

IRON SHIP.

RECEIVED 6th APL 82

No. 5663 Survey held at Glasgow Date, First Survey 26 May 1881 Last Survey 5 April 1882

On the Iron Screw Steamer "Birksgate" (Belonging to) Master A. McKeown

Tonnage under Tonnage Deck }
 Ditto of Third, Spar, or Awning Deck } 1446 1/2
 Do of Poop, or raised Or. Dk. }
 Do of Houses on Deck } 8 2/3
 Do of Forecastle } 3 4/5
 Gross Tonnage 1457 80
 Less Crew Space 75 4/9
 1382 3/4
 Less Engine Room 466 50
 Register Tonnage } 915 8/1
 as cut on Beam }

ONE, OR TWO DECKED, THREE DECKED VESSEL.
 SPAR, OR ANNING-DECKED VESSEL.
 HALF BREADTH (moulded) 16 5/10
 DEPTH from upper part of Keel to top of Spar Deck Beams 16 7/5
 GIRTH of Half Midship Frame (as per Rule) 30 0 8
 1st NUMBER 63 3 3
 2nd NUMBER, if a 3-DECKED VESSEL, deduct 7 feet
 LENGTH 253 6 6
 2nd NUMBER 16064
 PROPORTIONS—Breadths to Length 7 6
 Depths to Length—Spar Deck to Keel 15 1 3
 Main Deck ditto

Built at Glasgow
 When built 1882 Launched 2 Feb.
 By whom built D. & W. Henderson
 Owners Sir James Elder & Co. Adelaide S.A.
 Port belonging to Adelaide S.A.
 Destined Voyage Adelaide
 If Surveyed while Building, Afloat, or in Dry Dock. While building & afloat

Official Number

PLANS 5663

LENGTH on deck as per Rule 253 7 Feet. Inches. BREADTH—Moulded 33 0 Feet. Inches. DEPTH top of Deck Beams to Upper Deck Beams 22 0 Feet. Inches. 13 9 Power of Engines 163 Horse. No. of Decks with flat laid Two No. of Tiers of Beams Two

