

IRON SHIP.

No. 2494 Survey held at Aberdeen Date, First Survey May 12th Last Survey Apr 15th 1846
On the Natal Bk. Master H. A. Smith

TONNAGE under Tonnage Deck 392.52 ONE, OR TWO DECKED, THREE DECKED VESSEL.
SPAR, OR AWNING DECKED VESSEL.
Ditto of Third Spar, or Awning Deck. 50.81 HALF BREADTH (moulded)... 15.41 Feet.
Ditto of Poop, or Raised Or. Dk. 16.03 DEPTH from upper part of Keel to top of Upper Deck Beams 15.0
Ditto of Houses on Deck 10.03 GIRTH of Half Midship Frame (as per Rule) 25.0
Ditto of Forecastle 459.36 1st NUMBER 53.41
Gross Tonnage 13.76 1st NUMBER, if a THREE DECKED VESSEL [deduct 7 feet]
Less Crew Space 1443.6 LENGTH 148.
Less Engine Room 2nd NUMBER 4904.
Register Tonnage as cut on Beam 443.6 PROPORTIONS—Breadths to Length 5.49
Depths to Length—Upper Deck to Keel 9.80
Main Deck ditto 9.80

Built at Aberdeen
When built 1846 Launched Dec 2nd
By whom built James Hall & Co
Owners J. J. Rennie
Port belonging to Aberdeen
Destined Voyage Natal
If Surveyed while Building, Afloat, or in Dry Dock. Under Special Survey

LENGTH on deck as per Rule 148 Feet. Inches. BREADTH—Moulded... 20.82 Feet. Inches. DEPTH top of Floors to Upper Deck Beams 15.0 Feet. Inches. Power of Engines 15 Horse. N° of Decks with flat laid One
N° of Tiers of Beams One

	Inches in Ship.			Inches per Rule.		
KEEL, depth and thickness	4 1/4	1 1/8	31	4 1/4	1 1/8	30
STEM, moulding and thickness...	4 1/2	1 1/8	34	5 1/2	1 1/8	33
STERN-POST for Rudder do. do.	4 1/2	1 1/8		5 1/2	1 1/8	
for Propeller	27			27		
Distance of Frames from moulding edge to moulding edge, all fore and aft						
	Inches. In Ship.	Inches. In Ship.	16ths. In Ship.	Inches. In Ship.	Inches. In Ship.	16ths. In Ship.
FRAMES, Angle Iron, for 3/4 length amidships	3 1/2	3	9/16	3 1/2	3	9/16
Do. for 1/2 at each end	3 1/2	3	9/16	3 1/2	3	9/16
REVERSED FRAMES, Angle Iron	3	2 1/2	5/16	3	2 1/2	5/16
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	15 1/2		9/16	15 1/2		9/16
thickness at the ends of vessel	8 1/4		5/16	8 1/4		5/16
depth at 3/4 the half-bdth. as per Rule	30 inches			30 inches		
height extended at the Bilges...	6 1/2		5/16	6 1/2		5/16
BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	2 1/2	2 1/2	5/16	2 1/2	2 1/2	5/16
Single or double Angle Iron on Upper edge	3	6		3	6	
Average space...						
BEAMS, Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	4		4/16	4		4/16
Single, or double Angle Iron, on Upper Edge	3	3	9/16	3	3	9/16
Average space...						
BEAMS, Lower Deck, Hold, or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3 1/2	3	9/16	3 1/2	3	9/16
Single or double Angle Iron on Upper Edge	3 1/2	3	9/16	3 1/2	3	9/16
Average space...						
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates	11 1/4		9/16	11		9/16
" Rider Plate	4 1/2		9/16	4 1/2		9/16
" Bulb Plate to Intercoastal Keelson	3 1/2	3	9/16	3 1/2	3	9/16
" Angle Irons	4 1/8		5/16	4 1/8		5/16
" Double Angle Iron Side Keelson	3 1/2	3	9/16	3 1/2	3	9/16
" Side Intercoastal Plate	3 1/2	3	9/16	3 1/2	3	9/16
" do. Angle Irons						
" Attached to outside plating with angle iron						
BILGE Angle Irons	3 1/2	3	9/16	3 1/2	3	9/16
" do. Bulb Iron						
" do. Intercoastal plates riveted to plating for length						
BILGE STRINGER Angle Irons	3 1/2	3	9/16	3 1/2	3	9/16
Intercoastal plates riveted to plating for length.						
SIDE STRINGER Angle Irons						
Transoms, material. Knight-heads. Hawse Timbers.						
Windlass						
Pall Bitt						

