

IRON SHIP.

No. 13752 Survey held at Newcastle Date, First Survey 20th May Last Survey 31st Oct 1877.

On the Iron S.S. "Ruperra" Master Ockenden

TONNAGE under Tonnage Deck } 1232.95 ONE, OR TWO DECKED, THREE DECKED VESSEL.
 Ditto of Third, Spar, or Awning Deck }
 Ditto of Poop, or Raised Or. Dk. }
 Ditto of Houses on Deck } 48.49
 Ditto of Foremast Hatch } 3.62
 Gross Tonnage } 1285.06
 Less Crew Space } 38.09
 Net Tonnage } 1246.97
 Less Engine Room } 411.22
 Register Tonnage as cut on Beam } 835.75

HALF BREADTH (moulded) 16.00 Feet.
 DEPTH from upper part of Keel to top of Upper Deck Beams 22.03
 GIRTH of Half Midship Frame (as per Rule) 34.65
 1st NUMBER 72.68
 1st NUMBER, if a THREE DECKED VESSEL [deduct 7 feet]
 LENGTH 238.58
 2nd NUMBER 17339
 PROPORTIONS—Breadths to Length 7.4
 Depths to Length—Upper Deck to Keel 12.0
 Main Deck ditto

Built at Newcastle
 When built 1877 Launched Sep 25th 77
 By whom built Palmer's Shipbuilding & Iron Co.
 Owners John Cory
 Port belonging to Gardiff
 Destined Voyage Alexandria
 & Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule ... 238 Feet. 7 Inches. BREADTH Moulded ... 32 Feet. 0 Inches. DEPTH top of Floors to Upper Deck Beams ... 20 Feet. 2 Inches. Power of Engines ... 120 Horse. No. of Decks with flat laid One No. of Tiers of Beams Two

Dimensions of Ship per Register, length, 240 breadth, 32.2 depth, 20.0

| | Inches in Ship. | Inches per Rule. |
|--|---------------------------------|---------------------------------|
| KEEL, depth and thickness | <u>9 x 2 1/2</u> | <u>9 x 2 1/2</u> |
| STEM, moulding and thickness | <u>8 1/2 x 2 1/2</u> | <u>8 1/2 x 2 1/2</u> |
| STERN-POST for Rudder do. do. | <u>8 1/2 x 5</u> | <u>8 1/2 x 5</u> |
| for Propeller | <u>24</u> | <u>24</u> |
| Distance of Frames from moulding edge to moulding edge, all fore and aft | <u>24</u> | <u>24</u> |
| FRAMES, Angle Iron, for 3/4 length amidships | <u>4 1/2 3 8</u> | <u>4 1/2 3 8</u> |
| Do. for 1/2 at each end | <u>4 1/2 3 7</u> | <u>4 1/2 3 7</u> |
| REVERSED FRAMES, Angle Iron | <u>3 3 7</u> | <u>3 3 7</u> |
| FLOORS, depth and thickness of Floor Plate at mid line for half length amidships | <u>22 1/2 9</u> | <u>22 1/2 9</u> |
| thickness at the ends of vessel | <u>10/16 4</u> | <u>10/16 4</u> |
| depth at 3/4 the half-bdth. as per Rule | <u>11 45</u> | <u>11 45</u> |
| height extended at the Bilges | <u>5 1/2 3 7</u> | <u>5 1/2 3 7</u> |
| BEAMS, Upper, Spar, or Awning Deck Single or double Ang. Iron, Plate or Tee Bulb Iron | <u>7 1/2 7/16 bulk at hatch</u> | <u>7 1/2 7/16 bulk at hatch</u> |
| Average space | <u>24</u> | <u>24</u> |
| BEAMS, Main, or Middle Deck Single or double Ang. Iron, Plate or Tee Bulb Iron | <u>8 1/2 8</u> | <u>8 1/2 8</u> |
| Single or double Angle Iron, on Upper Edge | <u>4 3 7</u> | <u>4 3 7</u> |
| Average space | <u>eight frames</u> | <u>eight frames</u> |
| KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates | <u>14 12</u> | <u>14 12</u> |
| " Rider Plate | <u>11 12</u> | <u>11 12</u> |
| " Bulb Plate to Intercoastal Keelson | <u>5 4 9</u> | <u>5 4 9</u> |
| " Angle Irons | <u>5 4 9</u> | <u>5 4 9</u> |
| " Double Angle Iron Side Keelson | <u>5 4 9</u> | <u>5 4 9</u> |
| " Side Intercoastal Plate | <u>as per</u> | <u>as per</u> |
| " do Angle Irons | <u>as per</u> | <u>as per</u> |
| " Attached to outside plating with angle iron | <u>Mid Section</u> | <u>Mid Section</u> |
| BILGE Angle Irons | <u>5 4 9</u> | <u>5 4 9</u> |
| " do Bulb Iron | <u>5 4 9</u> | <u>5 4 9</u> |
| " do Intercoastal plates riveted to plating for length | <u>5 4 9</u> | <u>5 4 9</u> |
| BILGE STRINGER Angle Irons | <u>5 4 9</u> | <u>5 4 9</u> |
| Intercoastal plates riveted to plating for length | <u>5 4 9</u> | <u>5 4 9</u> |
| SIDE STRINGER Angle Irons | <u>5 4 9</u> | <u>5 4 9</u> |