Dimensions of Ship per Register, length, 253 0 breadth, 33 0 depth, 21 7

	Inches in Ship.	Inches per Rule.								
KEEL, depth and thickness	8 x 2 1/2	Flat Keel Plates, breadth and thickness 34 15								
STEM, moulding and thickness	8 x 5	8 x 5	8 x 5	8 x 5	8 x 5	8 x 5	8 x 5	8 x 5	PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling a Bilge, or increased thickness, and length applied 9 9	
STERN-POST for Rudder do. do.	8 x 5	8 x 5	8 x 5	8 x 5	8 x 5	8 x 5	8 x 5	8 x 5	" of doubling a Bilge, or increased thickness, and length applied 9 x 10 9 x 10	
" " for Propeller	8 x 5	8 x 5	8 x 5	8 x 5	8 x 5	8 x 5	8 x 5	8 x 5	" fm up. part of Bilge to lr. edge of Sh'rstrake. Main Sheerstrake, breadth and thickness of doubling a Bilge, or increased thickness, and length applied 40 12 40 12	
Distance of Frames from moulding edge to moulding edge, all fore and aft	23	23	23	23	23	23	23	23	" of doubling a Bilge, or increased thickness, and length applied from Mn. to Spar Dk. Sh'rstrake. Sp. on Spar Dk Sh'rstrake, brdth & thickness 44 9 44 9	
FRAMES, Angle Iron, for 1/2 length amidships	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	4 3 7	Butt Straps to outside plating, breadth & thickness 19 9 19 9	
Do. for 1/4 at each end	4 3 6	4 3 6	4 3 6	4 3 6	4 3 6	4 3 6	4 3 6	4 3 6	Lengths of Plating 14 feet 5 frame spaces	
REVERSED FRAMES, Angle Iron	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6	3 3 6	Shifts of Plating, and Stringers 2 frames 2 frames	
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	solid floors 1/8 thick at alternate frames, 1/16 in engine space	solid floors 1/8 thick at alternate frames, 1/16 in engine space	solid floors 1/8 thick at alternate frames, 1/16 in engine space	solid floors 1/8 thick at alternate frames, 1/16 in engine space	solid floors 1/8 thick at alternate frames, 1/16 in engine space	solid floors 1/8 thick at alternate frames, 1/16 in engine space	solid floors 1/8 thick at alternate frames, 1/16 in engine space	solid floors 1/8 thick at alternate frames, 1/16 in engine space	Gunwale Plate on ends of Awning Spar, or Spar Deck Beams, breadth and thickness 42 8 42 8	
" thickness at the ends of vessel	at every frame as per approved sketch	Angle Iron on ditto 4 x 4 x 8 4 x 4 x 8								
" depth at 1/2 the half-bdth. as per Rule	approved sketch	Tie Plates fore and aft, outside Hatchways 12 8 12 8								
" height extended at the Bilges	approved sketch	Diagonal Tie Plates on Beams, No. of Pairs 3 3								
BEAMS, Spar, or Awning Deck Single or Double Angle Iron Plate or Bulb Iron	6 1/2 6 6 1/2 6	6 1/2 6 6 1/2 6	6 1/2 6 6 1/2 6	6 1/2 6 6 1/2 6	6 1/2 6 6 1/2 6	6 1/2 6 6 1/2 6	6 1/2 6 6 1/2 6	6 1/2 6 6 1/2 6	Plank shear material and soundings Iron gullies	
Single or Double Angle Iron on Upper edge	2 3/4 2 3/4 5 2 3/4 2 3/4 5	2 3/4 2 3/4 5 2 3/4 2 3/4 5	2 3/4 2 3/4 5 2 3/4 2 3/4 5	2 3/4 2 3/4 5 2 3/4 2 3/4 5	2 3/4 2 3/4 5 2 3/4 2 3/4 5	2 3/4 2 3/4 5 2 3/4 2 3/4 5	2 3/4 2 3/4 5 2 3/4 2 3/4 5	2 3/4 2 3/4 5 2 3/4 2 3/4 5	Waterways do do	
Average space	46	46	46	46	46	46	46	46	Flat of Upper Deck do. do. 3 3	
BEAMS, Main, or Middle Deck Single or Double Angle Iron Plate or Bulb Iron	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	How fastened to Beams galv. iron screws	
Single or Double Angle Iron on Upper Edge	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness 36 1/2 10 36 1/2 10	
Average space	46	46	46	46	46	46	46	46	Is the Stringer Plate attached to the outside plating? yes	
