

IRON SHIP

(Received at London Office, THURSDAY 25 SEPT 1884)

13524 Survey held at Sunderland Date, First Survey February 1884 Last Survey September 25 1884
On the "Blonerry" yard No. 156

TONNAGE under Tonnage Deck	2421.65	ONE OR TWO DECKED, THREE DECKED VESSEL, SPAR OR AWNING DECKED VESSEL.	Master	R. W. Lawson
Ditto of Poop, or Raised Quarter Deck	17.96	Half Breadth (moulded)	Built at	Sunderland
Ditto of Houses on Deck	93.90	Depth from upper part of Keel to top of Upper Deck Beams	When built	1884 Launched 24 July
Ditto of Forecastle	49.41	Girth of Half Midship Frame (as per Rule)	By whom built	Doxford and Sons
Gross Tonnage	2661.87	1st Number	Owners	W. Smith, M. C. C. & Co.
Less Crew Space	88.30	1st Number, if a 3-Decked Vessel .. deduct 7 feet	Residence	57 Finchurch St. E.C.
Less Engine Room	2573.57	Length	Port belonging to	London
Register Tonnage as cut on Beam	857.80	2nd Number	Destined Voyage	Queensland
	1721.77	Proportions— Breadths to Length	Surveyed while Building	Asfloat, or in Dry Dock.
		Depths to Length— Upper Deck to Keel	2 Iron Decks Upper one covered with Wood.	
		Main Deck ditto		

LENGTH on deck as per Rule	298	BREADTH Moulded	39	DEPTH top of Floors to Upper Deck Beams	24	Power of Engines	260	N ^o . of Decks with flat laid	Two
				Do. do. Main Deck Beams				N ^o . of Tiers of Beams	Three