| | Inches in Ship. | 16ths in Ship. | Inches per Rule. | 16ths per Rule. |
|--|--|--|--|--|
| Flat Keel Plates, breadth and thickness | <u>36</u> | <u>11</u> | <u>36</u> | <u>11</u> |
| PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied | <u>10</u> | <u>10</u> | <u>10</u> | <u>10</u> |
| fm 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, breadth & thickness | <u>40</u> | <u>12</u> | <u>40</u> | <u>12</u> |
| Butt Straps to outside plating, breadth & thickness | <u>16 3/4</u> | <u>9 3/4</u> | <u>16 3/4</u> | <u>9 3/4</u> |
| Lengths of Plating | <u>10 feet</u> | <u>10 feet</u> | <u>10 feet</u> | <u>10 feet</u> |
| Shifts of Plating, and Stringers | <u>4</u> | <u>4</u> | <u>4</u> | <u>4</u> |
| Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness | <u>34</u> | <u>10</u> | <u>34</u> | <u>10</u> |
| Angle Iron on ditto | <u>5.4</u> | <u>9</u> | <u>5.4</u> | <u>9</u> |
| Tie Plates fore and aft, outside Hatchways | <u>Iron deck</u> | <u>Iron deck</u> | <u>Iron deck</u> | <u>Iron deck</u> |
| Diagonal Tie Plates on Beams No. of Pairs, Planksheer material and scantling | <u>Iron</u> | <u>Iron</u> | <u>Iron</u> | <u>Iron</u> |
| Waterways do. do. | <u>Iron 6</u> | <u>Iron 6</u> | <u>Iron 6</u> | <u>Iron 6</u> |
| Flat of Upper Deck do. do. | <u>by rivets</u> | <u>by rivets</u> | <u>by rivets</u> | <u>by rivets</u> |
| How fastened to Beams | <u>by rivets</u> | <u>by rivets</u> | <u>by rivets</u> | <u>by rivets</u> |
| Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness | <u>32</u> | <u>9</u> | <u>32</u> | <u>9</u> |
| Is the Stringer Plate attached to the outside plating? | <u>Yes</u> | <u>Yes</u> | <u>Yes</u> | <u>Yes</u> |
| Angle Irons on ditto, No. | <u>4.4</u> | <u>9</u> | <u>4.4</u> | <u>9</u> |
| Tie Plates outside Hatchways | <u>4.4</u> | <u>9</u> | <u>4.4</u> | <u>9</u> |
| Diagonal Tie Plates on Beams, No. of pairs, Waterways materials and scantlings | <u>4.4</u> | <u>9</u> | <u>4.4</u> | <u>9</u> |
| Flat of Middle Deck do. do. | <u>4.4</u> | <u>9</u> | <u>4.4</u> | <u>9</u> |
| How fastened to Beams | <u>4.4</u> | <u>9</u> | <u>4.4</u> | <u>9</u> |
| Stringer Plates on ends of Lower Deck, Hold or Orlop Beams | <u>32</u> | <u>9</u> | <u>32</u> | <u>9</u> |
| Is the Stringer Plate attached to the outside plating? | <u>Yes</u> | <u>Yes</u> | <u>Yes</u> | <u>Yes</u> |
| Angle Irons on ditto, No. | <u>4.4</u> | <u>9</u> | <u>4.4</u> | <u>9</u> |
| Stringer or Tie Plates, outside Hatchways | <u>4.4</u> | <u>9</u> | <u>4.4</u> | <u>9</u> |
| Flat of Lower Deck | <u>4.4</u> | <u>9</u> | <u>4.4</u> | <u>9</u> |
| Ceiling betwixt Decks, thickness and material | <u>Wood sparring</u> | <u>2 1/2</u> | <u>2 1/2</u> | <u>2 1/2</u> |
| in hold do. do. | <u>2 1/2</u> | <u>2 1/2</u> | <u>2 1/2</u> | <u>2 1/2</u> |
| Main piece of Rudder, diameter at head | <u>6 1/4</u> | <u>6 1/4</u> | <u>6 1/4</u> | <u>6 1/4</u> |
| do. at heel | <u>3 1/4</u> | <u>3 1/4</u> | <u>3 1/4</u> | <u>3 1/4</u> |
| Can the Rudder be unshipped afloat? | <u>Yes</u> | <u>Yes</u> | <u>Yes</u> | <u>Yes</u> |
| Bulkheads No. <u>4</u> Thickness of | <u>6/16</u> | <u>6/16</u> | <u>6/16</u> | <u>6/16</u> |
| Height up <u>Three to upper deck. After one to 2nd deck with iron plate</u> | <u>Three to upper deck. After one to 2nd deck with iron plate</u> | <u>Three to upper deck. After one to 2nd deck with iron plate</u> | <u>Three to upper deck. After one to 2nd deck with iron plate</u> | <u>Three to upper deck. After one to 2nd deck with iron plate</u> |
| How secured to sides of ship <u>between double frames</u> | <u>between double frames</u> | <u>between double frames</u> | <u>between double frames</u> | <u>between double frames</u> |
| Size of Vertical Angle Irons <u>3. 3. 7/16</u> and distance apart <u>30</u> ins. | <u>3. 3. 7/16</u> | <u>3. 3. 7/16</u> | <u>3. 3. 7/16</u> | <u>3. 3. 7/16</u> |
| Are the outside Plates doubled two spaces of Frames in length? | <u>Yes</u> | <u>Yes</u> | <u>Yes</u> | <u>Yes</u> |

