

IRON SHIPS. Rec 12/1/72

No. 3024 Survey held at Hartlepool Date, First Survey 20th June 1871 Last Survey 8th Aug 1872

On the S. Steamer "Mavis" Master Sam Church

| | | | | |
|---|--------|--|--|--|
| Tonnage under Tonnage Deck | 647.70 | ONE, OR TWO DECKED, SPAR, OR AWNING-DECKED VESSELS. | THREE DECKED VESSELS. | Built at <u>Hartlepool</u> |
| Ditto of Third Spar, or Awning Deck. | | Half moulded breadth | Half Moulded Breadth | When built <u>1871</u> Launched <u>20th April</u> |
| Ditto of Poop, or Raised Qr. Dk. | 65.90 | Depth from upper part of Keel to top of Upper Deck Beams | Total Depth if three or more Decks | By whom built <u>Wm Alexander & Co.</u> |
| Ditto of Houses on Deck | 49.90 | Girth of Half Midship Frame (as per Rule) | Total Girth of Half Midship Frame | Owners <u>George F. Howard & Co.</u> |
| Ditto of Forecastle | | 1st Number | 3rd Number | Port belonging to <u>London</u> |
| Gross Tonnage | 763.50 | Length | Length | Destined Voyage _____ |
| Crew Space, as per Rule | 20.56 | 2nd Number | 4th Number | If Surveyed while Building, Afloat, or in Dry Dock. |
| Registered Tonnage, as per Rule | 735.02 | Depths to Length. <u>12</u> | Breadths to Length <u>within 7</u> | |
| Engines Room | 244.35 | | | |
| Register Tonnage, as a Steamer, cut on Beam | 490.67 | | | |

| | | | | | | | | | |
|--|--------------------------------|----------------------------|----------------------------------|---|----------------------------------|-----------------------------|--------------|--|--|
| Length on deck as per Rule, <u>194</u> | Feet. <u>194</u> Inches. _____ | Moulded Breadth, <u>20</u> | Feet. <u>20</u> Inches. <u>5</u> | Depths from top of Floors to Upper and Main Deck Beams, as per Rule | Feet. <u>16</u> Inches. <u>2</u> | Power of Engines, <u>90</u> | Horse. _____ | N ^o . of Decks with flat laid _____ | N ^o . of Tiers of Beams _____ |
|--|--------------------------------|----------------------------|----------------------------------|---|----------------------------------|-----------------------------|--------------|--|--|

