

IRON SHIPS.

No. 3094 Survey held at Leith Date 14th February 1883
 on the Steamer "Fingath" Master James Martin
 Tonnage Gross 463 7/8 Engine Room 150 7/8 Register 613 6/8 Built at Leith
 When Built 1862 By whom built Messrs. J. & S. Martin & Co. Owners London & India Shipping Co.
 Port belonging to Leith Destined Voyage London
 Surveyed Afloat or in Dry Dock While Building

| Feet. | | Inches. | | Feet. | | Inches. | | Feet. | | Inches. | | Feet. | | Inches. | | Horse No. | |
|---|--|----------------------|--|-----------------|--|--|--|------------------------------|--|---------|--|------------------|--|--------------------------|--|---------------------------|--|
| Length aloft | | 228 1/4 | | Extreme Breadth | | 28 1 | | Depth from top of Upper Deck | | 15 9/2 | | Power of Engines | | 120 | | | |
| Distance of Frames or Ribs from moulding edge to moulding edge, all fore and aft | | 18 | | Inches in Ship. | | 18 | | Inches required per Rule. | | | | Inches in Ship. | | 16ths required per Rule. | | Inches required per Rule. | |
| Floors, Size of Angle Iron, and No. single at bottom of Floor Plate | | 4 3 | | 7/16 | | 4 1/4 | | 3 8/16 | | | | 4 3 | | 7/16 | | 4 1/4 | |
| ,, depth and thickness of Floor Plate at mid line | | 1 1/2 | | - | | 8/16 | | 15/4 | | - | | 9/16 | | | | | |
| ,, depth and thickness of Floor Plate at Bilge Keelson | | 4 | | - | | 8/16 | | 4 1/4 | | - | | 9/16 | | | | | |
| ,, Size of Reversed Angle Iron, and No. single at top of Floor Plate | | 3 3 | | 6/16 | | 3 2 3/4 | | 7/16 | | | | 3 3 | | 6/16 | | 3 2 3/4 | |
| Frames, Size of Angle Iron, single or double | | 4 3 | | 7/16 | | 4 1/4 | | 3 8/16 | | | | 4 3 | | 7/16 | | 4 1/4 | |
| ,, Reversed Iron, to every frame | | 3 3 | | 6/16 | | 3 2 3/4 | | 7/16 | | | | 3 3 | | 6/16 | | 3 2 3/4 | |
| Beams, Deck (No. double Angle Iron or Bulb Iron with double Angle Iron on top | | 3 2 1/2 | | 5/16 | | 3 2 1/4 | | 5/16 | | | | 3 2 1/2 | | 5/16 | | 3 2 1/4 | |
| ,, depth & thickness of plate amidships | | 7 | | - | | 7/16 | | 7 | | - | | 8/16 | | | | | |
| ,, double or single Angle Iron, on lower edge | | 3 feet | | 3 feet | | | | | | | | | | | | | |
| ,, average space between | | 3 feet | | 3 feet | | | | | | | | | | | | | |
| ,, if wood (No. sided & moulded | | 3 2 1/2 | | 5/16 | | 3 2 1/4 | | 5/16 | | | | 3 2 1/2 | | 5/16 | | 3 2 1/4 | |
| Hold, or Lower Deck (No. double Angle Iron or Bulb Iron with double Angle Iron on top | | 3 2 1/2 | | 5/16 | | 3 2 1/4 | | 5/16 | | | | 3 2 1/2 | | 5/16 | | 3 2 1/4 | |
| ,, depth & thickness of plate amidships | | 7 | | - | | 7/16 | | 7 | | - | | 8/16 | | | | | |
| ,, double or single Angle Iron, on lower edge | | 3 feet | | 3 feet | | | | | | | | | | | | | |
| ,, average space between | | 3 feet | | 3 feet | | | | | | | | | | | | | |
| ,, if wood (No. sided & moulded | | 3 2 1/2 | | 5/16 | | 3 2 1/4 | | 5/16 | | | | 3 2 1/2 | | 5/16 | | 3 2 1/4 | |
| Paddle, wood, sided and moulded or if Iron, size of Plate | | 3 2 1/2 | | 5/16 | | 3 2 1/4 | | 5/16 | | | | 3 2 1/2 | | 5/16 | | 3 2 1/4 | |
