercostal, Plates ...	18	13	13	18	13	13
" Rider Plate ...	13	13	13	13	13	13
" Bulb Plate to Intercostal Keelson ...	—	—	—	—	—	—
" Angle Irons ...	5 1/2	4	9	5 1/2	4	9
" Double Angle Iron Side Keelson ...	5 1/2	4	9	5 1/2	4	9
" Side Intercostal Plate ...	—	—	8	—	—	8
" do. Angle Irons ...	3 1/2	3 1/2	8	3 1/2	3 1/2	8
" Attached to outside plating with angle iron ...	—	—	—	—	—	—
BILGE Angle Irons ...	5 1/2	4	9	5 1/2	4	9
" do. Bulb Iron ...	—	—	—	—	—	—
" do. Intercostal plates riveted to plating for length ...	—	—	—	—	—	—
BILGE STRINGER Angle Irons ...	5 1/2	4	9	5 1/2	4	9
Intercostal plates riveted to plating for length ...	—	—	—	—	—	—
SIDE STRINGER Angle Irons ...	5 1/2	4	9	5 1/2	4	9

	Inches. In Ship.	16ths. In Ship.	Inches. required	16ths. required
Flat Keel Plates, breadth and thickness ...	36	12	36	12
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied 3/4 at bilge ...	—	12-11-10	—	12-11-10
fm up. part of Bilge to lr. edge of Sh'rstrake ...	—	12-11	—	12-11
Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake ...	40	13	40	13
Up. or Spar Dk. Sh'rstrake, breadth & thickness ...	—	—	—	—
Butt Straps to outside plating, breadth & thickness ...	16 1/4	14-10	16 1/4	14-10
Lengths of Plating ...	12 feet		10 feet	
Shifts of Plating, and Stringers ...	Two spaces		Two spaces	
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 ...	—	—	—	—
Plankshoe 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 ...	48	10	35	10
Is the Stringer Plate attached to the outside plating? ...	Yes		Yes	
Angle Irons on ditto, No. 1 ...	5 1/2 x 4 x 9		5 1/2 x 4 x 9	
Tie Plates, outside Hatchways ...	13	10	13	10
Diagonal Tie Plates on Beams, No. of pairs ...	5	13	13	10
Waterways materials and scantlings ...	Gutter		4	
Flat of Middle Deck do. do. ...	4		4	
How fastened to Beams ...	Nuts and Screws			
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams ...	34	9	34	9
Is the Stringer Plate attached to the outside plating? ...	Yes		Yes	
Angle Irons on ditto, No. 2 ...	4 x 4 x 9		4 x 4 x 9	
Stringer or Tie Plates, outside Hatchways ...	13	9	13	9
Flat of Lower Deck do. do. ...	3		3	
Ceiling betwixt Decks, thickness and material ...	Spanning		2 1/2	
in hold do. ...	2 1/2		2 1/2	
Main piece of Rudder, diameter at head ...	6 1/4		6 1/4	
do. at heel ...	3 1/4		3 1/4	
Can the Rudder be unshipped afloat? ...	Yes			
Bulkheads No. 1 Thickness of ...	—	7-6	—	7-6
Height up ...	To Deck			
How secured to sides of ship ...	By double frames			
Size of Vertical Angle Irons ...	3 1/2 x 3 1/2 x 9		30	
Are the outside Plates doubled two spaces of Frames in length? ...	Yes			

Transoms, material. Knight-heads. Hawse Timbers. Iron  
 Windlass Main Post Seat Pall Bitt Seat

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 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 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 1/2 in. diameter, averaging 3 3/8 ins. from centre to centre.  
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7 1/2 in. diameter averaging 3 3/8 ins. from centre to centre.  
 Butts of Three Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 1/16 thicker than the plates they connect.  
 Edges from bilge to Main Sheerstrake, worked clencher, double ~~riveted~~ riveted; with rivets 7 1/2 in. diameter, averaging 3 3/8 ins. from cr. to cr.  
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7 1/2 in. diameter, averaging 3 3/8 ins. from cr. to cr.  
 Edges of Main Sheerstrake, double ~~riveted~~ riveted. Upper Sheerstrake, double ~~riveted~~ riveted.  
 Butts of Main Sheerstrake, treble riveted for 1/2 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted — length amidships.  
 Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for — length.  
 Breadth of laps of plating in double riveting 5 1/2 ins. Breadth of laps of plating in single riveting —

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double ~~riveted~~ Riveted? Yes

Waterway, how secured to Beams Gutter (Explain by Sketch, if necessary.)  
 Beams of the various Decks, how secured to the sides? By knees turned down No. of Breasthooks, Six Crutches, Six

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

Manufacturer's name or trade mark, Bulbs Mossend, Plates Conssett, Angles Coats

The above is a correct description.  
 Builder's Signature, Mrs. James & Co. Thomson Surveyor's Signature, Saml. Latham  
V Grant Surveyor to Lloyd's Register of British and Foreign Shipping.