| Dimensions of Ship per Register, length, <u>195</u> breadth, <u>20.4</u> depth, <u>16</u> | Inches. In Ship. | Inches. In Ship. | 16ths. In Ship. | Inches. In Ship. | Inches. In Ship. | 16ths. In Ship. | Inches. In Ship. | Inches. In Ship. | 16ths. In Ship. | | |
|--|------------------|------------------|-----------------|------------------|------------------|-----------------|--|------------------|-----------------|--------|--------|
| Keel, if bar iron, depth and thickness | 0 x 2 1/8 | 7 1/2 | 2 1/4 | | | | Flat Keel Plates, breadth and thickness | 30 | 9 1/16 | 30 | 9 1/16 |
| Do. if centre through plate, depth and thickness | 4 x 2 1/4 | 7 | 2 1/4 | | | | Plates in Garboard Strakes, breadth and thickness | 30 | 9 1/16 | 30 | 9 1/16 |
| Stem, if bar iron, moulding and thickness | 0 x 4 | 7 | 4 1/2 | | | | Do. from Garboard to upper part of Bilges | 30 | 9 1/16 | 30 | 9 1/16 |
| Stern-post for Rudder do. do. | 0 x 4 | 7 | 4 1/2 | | | | Do. of doubling at Bilge, or increased thickness, and length applied | 30 | 9 1/16 | 30 | 9 1/16 |
| Stern-post for Propeller | 0 x 4 | 7 | 4 1/2 | | | | Do. fm up. part of Bilge to lr. edge of Sh'rstrake | 30 | 9 1/16 | 30 | 9 1/16 |
| Distance of Frames from moulding edge to moulding edge, all fore and aft | 22 | | | | | | Do. Main Sheerstrake, breadth and thickness | 30 | 9 1/16 | 30 | 9 1/16 |
| Frames, size of Angle Iron, for 2/3 length amidships | 4 | 3 | 4 1/16 | 4 | 3 | 16 1/16 | Do. of d'bling at Sh'rstrake, & length applied | 30 | 9 1/16 | 30 | 9 1/16 |
| Do. for 1/3 at each end | 4 | 3 | 4 1/16 | 4 | 3 | 16 1/16 | Do. from Mn. to Upr. or Spar Dk. Sh'rstrake | 30 | 9 1/16 | 30 | 9 1/16 |
| Reversed Frames, size of Angle Iron | 3 | 3 | 6 1/16 | 3 | 3 | 6 1/16 | Do. Up. or Spar Dk Sh'rstrake, brdth & thickness | 30 | 9 1/16 | 30 | 9 1/16 |
| Floors, depth and thickness of Floor Plate at mid line for half the length amidships | 10 1/2 | + | 10 1/2 | + | + | 8 1/16 | Butt Straps to outside plating, breadth & thickness | 9 1/4 | 2 in. | 9 1/4 | 2 in. |
| Do. at the ends | 10 1/2 | + | 10 1/2 | + | + | 7 1/16 | Lengths of Plating | 4 1/4 | 44 in. | 4 1/4 | 44 in. |
| Do. do. do. at Bilge Keelson | 14 | | | | | | Shifts of Plating, and Stringers | 4 1/4 | 44 in. | 4 1/4 | 44 in. |
| Do. height extended at the Bilges | 37 | | | | | | Gunwale Plate on ends of <u>Awning, Spar, or</u> Upper Deck Beams, breadth and thickness | 20 | 8 1/16 | 27 3/4 | 8 1/16 |
| Beams, Upper, Spar, or Awning Deck (No. <u>53</u>) single or double Angle Iron, Plate or Tee Bulb Iron | 7 | + | 7 | + | + | 7 1/16 | Angle Iron on ditto | 4 1/2 | 3 1/16 | 4 1/2 | 3 1/16 |
| Single or double Angle Iron on Upper edge | 3 | 2 1/2 | 4 1/16 | 2 3/4 | 2 1/2 | 15 1/16 | Tie Plates (fore and aft), outside Hatchways | 9 1/4 | 8 1/16 | 9 1/4 | 8 1/16 |
| Average space | 44 | in. | 44 | in. | 44 | in. | Diagonal Tie Plates on Beams (No. of Pairs, <u>3</u>) | 9 1/4 | 8 1/16 | 9 1/4 | 8 1/16 |
| Beams, Main or Middle Deck (No.) single, or double Angle Iron, Plate or Tee Bulb Iron | 7 | + | 7 | + | + | 7 1/16 | Planksheer material and scantling | 3 3/4 | 4 1/16 | 3 3/4 | 4 1/16 |
| Single, or double Angle Iron, on Upper Edge | 3 | 2 1/2 | 4 1/16 | 2 3/4 | 2 1/2 | 15 1/16 | Waterways do. do. <u>Galv.</u> | 3 3/4 | 4 1/16 | 3 3/4 | 4 1/16 |
| Average space | 44 | in. | 44 | in. | 44 | in. | Flat of Upper Deck do. do. | 20 | 8 1/16 | 20 | 8 1/16 |
| Beams, Lower Deck, Hold or Orlop (No. <u>24</u>) single or d'ble Ang. Iron, Plate or Tee Bulb Iron | 7 | + | 7 | + | + | 7 1/16 | How fastened to Beams | 20 | 8 1/16 | 20 | 8 1/16 |
| Single or double Angle Iron on Upper Edge | 3 | 2 1/2 | 4 1/16 | 2 3/4 | 2 1/2 | 15 1/16 | Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness | 20 | 8 1/16 | 20 | 8 1/16 |
| Average space | 44 | in. | 44 | in. | 44 | in. | (Is the Stringer Plate attached to the outside plating?) | Yes | | Yes | |
| Keelson Centre line, single or double plate, box, or Intercoastal, size of Plates | 13 | + | 13 | + | + | 10 1/16 | Angle Irons on ditto (No.) | 3 1/2 | 3 1/2 | 3 1/2 | 3 1/2 |
| Do. Bulb Plate to Intercoastal Keelson | 4 1/2 | 3 | 7 1/16 | 4 1/2 | 3 | 7 1/16 | Tie Plates, outside Hatchways | 3 1/2 | 3 1/2 | 3 1/2 | 3 1/2 |
| Do. Size of Angle Irons | 4 1/2 | 3 | 7 1/16 | 4 1/2 | 3 | 7 1/16 | Diagonal Tie Plates on Beams (No. of pairs,) | 3 1/2 | 3 1/2 | 3 1/2 | 3 1/2 |
| Do. Side Intercoastal Keelson, size of Plates | 4 1/2 | 3 | 7 1/16 | 4 1/2 | 3 | 7 1/16 | Waterways materials and scantlings | 3 1/2 | 3 1/2 | 3 1/2 | 3 1/2 |
| Do. Angle Irons on tops of Floors | 4 1/2 | 3 | 7 1/16 | 4 1/2 | 3 | 7 1/16 | Flat of Middle Deck do. do. | 20 | 8 1/16 | 20 | 8 1/16 |
