

IRON SHIP.

Run 19/8/73 18

Survey held at Dundee Date, First Survey 1869 Last Survey 1869

On the S. S. "African" Yard Number 686.46 Master Prouce

TONNAGE under Deck 686.46 ONE, OR TWO DECKED, THREE DECKED VESSEL. SPAR, OR AWNING-DECKED VESSEL.

Deck 420.37 HALF BREADTH (moulded) 15.5

Ditto of Poop, or Raised Qr. Dk. 4.01 DEPTH from upper part of Keel to top of Upper Deck Beams 23.75

Ditto of Houses on Deck 4.01 GIRTH of Half Midship Frame (as per Rule) 35.5

Ditto of Forecastle 4.01 1st NUMBER 74.75

Gross Tonnage 1071.91 1st NUMBER, if a THREE-DECKED VESSEL deduct 7 feet 67

Less Crew Space 40.93 LENGTH 230

Less Engine Room 235.46 2nd NUMBER 15582

Register Tonnage as cut on Beam 836.45 PROPORTIONS—Breadths to Length 7

Depths to Length—Upper Deck to Keel 9

Main Deck ditto 13

Built at Glasgow When built 1869 Launched May 1869

By whom built London & Glasgow Co. Owners C. Williamson

Port belonging to Leith Destined Voyage

If Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 230 Breadth—Moulded 31 DEPTH top of Floors to Upper Deck Beams 23 Do. do. Main Deck Beams 16 Power of Engines 94 Horse. 94 N° of Decks with flat laid 2 N° of Tiers of Beams 3