Transoms, material. Knight-heads. Hawse Timbers. Plates & frames
Windlass Iron Bark Pall Bitt Iron Bark
The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 9 1/8 in. Rivets, about 5 apart.
The REVERSED ANGLE IRONS on floors and frames extend across middle line to gunwale 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 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 1/8 in. diameter, averaging 2 1/2 ins. from centre to centre.
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 10 1/8 in. diameter averaging 2 1/2 ins. from centre to centre.
Butts of One Strakes at Bilge for half length, treble riveted with Butt Straps 7 1/8 thicker than the plates they connect.
Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 10 1/8 in. diameter, averaging 2 1/2 ins. from cr. to cr.
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 10 1/8 in. diameter, averaging 2 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 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.
Butts of Main Stringer Plate, treble riveted for 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 to 5 1/2 Breadth of laps of plating in single riveting 3
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double riveted
Waterway, how secured to Beams Butt Waterway (Explain by Sketch, if necessary.)
Beams of the various Decks, how secured to the sides? Welded and riveted to the frames No. of Breasthooks 4 Crutches 4
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Hyson & Co. Hawks
Manufacturer's name or trade mark Hawthorn
The above is a correct description. H. Hall & Co Surveyor's Signature, H. Hall & Co
Builder's Signature, H. Hall & Co Surveyor to Lloyd's Register of British and Foreign Shipping.

IRON 469-0309

Workmanship.

Are the butts of plating planed or otherwise fitted?

All 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 in corners of butts.

Masts, Bowsprit, Yards, &c., are *Iron & Teak* 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 Masts fore & Main & Bowsprit are formed of 2 plates 5/16" thick, lands double clench, butts double & triple riveted. Butts shape 1/16" thicker than plates. Length of Masts 66.5, Main 22.5, Head 15.5, Main 14, Cap 14.

Tested by O. G. Lewis, 18th November 1876.

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NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.	N ^o .	Weight, Stock.	Test per Certificate.	Weight req'd per Rule.	Test req'd per Rule.
SAILS.							Bowers	3	15.5.4	15.5.1.0	15.5.1.0	15 14/20
Fore Sails,									15.5.4	15.5.1.0	15.5.1.0	15 14/20
Fore Top Sails,									15.5.4	15.5.1.0	15.5.1.0	15 14/20
Fore Topmast Stay Sails									15.5.4	15.5.1.0	15.5.1.0	15 14/20
Main Sails,							Stream	1	5.1.13	5.1.1.0	5.1.1.0	5 1/20
Main Top Sails,							Kedges	2	3.1.22	3.1.1.0	3.1.1.0	3 1/20
CABLES, &c.												
Chain		210	1 1/16	34 and 57 tons	219 1/16	37 and 45 1/2 tons						
Hawser ...		90	8		8							
Towlines ...		90	6		6							
Warp ...		90	4									

Standing and Running Rigging *good* sufficient in size and *good* in quality. She has *one* Long Boat and *two* other boats

The Windlass is *good* Capstan *good* and Rudder *good* Pumps *2 of iron efficient*

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? *Three scuppers and three discharge ports*

Cargo Hatchways.—How formed? *Iron beamings rivetted to beams and triple plate.*

State size Main Hatch *11.0 x 8.0* Forehatch *5.0 x 4.0* Quarterhatch *5.0 x 4.0*

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

What arrangement for shifting beams? *One shifting beam in Main Hatch*

Hatches, If strong and efficient? *Yes*

Order for Special Survey No. *444* *18th November 1876*

Date *29 Dec 1876*

Order for Ordinary Survey No. *290*

Date *18 Dec 1876*

No. *290* in builder's yard.

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

Length of Bowsprit outside bed 15 feet, Bed at head 27, Head 15.5, Cap 13.5

2 Angle bars extending whole length 2 1/2 x 2 1/2 x 5/16.

The first inside stake of plating under sheestake is doubled with 1/16 and 9/16 plates for a length of 14.5 feet from the stem, butt straps being fitted to the doubling stake as well as the plating to which it is rivetted.

And is built in accordance with approved tracings as per Secretaries Letter dated May 22 1876.

Length of Half Poop 24 feet.

Tests have been made on the Iron used in this vessel as well as the Masts and found to be of good quality.

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* Outside *Patent Paint*

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, *J. M. Little*

Special ... £ 22 : 5 : 0 *Dec 13 1876*

Certificate ... *Gratis*

(Travelling Expenses, if any, £ *None*)

Committee's Minute *19 December 1876*

Character assigned *100 A 1*

Accepted

100 A 1

100 A 1

100 A 1

100 A 1

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