| Engine | | 3 2 1/2 | | 5/16 | | 3 2 1/4 | | 5/16 | | | | 3 2 1/2 | | 5/16 | | 3 2 1/4 | |
| Keelson, wood sided & moulded iron, size of plate, if Box gives sketch & dimensions | | 3 2 1/2 | | 5/16 | | 3 2 1/4 | | 5/16 | | | | 3 2 1/2 | | 5/16 | | 3 2 1/4 | |
| ,, Side or Bilge | | 3 2 1/2 | | 5/16 | | 3 2 1/4 | | 5/16 | | | | 3 2 1/2 | | 5/16 | | 3 2 1/4 | |
| ,, Number | | 3 2 1/2 | | 5/16 | | 3 2 1/4 | | 5/16 | | | | 3 2 1/2 | | 5/16 | | 3 2 1/4 | |
| Stem, if bar iron, moulding and thickness | | 4 | | 2 3/4 | | 7/4 | | 2 3/4 | | | | 4 | | 2 3/4 | | 7/4 | |
| ,, if plate iron, breadth and thickness | | 4 | | 2 3/4 | | 7/4 | | 2 3/4 | | | | 4 | | 2 3/4 | | 7/4 | |
| Stern-post, if bar iron, moulding and thickness | | 4 | | 2 3/4 | | 7/4 | | 2 3/4 | | | | 4 | | 2 3/4 | | 7/4 | |
| ,, if plate iron, breadth and thickness | | 4 | | 2 3/4 | | 7/4 | | 2 3/4 | | | | 4 | | 2 3/4 | | 7/4 | |
| Keel, if bar iron, depth and thickness | | 4 | | 2 3/4 | | 7/4 | | 2 3/4 | | | | 4 | | 2 3/4 | | 7/4 | |
| ,, if plate iron, breadth and thickness | | 4 | | 2 3/4 | | 7/4 | | 2 3/4 | | | | 4 | | 2 3/4 | | 7/4 | |
| Garboard Plates, thickness | | Description of Iron. | | Plaque Iron Cg | | X 10/16 | | 11/16 | | | | X 10/16 | | 11/16 | | | |
| From Garboard to upper part of Bilge | | - | | - | | X 9/16 | | 10/16 | | | | X 9/16 | | 10/16 | | | |
| From upper part of Bilge to Sheerstrakes | | - | | - | | X 8/16 | | 9/16 | | | | X 8/16 | | 9/16 | | | |
| Sheerstrakes | | - | | - | | X 9/16 | | 10/16 | | | | X 9/16 | | 10/16 | | | |
| Breadth & thickness of Butt Straps to outside plating | | - | | - | | X 8/16 | | 9/16 | | | | X 8/16 | | 9/16 | | | |
| Planksheers | | - | | - | | - | | - | | | | - | | - | | | |
| Gunwale Plate or Stringer on ends of Up. Dk Beams | | - | | - | | 30 | | 8/16 | | 21 | | 7/16 | | | | | |
| Angle Iron on ditto | | - | | - | | 1 1/2 x 3/4 | | 7/16 | | 2 1/4 | | 2 3/4 | | 8/16 | | | |
| Waterway | | - | | - | | Red Pine | | 12 | | 8 | | | | | | | |
| Deck | | - | | - | | Yellow Pine | | 3 1/2 | | 3 1/2 | | | | | | | |
| Ceiling in Hold | | - | | - | | American Rock | | 2 1/4 | | 2 1/4 | | | | | | | |
| Ceiling betwixt Decks | | - | | - | | - | | - | | - | | | | | | | |
| Beam Clamps | | - | | - | | - | | - | | - | | | | | | | |
| ,, Shelf | | - | | - | | - | | - | | - | | | | | | | |
| ,, Stringer Plates on ends of Hold or Lower Dk Beams | | - | | - | | 21 | | 8/16 | | 21 | | 9/16 | | | | | |
| Ceiling between Decks | | - | | - | | 4 1/2 x 3/4 | | 7/16 | | 4 1/2 | | 3/4 | | 8/16 | | | |
| Stringer or Tie Plates outside Hatchways | | - | | - | | - | | - | | - | | | | | | | |
| Deck Beam Clamps | | - | | - | | 18 | | 8/16 | | 10 1/2 | | 9/16 | | | | | |
| ,, Shelf | | - | | - | | - | | - | | - | | | | | | | |
| Stringers in Hold | | - | | - | | Double angle iron | | 1 1/2 x 3/4 | | 7/16 | | 1 1/4 x 3/4 | | 8/16 | | | |
| Deck, Lower | | - | | - | | - | | - | | - | | | | | | | |
| Deck, Upper, how fastened to Beams | | - | | - | | With screw bolts from above and nuts below | | | | | | | | | | | |

