

IRON SHIP.

No. 12553 Survey held at Newcastle Date, First Survey Dec^r 2nd 1873 Last Survey 3rd Aug^r 1874
On the S.S. "Royal Crown" Yard Number 305 Master John Reed

Tonnage under Tonnage Deck 1769.07 **ONE, OR TWO DECKED, THREE DECKED VESSEL.** Built at Newcastle
Ditto of Third, Spar, or Awning Deck. 74.71 **SPAR, OR AWNING DECKED VESSEL.** When built 1874 Launched June 174
Ditto of Poop, or Raised Or. Dk. 1843.78 **HALF BREADTH** (moulded) 16.5 By whom built Palmer's Shipbuilding Co^r
Ditto of Houses on Deck 76.83 **DEPTH** from upper part of Keel to top of Upper Deck Beams 26.45 Owners Map^r Hall Bros
Ditto of Forecastle 1766.95 **GIRTH** of Half Midship Frame (as per Rule) 39.00 Port belonging to London
Gross Tonnage 1843.78 **1st NUMBER** 81.95 **1st NUMBER, if a THREE-DECKED VESSEL** 7 Destined Voyage Port Said
Less Crew Space 590.01 **2nd NUMBER** 2117 **PROPORTIONS**—Breadths to Length 8.5
Less Engine Room 1176.94 **1st NUMBER, if a THREE-DECKED VESSEL** 7 **deduct 7 feet** 74.95 **LENGTH** 281.75 **Depths to Length—Upper Deck to Keel** 10.6
Register Tonnage (as cut on Beam) 1176.94 **2nd NUMBER** 2117 **Depths to Length—Main Deck ditto** 14.4

LENGTH on deck as per Rule 281 9 **BREADTH**—Moulded 33 0 **DEPTH** top of Floors to Upper Deck Beams 24 6 **Power of Engines** 140 **Horse** 140 **N^o. of Decks with flat laid** Two **N^o. of Tiers of Beams** Three

