

IRON SHIP. / 1836

No. 3137 Survey held at Harrington Date, First Survey 11th January 1876 Last Survey 14th May 1877
 On the B^h "Crossfield" Master Wm Houston

TONNAGE under Tonnage Deck	773.71	ONE, OR TWO DECKED, THREE DECKED VESSEL.
Ditto of Third, Spar, or Awning Deck		SPAR, OR AWNING DECKED VESSEL.
Ditto of Poop, or Raised Qr. Dk.	29.79	HALF BREADTH (moulded)
Ditto of Houses on Deck	6.81	DEPTH from upper part of Keel to top of Upper Deck Beams
Ditto of Fore and Aft Hatchways	0.28	GIRTH of Half Midship Frame (as per Rule)
Gross Tonnage	810.59	1st NUMBER
Gross Crew Space	36.54	1st NUMBER, if a THREE DECKED VESSEL [deduct 7 feet]
Engine Room		LENGTH
Register Tonnage as cut on Beam	774.05	2nd NUMBER
		PROPORTIONS—Breadths to Length
		Depths to Length—Upper Deck to Keel
		Main Deck ditto

Built at Harrington
 When built 1876-77 Launched 28th Feb 1877
 By whom built R. Williamson & Son
 Owners Johnston, Sproule & Co
J. B. Rutherford Place Liverpool
 Port belonging to Liverpool
 Destined Voyage unknown
 If Surveyed while Building, Afloat, or in Dry Dock.
While building S.S. N^o 241

LENGTH on deck as per Rule	191	BREADTH Moulded	30 10	DEPTH top of Floors to Upper Deck Beams	19 3	Power of Engines		No. of Decks with flat laid	partial
				Do. do. Main Deck Beams				No. of Tiers of Beams	two

Dimensions of Ship per Register, length, 199.3 breadth, 30.95 depth, 19.15

	Inches in Ship		Inches per Rule		Inches in Ship		Inches per Rule		Inches in Ship		Inches per Rule	
	In Ship	In Ship	In Ship	In Ship	In Ship	In Ship	In Ship	In Ship	In Ship	In Ship	In Ship	In Ship
KEEL, depth and thickness	23	8	23	8	23	8	23	8	23	8	23	8
STEM, moulding and thickness	23	7	23	7	23	7	23	7	23	7	23	7
STERN-POST for Rudder do. do. for Propeller	7	7	7	7	7	7	7	7	7	7	7	7
Distance of Frames from moulding edge to moulding edge, all fore and aft	22	22	22	22	22	22	22	22	22	22	22	22
FRAMES, Angle Iron, for 2/3 length amidships	4	3	4	3	4	3	4	3	4	3	4	3
Do. for 1/2 at each end	4	3	6	4	3	6	4	3	6	4	3	6
REVERSED FRAMES, Angle Iron	3	3	6	3	3	6	3	3	6	3	3	6
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	21	8	20 1/2	8	21	8	20 1/2	8	21	8	20 1/2	8
thickness at the ends of vessel			7				7				7	
depth at 2/3 the half-bdth. as per Rule	10 1/4		10 1/4		10 1/4		10 1/4		10 1/4		10 1/4	
height extended at the Bilges	41		41		41		41		41		41	
BEAMS, Upper, Spar, or Awning Deck Single or double Ang. Iron, Plate or Tee Bulb Iron	7	7	7	7	7	7	7	7	7	7	7	7
Single or double Angle Iron on Upper edge	3	3	6	3	3	6	3	3	6	3	3	6
Average space	44		44		44		44		44		44	
BEAMS, Main, or Middle Deck Single or double Ang. Iron, Plate or Tee Bulb Iron												
Single or double Angle Iron, on Upper Edge												
Average space												
BEAMS, Lower Deck, Hold, or Orlop Single or double Ang. Iron, Plate or Tee Bulb Iron	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2
Single or double Angle Iron on Upper Edge	3	3	6	3	3	6	3	3	6	3	3	6
Average space	44		44		44		44		44		44	
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates	13	10	13	10	13	10	13	10	13	10	13	10
" Rider Plate	10	10	9 3/4	10	10	9 3/4	10	10	9 3/4	10	10	9 3/4
" Bulb Plate to Intercoastal Keelson												
" Angle Irons	4 1/2	3 1/2	7	4 1/2	3 1/2	7	4 1/2	3 1/2	7	4 1/2	3 1/2	7
" Double Angle Iron Side Keelson												
" Side Intercoastal Plate wash plates			6				6					
" do. Angle Irons												
" Attached to outside plating with angle iron												
BILGE Angle Irons	4 1/2	3 1/2	7	4 1/2	3 1/2	7	4 1/2	3 1/2	7	4 1/2	3 1/2	7
" do. Bulb Iron												
" do. Intercoastal plates riveted to plating for length												
BILGE STRINGER Angle Irons	4 1/2	3 1/2	7	4 1/2	3 1/2	7	4 1/2	3 1/2	7	4 1/2	3 1/2	7
Intercoastal plates riveted to plating for length												
SIDE STRINGER Angle Irons												

