

IRON SHIP.

No. 6652 Survey held at Greenock Date, First Survey 28 January Last Survey 29th October 1874
 On the Ship "Aurora" Yard Number 814 Master Johnston
 Tonnage under Deck 1546.82 ONE, OR TWO DECKED, THREE DECKED VESSEL.
 Ditto of Third, Spar, or Awning Deck. 159.82 SPAR, OR AWNING DECKED VESSEL.
 Ditto of Poop, or Raised Deck. 49.95 HALF BREADTH (moulded) 19.45
 Ditto of Houses on Deck 40.31 DEPTH from upper part of Keel to top of Upper Deck Beams 25.85
 Ditto of Forecastle 1856.90 GIRTH of Half Midship Frame (as per Rule) 39.19
 Gross Tonnage 88.49 1st NUMBER 84.79
 Less Crew Space 1468.11 1st NUMBER, if a THREE DECKED VESSEL
 Less Engine Room 1468.11 deduct 7 feet
 Register Tonnage as cut on Beam 1468.11 LENGTH 250.
 2nd NUMBER 21.194
 PROPORTIONS—Breadths to Length 6.33
 Depths to Length—Upper Deck to Keel 9.64
 Main Deck ditto 9.64
 Built at Greenock
 When built 1874 Launched 15th September 74
 By whom built R. Steele & Co.
 Owners Anderson, Anderson & Co.
 Port belonging to London
 Destined Voyage Adelaide
 Surveyed while Building, Afloat, or in Dry Dock

LENGTH on deck as per Rule 250 0 BREADTH—Moulded 39 5 DEPTH top of Floors to Upper Deck Beams 23 8 Power of Engines 2 Horse. N° of Decks with flat laid Two N° of Tiers of Beams Two
 Dimensions of Ship per Register, length, 261 7 breadth, 39 55 depth, 23 65

	Inches in Ship.	Inches per Rule.		Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	9 1/2 x 2 1/2	9 1/2 x 2 1/2	FLAT KEEL PLATES, breadth and thickness	36	12
STEEL moulding and thickness	9 x 2 1/2	9 x 2 1/2	PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges	11	10 1/2
STEEL ROST for Rudder do. do.	9 x 2 1/2	9 x 2 1/2	of doubling at Bilge, or increased thickness, and length applied	11	11 1/2
for Propeller			fin up. part of Bilge to l. edge of Sh'rstrake	11	10 1/2
Dist. of Frames from moulding edge to m. edge, all fore and aft	24	(Class 100 A)	Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake.	40	13
			Up. or Spar Dk Sh'rstrake, brdth & thickness		
FRAMES, Angle Iron, for 1/2 length amidships	5 3/4 x 3 1/2	5 3/4 x 3 1/2	Butt Straps to outside plating, breadth & thickness	1 1/2 x 1 1/2	1 1/2 x 1 1/2
Ditto at each end	5 3/4 x 3 1/2	5 3/4 x 3 1/2	Lengths of Plating	6 spaces	5 spaces
BEAMS, Angle Iron	3 1/2 x 3	3 1/2 x 3	Shifts of Plating, and Stringers	2	2
FLOORS, depth and thickness of Floor Plate	25	10	Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness		
at line for half length amidships			Angle Iron on ditto		
thickness at the ends of vessel	9 1/2	9 1/2	Tie Plates fore and aft, outside Hatchways		
depth at 1/2 the half-bdth. as per Rule	12 1/2	12 1/2	Diagonal Tie Plates on Beams No. of Pairs,		
right extended at the Bilges	48	50	Planksheer material and scantling		
BEAMS, Upper, Spar, or Awning Deck			Waterways do. do.		
Single Angle Iron, Plate or Tee Bulb Iron			Flat of Upper Deck do. do.		
Single double Angle Iron on Upper edge			How fastened to Beams		
Space			Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	40	10
BEAMS, Main or Middle Deck			Is the Stringer Plate attached to the outside plating?	Yes	
Single Angle Iron, Plate or Tee Bulb Iron	9 1/2	9	Angle Irons on ditto, No. 1	5 1/2 x 4 x 9	5 1/2 x 4 x 9
Single double Angle Iron, on Upper Edge	4	3	Tie Plates, outside Hatchways	12	10
Space	48	48	Diagonal Tie Plates on Beams, No. of pairs	6	12
BEAMS, Lower Deck, Hold or Orlop			Waterways materials and scantlings	By Rule	
Single Angle Iron, Plate or Tee Bulb Iron	9 1/2	9	Flat of Lower Deck do. do.	By Rule	
Single double Angle Iron on Upper Edge	4	3	How fastened to Beams	By Rule	
Space	48	48	Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	24	9
KEELSONS Centre line, single or double plate, box, or intercostal, Plates	20	13	Is the Stringer Plate attached to the outside plating?	Yes	
Side Plate	9	10	Angle Irons on ditto, No. 2	4 1/2 x 9	4 1/2 x 9
Bulb Plate to Intercostal Keelson	5 1/2	4	Stringer or Tie Plates, outside Hatchways	12	9
Angle Irons	5 1/2	4	Flat of Lower Deck	By Rule	
Double Angle Iron Side Keelson	22 1/2	8	Ceiling betwixt Decks, thickness and material	By Rule	
Side Intercostal Plate	5 1/2	4	in hold do. do.	2 1/2	2 1/2
do. Angle Irons	5 1/2	4	Main piece of Rudder, diameter at head	6 1/2	6 1/2
attached to outside plating with angle iron	3 1/2	3	do. at heel	3 1/2	3 1/2
BEAMS, Angle Irons	5 1/2	4	Can the Rudder be unshipped afloat?	Yes	
do. Bulb Iron	5 1/2	4	Bulkheads No. 1	Thickness of 1 1/2	
do. Intercostal plates riveted to plating for length	5 1/2	4	Height up to Main Deck		
2nd STRINGER, Angle Irons	5 1/2	4	How secured to sides of ship	Double frames & head liners	
Intercostal plates riveted to plating for length	3 1/2	3	Size of Vertical Angle Irons	3 1/2 x 3 1/2	
3rd STRINGER, Angle Irons	3 1/2	3	Are the outside Plates doubled two spaces of Frames in length?	Yes	