Dimensions of Ship per Register, length, 282.4 breadth, 33.3 depth, 24.2

| | Inches in Ship. | Inches per Rule. | | Inches in Ship. | Inches per Rule. |
|---|---|---|---|--|--------------------------------------|
| KEEL , depth and thickness | $9\frac{1}{2} \times 2\frac{1}{2}$ | $9\frac{1}{2} \times 2\frac{1}{2}$ | PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied | $36 \frac{11}{16}$ | $36 \frac{11}{16}$ |
| STEM , moulding and thickness | $9 \times 2\frac{1}{2}$ | $9 \times 2\frac{1}{2}$ | fm up. part of Bilge to Ir. edge of Sh'rstrake | $10\frac{1}{16}$ | $10\frac{1}{16}$ |
| STERN POST for Rudder do. do. for Propeller | 9×5 | 9×5 | Main Sheerstrake, breadth and thickness of doubling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake. | $40 \frac{13}{16}$ | $40 \frac{13}{16}$ |
| Distance of Frames from moulding edge to moulding edge, all fore and aft | 24 | 24 (Class 90A) | Up. or Spar Dk Sh'rstrake, brdth & thickness | $40 \frac{11}{16}$ | $40 \frac{11}{16}$ |
| FRAMES , Angle Iron, for $\frac{3}{4}$ length amidships Do. for $\frac{1}{2}$ at each end | $4\frac{1}{2} \times 3 \frac{8}{16}$ | $4\frac{1}{2} \times 3 \frac{8}{16}$ | Butt Straps to outside plating, breadth & thickness | $10\frac{1}{4}$ | $10\frac{1}{4}$ |
| REVERSED FRAMES , Angle Iron | $3 \times 3 \frac{7}{16}$ | $3 \times 3 \frac{7}{16}$ | Lengths of Plating | 10 feet | 10 feet |
| FLOORS , depth and thickness of Floor Plate at mid line for half length amidships thickness at the ends of vessel depth at $\frac{3}{4}$ the half-bdth. as per Rule height extended at the Bilges | $2\frac{3}{2} \times 9\frac{1}{16}$ | $2\frac{3}{2} \times 9\frac{1}{16}$ | Shifts of Plating, and Stringers | 4 | 4 |
| BEAMS , Upper, Spar, or Awning Deck Single or double Angle Iron, Plate or Tee Bulb Iron Average space | $6\frac{1}{2} \times 6\frac{1}{16}$ | $6\frac{1}{2} \times 6\frac{1}{16}$ | Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness | $4\frac{1}{2} \times 8\frac{1}{16}$ | $4\frac{1}{2} \times 8\frac{1}{16}$ |
| BEAMS , Main or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron Average space | $5\frac{1}{2} \times 3\frac{1}{2} \frac{7}{16}$ | $5\frac{1}{2} \times 3\frac{1}{2} \frac{7}{16}$ | Angle Iron on ditto | $4.4 \times 9\frac{1}{16}$ | $4.4 \times 9\frac{1}{16}$ |
| BEAMS , Lower Deck, Hold or Orlop Single or double Angle Iron, Plate or Tee Bulb Iron Average space | $8 \times 8\frac{1}{16}$ | $8 \times 8\frac{1}{16}$ | Tie Plates fore and aft, outside Hatchways | $13\frac{1}{4} \times 8\frac{1}{16}$ | $13\frac{1}{4} \times 8\frac{1}{16}$ |
| KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates Rider Plate Bulk Plate to Intercoastal Keelson Angle Irons Double Angle Iron Side Keelson Side Intercoastal Plate do. Angle Irons Attached to outside plating with angle iron | $32 \times 8\frac{1}{16}$ | $32 \times 8\frac{1}{16}$ | Diagonal Tie Plates on Beams No. of Pairs, 4 | $13\frac{1}{4} \times 8\frac{1}{16}$ | $13\frac{1}{4} \times 8\frac{1}{16}$ |
| BILGE Angle Irons do. Bulk Iron do. Intercoastal plates riveted to plating for the length of Double bottom | $22 \times 7\frac{1}{16}$ | $22 \times 7\frac{1}{16}$ | Plank sheer material and scantling | Gutter Waterway | Gutter Waterway |
| BILGE STRINGER Angle Irons Intercoastal plates riveted to plating for $\frac{3}{5}$ the length | $5\frac{1}{2} \times 4 \frac{9}{16}$ | $5\frac{1}{2} \times 4 \frac{9}{16}$ | Waterways do. do. | 4 S. P. | 4 |
| SIDE STRINGER Angle Irons | $5\frac{1}{2} \times 4 \frac{9}{16}$ | $5\frac{1}{2} \times 4 \frac{9}{16}$ | Flat of Upper Deck do. do. | Put & screw bolts | Put & screw bolts |
| Transoms, material. Knight-heads. Hawse Timbers. | <u>Iron</u> | | How fastened to Beams | Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness | $4\frac{1}{2} \times 10\frac{1}{16}$ |
| Windlass | <u>Patent Iron Pall Bitt</u> | | Is the Stringer Plate attached to the outside plating? | <u>Yes</u> | <u>Yes</u> |
| The FRAMES extend in <u>three</u> lengths from <u>Gunwale</u> to <u>Gunwale</u> | | | Angle Irons on ditto, No. <u>2</u> | $4.4 \times 9\frac{1}{16}$ | $4.4 \times 9\frac{1}{16}$ |
| The REVERSED ANGLE IRONS on floors and frames extend <u>across</u> middle line to <u>above Main Deck string</u> and to <u>Gunwale</u> alternately | | | Tie Plates, outside Hatchways | | |
| KEELSONS . Are the various lengths of Plates and Angle Irons properly connected? <u>Yes</u> And butts properly shifted? <u>Yes</u> | | | Diagonal Tie Plates on Beams, No. of pairs | | |
| PLATING . Garboard, double riveted to Keel, with rivets $\frac{1}{8}$ in. diameter, averaging <u>5</u> ins. from centre to centre. | | | Waterways materials and scantlings | | |
| Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets $\frac{7}{16}$ in. diameter, averaging $\frac{3}{4}$ ins. from centre to centre. | | | Flat of Middle Deck do. do. | $6\frac{1}{16}$ iron | $6\frac{1}{16}$ iron |
| Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets $\frac{3}{4}$ in. diameter averaging $\frac{3}{4}$ ins. from centre to centre. | | | How fastened to Beams | <u>riveted to beams</u> | |
| Butts of <u>Three</u> Strakes at Bilge for <u>half</u> length, treble riveted with Butt Straps $\frac{1}{16}$ thicker than the plates they connect. | | | Stringer Plates on ends of Lower Deck, Hold or Orlop Beams | $34 \times 9\frac{1}{16}$ | $34 \times 9\frac{1}{16}$ |
| Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets $\frac{3}{4}$ in. diameter, averaging $\frac{3}{4}$ ins. from cr. to cr. | | | Is the Stringer Plate attached to the outside plating? | <u>Yes</u> | <u>Yes</u> |
| Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets $\frac{3}{4}$ in. diameter, averaging $\frac{3}{4}$ ins. from cr. to cr. | | | Angle Irons on ditto, No. <u>2</u> | $4.4 \times 9\frac{1}{16}$ | $4.4 \times 9\frac{1}{16}$ |
| Edges of Main Sheerstrake, double or single riveted. | | | Stringer or Tie Plates, outside Hatchways | | |
| Butts of Main Sheerstrake, treble riveted for <u>half</u> length amidships. Butts of Upper or Spar Sheerstrake, treble riveted <u>half</u> length amidships. | | | Flat of Lower Deck | | |
| Butts of Main Stringer Plate, treble riveted for <u>half</u> length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for <u>half</u> length. | | | Ceiling between Decks, thickness and material | <u>Bottom and space</u> | |
| Breadth of laps of plating in double riveting <u>6 times</u> do. Breadth of laps of plating in single riveting <u>3 1/2</u> do. | | | in hold do. do. | $2\frac{1}{2}$ in. sp. | $2\frac{1}{2}$ |
| Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? <u>Treble and Double</u> | | | Main piece of Rudder, diameter at head do. at heel | $6\frac{1}{2}$ | $6\frac{1}{2}$ |
| Waterway, how secured to Beams <u>Gutter</u> (Explain by Sketch, if necessary.) | | | Can the Rudder be unshipped afloat? <u>Yes</u> | $5\frac{5}{8}$ | $3\frac{1}{2}$ |
| Beams of the various Decks, how secured to the sides? <u>Strakes riveted to frames</u> | | | Bulkheads No. <u>5</u> Thickness of <u>6/16</u> | | |
| What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? <u>Plates and Angles by</u> | | | Height up <u>Main Dk, foremast to upper deck</u> | | |
| Manufacturer's name or trade mark, <u>Palmer's Shipbuilding & Iron Co^r Limited</u> | | | How secured to sides of ship <u>Between double frames</u> | | |
| The above is a correct description. | | | Size of Vertical Angle Irons <u>3.3. 7/16</u> and distance apart <u>30</u> ins. | | |
| Builder's Signature, <u>John Wilson</u> | | | Are the outside Plates doubled two spaces of Frames in length? <u>Yes</u> | | |
| Surveyor's Signature, <u>W. M. Overly</u> | | | | | |