BEAMS, Lower Deck, Hold, or Orlop Single or Double Angle Iron Plate or Bulb Iron	5 1/2 5 1/2 8 5 1/2 5 1/2 8	5 1/2 5 1/2 8 5 1/2 5 1/2 8	5 1/2 5 1/2 8 5 1/2 5 1/2 8	5 1/2 5 1/2 8 5 1/2 5 1/2 8	5 1/2 5 1/2 8 5 1/2 5 1/2 8	5 1/2 5 1/2 8 5 1/2 5 1/2 8	5 1/2 5 1/2 8 5 1/2 5 1/2 8	5 1/2 5 1/2 8 5 1/2 5 1/2 8	Angle Irons on ditto, No. 2 4 x 4 x 8 4 x 4 x 8	
Single or Double Angle Iron on Upper Edge	5 1/2 5 1/2 8 5 1/2 5 1/2 8	5 1/2 5 1/2 8 5 1/2 5 1/2 8	5 1/2 5 1/2 8 5 1/2 5 1/2 8	5 1/2 5 1/2 8 5 1/2 5 1/2 8	5 1/2 5 1/2 8 5 1/2 5 1/2 8	5 1/2 5 1/2 8 5 1/2 5 1/2 8	5 1/2 5 1/2 8 5 1/2 5 1/2 8	5 1/2 5 1/2 8 5 1/2 5 1/2 8	Tie Plates, outside Hatchways 6 6 for 1/2 length	
Average space	46	46	46	46	46	46	46	46	Diagonal Tie Plates on Beams, No. of pairs 3 3	
KEELSONS Centre line, single or double plate, iron or intercostal, rivet	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	8 8 8 8 8	Waterways materials and soundings	
" Rider Plate to Centre Keelson	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	Flat of Middle Deck do. do. 3 1/2 3 1/2	
" Rib Plate to Intercostal Keelson	5 3 1/2 8 5 3 1/2 8	5 3 1/2 8 5 3 1/2 8	5 3 1/2 8 5 3 1/2 8	5 3 1/2 8 5 3 1/2 8	5 3 1/2 8 5 3 1/2 8	5 3 1/2 8 5 3 1/2 8	5 3 1/2 8 5 3 1/2 8	5 3 1/2 8 5 3 1/2 8	How fastened to Beams galv. iron screws	
" Angle Irons fore & aft to Centre Keelson	4 4 8 4 4 8	4 4 8 4 4 8	4 4 8 4 4 8	4 4 8 4 4 8	4 4 8 4 4 8	4 4 8 4 4 8	4 4 8 4 4 8	4 4 8 4 4 8	Stringer Plates on ends of Lower Deck Hold or Orlop Beams 3 1/2 3 1/2	
" Double Angle Iron Side Keelson	6 6 6 6 6	6 6 6 6 6	6 6 6 6 6	6 6 6 6 6	6 6 6 6 6	6 6 6 6 6	6 6 6 6 6	6 6 6 6 6	Is the Stringer Plate attached to the outside plating? No.	
" Side Intercostal Plate Longitudinal	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	Angle Irons on ditto, No. 6 6 frames as per sketch	
" do. Angle Irons	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	Stringer or Tie Plates, outside Hatchways 6 6 for 1/2 length	
" Attached to outside plating with angle iron	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	Flat of Lower Deck 3 1/2 3 1/2	
BILGE Angle Irons	3 1/2 3 1/2 7 3 1/2 3 1/2 7	3 1/2 3 1/2 7 3 1/2 3 1/2 7	3 1/2 3 1/2 7 3 1/2 3 1/2 7	3 1/2 3 1/2 7 3 1/2 3 1/2 7	3 1/2 3 1/2 7 3 1/2 3 1/2 7	3 1/2 3 1/2 7 3 1/2 3 1/2 7	3 1/2 3 1/2 7 3 1/2 3 1/2 7	3 1/2 3 1/2 7 3 1/2 3 1/2 7	3 1/2 3 1/2 7 3 1/2 3 1/2 7	Ceiling betwixt Decks, thickness and material in hold do. do.
" do. Bulb Iron	4 1/2 4 1/2 8 4 1/2 4 1/2 8	4 1/2 4 1/2 8 4 1/2 4 1/2 8	4 1/2 4 1/2 8 4 1/2 4 1/2 8	4 1/2 4 1/2 8 4 1/2 4 1/2 8	4 1/2 4 1/2 8 4 1/2 4 1/2 8	4 1/2 4 1/2 8 4 1/2 4 1/2 8	4 1/2 4 1/2 8 4 1/2 4 1/2 8	4 1/2 4 1/2 8 4 1/2 4 1/2 8	4 1/2 4 1/2 8 4 1/2 4 1/2 8	Main piece of Rudder, diameter at head 5 3/4 5 3/4
" do. Intercostal plates riveted to Margin plate plating for length	7 7 7 7 7	7 7 7 7 7	7 7 7 7 7	7 7 7 7 7	7 7 7 7 7	7 7 7 7 7	7 7 7 7 7	7 7 7 7 7	do. at heel 3 3/4 3 3/4	
BILGE STRINGER Angle Irons	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	Can the Rudder be unshipped afloat? No.	
Intercostal plates riveted to plating for length	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	Bulkheads No. 5 Thickness of 6 1/16
Same as bilge stringer	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	13 13 13 13 13	" Height up Collision Bulkhead to upper deck, remainder to main deck
SIDE STRINGER Angle Irons	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	How secured to sides of ship double frames	
Transoms, material. Knight-heads. Hawse Timbers.	iron	" Size of Vertical Angle Irons 3 x 3 x 6 and distance apart 30 ins.								
Windlass	iron	" Are the outside Plates doubled two spaces of Frames in length? yes								