Transoms, material Iron or, if none, in what manner compensated for.
 Knight-heads Iron Bulkheads, No. Five Thickness of 4/16 6/16
 Hawse Timbers Iron are they free from defects? Yes how secured to the sides of the ship Between double angle irons
 size of vertical angle iron and their distance apart 3 x 2 3/4 x 4/16 - 30" apart
 The Frames or Ribs extend in one length from Keel to Gunwale rivetted through plates with (3/4 in.) rivets, about (6 in.) apart.
 The reverse angle irons on the floors extend in one length across the middle line from 5 feet from Midline to fulcrum and gunwale alternately
 on the frames Yes from Keel to Gunwale
 Keelson, how are the various lengths of plates or angle irons connected? Well rivetted
 Plates, Garboard, double or single rivetted to keel & at upper edge, with rivets (1/2 in.) diameter averaging (4 3/4 in.) from centre to centre of rivet.
 Edges from Garboards to upper part of bilge, worked carvel with a lining piece (1/2 in.) thick, or clencher, double or single rivetted; rivets (3/4 in.) diameter, averaging (2 3/4 in.) from centre to centre of rivets.
 Butts from Keel to turn of bilge, worked carvel with a lining piece (1/2 in.) thick, double or single rivetted; rivets (3/4 in.) diameter, averaging (2 3/4 in.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? Yes
 Edges from bilge to planksheer, worked carvel with a lining piece (1/2 in.) thick, double or single rivetted; rivets (3/4 in.) diameter, averaging (2 3/4 in.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? Yes
 Butts from bilge to planksheers, worked carvel with a lining piece (1/2 in.) thick, or clencher, double or single rivetted; rivets (3/4 in.) diameter averaging (2 3/4 in.) from centre to centre of rivets. Breadth of laps in double rivetting (3 3/4 in.) Breadth of laps in single rivetting (2 1/2 in.)
 Planksheer, how secured to the plating of the sides Explain by sketch, No. for tracing sent herewith
 Waterway Yes planksheer and to the Beams if necessary.
 Side trussing Yes breadth and thickness of plates how secured?
 Deck trussing Yes
 Deck Beams, how secured to the side? Solid welded knees
 Hold or Lower Deck Yes
 Paddle Yes
 No. of breasthooks Two crutches how are pointers compensated?
 What description of iron is used for the angle iron and plate iron in the vessel? Glasgow Iron Builder's Signature James Martin

Workmanship.

Are the lands or laps of the clenchwork in all cases in breadth at least five times the diameter of the rivets in double rivetted edges and butts, and at least three times the diameter of the rivets where single rivetting is admitted? 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

Do the fillings between the ribs and plates fill in solid with single pieces, or are they in short lengths of various thicknesses? Solid with single pieces

Do the holes for rivetting plate to frames, lining pieces, or plate to plate, &c., conform well to each other? Yes and are the rivet holes well and sufficiently countersunk in the outer plate? Yes

Are there any rivets which either break into or have been put through the seams or butts of the plating? A very few

Her Masts, Yards, &c., are in good condition, and sufficient in size and length.