Transoms, material. Knight-heads. Hawse Timbers. Iron
 W. class Iron Patent Pall Bitt
 The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 1/8 in. Rivets, about 1/4 apart.
 REVERSED ANGLE IRONS on floors and frames extend across middle line to above Hold Beam Stringers and to Main Deck alternately
 KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? Yes And butts properly shifted? Yes
 PLATING. G. Garboard, double riveted to Keel, with rivets 1/8 in. diameter, averaging 5 1/2 ins. from centre to centre.
 Edges of Garboards and to upper part of Bilge, worked clench, double riveted; with rivets 1/8 in. diameter, averaging 3 1/4 ins. from centre to centre.
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 1/8 in. diameter averaging 3 1/4 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 clench, double riveted; with rivets 1/8 in. diameter, averaging 3 1/4 ins. from cr. to cr.
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 1/8 in. diameter, averaging 3 1/4 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 half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted 1/16 length amidships.
 Butts of Spar Sheerstrake, treble riveted for half length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for 1/16 length.
 Butts of Stringer Plate, treble riveted for half length amidships. Breadth of laps of plating in single riveting 5 1/4
 Breadth of plating in double riveting 5 1/4
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted?
 Waterway, how secured to the sides? By Rule (Explain by Sketch, if necessary.)
 Beams of the various decks, how secured to the sides? Beam ends turned down No. of Breasthooks, 6 Crutches, 6
 What description of material is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Best
 Manufacturer's name and trade mark. Angle & Bull-Plate. Plates. Forhead & Co. & Co.
 The above is a true and correct description
 Builder's Signature James Smith Surveyor's Signature H. J. Smith

IRON 459-0008

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? Very few

13397 En

Masts, Bowsprit, Yards, &c., are Spran in good condition, and sufficient in size and length. If of Iron or Steel give
Scamlings 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 90' 4" dia 32" Main 91' 2" dia 32" Mizzen 84' 11" dia 28" Bowsprit 10' 3" dia 33"

Fore and Main Masts 8 1/16 plates Mizzen 7 1/16 tapering to 6 1/16 all in four plates, seams double riveted, and

butts treble and double in way of wedging, fore Angle irons 5' 32" 8 1/16 are fitted for about 75 feet.

