

# IRON SHIP.

No. 2947 Survey held at Aberdeen Date, First Survey Feb 10 Last Survey Dec 29 1846  
On the Iron S.S. "Petrel" Sr. Master J. Hurst

TONNAGE under ONE, OR TWO DECKED, THREE DECKED VESSEL. Built at Aberdeen  
Tonnage Deck 894.46 SPAR, OR AWNING DECKED VESSEL. When built 1846 Launched Dec 5 1846  
Tonnage of Hold, Spar, or Awning Deck. 2.42 HALF BREADTH (moulded)... 14.10  
Tonnage of Raop, or Raised Or. Dk. 43.2 DEPTH from upper part of Keel to top of Upper Deck Beam 24.64  
Tonnage of Hold 45.56 GIRTH of Half Midship Frame (as per Rule) 28.31  
Tonnage on Deck 5.54 1st NUMBER 59  
Tonnage of Forecastle 19.70 1st NUMBER, if a THREE DECKED VESSEL [deduct 7 per Rule]  
Tonnage 847.41 LENGTH 214.4  
Tonnage Crew Space 31.8 2nd NUMBER 12844  
Tonnage Engine Room 269.25 PROPORTIONS—Breadths to Length 4.6  
Tonnage out on Beam 540.36 Depths to Length—Upper Deck to Keel 12.1  
Main Deck ditto .. .. .

PLANS BASE

By whom built James Hall, Russell & Co  
Owners General Steam Navigation Company  
Port belonging to London  
Destined Voyage Barbadoes  
If Surveyed while Building, Afloat, or in Dry Dock.  
Under special survey

LENGTH 214.4 Breadth 28.3 Depth 24.6 Power of Engines 99  
No. of Decks with flat laid One  
No. of Tiers of Beams Two

	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule
Plating, depth and thickness	8 1/2 x 3/8	8 1/2 x 3/8		
Plating, moulding and thickness	7/8 x 2 3/8	7/8 x 2 3/8		
IRON-POST for Rudder do. do.	1/2 x 4 1/2	1/2 x 4 1/2		
for Propeller	1/2 x 4 1/2	1/2 x 4 1/2		
Distance of Frames from moulding edge to moulding edge, all fore and aft	22 inches	22 inches		
KEEL, Angle Iron, for 2/3 length amidships	3 1/2 x 3/8	3 1/2 x 3/8		
for 1/3 at each end	3 1/2 x 3/8	3 1/2 x 3/8		
REVERSED FRAMES, Angle Iron	3 x 2 1/2	3 x 2 1/2		
KEEL, depth and thickness of Floor Plate	1 1/4 x 1/8	1 1/4 x 1/8		
middle line for half length amidships	1 1/4 x 1/8	1 1/4 x 1/8		
thickness at the ends of vessel	1 1/4 x 1/8	1 1/4 x 1/8		
depth at 3/4 the half-bdth. as per Rule	9/4	9/4		
height extended at the Bilges	3 3/4 inches	3 3/4 inches		
Upper, Spar, or Awning Deck	5 1/2	5 1/2		
Angle or double Angle Iron, Plate or Tee Bulb Iron	5 1/2	5 1/2		
Angle or double Angle Iron on Upper edge	2 1/2 x 2 1/2	2 1/2 x 2 1/2		
Average space				
FRAMES, Main, or Middle Deck				
Angle or double Angle Iron, Plate or Tee Bulb Iron	4 1/2	4 1/2		
Angle or double Angle Iron, on Upper Edge	3	3		
Average space	alternate frames			
FRAMES, Lower Deck, Hold, or Orlop				
Angle or double Angle Iron, Plate or Tee Bulb Iron	2 3/4	2 3/4		
Angle or double Angle Iron on Upper Edge	8	8		
Average space	every 10 frames			
KEELSONS, Centre line, single or double plate, box, or intercostal, Plates	1 3/8	1 3/8		
Rider Plate	9/4	9/4		
Bulb Plate to Intercostal Keelson				
Angle Irons	4 1/2 x 3/2	4 1/2 x 3/2		
Double Angle Iron Side Keelson				
Side Intercostal Plate	Wash plate 5/8			
do. Angle Irons				
Attached to outside plating with angle iron				
LOWER DECK Angle Irons	4 1/2 x 3/2	4 1/2 x 3/2		
do. Bulb Iron	5 1/2	5 1/2		
do. Intercostal plates riveted to plating for length				
LOWER DECK STRINGER Angle Irons	4 1/2 x 3/2	4 1/2 x 3/2		
Intercostal plates riveted to plating for length				
UPPER DECK STRINGER Angle Irons				

Flat Keel Plates, breadth and thickness ...  
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied 1/2 length from up. part of Bilge to lr. edge of Sh'rstrake Main Sheerstrake, breadth and thickness of doubling at Sh'rstrake, & length applied from Mn. to Upr. or Spar Dk. Sh'rstrake. Upr. or Spar Dk. Sh'rstrake, breadth & thickness  
Butt Straps to outside plating, breadth & thickness  
Lengths of Plating ...  
Shifts of Plating, and Stringers ...  
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, Planksheer 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 ...  
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 ...  
Is the Stringer Plate attached to the outside plating?  
Angle Irons on ditto, No. ...  
Stringer or Tie Plates, outside Hatchways ...  
Flat of Lower Deck ...  
Ceiling betwixt Decks, thickness and material ...  
Main piece of Rudder, diameter at head ...  
do. at heel ...  
Can the Rudder be unshipped afloat? Yes  
Bulkheads No. 5 Thickness of ...  
Height up to Main Deck, 1 to Cabin sole with water tight flat  
How secured to sides of ship ...  
Size of Vertical Angle Irons ... and distance apart 3.0 ins.  
Are the outside Plates doubled two spaces of Frames in length? Yes

