

IRON SHIPS.

Rec. 16/1/88

No. 9204 Survey held at Sunderland Date December 19th 1867

on the Screw Steamer "Tubigee" Master John Mackenzie

Tonnage under tonnage deck 668 ⁵⁵/₁₀₀ Built at Sunderland When built 1867 Launched Nov 23/67

Ditto of poop 48 ⁸³/₁₀₀ or spar deck

Ditto of engine room 229 ⁶²/₁₀₀

Total Register tonnage 487 ⁹⁴/₁₀₀

Gross tonnage 717 ⁵⁶/₁₀₀

Surveyed while Building, Afloat, or in Dry Dock

By whom built Arnald & Co Owners Lambert, Son & Scott & others

Port belonging to London Destined Voyage

Whilst Building

| Length aloft | Feet. | Inches. | Extreme Breadth | Feet. | Inches. | Depth from top of Upper Deck Beam to top of Floor | Feet. | Inches. | Power of Engines | Horse. | No. of Decks |
|--------------|-------|---------|-----------------|-------|---------|---|-------|---------|------------------|--------|--------------|
| 196 | " | | 29 | 3 | | 16 | 10 | | 90 | | one |

(Dimensions of Ship per Register, length 196 breadth 29 depth 16)

| | Inches in Ship. | Inches required per Rule. | | Inches in Ship. | Inches required per Rule. | 16ths required per Rule. | 16ths required per Rule. |
|--|------------------------------------|---------------------------|-------|-----------------|---------------------------|--------------------------|--------------------------|
| Keel, if bar iron, depth and thickness | $7\frac{1}{2} \times 2\frac{1}{2}$ | | | | | | |
| " if plate iron, breadth and thickness | $5\frac{1}{2} \times 5\frac{3}{4}$ | No Rule | | | | | |
| Stem, if bar iron, moulding and thickness | $7\frac{1}{2} \times 2\frac{1}{2}$ | No | | | | | |
| " if plate iron, breadth and thickness | | No | | | | | |
| Stern-post, if bar iron, moulding and thickness | $8\frac{1}{2} \times 4\frac{1}{2}$ | At Clap | | | | | |
| " if plate iron, breadth and thickness | | | | | | | |
| Distance of Frames from moulding edge to moulding edge, all fore and aft | 21 | | | | | | |
| Frames, Size of Angle Iron, single or double | 4 3 | 7 1/2 | 16ths | 16ths | 16ths | 16ths | 16ths |
| " Reversed Iron, to every frame | 3 2 1/2 | 6 | 1/2 | 1/2 | 1/2 | 1/2 | 1/2 |
| " or every alternate frame | | | | | | | |
| Floors, depth and thickness of Floor Plate at mid line | 18 | 7 | | | | | |
| " Ditto ditto at Bilge Keelson | 9 | 7 | | | | | |
| " Size of Reversed Angle Iron, and No. at top of Floor Plate | 3 2 1/2 | 6 | | | | | |
| Beams, Deck (No. 5) double Angle Iron, Plate, Tee, or Bulb Iron | 7 | 7 | | | | | |
| " double or single Angle Iron, on edge | 3 3 | 6 | | | | | |
| " average space between | 42 | | | | | | |
| " Hold, or Lower Deck (No. 13) double Angle, Tee, Plate, or Bulb Iron | 7 | 7 | | | | | |
| " double or single Angle Iron, on edge | 3 3 | 6 | | | | | |
| " average space between | See Sketch or Space | | | | | | |
| " Paddle, sided and moulded, thickness of Plate size of Angle Iron | on the other side | | | | | | |
| " Engine | | | | | | | |
| Keelson, single or double plate, box, or intercostal | | | | | | | |
| " Size of Plates | 26 | 8 | | | | | |
| " Size of Angle Irons | 4 1/4 | 4 | | | | | |
| " Side, single or double, plate, box, or intercostal | | | | | | | |
| " Bilge (No. 1) at each Bilge, single or double, plate, or box | 5 1/2 | 3 | | | | | |
| Transoms, material <u>Iron</u> or, if none, in what manner compensated for. | | | | | | | |
| Knight-heads, and Hawse Timbers <u>Iron</u> | | | | | | | |
| The Frames extend in one length from <u>Keel</u> to <u>Gunwale</u> 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 <u>Bilge</u> to <u>Bilge</u> on alternate frames | | | | | | | |
| " " " on the frames " " " from <u>Middle line</u> to <u>Gunwale</u> or <u>Alternate frame</u> except where cut for double bottom | | | | | | | |
| Keelson, how are the various lengths of plates or angle irons connected? <u>Butt Strap</u> | | | | | | | |
| Plates, Garboard, double or rivetted to keel, double or at upper edge, with rivets (3/4 ins.) diameter, averaging (2 1/4 ins.) apart. | | | | | | | |
| " Edges from Garboards to upper part of bilge, worked clench, double or single rivetted; with rivets (3/4 in.) diameter, averaging (2 3/4 ins.) apart. | | | | | | | |
| " Butts from Keel to turn of bilge, worked carvel with butt straps (9 1/2 - 9 8/16) thick, double or single rivetted; with rivets (3/4 in.) diameter, averaging (2 1/4 ins.) apart. | | | | | | | |
| Do the butt straps lap over and rivet through the lands of the strake below? <u>Alternate Strake</u> | | | | | | | |
| " Edges from bilge to sheerstrake, worked carvel with a lining piece () thick, or clench, double or single rivetted; with rivets (3/4 in.) diameter, averaging (2 1/2 in.) apart. | | | | | | | |
| Do the butt straps lap over and rivet through the lands of the strake below? <u>Alternate Strake</u> | | | | | | | |
| " Edges of Sheerstrake, double or single rivetted; At upper edge <u>To Gunwale Angle Iron</u> At lower edge <u>Double</u> | | | | | | | |
| " Butts from bilge to planksheers, worked carvel with butt straps (9 - 12 7 8/16) thick, double or single rivetted; with rivets (3/4 in.) diameter, averaging (2 1/2 ins.) apart. Breadth of laps in double rivetting (4 1/2) Breadth of laps in single rivetting (all double) | | | | | | | |
| Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted? <u>Double</u> | | | | | | | |
| Planksheer, how secured to the plating of the sides { Explain by sketch } <u>Gutter Gunwale</u> | | | | | | | |
| Waterway " " planksheer and to the Beams { if necessary. } | | | | | | | |
| Deck Beams, how secured to the side? <u>Rivetted to Frames & Stringers</u> | | | | | | | |
| Hold or Lower Deck ditto <u>do</u> <u>do</u> <u>do</u> | | | | | | | |
| Paddle " " No. of breasthooks <u>Five</u> crutches <u>Two</u> | | | | | | | |
| What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.? | | | | | | | |
| Manufacturer's name or trade mark <u>Stockton Malleable Iron &c.</u> | | | | | | | |
| We certify that the above is a correct description of the several particulars therein given. | | | | | | | |
| Builder's Signature <u>Arnald</u> Surveyor's Signature <u>Senhouse Martindale</u> | | | | | | | |