Bowsprit in four plates 8 1/16 thick tapering to 6 1/16, seams double riveted and butts treble, fore

Angle irons 5' 32" 8 1/16 are fitted in way of straight heads.

NUMBER for EQUIPMENT		Fathoms.	Inches	Test per Certificate	Length & Size req'd per Rule	Test req'd per Rule	ANCHORS, &c.	N ^o .	Weight Ex. Stock.	Test per Certificate	Weight req'd per Rule	Test req'd per Rule
N ^o .	SAILS.	CABLES										
	Fore Sails,	Chain <u>25' 9 1/4"</u>	135	2	<u>22 B.S. 100%</u>	<u>2 1/2 100%</u>						
	Fore Top Sails,	(State Machine where Tested, Date, & name of Superintendent.)	135	2	<u>22 B.S. 100%</u>	<u>2 1/2 100%</u>						
	Fore Topmast Stay Sails	<u>Storm Cbl</u>	90	1 1/2								
	Main Sails,	Hawser ...	90	10								
	Main Top Sails,	Towlines ...	90	12								
	and	Warp ...	90	8								
		quality <u>good</u>										

Standing and Running Rigging Wire & Hemp sufficient in size and good in quality. She has Two Life Boat and green others

The Windlass is Immunson & Walker's Patent Capstan and Rudder Efficient Pumps 2 Main & 2 B.

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

What arrangements for deadlights in bad 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? Ports & Scuppers

Cargo Hatchways. How formed? Spran hannings

State size Main Hatch 15' 0" x 10' 0" Fore hatch 5' 0" x 6' 0" Quarter hatch 5' 0" x 6' 0"

If of extraordinary size, state how framed and secured?

What arrangement for shifting beams? One at Main Hatch

Hatches, If strong and efficient? Yes

Order for Special Survey No. 678 1st. On the several parts of the frame, when in place, and before the plating was wrought Built under S.S. and surveyed 1874 - January 28,

Date 29 January 1874 2nd. On the plating during the process of riveting Feb 3, 9 March 3, 11, 13, 18, 19, 24 April 2, 4, 13, 18, 23,

Order for Ordinary Survey No. 3rd. When the beams were in and fastened, May 1, 6, 11, 15, 20, 23, 28, June 5, 9, 12, 14, 22, 26, July 10, 14,

Date 4th. When the ship was complete, and before the plating was finally coated or cemented, Oct 24, 29, August 10, 21, 26, 29, 30, Sept 1, 8, 11, 15, 22,

No. 874 in builder's yard. 5th. After the ship was launched and equipped 30, October 13, 16, 20, 24, 29.

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

This Vessel has been built in conformity with the midship section herewith appended which was submitted and approved by the Committee in letter dated 11th April 1874. The alternate strakes of Outside plating are 1 1/16 instead of 10 1/16, and the butt straps of two strakes below Sheerstrake are one sixteenth thicker than the plating and treble riveted; a broad liner is also fitted in way of Runway Angle iron in breadth from the upper edge of Sheerstrake down to Deck Beam Stringer and one sixteenth thicker than Sheerstrake; the middle line Keelson is 2 1/2 inches deeper than required by Rules and an additional line of six plates 12 x 4 1/2 is fitted on Main Deck Beams on each side between the Stringer, and six plates outside of Hatchways: additional strength has been fitted in way of Poop as per Rule in consideration of its being over one fourth the length of the Vessel. The workmanship and materials are of the very best description.

State if one, two or three decked vessel, or if open or running decked, and lengths of poop, fore-castle, main-deck, or of double or triple bottom.

How are the surfaces preserved from oxidation? Inside Portland Cement to above hull Red Lead Paint Champan Outside Red Lead Paint Champan

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 ... £ 69 : 4 : 0 29 Oct. 1874

Certificate ... £ 2 : 0 : 0

(Travelling Expenses) £ 74 : 4 : 0

(if any) £

Committee's Minute 6th November 1874

Character assigned 100 A.1.

At CP

H. J. 800 L. H. J.

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