Transoms, material. Knight-heads. Hawse Timbers. Iron
Windlass Patent Iron Pall Bitt

The **FRAMES** extend in three lengths from Gunwale to Gunwale Riveted through plates with $\frac{7}{16}$ in. Rivets, about 6 apart.
The **REVERSED ANGLE IRONS** on floors and frames extend across middle line to above Main Deck string 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 $\frac{1}{8}$ in. diameter, averaging 5 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets $\frac{7}{16}$ in. diameter, averaging $\frac{3}{4}$ ins. from centre to centre.
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets $\frac{3}{4}$ in. diameter averaging $\frac{3}{4}$ ins. from centre to centre.
Butts of Three Strakes at Bilge for half length, treble riveted with Butt Straps $\frac{1}{16}$ thicker than the plates they connect.
Edges from bilge to Main Sheerstrake, worked clencher, double ~~or single~~ riveted; with rivets $\frac{3}{4}$ in. diameter, averaging $\frac{3}{4}$ ins. from cr. to cr.
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets $\frac{3}{4}$ in. diameter, averaging $\frac{3}{4}$ 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 half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted half length amidships.
Butts of Main Stringer Plate, treble riveted for half length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for half length.
Breadth of laps of plating in double riveting 6 times do. Breadth of laps of plating in single riveting 3 1/2 do.

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

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

Beams of the various Decks, how secured to the sides? Strakes riveted to frames No. of Breasthooks, 5 Crutches, 14

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

Manufacturer's name or trade mark, Palmer's Shipbuilding & Iron Co^r Limited

The above is a correct description.

Builder's Signature, John Wilson Surveyor's Signature, W. M. Overly

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

Planed Iron 13217

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 all 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 Iron Masts, Fore 108-0 x 25, Main 100-0 x 25 Two plates in the round (Pole Masts) plates 6/16 to 5/16 thick, Two angle irons through the length of each Mast 3.3. 6/16. Single riveted edges, double and treble riveted Butts.