The FRAMES extend in one length from keel to bilge & thence 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 bilges & from bilges and to upper & lower deck alternately & double to upper part of bilges in engine & boiler space

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 7/8 in. diameter, averaging 4 ins. from centre to centre.
 Edges of Garboards double riveted with straps 1/8 in. thicker than plates. 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 ins. from centre to centre.
 Butts of 3 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 or single riveted; with rivets 3/4 in. diameter, averaging 3 3/4 ins. from cr. to cr.
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 ins. from cr. to cr.
 Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted.
 Butts of Main Sheerstrake, treble riveted for 1/2 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted 3/4 length amidships.
 Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for 1/2 length.
 Breadth of laps of plating in double riveting 4 1/2 Breadth of laps of plating in single riveting 2 1/2

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted & (Explain by Sketch, if necessary.)

Beams of the various Decks, how secured to the sides? iron welded knees No. of Breasthooks, 3 Crutches, deep floor

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

Manufacturer's name or trade mark, Angles, Massard; plates, Glasgow Iron Co., Johnson & Coys, Blackthorn

The above is a correct description. Builder's Signature, David W. Henderson Surveyor's Signature, G. Stanbury

Surveyor to Lloyd's Register of British and Foreign Shipping.

GLS 146-0324

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*
 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* 5663
gls

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. *Iron used tested as per rule. "Glydesdale" B.B.*

Fore Mast, 79'-6" length ex., 22" diam. at deck, and $\frac{1}{8}$ " thick, 2 plates in round, and riveting as per rule
 Main do., 70'-6" do., 22" do., $\frac{1}{8}$ " do., do.

The yards on the fore mast and the booms are of best pine.

N ^o .	SAILS.	Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Supplied.	ANCHORS.		N ^o .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested & Supplied.
							Lower Anchors	Stream					
	CABLES, &c.												
	Chain	134-4/4	1 1/8	71 3/4 x 57 1/4	270 lbs.	No. 9115			1	28.0.2	27.4.1.14	27 3/4	No. 12,547
	Fore Sails,	133-2/4	1 1/8	71 3/4 x 57 1/4		No. 9112			2	27.2.2	26.16.3.14	27 3/4	12,546
	Fore Top Sails,	73	1 1/8	30.4 x 20.3	75	1 1/8	No. 10576		3	23.2.26	23.13.3.0	23 1/2	12,540
	Fore Topmast Stay Sails,	90	3/8	Steel	90	11/16	3 1/2 steel wire		4	8.3.12	11.0.0.0	8 3/4	12,537
	Main Sails,	90	9		90	9			5	4.2.16	7.2.2.0	4 1/2	12,532
	Main Top Sails,	90	7		90	7			6	2.0.23	4.15.0.0	2 1/4	12,555
	and quality	good		others.									

Standing and Running Rigging is sufficient in size and good in quality. She has 2 Long Boats and 2 others

The Windlass is Napier's patent Capstan iron and Rudder iron Pumps as per approved plan

Engine Room Skylights. How constructed? *leak hood* How secured in ordinary weather? *brass bolts*

What arrangements for deadlights in bad weather? *bull's eyes*

Coal Bunker Openings. How constructed? *circular cast frame.* How are lids secured? *self locking* Height above deck? *flush*

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? *5 scuppers on each side, and open bulwarks*

Cargo Hatchways. How formed? *iron coamings*

State size Main Hatch 26' x 12' Forehatch 11' x 10' Quarterhatch 22'-9" x 11'-0"

If of extraordinary size, state how framed and secured? *Not extraordinary*

What arrangement for shifting beams? *Two shifting web plate beams in the main hatch also in after hatch*

Hatches, If strong and efficient? *yes*

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 16.
1614	23 June 1881			222		1st. On the several parts of the frame, when in place, and before the plating was wrought 2nd. On the plating during the process of riveting 3rd. When the beams were in and fastened, and before the decks were laid.... 4th. When the ship was complete, and before the plating was finally coated or cemented.. 5th. After the ship was launched and equipped
						1881, May, 26, June 2, 6, 7, 10, 16, 24, 27, July 5, 11, 13, 28, Aug. 1, 3, 11, 16, 26, 30, Sept. 5, 6, 9, 16, 23, Oct. 3, 7, 11, 15, 17, 24, 31, Nov. 2, 9, 11, 15, 21, 23, 30, Dec. 2, 7, 8, 13, 19, 22, 27, 1882, Jan. 4, 10, 16, 17, 20, 26, 31, Feb. 1, 13, 20, 22, 24, 25, 27, Mar. 2, 9, 16, 22, 23, 25, 28, 31 April 5,

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

This vessel has been built in accordance with the approved sketches (5 in No.) and in general accordance with the rules. The workmanship and material are good throughout, and the water ballast tanks have been tested by water pressure as required by the rules. For particulars of the lengths and capacity of the double bottom see the accompanying form. Please see also in reference to this vessel the Secretary's letters dated 15th Mar., 25 April, 11th October, 27th October, 1881. This vessel was placed in dry dock on 25th March and the bottom cleaned and re-coated.

pumping plan will be forwarded in course

State if one, two, three, or four, or of spar, or covering decked; and the length 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 *Cement & paint* Outside *paint*

I am of opinion this Vessel should be Classed *100 A. 1. One deck and spar deck, Two tiers of beams.*

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

Special ... £ 59: 11: 0 4th April 1882

Certificate ... £ 0: 0: 0

(Travelling Expenses, if any, £ ...) £ 64: 11: 0

Committee's Minute Thursday, April 6th, 1882

Character assigned *100 A. 1. 1st & 2nd Spar Deck*

Lloyd's Register of British and Foreign Shipping.

It is submitted that this vessel appears eligible to be classed as recommended by the Committee.