

# IRON SHIP.

Rec 31/12/14

No. 12567 Survey held at North Shields Date, First Survey 10th May '13 Last Survey 21 August '14  
On the S.S. "CONSTANCE" Yard Number 33 Master not known

TONNAGE under Deck 532.10  
Ditto of Third, Spar, or Awning Deck 118.80  
Ditto of Poop, or Raised Or. Dk. 659.90  
Ditto of Houses on Deck 21.54  
Ditto of Forecastle 208.29  
Gross Tonnage 1220.4  
Less Crew Space  
Less Engine Room  
Register Tonnage as cut on Beam

ONE, OR TWO DECKED, THREE DECKED VESSEL.  
SPAR, OR AWNING DECKED VESSEL.  
HALF BREADTH (moulded) 14.0  
DEPTH from upper part of Keel to top of Upper Deck Beams 15.83  
GIRTH of Half Midship Frame (as per Rule) 26.83  
1st NUMBER 56.66  
1st NUMBER, if a THREE DECKED VESSEL deduct 7 feet  
LENGTH 100.6  
2nd NUMBER 198.198  
PROPORTIONS—Breadths to Length UNDER 8  
Depths to Length—Upper Deck to Keel UNDER 12  
Main Deck ditto

Built at North Shields  
When built 1873 Launched 18 Dec 1873  
By whom built C. W. Dodgins  
Owners J. W. Lawlor  
Port belonging to North Shields  
Destined Voyage not fixed  
If Surveyed while Building, Afloat, or in Dry Dock. While Building

LENGTH on deck as per Rule 180 Feet. Inches. BREADTH Moulded 28 Feet. Inches. DEPTH top of Floors to Upper Deck Beams 14 Feet. Inches. Do. do. Main Deck Beams 6 Power of Engines 80 Horse. N° of Decks with flat laid ONE N° of Tiers of Beams ONE

Dimensions of Ship per Register, length 100.6 breadth 28.1 depth 14.53

KEEL, depth and thickness 7 1/2 x 2 1/4  
STEM, moulding and thickness 7 1/2 x 2 1/4  
STERN-POST for Rudder do. do. 3 6 7/8 x 4 3/8  
for Propeller 22 in  
Distance of Frames from moulding edge to moulding edge, all fore and aft 22 in  
FRAMES, Angle Iron, for 3/4 length amidships 3 1/2 x 3  
Do. for 1/4 at each end 3 1/2 x 3  
REVERSED FRAMES, Angle Iron 2 1/2 x 2 1/2  
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships 16 x 7/16  
thickness at the ends of vessel AS PER SECTION  
depth at 3/4 the half-bdth. as per Rule AS PER SECTION  
height extended at the Bilges TWICE DEPTH  
BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron 6 3/4 x 3 x 5/16  
Single or double Angle Iron on Upper edge 3 x 2 1/2 x 5/16  
Average space 44 in  
BEAMS, Main or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron 6 3/4 x 3 x 5/16  
Single, or double Angle Iron, on Upper Edge 3 x 2 1/2 x 5/16  
Average space 44 in  
BEAMS, Lower Deck, Hold or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron 6 3/4 x 3 x 5/16  
Single or double Angle Iron on Upper Edge 3 x 2 1/2 x 5/16  
Average space 44 in  
KEELSONS Centre line, single or double plate, box, or intercostal, Plates 20 x 6/16  
Rider Plate 6 1/2 x 7/16  
Bulb Plate to Intercostal Keelson 15 x 6/16  
Angle Irons 4 x 3 x 5/16  
Double Angle Iron Side Keelson 4 x 3 x 5/16  
Side Intercostal Plate do.  
do. Angle Irons do.  
Attached to outside plating with angle iron do.  
BILGE Angle Irons 4 x 3 x 5/16  
do. Bulb Iron 7 x 7/16  
do. Intercostal plates riveted to plating for length do.  
BILGE STRINGER Angle Irons 4 x 3 x 5/16  
Intercostal plates riveted to plating for length do.  
SIDE STRINGER Angle Irons 4 x 3 x 5/16  
Transoms, material. Knight-heads. Hawse Timbers. Iron plates angled  
Windlass iron patent Pall Bitt iron