NUMBER for EQUIPMENT 23089

| N ^o . | SAILS. | CABLES, &c. | Fathoms. | Inches. | Test per Certificate. | Length & Size req'd pr Rule. | Test req'd per Rule. | ANCHORS, &c. | N ^o . | Weight. Ex. Stock. | Test per Certificate. | Weight req'd per Rule. | Test req'd per Rule. |
|------------------|-----------------|---|---------------------------------|---------|-----------------------|------------------------------|----------------------|---|------------------|--------------------|-----------------------|------------------------|----------------------|
| one | Fore Sails, | Chain | 270 | 13/4 | 55 1/8 | 270.13/4 | 55 2/10 | Bowers ... | 3 | 31.0.0 | 29 3/8 | 30.0.0 | 28 12/20 |
| full | Fore Top Sails, | (State Machine where Tested, Date, & name of Superintendent.) | Breaking Strain 77 | | | | | (State Machine where Tested, Date, and name of Superintendent.) | | 30.2.7 | 29.0.3.20 | 30.0.0 | |
| Suit | Fore Topmast | Chain | Lloyds Line. P.H.R. Burrell Sup | | | | | Tested at Low Walker by R. Burrell | | 25.2.18 | 25.8.0.14 | 25.2.20 | 25 9/10 |
| and | Stay Sails | Iron Strm Cbl | 27 | 12 1/2 | 29 | May 1874 | | on 28 th March 1874. | | | | | |
| | Main Sails, | Hawser ... | 90 | 1 1/6 | | 1 1/6 | | Stream ... | 1 | 12.0.14 | | 12.0.0 | |
| | Main Top Sails, | Towlines ... | 90 | 10 1/2 | | 11 | | Kedges ... | 2 | 6.0.21 | | 6.1.0 | |
| | | Warp ... | 90 | 8 1/2 | | 7 | | | | 3.0.21 | | 3.0.0 | |
| | | quality Good | | | | | | | | | | | |

Standing and Running Rigging Wire & Hemp sufficient in size and Good in quality. She has Two Life Boats and Three others

The Windlass is Good Capstan Good and Rudder Good Pumps Good and Efficient

Engine Room Skylights.—How constructed? Iron Coaming p. Feak How secured in ordinary weather? Bolted down

What arrangements for deadlights in bad weather? deadlight in each Hatch

Coal Bunker Openings.—How constructed? Iron Coamings How are lids secured? Iron Bars Height above deck? 15"

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? Ports cut in Bulwarks also Scuppers.

Cargo Hatchways.—How formed? Iron Coaming

State size Main Hatch 17-6 x 9-6 Forehatch 10-0 x 7-0 Quarterhatch 13-0 x 9-6

If of extraordinary size, state how framed and secured?

What arrangement for shifting beams? Shifting Beam in Hatches

Hatches, If strong and efficient? Yes.

Order for Special Survey No. 9993

Date 21 Oct 1873

Order for Ordinary Survey No. —

Date —

No. 305 in builder's yard.

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
- 2nd. On the plating during the process of riveting
- 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 or cemented
- 5th. After the ship was launched and equipped

Built under Special Survey.
1873 Dec 2. 11. 26. 1874 Jan 6. 8. 15. 19. 23.
20. 24. 25. 27. Dec 5. 10. 12. 16. 17.
24. 27. April 4. 10. 12. 15. 16. 17. 23. 25. 29. May
1. 2. 4. 11. 14. 18. 21. 28. June 1. 4. 9. 12. 15. 18. 22. July
1. 2. 6. 14. 16. 17. 24. 27. 30. Aug 3.

General Remarks,

She is fitted with a double bottom in fore and after holds, also in Engine room (Two frame spaces excepted) of the united lengths of 176 ft. Side plates 7/16", top plating 6/16". Satisfactory compensation is given for the break of the double bottom in the Engine room. Monkey forecassle 30 ft long and Bridge deck fitted amidships.

She is well built, and worthy of the Class recommended.

This vessel is Sister to the S. S. "Diadem" Report N^o 12509.

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

How are the surfaces preserved from oxidation? Inside Cement and paint Outside Red lead and paint

I am of opinion this Vessel should be Classed + 90 A. 1. Three decked. Part double Bottom.

The amount of the Entry Fee ... £ 5 : : : is received by me, P. Young.

Special Certificate ... £ 69 : 3 : 6 1/4 Aug 1874

(Travelling Expenses)

(if any) £ —

Committee's Minute 18th August 1874

Character assigned

90 A. 1

Three Decked part double bottom

T. Moverly

This vessel appears eligible to be classed as recommended by Lloyd's Register Foundation