| Do. Bilge Keelson, Bulb Iron | 4 1/2 | 3 | 7 1/16 | 4 1/2 | 3 | 7 1/16 | How fastened to Beams | 20 | 8 1/16 | 20 | 8 1/16 |
| Do. do. Intercoastal plates riveted to plating for _____ length | 4 1/2 | 3 | 7 1/16 | 4 1/2 | 3 | 7 1/16 | Stringer Plates on ends of <u>Lower Deck, Hold or Orlop</u> Beams | 20 | 8 1/16 | 20 | 8 1/16 |
| Do. do. Angle Irons | 4 1/2 | 3 | 7 1/16 | 4 1/2 | 3 | 7 1/16 | (Is the Stringer Plate attached to the outside plating?) | Yes | | Yes | |
| Side Stringers (No. <u>one</u>) size of Angle Irons | 4 1/2 | 3 | 7 1/16 | 4 1/2 | 3 | 7 1/16 | Angle Irons on ditto (No. <u>2</u>) | 3 1/2 | 3 1/2 | 3 1/2 | 3 1/2 |
| Do. Intercoastal plates riveted to plating for length, | 4 1/2 | 3 | 7 1/16 | 4 1/2 | 3 | 7 1/16 | Stringer or Tie Plates, outside Hatchways <u>2nd ply.</u> | 3 1/2 | 3 1/2 | 3 1/2 | 3 1/2 |
| Transoms, material <u>Plate</u> or, if none, in what manner compensated for. | | | | | | | Flat of Lower Deck | 20 | 8 1/16 | 20 | 8 1/16 |
| Knight-heads <u>Plate</u> Hawse Timbers <u>Plate</u> | | | | | | | Ceiling betwixt Decks, thickness and material | 2 1/2 | Pin | 2 1/2 | Pin |
| Windlass <u>Jack</u> Pall Bitt <u>Jack</u> | | | | | | | Do. in hold do. do. | 2 1/2 | Pin | 2 1/2 | Pin |
| The Frames extend in one length from <u>Keel</u> to <u>gunwale</u> Riveted through plates with (<u>3/4</u> in.) Rivets, about <u>6 1/2</u> apart. | | | | | | | Do. do. do. do. | 2 1/2 | Pin | 2 1/2 | Pin |
| The Reverse Angle Irons on the floors and frames extend <u>across</u> the middle line <u>to top of bilge</u> and to <u>gunwale</u> alternately | | | | | | | Main piece of Rudder, diameter at head | 4 3/4 | 11 3/4 | 4 3/4 | 11 3/4 |
| Keelsons. Are the various lengths of Plates and Angle Irons properly connected? <u>Yes</u> And are their butts properly shifted? <u>Yes</u> | | | | | | | Do. do. at heel | 2 3/4 | 2 3/4 | 2 3/4 | 2 3/4 |
| Plates, Garboard, double or Riveted to Keel, double or at upper edge, with Rivets (<u>1</u> in.) diameter, averaging (<u>4 1/16</u> ins.) from centre to centre. | | | | | | | (Can the Rudder be unshipped afloat? <u>Yes</u>) | | | | |
| Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets (<u>3/4</u> in.) diameter, averaging (<u>3 1/16</u> ins.) from centre to centre. | | | | | | | Bulkheads No. <u>4</u> Thickness of | 5 1/16 | | 5 1/16 | |
| Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes (<u>9 1/2 x 10</u>) thick, double or single Riveted; with Rivets (<u>3/4</u> in.) diameter averaging (<u>3</u> ins.) from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? <u>No</u> | | | | | | | Do. Height up <u>Main Deck</u> after me to cabin deck <u>Plated over</u> | | | | |
| Do. of <u>100</u> Strakes at Bilge for <u>full</u> length, treble riveted with Butt Straps <u>7/8</u> thicker than their plates. | | | | | | | Do. How secured to the sides of the ship <u>to double frames</u> | | | | |
| Do. Edges from bilge to Main Sheerstrake, worked <u>carvel with a lining piece</u> (_____) thick, or clencher, double or single riveted; with rivets (<u>3/4</u> in.) diameter, averaging (<u>3 1/16</u> ins.) from centre to centre. | | | | | | | Do. Size of Vertical Angle Irons, <u>3 x 3 x 7/16</u> and their distance apart, <u>30</u> in | | | | |
| Do. Edges of Sheerstrake, Main, double or single Riveted. Upper, double or single Riveted. At upper edge <u>single to bilge</u> At lower edge <u>Double</u> | | | | | | | Do. Are the outside Plates doubled two spaces of Frames in length? <u>Yes</u> | | | | |
| Do. Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps (<u>9 1/2 x 10</u>) thick, double or single Riveted; with Rivets (<u>3/4</u> in.) diameter, averaging (<u>3 3/8</u> ins.) from centre to centre. | | | | | | | | | | | |
| Do. Butts of Main Sheerstrake, double or treble Riveted. Butts of <u>Upper or Spar Sheerstrake</u> , and Upper Deck Stringer Plate, double or treble Riveted for <u>full</u> length amidships. Breadth of laps of plating in double Riveting (<u>4 3/4</u>) Breadth of laps of plating in single Riveting (<u>2 3/4</u>) | | | | | | | | | | | |
| Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? <u>Double</u> | | | | | | | | | | | |
| Planksheer, how secured to the plating of the sides. Waterway, how secured to the planksheer and to the Beams. (Explain by Sketch, if necessary.) | | | | | | | | | | | |
| Beams of the various Decks, how secured to the sides? <u>Beam ends turned & thro' webbed</u> No. of Breasthooks, <u>Four</u> Crutches, <u>Two</u> | | | | | | | | | | | |
| What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? <u>Good</u> | | | | | | | | | | | |
| Manufacturer's name or trade mark, <u>Stockton M. S. Co. - T. R. S. - W. W. Ho. - Marine</u> | | | | | | | | | | | |