**Workmanship.** Are the butts of plating planed or otherwise fitted? Planed  
 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 16056 Iron  
 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 all 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

D.B. Iron	Fore Mast	Length 82.0	Diagonal Partners 32	Heads 21	Horns 25	Heel 23	Four plates in the circle Fore. Main & Bowsprit - 8-7-6, Mizzen 7-6 double riveted edges, quadrate and well riveted Butts, double at partners and bed, diaphragm plate at Bowsprit
	Main Mast	85.0	32	21	25	23	
Mossend	Mizzen	78.6	28	18	22	20	2 plates in circle 7-6.5 single riveted edges triple riveted butts
	Bowsprit	36.6	32	21		26	
Extra best Iron Mossend	Fore & Main	81.9 x 21 1/2	10 1/2	2 plates in circle	7-6.5	single riveted edges triple riveted butts	
		66.0 x 17 1/2	8 1/2	do	6.5	do	
		69.9 x 16 1/2	7 1/2	do	5.5	do	
		36.0 x 14 1/2	7	do	4.5	do	

NUMBER for EQUIPMENT 20304		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.	
Two Sails	SAILS.	270	1 1/8	63 1/4	270-1 1/8	63 1/4	Bowers	1	34.1.2	31.17.0.21	34	31 1/2
	Fore Sails,						1	34.0.7	31.13.1.21	34	31 1/2	
	Fore Top Sails,						1	29.0.14	27.19.1.14	29	27 1/2	
	Fore Topmast Stay Sails						1	6.2.0	Total	97	27 1/2	
	Main Sails,						1	13.2.0	Stream	1	13.2.0	13 1/2
Main Top Sails,	1	6.2.18	Kedges	1	3.0.23	6 3/4	3 1/4					
and	Warp quality <u>Good</u>											

Standing and Running Rigging Wire & Hemp sufficient in size and good in quality. She has Five Long Boats and 1 fitted with buoyancy.  
 The Windlass is Good Capstans 2. Good and Rudder Good. Pumps Good

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

What arrangements for deadlights in bad weather? How are lids secured? Height above deck?

**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? 4 Ports, 2 pipes & 4 Scuppers each side

**Cargo Hatchways.**—How formed? Plate and angle iron

State size Main Hatch 12' x 10' Forehatch 6' x 6' Quarterhatch 6' 6" x 5' 6"

If of extraordinary size, state how framed and secured? a shifting beam at Main Hatch

What arrangement for shifting beams? Yes.

**Hatches,** If strong and efficient? Yes.

Order for Special Survey No. 10775 DATES 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 } 1875—June 24, 29, July 2, 7, 13, 27, Aug 3

Date April 28/75 2nd. On the plating during the process of riveting } Aug. 13, 20, 25 Sept, 3, 7, 10, 20, 24 Oct 1

Order for Ordinary Survey No. 143 3rd. When the beams were in and fastened, } Oct. 8, 15, 19, 22, 28 Nov 9, 18, 25, 30

Date April 28/75 4th. When the ship was complete, and before the plating was finally coated or cemented.. } Dec 3, 11, 17, 22, 28—1876, Jan 14, 2

No. 143 in builder's yard. 5th. After the ship was launched and equipped } Jan, 28, Feb, 4, 9, 17, 23, March 2, 8, 1

March 18, 24, 27

General Remarks (State quality of workmanship, &c.)

The workmanship is of good quality—Built in accordance with the sketch of Midship Section herewith approved per Secretary's Letter of 10<sup>th</sup> April 1875 and in general conformity with the Rules with a view to the grade contemplated, except that a side stringer of double angle irons 3 1/2 x 3 1/2 x 8/16 is fitted between decks extending fore and aft each side and that the Main Deck stringer plate is increased from 35 to 48 ins in width

Low Moor Iron has been used for the Bobstay—head gear forgings—Fore & Main Mast chain and backstay plates, dead eye straps and stay plates for fore rigging

Fitted with Poop, Forecastle and Midship House

State if one, two, or three decked vessel, or if spar, or awning decked, and the lengths of poop, forecastle, or raised quarter deck, and the length of double, or part double bottom

How are the surfaces preserved from oxidation? Inside Cement and Paint Outside Paint

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

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

Special ... £ 62 : 6 : 25th March 1876

Certificate ... British

(Travelling Expenses, if any, £ 6.0.0.)

Committee's Minute 31<sup>st</sup> March 1876

Character assigned 100 A 1

DM ASEP