Dimensions of Ship per Register, length, breadth, depth,

| | Inches in Ship. | Inches per Rule. | Inches in Ship. | Inches per Rule. | 16ths required |
|--|---------------------|---------------------|---------------------|---------------------|----------------|
| KEEL, depth and thickness | 8 1/2 x 3 | 8 1/2 x 2 1/2 | 8 1/2 x 3 | 8 x 2 1/2 | 11 |
| STEM, moulding and thickness | 8 1/2 x 3 | 8 x 2 1/2 | 8 1/2 x 3 | 8 x 2 1/2 | 10 |
| STERN-POST for Rudder do. do. | 7 1/2 x 5 1/2 | 8 x 5 | 7 1/2 x 5 1/2 | 8 x 5 | 9 |
| for Propeller | 24 in | 23 in | 24 in | 23 in | 9 |
| Distance of Frames from moulding edge to moulding edge, all fore and aft | 24 in | (Class 100 A) | 24 in | (Class 100 A) | 10 |
| FRAMES, Angle Iron, for 1/2 length amidships | 4 1/2 x 3 | 4 1/2 x 3 | 4 1/2 x 3 | 4 1/2 x 3 | 7 |
| Do. for 1/2 at each end | 4 1/2 x 3 | 4 1/2 x 3 | 4 1/2 x 3 | 4 1/2 x 3 | 7 |
| REVERSED FRAMES, Angle Iron | 3 x 2 1/2 | 3 x 2 1/2 | 3 x 2 1/2 | 3 x 2 1/2 | 6 |
| FLOORS, depth and thickness of Floor Plate at mid line for half length amidships | 2 1/2 x 10 | 2 1/2 x 8 | 2 1/2 x 10 | 2 1/2 x 8 | 8 |
| thickness at the ends of vessel | | | | | |
| depth at 1/2 the half-bdth. as per Rule | | | | | |
| height extended at the Bilges | | | | | |
| BEAMS, Upper, Spar, or Awning Deck | 6 x 6 | 6 x 6 | 6 x 6 | 6 x 6 | 6 |
| Single or double Angle Iron, Plate or Tee Bulb Iron | 2 1/4 x 5 | 2 1/4 x 5 | 2 1/4 x 5 | 2 1/4 x 5 | 5 |
| Single or double Angle Iron on Upper edge | 2 1/4 x 5 | 2 1/4 x 5 | 2 1/4 x 5 | 2 1/4 x 5 | 5 |
| Average space | alternate framed | alternate framed | alternate framed | alternate framed | |
| BEAMS, Main or Middle Deck | 7 1/2 x 7 | 7 1/2 x 7 | 7 1/2 x 7 | 7 1/2 x 7 | 7 |
| Single or double Angle Iron, Plate or Tee Bulb Iron | 2 1/4 x 6 | 2 1/4 x 6 | 2 1/4 x 6 | 2 1/4 x 6 | 6 |
| Single or double Angle Iron on Upper Edge | 2 1/4 x 6 | 2 1/4 x 6 | 2 1/4 x 6 | 2 1/4 x 6 | 6 |
| Average space | alternate framed | alternate framed | alternate framed | alternate framed | |
| BEAMS, Lower Deck, Hold or Orlop | 7 1/2 x 7 | 7 1/2 x 7 | 7 1/2 x 7 | 7 1/2 x 7 | 7 |
| Single or double Angle Iron, Plate or Tee Bulb Iron | 2 1/4 x 6 | 2 1/4 x 6 | 2 1/4 x 6 | 2 1/4 x 6 | 6 |
| Single or double Angle Iron on Upper Edge | 2 1/4 x 6 | 2 1/4 x 6 | 2 1/4 x 6 | 2 1/4 x 6 | 6 |
| Average space | about 16 feet apart | about 16 feet apart | about 16 feet apart | about 16 feet apart | |
| KEELSONS Centre line, single or double plate, box, or intercostal plates | 15 1/2 x 12 | 15 1/2 x 12 | 15 1/2 x 12 | 15 1/2 x 12 | 12 |
| Rider Plate | 15 1/2 x 12 | 15 1/2 x 12 | 15 1/2 x 12 | 15 1/2 x 12 | 12 |
| Bulb Plate to Intercostal Keelson | 5 x 4 1/2 | 5 x 4 1/2 | 5 x 4 1/2 | 5 x 4 1/2 | 9 |
| Angle Irons | 5 x 4 1/2 | 5 x 4 1/2 | 5 x 4 1/2 | 5 x 4 1/2 | 9 |
| Double Angle Iron Side Keelson | 5 x 4 1/2 | 5 x 4 1/2 | 5 x 4 1/2 | 5 x 4 1/2 | 9 |
| Side Intercostal Plate | 5 x 4 1/2 | 5 x 4 1/2 | 5 x 4 1/2 | 5 x 4 1/2 | 9 |
| do. Angle Irons | 5 x 4 1/2 | 5 x 4 1/2 | 5 x 4 1/2 | 5 x 4 1/2 | 9 |
| Attached to outside plating with angle iron | no | should be | no | should be | |
| BILGE Angle Irons | 5 x 4 1/2 | 5 x 4 1/2 | 5 x 4 1/2 | 5 x 4 1/2 | 9 |
| do. Bulb Iron | 7 1/2 x 7 | 7 1/2 x 7 | 7 1/2 x 7 | 7 1/2 x 7 | 7 |
| do. Intercostal plates riveted to plating for length | | | | | |
| BILGE STRINGER Angle Irons | 5 x 4 1/2 | 5 x 4 1/2 | 5 x 4 1/2 | 5 x 4 1/2 | 9 |
| Intercostal plates riveted to plating for length | | | | | |
| SIDE STRINGER Angle Irons | 3 1/2 x 2 1/2 | 3 1/2 x 2 1/2 | 3 1/2 x 2 1/2 | 3 1/2 x 2 1/2 | 2 1/2 |
| Transoms, material. Knight-heads. Hawse Timbers. | | | | | |
| Windlass. Pall Bitt | | | | | |

Flat Keel Plates, breadth and thickness 33 16ths 11 16ths 36 16ths 11 16ths

PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of clabing at Bilge, or increased thickness, and length applied 28 ft 16ths 10 16ths 9 16ths

fin up. part of Bilge to lr. edge of Sh'rstrake Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake. Up. or Spar Dk Sh'rstrake, brdth & thickness 30 16ths 8 16ths 36 16ths 10 16ths