We certify that the above is a correct description of the several particulars therein given.

Builder's Signature, Wm Alexander & Co Surveyor's Signature, S. J. G. G. G.



9698 L

450

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

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

Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? yes and are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? They are

Are there any rivets which either break into or have been put through the seams or butts of the plating? 2 fixed in butts

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 riveting, quality of Materials, and if stamped with Maker's name.

State also Length and Diameter of Lower Masts and Bowsprit. Main Mast 63 ft - 6 in Diameter 18 1/2
Fore Mast 66 ft - 6 in Diameter 18 1/2

| Number for equipment | Fathoms. | Inches. | Test as per Certificate. | In. req'd per Rule. | Test req'd per Rule. | ANCHORS, &c. | N ^o . | Weight. Ex. Stock. | Test as per Certificate. | W'ght req'd per Rule. | Test req'd per Rule. |
|-------------------------|----------|---------|--------------------------|---------------------|----------------------|---|------------------|----------------------------|------------------------------------|----------------------------------|-------------------------------------|
| SAILS. | | | | | | | | | | | |
| Fore Sails, | 240 | 1 3/16 | 31-0-0-0 | 1 3/16 | 31-0-0-0 | Bowers | 3 | 16-0-0 15-1-0 13-2-0 | 17-7-2-0 16-14-1-14 15-3-3-0 | 16-14-0-0 15-1-0 14-15-0-0 | 16-14-0-0 16-14-0-0 14-15-0-0 |
| Fore Top Sails, | | | | | | (State Machine where Tested, and name of Superintendent). | | | | | |
| Fore Topmast Stay Sails | | | | | | At Sunderland 20-27-30 1/2 inches 18 1/2 | | | | | |
| Main Sails, | 60 | 7/8 | | | | John Hartnup Superintendent | | | | | |
| Main Top Sails, | 80 | 8 | | | | Stream | 1 | 6-2-2 | | 6-2-0 | |
| and | | | | | | Kedges | 2 | 3-1-0 1-3-7 | | 3-1-0 1-3-0 | |
| | 160 | 4 | | | | | | | | | |

Her Standing and Running Rigging Wire & Hemp sufficient in size and good in quality. She has Three Long Boats, and good The present state of the Windlass is good Capstan 2 at fore and Rudder good Pumps 2 of 7 in bore.