She has SAILS.

CABLES, &c.

ANCHORS, and their weights.

| N ^o . | | | Fathoms. | Inches. | | N ^o . | Weight. |
|------------------|--------------------------|-------------------------------|------------|--------------|---------------|------------------|----------------|
| <u>One</u> | Fore Sails, | Chain | <u>240</u> | <u>1 3/8</u> | Bower, | <u>1</u> | <u>20.10.6</u> |
| <u>full</u> | Fore Top Sails, | Chain Stream Cable | <u>40</u> | <u>7/8</u> | | <u>1</u> | <u>22.3.5</u> |
| <u>and</u> | Fore Topmast Stay Sails, | Hawser | <u>90</u> | <u>8</u> | Stream, | <u>1</u> | <u>5.3.24</u> |
| <u>sail</u> | Main Sails, | Towlines | <u>90</u> | <u>10</u> | | | |
| | Main Top Sails, | Warp | <u>180</u> | <u>5 1/2</u> | Kedge, | <u>1</u> | <u>3.1.14</u> |
| | and spare sails | All of <u>good</u> quality. | <u>40</u> | <u>5</u> | | <u>1</u> | <u>1.2.10</u> |

Her Standing and Running Rigging are used sufficient in size and good in quality.

She has One Long Boat and Four others

The present state of the Windlass is Good Capstan Good and Rudder Good Pumps in W. Good

General Remarks, Statement and Date of Repairs, extent of corrosion (if any) both internally and externally, and condition of rivets.

- DATES of Surveys held while building, as per Section 17.
- 1st. On the several parts of the frame, when in place, and before the plating was wrought
 - 2nd. On the plating during the progress of rivetting
 - 3rd. When the beams were in and fastened, and before the decks were laid
 - 4th. When the ship was complete, and before the plating was finally coated
 - 5th. After the ship was launched

Request Note for Special Survey N^o 89 - 19th June 1862.

The recommendations given by Mr. Martin when here with the Revision Committee, viz., several of the intermediate plates to be refitted, and the filigee stringers to extend to the stem, have been complied with in a satisfactory manner.

The Sheerstrake has been doubled for three fourths the length of the ship. - the inner plates being 9/16" and the outer plates 7/16" thick. The stringers plated on beam ends have also been increased in breadth to 30 inches, as shown in the accompanying tracing and approved by the Committee in their letter of the 23rd May 1862.

The Main deck has been diagonally trussed where practicable with plates 11" wide by 7/16".

This Ship was launched, and the Anchors and Cables provided, before the present Rule respecting the testing of same came into force. - The Testing Certificates of the Main Cables, and Anchors, are sent herewith.

Some of the scantlings in this Ship are below those required by the Rules, the original tonnage having been increased by the fitting of a Deck, respecting which I beg respectfully to refer to the Secretary's letter to Messrs. Matheson & Co. dated 19th January 1860. And to add that the Iron is of good quality, and the workmanship very satisfactory.

In what manner are the surfaces preserved from oxidation? Inside coated with Portland Cement to the filigee, and from thence upwards with two coats of Black Paint. The Outside Coated with three coats of Black Paint.

I am of opinion this Vessel should be classed P. A. 1.

The amount of the Fee£ 5 : 0 : 0 is received by me,

Special£ 38 : 3 : 0

Certificate (if required)£ 43 : 3 : 0

Committee's Minute 20th February 1863.

Character assigned A 1 for 9 Years

Benj. Marshall

Feb 17/63
This Iron Sheerstrake is of extreme length in proportion to breadth and depth (viz. 14 ft. 6 in. which appears to be well braced in the middle strong & deep) the scantlings are of the best Oak for Sheerstrake only. I beg to refer the Committee to their letter upon the subject of the Rudder and to the receipt of Anchors and the Cables.