FRAMES extend in one length from Keel to Gunwale Riveted through plates with 7/16 in. Rivets, about 3.0 apart.  
REVERSED ANGLE IRONS on floors and frames extend across middle line to alternate beams and to gunwale alternately  
KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? Yes And butts properly shifted? Yes  
FRAMES. Garboard, double riveted to Keel, with rivets 7 in. diameter, averaging 5 ins. from centre to centre.  
Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 7/16 in. diameter, averaging 3.5 ins. from centre to centre.  
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 12/16 in. diameter averaging 3.8 3/4 ins. from centre to centre.  
Butts of Two Strakes at Bilge for half length, treble riveted with Butt Straps 1/8 thicker than the plates they connect.  
Butts from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 12/16 in. diameter, averaging 3 ins. from cr. to cr.  
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 12/16 in. diameter, averaging 3 ins. from cr. to cr.  
Butts of Main Sheerstrake, double or single riveted.  
Butts of Main Sheerstrake, double or single riveted.  
Butts of Main Sheerstrake, treble riveted for 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 3 1/2 Breadth of laps of plating in single riveting 3 1/2  
Butts of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double & treble riveted  
How secured to Beams Gunwale Waterways (Explain by Sketch, if necessary.)  
On the various Decks, how secured to the sides? Welded down & plates fixed  
Description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Jones Brothers & Co  
Maker's name or trade mark, Crawshaw & Consett  
Above is a correct description.  
Signature, Hall Russell & Co. Surveyor's Signature, J. W. Kettle  
Surveyor to Lloyd's Register of British and Foreign Shipping.

18469-0481

**Workmanship.** Are the butts of plating planed or otherwise fitted? *Yes*  
 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 in corners of butts*

Masts, Bowsprit, Yards, &c., are *Pitch Pine* 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  
*Length of Fore Mast 60 feet Dia 18 1/2 inches*  
*ditto of Main Mast 60.0. Dia 18 inches*

Tested by *Hartness Sunderland* June 27 1876. Tested by *Hartness Sunderland* June 18 1876.

No.	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS, Bowers	No.	Weight.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
	Fore Sails,		240	7 1/8	3 1/8 and 5 5/8 tons.	240	3 1/8 and 5 5/8 tons.	3	18.0.0	19.0.0.0	18.0.0	19	
	Fore Top Sails,								4.1.14				
	Fore Topmast Stay Sails,		40	12 1/8					78.0.0	19.0.0.0	18.0.0	19	
	Main Sails,		90	11/10		90			4.1.0				
	Main Top Sails,		50	4 1/2		50			15.1.0	15.14.1.14	15.1.0	15 1/2	
	Warp		50	5 1/2		50			3.2.15				
	quality		50	4 1/2		50							

Standing and Running Rigging *Gal 2 1/2 Hemp* sufficient in size and *good* in quality. She has *one 22 ft Long Boat* and *one 22 ft Boat* &c.  
 The Windlass is *Wood* Capstan and Rudder *Wood* Pumps *one 5 1/2 inch*

Engine Room Skylights, How constructed? *Strong teak framed with glass sashes.* How secured in ordinary weather? *Propped to Cammings.*

Coal Bunker Openings.—How constructed? *Cast Iron Ring* How are lids secured? *with a bar* Height above deck? *5 inches*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *seven scuppers and three discharge ports on each side*

Cargo Hatchways.—How formed? *Iron Cammings riveted to beams and tie plates*  
 State size Main Hatch *18.0 x 9.0* Forehatch *14.0 x 9.0* Quarterhatch *14.0 x 9.0*

If of extraordinary size, state how framed and secured? *Medium size*

What arrangement for shifting beams? *One shifting beam in each hatchway*

Hatches, If strong and efficient? *Yes*

Order for Special Survey No. *203* Date *15th 1876*  
 Order for Ordinary Survey No. \_\_\_\_\_ Date \_\_\_\_\_  
 No. *203* in builder's yard.

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

*The Sheerstrake is doubled with an 8/16 plate for 3/4 length amidships, butt straps being fitted to doubling strake as well as sheerstrake.*  
*Between the beams of extra strength in hold, spaced every 10<sup>th</sup> frame, beams are fitted on alternate frames, Butt Bars 4 1/2 x 4 1/8 and double angle bars 3 x 3 x 7/8, and 5 1/2 x 7/8 and double angle bars 2 1/2 x 2 1/4 x 3/4 on which a flat is laid of 3<sup>rd</sup> Norway White wood.*  
*Length of Raised Quarter deck 60.0. Ditto of Bridge house 45.0*  
*Ditto of Fore deck Amidships 54 feet, Ditto of Fore castle 25 feet, Ditto of Water ballast tank in Main Hold 59 feet, ditto in after hold 34 feet.*  
*And is built in accordance with a complying approved plan as per Secretary's letter dated 27<sup>th</sup> & 28<sup>th</sup> Decr 1875 and 25<sup>th</sup> March 1876.*

State if one, two, or three, decked vessel, or if spar, or arming decked; and the lengths of poop, forecabin, or raised quarter deck, and the length of double, or part double bottom  
 How are the surfaces preserved from oxidation? Inside *Red Lead* and *Red Lead* Cammings on Outside *patent paint*

I am of opinion this Vessel should be Classed *100A1*

The amount of the Entry Fee ... £ 5:0 0 is received by me, *J. H. Little*  
 Special ... £ 40: 10: 0 *Jan 3 1877*  
 Certificate ... *Gratis*

Committee's Minute *5<sup>th</sup> January 1877*

Character assigned *100A1*  
*McCulloch*  
*Doe Bot 96*  
*Lloyd's Register*  
*Double bottom 96*