Dimensions of Ship per Register, length	300.0	breadth	40.0	depth	24.40	DEPTH Moulded	25ft 9 1/2 in
KEEL, depth and thickness	10 x 2 3/4	Inches in Ship	10 x 2 3/4	Inches per Rule	10 x 2 3/4	Flat Keel Plates, breadth and thickness	36 12 36 12
STEM, moulding and thickness	10 x 2 3/4		10 x 2 3/4		10 x 2 3/4	PLATES in Garboard Strakes, br'dth & thickness	11 11
STERN-POST for Rudder do. do.	10 x 6		10 x 6		10 x 6	" From Garboard to upper part of Bilges	11 11
" " for Propeller	10 x 6		10 x 6		10 x 6	" Of d'bling at Bilge, or increased thickness, and length applied	11 11
Distance of Frames from moulding edge to moulding edge, all fore and aft	24		24		24	" From up. prt of Bilge to lr. edge of Sh'rstrake	11 11
FRAMES, Angle Iron, for 1/2 length amidships	5 3 1/2 8	Inches in Ship	5 3 1/2 8	Inches per Rule	5 3 1/2 8	" Main Sheerstrake, breadth and thickness	40 13 40 13
Do. for 1/4 at each end	5 3 1/2 7		5 3 1/2 7		5 3 1/2 7	" Of d'bling at Sh'stk. & Ing. applied	30 11 30 11
REVERSED FRAMES, Angle Iron	3 1/2 3 1/2 8		3 1/2 3 1/2 8		3 1/2 3 1/2 8	" From M'n. to Upr. or Spar Dk. Sh'rstrake	
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	2 1/2 10		2 1/2 10		2 1/2 10	" Up. or Spar Dk Sh'rstrake, br'dth & thickn'ss	
thickness at the ends of vessel	8		8		8	Butt Straps to outside plating, breadth & thickness	9 1/2 19 9 1/4 19 9 1/4 19 9 1/4
depth at 3/4 the half-bdth. as per Rule	12 1/4		12 1/4		12 1/4	Lengths of Plating	Sup. spaces of frame
height extended at the Bilges	Twice amidship depth					Shifts of Plating, and Stringers	Two & four
BEAMS, Upper, Spar, or Awning Deck	8 1/2 8		8 1/2 8		8 1/2 8	Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	43 16 43 10
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3 1/2 3 7		3 1/2 3 7		3 1/2 3 7	Angle Iron on ditto	4.4.9 4.4.9
Single or double Angle Iron on Upper edge	3 1/2 3 7		3 1/2 3 7		3 1/2 3 7	Tie Plates fore and aft, outside Hatchways	Iron Deck
Average space	alternate frames					Diagonal Tie Plates on Beams No. of Pairs	
BEAMS, Main, or Middle Deck	9 1/2 9		9 1/2 9		9 1/2 9	Flat of Up., Spar, or Awning Dk. Iron plates covered with wood	3 7.6 7.6
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3 1/2 3 7		3 1/2 3 7		3 1/2 3 7	How fastened to Beams	Rivets and nut & screw bolts
Single or double Angle Iron, on Upper Edge	3 1/2 3 7		3 1/2 3 7		3 1/2 3 7	Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	43 9 43 9
Average space	alternate frames					Is the Stringer Plate attached to the outside plating?	yes
BEAMS, Lower Deck	10 1/2 10		10 1/2 10		10 1/2 10	Angle Irons on ditto, No.	Two 4.4.9 4.4.9
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	4 1/2 4 9		4 1/2 4 9		4 1/2 4 9	Tie Plates, outside Hatchways	Iron Deck
Single or double Angle Iron on Upper Edge	4 1/2 4 9		4 1/2 4 9		4 1/2 4 9	Diagonal Tie Plates on Beams, No. of pairs	
Average space	from six to ten spcs of frame					Flat of Middle Deck* do. do.	Iron plates 7.6 7.6
BEAMS, Hold, or Orlop	10 1/2 10		10 1/2 10		10 1/2 10	How fastened to Beams	Rivets
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	4 1/2 4 9		4 1/2 4 9		4 1/2 4 9	Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	40 9 40 9
Single or double Angle Iron on Upper Edge	4 1/2 4 9		4 1/2 4 9		4 1/2 4 9	Is the Stringer Plate attached to the outside plating?	yes
Average space	from six to ten spcs of frame					Angle Irons on ditto, No.	Three 4.4.9 4.4.9
KEELSONS Centre line, single or double plate, box, or Intercoastal Plates	19 16		19 16		19 16	Stringer or Tie Plates, outside Hatchways	3 1/2 3 1/2 7 3 1/2 3 1/2 7
" Rider Plate	13 13		13 13		13 13	Flat of Lower Deck*	6.4.9 6.4.9
" Bulb Plate to Intercoastal Keelson	6 4 9		6 4 9		6 4 9	Ceiling betwixt Decks, thickness and material	Iron 1/2 Pound 2 1/2 x 1/2
" Angle Irons	6 4 9		6 4 9		6 4 9	" in hold do. do.	Solid to Bilges 5/8 x 3/4
" Double Angle Iron Side Keelson	6 4 9		6 4 9		6 4 9	Main piece of Rudder, diameter at head	7 3/4
" Side Intercoastal Plate	9		9		9	do. at heel	3 3/4
" do. Bulb Angle Irons 1/2 length	8 1/2 8		8 1/2 8		8 1/2 8	Can the Rudder be unshipped afloat?	yes
" Attached to outside plating with angle iron	3 1/2 3 1/2 8		3 1/2 3 1/2 8		3 1/2 3 1/2 8	Bulkheads No.	6 No. per Rule 5
BILGE Angle Irons	6 4 9		6 4 9		6 4 9	" Thickness of	7.6
" do. Bulb Iron 3/5 length	8 1/2 8		8 1/2 8		8 1/2 8	" Height up	Upper Deck
" do. Intercoastal plates riveted to plating for 1/2 length	9		9		9	" How secured to sides of ship	Double frames
BILGE STRINGER Angle Irons	6 4 9		6 4 9		6 4 9	" Size of Vertical Angle Irons	3 1/2 3 1/2 8 1/2 and distance apart 30 ins.
Intercoastal plates riveted to plating for 3/5 length	9		9		9	" Are the outside Plates doubled two spaces of Frames in length?	yes
SIDE STRINGER Angle Irons							

The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 7/8 in. Rivets, about 7 apart

The REVERSED ANGLE IRONS on floors and frames extend from middle line to above M. D. S. angle and to Gunwale 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 1/8 in. diameter, averaging 5 5/8 ins. from centre to centre.

" Edges of Garboards and to upper part of Bilge, worked clencher double riveted; with rivets 7/8 in. diameter, averaging 3 3/8 ins. from centre to centre.

" Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 1/2 ins. from centre to centre.

" Butts of 4 Strakes at Bilge for half length, treble riveted with Butt Straps 7/16 thicker than the plates they connect.

" Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 7/8 in. diameter, averaging 3 3/8 ins. from cr. to cr.

" Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 1/2 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 all 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 1/2 length.

" Breadth of laps of plating in double riveting 5 1/4 6 Breadth of laps of plating in single riveting 5 1/4 6

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double treble No. of Breasthooks, Crutches, 4

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Plates, Stockton, Mall. & Co. and Boston, S. Co.

Manufacturer's name or trade mark, angles and Butts } Stockton Mall. & Co. } Forgings } Joseph Keen }
Dorman Long & Co. } and Sld. }

Builder's Signature, William Duffin & Sons Surveyor's Signature, Joseph Keen

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

State clearly where plating is of alternate thickness—as distinguished from diminished thickness at ends of vessel.