Butt Straps to outside plating, breadth & thickness Lengths of Plating 46 16ths 8 16ths

Shifts of Plating, and Stringers 46 16ths 8 16ths

Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness 25 16ths 8 16ths 32 16ths 7 16ths

Angle Iron on ditto 3 1/2 x 3 1/2 16ths 4 x 4 x 8 16ths

Tie Plates fore and aft, outside Hatchways 9 x 8 16ths 10 1/2 16ths 7 16ths

Diagonal Tie Plates on Beams No. of Pairs, 9 x 8 16ths 10 1/2 16ths 7 16ths

Planksheer material and scantling 5 in. Teak 16ths

Waterways do. do. 3 in. Teak 16ths

Flat of Upper Deck do. do. 3 in. Teak 16ths

How fastened to Beams galvanized iron 16ths

Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness 33 16ths 12 16ths 32 16ths 9 16ths

Is the Stringer Plate attached to the outside plating? no 16ths

Angle Irons on ditto, No. 1 16ths 5 x 3 1/2 x 8 16ths 4 x 4 x 8 16ths

Tie Plates, outside Hatchways iron plate deck 16ths 7 1/2 in thickness 16ths

Diagonal Tie Plates on Beams, No. of pairs 5 in. Teak 16ths

Waterways materials and scantlings 3 in. Teak 16ths

Flat of Middle Deck do. do. 3 in. Teak 16ths

How fastened to Beams galvanized iron 16ths

Stringer Plates on ends of Lower Deck, Hold or Orlop Beams 20 16ths 13 16ths 24 16ths 8 16ths

Is the Stringer Plate attached to the outside plating? no 16ths

Angle Irons on ditto, No. 1 16ths 5 x 3 1/2 x 8 16ths 4 x 4 x 8 16ths

Stringer or Tie Plates, outside Hatchways 5 3/4 16ths 5 3/4 16ths

Flat of Lower Deck 5 3/4 16ths 5 3/4 16ths

Ceiling betwixt Decks, thickness and material in hold do. do. 5 3/4 16ths 5 3/4 16ths

Main piece of Rudder, diameter at head 5 3/4 16ths 5 3/4 16ths

do. at heel 3 16ths 3 16ths

Can the Rudder be unshipped afloat? no 16ths

Bulkheads No. 5 Thickness of 7 1/2 16ths

Height up 16ths

How secured to sides of ship 16ths

Size of Vertical Angle Irons 16ths and distance apart 16ths

Are the outside Plates doubled two spaces of Frames in length? 16ths

The FRAMES extend in one length from to Riveted through plates with in. Rivets, about apart.

The REVERSED ANGLE IRONS on floors and frames extend middle line to and to alternately

KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? And butts properly shifted?

PLATING. Garboard, double riveted to Keel, with rivets in. diameter, averaging ins. from centre to centre.

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

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets in. diameter averaging ins. from centre to centre.

Butts of Strakes at Bilge for length, treble riveted with Butt Straps thicker than the plates they connect.

Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets in. diameter, averaging ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets in. diameter, averaging 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.

Breadth of laps of plating in double riveting Breadth of laps of plating in single riveting

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted?

Waterway, how secured to Beams (Explain by Sketch, if necessary.)

Beams of the various Decks, how secured to the sides? No. of Breasthooks, Crutches,

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

Manufacturer's name or trade mark,

The above is a correct description.

Builder's Signature, Surveyor's Signature,

Workmanship. Are the butts of plating planed or otherwise fitted?

8073. Iron

Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies?

Are the fillings between the ribs and plates solid single pieces?

Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other?

Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces?

Do any rivets break into or through the seams or butts of the plating?