Engine Room Skylights.—How constructed? 3/2 Pine 6 ft long to 6 ft 6 in How secured in ordinary weather? Bullseyes

What arrangements are there for deadlights in such for bad weather? Bullseyes

Coal Bunker Openings.—How constructed? Iron Pipe How are lids secured? Clasps How high above deck? 9 inches

Scuppers, &c.—What arrangements are there beyond the scuppers on deck, for clearing upper deck of water, in case of a sea coming on board? 12 or 15 in bulwark

Cargo Hatchways.—How formed? 7/16 Plate State size 22 ft x 11 ft height of beams 24 in

If of extraordinary size, state how framed and secured? As above

What arrangement for shifting beams? 7/16 Plate in centre the whole depth of beams

Hatches, themselves, whether strong and efficient? Good **Main Hatchways.**—State size 22 ft x 11 ft height of beams 24 in

Order for Special Survey No. 327 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought Special Survey

Date 17th Dec. 1870 Surveys held 2nd. On the plating during the progress of riveting Seen twice each

Order for Ordinary Survey No. _____ while building 3rd. When the beams were in and fastened, and before the decks were laid week during

Date _____ as per 4th. When the ship was complete, and before the plating was finally coated or cemented building

No. 10 in builder's yard. Section 18. 5th. After the ship was launched and equipped

General Remarks, Has a raised Quarter Deck frames all to the top height. Beams of bulk Iron 6 1/2 x 4 1/2, Double angles on top edges 2 1/2 x 2 1/2 x 3/16. Stringer plates on beams 2 3/4 x 7/16, angles on do. 4 x 2 x 7/16. Tie & diagonal plates 9 x 7/16. Plating outside 6/16. Deck 3 inch 1/4 Pine.

Water bulkhead tanks fitted in fore & after hold, frames cut off, connection made with three plates side plates 6/16, angles on do. 4 x 2 x 7/16. Web plates 6/16, angles on do. 3 x 2 1/2 x 6/16. Top plating 3/16. Iron deck fitted over Engine & boiler space, length 44 ft 6 in. 6/16 Plate, riveted to beams.

Work done after the vessel was launched.

Raised deck & main deck stringer plates connected at break with an 11/16 plate fitted vertical between double angle iron. Rivets in two butts & mass of steel pattern out & replaced with 7/8. Three bulkheads of bulwark plating taken off on each side, replaced with stouter strips & riveted with 3/4 rivets.

W. H. Alexander & Co.
49 ft - 9 inches

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

In what manner are the surfaces preserved from oxidation? Inside Flat cemented with Portland Cement Outside Other parts with paint & oil

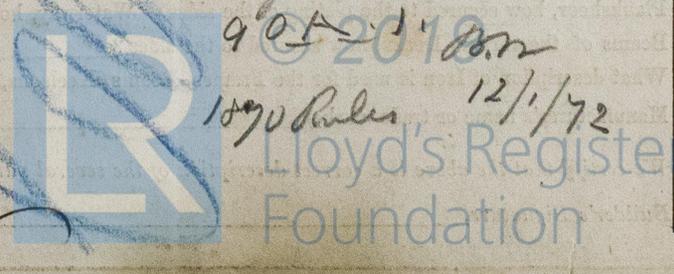
I am of opinion this Vessel should be Classed 90 A1

The amount of the Entry Fee £ 5 : 0 : 0 is received by me,
 Special £ 36 : 15 : 0
 Certificate : :
 (Travelling Expenses) (if any) £ _____

J. P. Gladstone
 I am in the opinion that this vessel should be classed 90 A1 20/10/70

Committee's Minute 12th January 1872

Character assigned 90 A1



Sister ship to A.L. Emma (Sunderland) No. 2934
 See Secretary's letter dated 20th Feb. 1870