Transoms, material. Knight-heads. Hawse Timbers. Iron

Windlass Iron patent Pall Bitt Iron

The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 7/8 in. Rivets, about 3 3/8 apart.

The REVERSED ANGLE IRONS on floors and frames extend from middle line to 2nd dk stringer angle iron and to up^{er} dk 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 7/8 in. diameter, averaging 3 7/8 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 7/8 in. diameter, averaging 3 7/8 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 7/8 ins. from centre to centre.

Butts of three Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 1/16 thicker than the plates they connect.

Edges from bilge to Main Sheerstrake, worked clencher, double single riveted; with rivets 7/8 in. diameter, averaging 3 7/8 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 7/8 ins. from cr. to cr.

Edges of Main Sheerstrake, double single riveted. Upper Sheerstrake, double or single riveted.

Butts of Main Sheerstrake, treble riveted for 1/2 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.

Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for length

Breadth of laps of plating in double riveting 6 times Breadth of laps of plating in single riveting 3 1/2 times

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

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

Beams of the various Decks, how secured to the sides? Knees riveted to frames No. of Breasthooks, 4 Crutches, 4

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

Manufacturer's name or trade mark, FOR Palmer's Shipbuilding & Iron Co. Ltd.

The above is a correct description.

Builder's Signature, R. H. Armstrong

Surveyor's Signature, T. M. Overly

Surveyor to Lloyd's Register of British and Foreign Shipping.