Masts, Bowsprit, Yards, &c., are _____ in _____ 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

NUMBER for EQUIPMENT

| N ^o . | SAILS. | CABLES, &c. | Fathoms. | Inches. | Test per Certificate. | In. req'd per Rule. | Test req'd per Rule. | ANCHORS, &c. | N ^o . | Weight. Ex. Stock. | Test per Certificate. | W'ght req'd per Rule. | Test req'd per Rule. |
|------------------|-------------------------|---|----------|---------|-----------------------|---------------------|----------------------|---|------------------|--------------------|-----------------------|-----------------------|----------------------|
| | Fore Sails, | Chain ... | | | | | | Bowers ... | | | | | |
| | Fore Top Sails, | (Machine where Tested, date, and name of Superintendent.) | | | | | | (Machine where Tested, date, and name of Superintendent.) | | | | | |
| | Fore Topmast Stay Sails | Hempen Stream Cable | | | | | | Stream ... | | | | | |
| | Main Sails, | Hawser ... | | | | | | | | | | | |
| | Main Top Sails, | Towlines ... | | | | | | | | | | | |
| | and | Warp ... | | | | | | Kedges ... | | | | | |
| | | quality | | | | | | | | | | | |

Standing and Running Rigging _____ sufficient in size and _____ in quality. She has _____ Long Boat and _____

The Windlass is _____ Capstan _____ and Rudder _____ Pumps _____

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? _____

Cargo Hatchways.—How formed? _____

State size Main Hatch _____ Forehatch _____ Quarterhatch _____

If of extraordinary size, state how framed and secured? _____

What arrangement for shifting beams? _____

Hatches, If strong and efficient? _____

| | | |
|-------------------------------------|---|---|
| Order for Special Survey No. _____ | DATES of Surveys held while building as per Section 18. | 1st. On the several parts of the frame, when in place, and before the plating was wrought |
| Date _____ | | 2nd. On the plating during the process of riveting |
| Order for Ordinary Survey No. _____ | | 3rd. When the Beams were in and fastened, and before the decks were laid |
| Date _____ | | 4th. When the ship was complete, and before the plating was finally coated or cemented |
| No. _____ in builder's yard. | | 5th. After the ship was launched and equipped |

General Remarks,

The upper deck stringer plate an rather less than required, in sectional as a 3 deck vessel. The upper deck Sheerstrake is $\frac{3}{16}$ of an inch less than rules require as a 3 deck vessel. Topside strake of shell plating, 1 strake below main deck, and 2 strakes at Bilges are $\frac{1}{16}$ of an inch less than required.

The Butts of 3 strakes round Bilges, the Sheerstrakes and Stringer plates should be triple rivetted for $\frac{1}{2}$ length amidships.

The main & hold Beam Stringer plates should be connected to shell plating. and the frames are 24 ins apart, in lieu of 23 ins. Side intercostal Keelson is not connected to shell.

Excesses, The main Sheerstrake is $\frac{3}{16}$ of an inch thicker than required as a 3 deck vessel. One strake of plating in Bottom $\frac{1}{16}$ thicker.

100 A class The seams and Butts of shell plating are double rivetted with $\frac{1}{8}$ rivets in lieu of $\frac{3}{16}$, allowed by the rules. Frames are double from Bilge to Bilge, for about $\frac{1}{2}$ length amidships, as also the floor plates, and main Keelson.

Side intercostal plates $\frac{3}{16}$ in thickness more than required. Vessel had 5 Bulkheads, in lieu of 4, and are $\frac{1}{2}$ inch thicker than required.

State if one, two or three decked vessel, or if spar or arming decked, and lengths of poop, forecabin or raised quarter deck, or of double or part double bottom.

How are the surfaces preserved from oxidation? Inside _____ Outside _____

I am of opinion this Vessel should be Classed _____ The main deck and Hold Beam Stringer plates, are much in excess of the rules, and the main deck floor, is of $\frac{3}{16}$ Iron plates,

The amount of the Entry Fee ... £ : : is received by me,
Special ... £ : :
Certificate ... : :

(Travelling Expenses)
(if any) £ _____

Committee's Minute _____ 18 _____

Character assigned _____

James Gibson



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