	Inches in Ship	16ths in Ship	Inches per Rule	16ths per Rule
Flat Keel Plates, breadth and thickness	38	10	32	10
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied	849		849	
fm up. part of Bilge to lr. edge of Sh'rstrake	849		849	
Main Sheerstrake, breadth and thickness of doubling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake. Up. or Spar Dk. Sh'rstrake, brdth & thickness	39 1/4	10	36	10
Butt Straps to outside plating, breadth & thickness	10 1/4	8 1/2	11 1/2	8 1/2
Lengths of Plating	6	spaces of frames		
Shifts of Plating, and Stringers	2	spaces of frames		
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	36	8	36	8
Angle Iron on ditto	4 1/2 x 3 1/2	7	4 1/2 x 3 1/2	7
Tie Plates fore and aft, outside Hatchways	10	8	10	8
Diagonal Tie Plates on Beams No. of Pairs				
Planksheer material and scantling				
Waterways do. do.				
Flat of Upper Deck do. do.	4		3 1/2	8
How fastened to Beams	galv. Iron Nuts & screw bolts	8		8
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness				
Is the Stringer Plate attached to the outside plating?				
Angle Irons on ditto, No.				
Tie Plates, outside Hatchways				
Diagonal Tie Plates on Beams, No. of pairs				
Waterways materials and scantlings				
Flat of Middle Deck do. do.				
How fastened to Beams				
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	27	7	27	7
Diagonal Sub Plates at welding of keels	10	8	10	8
Is the Stringer Plate attached to the outside plating?	yes			
Angle Irons on ditto, No. 2	3 1/2 x 3 1/2	7	3 1/2 x 3 1/2	7
Stringer or Tie Plates, outside Hatchways	10	8	10	8
Flat of Lower Deck laid at r. del. amidships 2 1/2" entirely at end				
Ceiling betwixt Decks, thickness and material	2 1/2 Pine Battens			
in hold do. do.	2 1/2 close ceiling to upper part of bilges			
Main piece of Rudder, diameter at head	4 3/4		4 3/4	
do. at heel	3		2 3/4	
Can the Rudder be unshipped afloat?	yes			
Bulkheads No. 1 Thickness of	6 1/2			6
Height up to main deck				
How secured to sides of ship	Double frames			
Size of Vertical Angle Irons	3 x 3 x 9/16			30 ins.
and horizontal angle iron on opposite side per Rule				
Are the outside Plates doubled two spaces of Frames in length?	yes			

Transoms, material. Knight-heads. Hawse Timbers. Iron
 Windlass Leak, Spindle & Iron Paul Bitt Greenheart
 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 above hold beam stringer 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 in. diameter, averaging 5 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 1/8 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 two 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 or single riveted; with rivets 3/4 in. diameter, averaging 3 1/8 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 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 amidships.
 Breadth of laps of plating in double riveting 4 1/2 Breadth of laps of plating in single riveting per Rule
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? per Rule
 Waterway, how secured to Beams riveted (Explain by Sketch, if necessary.) Keelsons connected
 Beams of the various Decks, how secured to the sides? welded keels riveted to frames No. of Breasthooks, Stringers Crutches, at the ends 5
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Orlop Plating, &c. Angle iron & Beams from
 Manufacturer's name or trade mark, Hopkins & Gilkes and the plates from Walter Malleable Iron Co., Coventry & Bolton Wigham.
 The above is a correct description.
 Builder's Signature, R. Williamson & Son Surveyor's Signature, J. W. Miles
 Surveyor to Lloyd's Register of British and Foreign Shipping.