IRON 474-0526

Workmanship. Are the butts of plating planed or otherwise fitted? *Planed* 1965 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? *Yes*
Are the fillings between the ribs and plates solid single pieces? *Yes*
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *Yes*
Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *Yes*
Do any rivets break into or through the seams or butts of the plating? *a few*

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 *Three masts of wood.*

| NUMBER for EQUIPMENT 17339 | | Fathoms. | Inches. | Test per Certificate. | Length & Size req'd pr Rule. | Test req'd per Rule. | ANCHORS. | N ^o . | Weight. Ex. Stock. | Test per Certificate | W'ght req'd per Rule. | Test req'd per Rule. |
|----------------------------|-------------------------|-------------------|---------|-----------------------|------------------------------|----------------------|----------|------------------|--------------------|----------------------|-----------------------|----------------------|
| One full suit and | SAILS. | CABLES, &c. Chain | | 270 | 19/16 | 43 9/10 | 270.12 | 43 9/10 | | | | |
| | Fore Sails, | | | | | 61 4/10 | | | | | | |
| | Fore Top Sails, | | | | | | | | | | | |
| | Fore Topmast Stay Sails | | | | | | | | | | | |
| | Main Sails, | | | | | | | | | | | |
| | Main Top Sails, | | | | | | | | | | | |
| | | Chain | | L.T.P.H. | R. Powell | Sup | 219.77 | | | | | |
| | | Hawser | | 90 | 1 | 18 | 90.1 | | | | | |
| | | Towlines | | 90 | 10 | 27 | 90.9 1/2 | | | | | |
| | | Warp | | 90 | 7 | | 90.6 | | | | | |
| | | quality | | good | | | | | | | | |

Standing and Running Rigging *wire & hemp* sufficient in size and *good* in quality. She has *two* Life Boats and *two* others
The Windlass is *Good* Capstan *Good* and Rudder *Good* Pumps *Good*

Engine Room Skylights.—How constructed? *enclosed Bulk^h with iron top; lights in the side* How secured in ordinary weather? *riots*
What arrangements for deadlights in bad weather? *glass bulk eye in the iron bulk &*

Coal Bunker Openings.—How constructed? *of iron* How are lids secured? *bars* Height above deck? *12'*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *ports and scuppers set in the bulwarks*

Cargo Hatchways.—How formed? *of iron*

State size Main Hatch *16.0 x 10.0* Forehatch *19.9 x 10.0* Quarterhatch *16.0 x 10.0*

If of extraordinary size, state how framed and secured? *✓*

What arrangement for shifting beams? *web plates and shifting beams*

Hatches, If strong and efficient? *Yes.*

| | | | |
|---|---|---|--|
| Order for Special Survey No. <i>110</i> | 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 | <i>10.7.77 May 20. June 5. 14. 22. 25. July 2. 4. 6. 12.</i> |
| Date <i>29 May 1877</i> | | 2nd. On the plating during the process of riveting | <i>13. 17. 20. 23. 28. 30. Aug 3. 8. 11. 13. 16. 22. 25.</i> |
| Order for Ordinary Survey No. <i>—</i> | | 3rd. When the beams were in and fastened, and before the decks were laid.... | <i>30. Sep 3. 4. 6. 7. 12. 14. 18. 20. Oct 2. 4. 8. 10.</i> |
| Date <i>—</i> | | 4th. When the ship was complete, and before the plating was finally coated or cemented.. | <i>12. 13. 17. 18. 19. 24. 25. 31.</i> |
| No. <i>255</i> in builder's yard. | | 5th. After the ship was launched and equipped | |

General Remarks (State quality of workmanship, &c.) *This vessel has been built in accordance with the appended approved tracings of midship section, longitudinal elevation and deck plan, and is accordance with the rules for the contemplated class and the Committee's letter of 17th April 1877. She has a bridge deck amidships, and is fitted with N.B. tanks in the fore & after holds and under the machinery extending for 164 feet, these tanks were satisfactorily tested to the load line in my presence. Strong beams are fitted between the engines and boilers. the upper deck is completely of iron 9/16 thick. the workmanship throughout is very good.*

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

How are the surfaces preserved from oxidation? Inside *Cement & paint* Outside *paint*

I am of opinion this Vessel should be Classed *+100 A 1*

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

Special ... £ *4.25* : 3 : 6 *12 Nov 1877*

Certificate ... : : : : *T. M. Overby*

(Travelling Expenses, if any, £ *—*).

Committee's Minute *13th November, 1877.*

Character assigned *100 2*

Lloyd's Register 100 2 A 1 - Iron DR double bottom 164 ft

This vessel appears eligible to be classed as recommended by 100 A 1