IRON 442-0044

6074 Iron

Workmanship. Are the lands or laps of the clenchwork in all cases in breadth at least five and a half times the diameter of the rivets in double rivetted edges and butts, and at least three and a quarter 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? Well fitted

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

Do the holes for rivetting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes generally 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 few only

Her Masts, Bowsprit, Yards, &c., are in Good condition, and sufficient in size and length. (If they are of Iron or Steel give the 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 rivetting, quality of Materials, and if stamped with Maker's name.

| She has SAILS. | | | CABLES, &c. | | | ANCHORS, and their weights. | | |
|--------------------------------------|--------------------------|-----------------------------|--|----------|---------|-----------------------------|---------------|-------------------|
| No. | | | | Fathoms. | Inches. | Tested to Tons. | No. | Weight. |
| <u>One</u> and | Fore Sails, | Chain | | 270 | 1 3/8 | 34 | Bowers, | 3 16.3.21.18.5.00 |
| | Fore Top Sails, | Hempen Stream Cable | | 90 | 7 | | | 16.3.0.18.0.2.16 |
| | Fore Topmast Stay Sails, | Hawser | | 90 | 6 | | | 14.3.7.16.7.3.7 |
| | Main Sails, | Towlines | | 90 | 9 | | Stream, | 1 7.0.21 |
| | Main Top Sails, | Warp | | 90 | 4 | | Kedges, | 2 3.2.7 1.3.8 |
| | | All of <u>Good</u> quality. | | | | | | |
| Her Standing and Running Rigging | | | <u>Wire & Hemp</u> sufficient in size and | | | <u>Good</u> in quality. | | |
| She has | | | <u>One</u> Long Boat and <u>two</u> others | | | | | |
| The present state of the Windlass is | | | <u>fair</u> Capstan <u>Winch</u> and Rudder <u>X</u> Pumps <u>2 Metal Good</u> | | | | | |

| Order for Special Survey | | DATES of | | 1st. On the several parts of the frame, when in place, and before the plating was wrought | |
|---------------------------|--|----------------|--|---|--|
| No. | | Surveys held | | 2nd. On the plating during the progress of rivetting | |
| Date | | while building | | 3rd. When the beams were in and fastened, and before the decks were laid | |
| Order for Ordinary Survey | | as per | | 4th. When the ship was complete, and before the plating was finally coated | |
| No. | | Section 18. | | 5th. After the ship was launched | |
| Date | | | | | |

State if she has a Spar Deck No Poop Yes or Forecastle Yes

General Remarks,

After double bottom from the After Engine Room Bulkhead to aft extending over 33 floors, the Bilge Keelson running over 4 floors into double bottom & the webs of double bottom continued as compensation. The double bottom in the fore hold extends over 23 floors & the same as the after one. - the flange plates at the sides are 7/16, & in the middle 9/16

Spaces of Lower Hold Beams, Sternpost to after Bulkhead 5 Spaces of Ribs, After Bulkhead to Double Beam 14 Spaces of Ribs, to next double beam 14 Spaces do, to next beam (single beam) 3 Spaces, to after Engine room Bulkhead 2 Spaces, to next Beam 6 Spaces, to fore Engine room Bulkhead 12 Spaces, to Double Beam 5 Spaces to next double beam 14 Spaces, to next beam 3 Spaces, to next 2 Spaces to next (double beam) 10 Spaces, to fore Bulkhead 9 Spaces, to next beam 2 Spaces, to Stem 4 Spaces.

She is all double Rivetted in the outside plating.

The testing certificates of Anchors & Chain cables have been produced, issued from the Sunderland public testing machine & signed by Mr. John Thompson.

James Liburn

How is the transverse strength of this vessel made up where the lower frames are cut for double bottom?

16.1.68 section submitted 2.3.68

In what manner are the surfaces preserved from oxidation? Inside Red paint & cement

Ditto ditto Outside Red paint

I am of opinion this Vessel should be Classed A1 Should the Spacing of Lower Hold Beams be deemed - satisfactory to the Committee. Sketch attached.

The amount of the Fee£ 5 : " : " is received by me, Santhouse & Martindale

Jan MG Special£ " : " : " Certificate (if required)£ " : 5 : "

Committee's Minute 6th March 18 68

Character assigned A1

A+C P WAS

This vessel appears eligible for the class Recommended above

2.3.68 Lloyd's Register Foundation