11-11-1871

Workmanship. Are the butts of plating planed or otherwise fitted? *They are 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? *no* 18364 Iron

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 *The Bowsprit, Fore Mast, Main Mast and lower yards are constructed of Iron, Sketch and dimensions herewith*

NUMBER for EQUIPMENT	Fathoms.	Inches.	Test per Certificate.	Length & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
13819	270	1 5/8	47.10.0.0	270 x 1 5/8	10.0.0	3	26.2.14	25.1.3.14	25.2.0	25.3.0.0	
Fore Sails,	Chain	3 links each length	66.10.0.0	66.10.0.0	66.10.0.0		25.2.8	25.5.3.21			
Fore Top Sails,	Certificate produced from River Wear dated 13 th Jan 1877 signed by J. Hartnack										
Fore Topmast Stay Sails,	Hmpn Strm Chl	90	10		10						
Main Sails,	Hawser chain	90	1 1/8								
Main Top Sails,	Towlines	90	8		8						
	Warp	90	5 1/2		5						
	quality	90	4 3/4								
		99	3 1/2								
Standing and Running Rigging	Wire, Mainstay, Stays sufficient in size and good in quality. She has 1 Life Long Boat and three others										
The Windlass is	Secure	Capstan	Good	Rudder	Good	Pumps	2 of Iron & 2 of Metal	6	Diagrams		

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 hung with hinges on each side in the bulwarks and scuppers through sheerstrakes level with deck stringers*
 Cargo Hatchways.—How formed? *Plate Iron Curved and wood hatched*
 State size Main Hatch *14.6" x 9.4"* Forehatch *5.5" x 4.10"* Quarterhatch *5.5" x 4.11"*
 If of extraordinary size, state how framed and secured? *with plates Curved and half beams*
 What arrangement for shifting beams? *a web plate athwartships at middle of Main hatchway*
 Hatches, If strong and efficient? *they are*

Order for Special Survey No.	Date	Order for Ordinary Survey No.	Date	No.	DATES of Surveys held while building as per Section 18.	1st.	2nd.	3rd.	4th.	5th.
241	31 Dec 1875			67		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 Special Survey and seen 1876 Jan 11, 18, 24, 28, Feb 5, 9, 15, 21, March 6, 14, 20, 21, April 5, 11, 19, 22, 25, May 3, 10, 17, 20, 23, 29, June 10, 20, 29, July 8, 18, 28, August 4, 14, 19, 25, 30, September 5, 19, 27, Oct 7, 30, November 16, 20, December 13, 29, - 1877 January 6, 15, 22, 30, Feb 7, 14, 20, 27, 28, March 3, 10, 20, 24, 27, April 5, 12, 16, 18, 25, 27, May 4, 9, 14</i>				

General Remarks (State quality of workmanship, &c.) *29, 27, 28, March 3, 10, 20, 24, 27, April 5, 12, 16, 18, 25, 27, May 4, 9, 14*

The butts of the outside plating are planed and the general quality of the workmanship good.
This vessel has a raised quarter deck extending 41" 3" before the Sternpott, and an open fore-castle on Anchor deck before the Windlass, also a house on deck 21" 6" long x 8" 0" between the Foremast and Main hatchway, constructed of angle iron framing 3 x 1/2 x 1/16 planked with pine.
Efficient painting beams and stringers are fitted forward, and a tier of beams below the Cabin deck aft upon which a Lazarette deck is laid.

State if one, two, or three, decked vessel, or if spar, 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 *Portland Cement to Bilges & Paint* Outside *Paint of Iron & other Paint*
 I am of opinion this Vessel should be Classed *100 A 1*

The amount of the Entry Fee ... £ 5 : : is received by me, *J. W. Niles*
 Special ... £ 40 : 3 : *April 1877*
 Certificate ... : :
 (Travelling Expenses, if any, £ 3.15.0.)

Committee's Minute *18th May 1877*
 Character assigned *100 A 1*
 This vessel appears eligible to be classed as required by the Rules of 1876.
 Lloyd's Register Foundation