* If Iron Deck, state if whole or part, and if wood deck is laid thereon.

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? *at the butts in a few cases only*

Masts, Bowsprit, Yards, &c., are *Iron & wood* 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 *please see sketch attached*

*A selected plate 7/16 bent cold with grain to 95°
 " " " " " " " " across " " 20 and 25°
 Made by Stockton Mall, J. Co.*

No.	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntd.	ANCHORS.		No.	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Machine where Tested & Suprntd.
								No.	Weight.					
	Chain		270	1 1/4	63 1/4 88 5/16	270.1 1/16	July 4/84	Bower Anchors	13605	34.1.9	31.18.0.14	34.0.0	July 7/84	
	Fore Top Sails,	Steel Stream	75	4 1/4	* 35	75.4 1/2			13689	34.1.4	31.18.0.14	34.0.0	June 30/84	
	Fore Topmast Stay Sails,	Steel Wire	100	4	* 33	100.4			13591	29.2.0	28.5.0.0	29.0.0	July 2/84	
	Main Sails,	Hawser						Stream Anchor	13609	11.0.14	13.0.0.0.10	3.0	July 9/84	
	Main Top Sails, and	Warp						Kedge	13536	5.1.7	7.14.0.7	5.2.0	June 10/84	
								2nd Kedge	13548	2.2.14	5.2.2.0	2.2.0	11/84	

Standing and Running Rigging *J.S. W & Co Rope* sufficient in size and *good* in quality. She has *3* Life Long Boats and *4* others total *7* 1/2
 The Windlass is *Iron Patent* Capstan *6* Winches and Rudder *good* Pumps *good*.
Engine Room Skylights.—How constructed? *Wood Sk L^t on Bridge Cas* How secured in ordinary weather? *hand screws*
 What arrangements for deadlights in bad weather? *Solid shutters fitted with Bulls eyes*
Coal Bunker Openings.—How constructed? *Iron Coal L^t plates* How are lids secured? *Screwed* Height above deck? *5 in*
Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Scuppers and Ports fitted in the new Buformers*
Cargo Hatchways.—How formed? *Iron Plates fitted in the usual manner*
 State size **Main Hatch** *20ft. x 12ft.* Forehatch *12ft x 10ft & 20 x 13ft* Quarterhatch *20 x 12ft and 8ft x 6ft*
 If of extraordinary size, state how framed and secured? *Web frame Beams and efficient wood*
 What arrangement for shifting beams? *fore and aft Carlings*
Hatches, If strong and efficient? *Solid and efficient.*

Order for Special Survey No.	Date	Order for Ordinary Survey No.	Date	No.	in builder's yard.	1st.	2nd.	3rd.	4th.	5th.
3220	1 st Sept 83			156		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
						<i>Built under S.S. and surveyed 1884 Feb 12 29 March</i>	<i>25 10 11 14 14 26 28 31 April 13 18 10 14 21 22 25 29 May 15 18 12 16</i>	<i>20 22 26 24 30 June 6 9 10 12 16 14 19 21 26 24 30 July 13 5 9 11 14 15</i>	<i>14 21 22 23 25 29 30 31 August 2 5 6 4 8 11 13 15 18 22 25 26 24 28</i>	<i>Sept. 1 2 4</i>

General Remarks (State quality of workmanship, &c.) *Good*
 This Vessel has been built under Special Survey in accordance with the Rules and the accompanying Drawings. Three Decks Rule.
 She has a Full Poop 28 ft long, a Top-gallant Forecastle 32 ft an open Bridge 74 feet i.e an open passage on each side.
 She has a Deep Tank in the Fore-Hold strengthened as per enclosed Drawing 28 feet long containing 336 tons; an ordinary ballast Tank under Engines and Boilers 50 ft equal 141 tons; a Tank in the after Hold 80 ft equal 144 tons each tank has been pressed as per Rule and proved efficient.
 Enclosed N^o 8. Diagram

How are the surfaces preserved from oxidation? Inside *benam^t & Paint* Outside *Paint*

I am of opinion this Vessel should be Classed *100 A. 1. Three Decks.*
 The amount of the Entry Fee £ 5 : 0 : 0 is received by me, *J. H. W.*
 Special £ 89 : 7 : 0 18th Sept 1884
 (to be sent as per margin. Certificate ... *FR 13 19V 1891* *FR 16 OCT 1891*
 (Travelling Expenses, if any, £ nil.)

Committee's Minute *FRIDAY 26 SEPT 1884 18*
 Character assigned *100 A 1*
2 The Iron
 Surveyor to Lloyd's Register of British and Foreign Shipping. *Joseph H. Bell*
 Lloyd's Register Foundation

Reference should be made to any correspondence connected with the case.