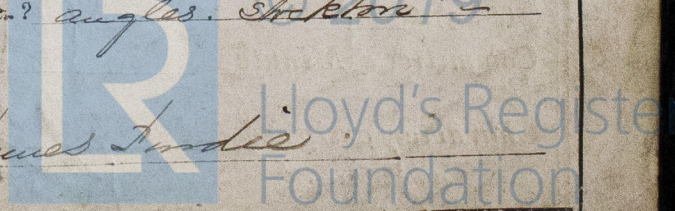
Flat Keel Plates, breadth and thickness 36 x 5/16  
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied 30 x 5/16  
fin up, part of Bilge to Ir. edge of Sh'rstrake 7/16  
Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied 38 x 1/8  
from Mn. to Upper Spar Dk. Sh'rstrake. 30 x 1/8  
Up. or Spar Dk. Sh'rstrake, brdth & thickness do.  
Butt Straps to outside plating, breadth & thickness 10-14 7/16  
Lengths of Plating 5 1/2 SPACES  
Shifts of Plating, and Stringers 5 1/2 SPACES  
Gunwale Plate on ends of Awning Spar, or Upper Deck Beams, breadth and thickness 26 x 7/16  
Angle Iron on ditto 4 x 3 x 5/16  
Tie Plates fore and aft, outside Hatchways do.  
Diagonal Tie Plates on Beams No. of Pairs do.  
Planksheer material and scantling do.  
Waterways do.  
Flat of Upper Deck do. do. 5 1/16 from  
How fastened to Beams 5 1/16 from  
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness 20 x 6/16  
Is the Stringer Plate attached to the outside plating? YES  
Angle Irons on ditto, No. 3  
Tie Plates, outside Hatchways do.  
Diagonal Tie Plates on Beams, No. of pairs do.  
Waterways material and scantling do.  
Flat of Middle Deck do. do.  
How fastened to Beams do.  
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams do.  
Is the Stringer Plate attached to the outside plating? do.  
Angle Irons on ditto, No. do.  
Stringer or Tie Plates, outside Hatchways do.  
Flat of Lower Deck do.  
Ceiling between Decks, thickness and material 2 1/2 R.F.  
in hold do.  
Main piece of Rudder, diameter at head 4 3/4  
do. at heel 2 7/8  
Can the Rudder be unshipped afloat? YES  
Bulkheads No. 4 Thickness of 5/16  
Height up upper deck  
How secured to sides of ship double frames  
Size of Vertical Angle Irons 3 x 2 1/2 x 5/16 and distance apart 30 ins.  
Are the outside Plates doubled two spaces of Frames in length? yes

The FRAMES extend in one length from Keel to gunwale Riveted through plates with 3/4 in. Rivets, about 6 apart.  
The REVERSED ANGLE IRONS on floors and frames extend across middle line to above Bilge Stringer 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 1 in. diameter, averaging 4 3/4 ins. from centre to centre.  
Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from centre to centre.  
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 1/4 ins. from centre to centre.  
Butts of one Strake at Bilge for 4 1/2 length, double riveted with Butt Straps 1/16 thicker than the plates they connect.  
Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from cr. to cr.  
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from cr. to cr.  
Edges of Main Sheerstrake, double or single riveted. Upper Sheerstrake, double or single riveted.  
Butts of Main Sheerstrake, double 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 amidships.  
Breadth of laps of plating in double riveting 4 1/2 Breadth of laps of plating in single riveting 2 1/2

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? double and single as per rule  
Waterway, how secured to Beams as per section (Explain by Sketch, if necessary.)  
Beams of the various Decks, how secured to the sides? Beam Ribs Riveted to frames No. of Breasthooks, 4 Crutches, 2  
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? angles. See above  
Manufacturer's name or trade mark, Plates "Palmer's"

The above is a correct description.  
Builder's Signature, C. W. Dodgins Surveyor's Signature, James Andrew





Workmanship. Are the butts of plating planed or otherwise fitted? *Planed when machined* 13177  
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? *Very few in Rudder only*

Masts, Bowsprit, Yards, &c., are *wood* 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

| NUMBER for EQUIPMENT    |  | 10198 | Fathoms.   | Inches. | Test per Certificate. | Length & Size req'd per Rule | Test req'd per Rule. | ANCHORS, &c.  | N <sup>o</sup> . | Weight. Ex. Stock. | Test per Certificate. | Weight req'd per Rule. | Test req'd per Rule. |
|-------------------------|--|-------|--|---------|-----------------------|------------------------------|----------------------|---|------------------|--------------------|-----------------------|------------------------|----------------------|
| SAILS.                  |  |       | 240  | 14      | 28 1/8                | 20-1/8                       | 28 3/4               | Bowers<br><br>(State Machine where Tested, Date, and name of Superintendent.) | 3                | 14-0-10            | 15-16                 | 3-14                   | 13-2-07              |
| Fore Sails,             |  |       | Chain  | 42 3/8  |                       |                              |                      |   | 13-2-27          | 15-8-0             | 14-13-2-03            |                        |                      |
| Fore Top Sails,         |  |       | Hydr Press P.H. R. Russell Sept 12 and 21 Nov 1873 |         |                       |                              |                      |   | 13-1-14          | 15-1-2-4           | 11-1-25               | 13-6-1/2               |                      |
| Fore Topmast Stay Sails |  |       | Hmpn Strm Cbl                                      | 90      | 5                     | 4-13/16                      |                      | Stream  | 1                | 9-2-0              |                       | 6-0-0                  |                      |
| Main Sails,             |  |       | Hawser ...   | 90      | 5                     | 4-7                          |                      |   |                  | 6-0-2              |                       | 3-0-0                  |                      |
| Main Top Sails,         |  |       | Towlines   | 90      | 5                     | 4-7                          |                      |   |                  | 3-0-2              |                       | 2-0-0                  |                      |
|                         |  |       | Warp   | 60      | 4                     | 4-0-4                        |                      | Kedges  | 3                | 3-0-2              |                       | 2-0-0                  |                      |
|                         |  |       | quality  | 60      | 4                     | 4-0-4                        |                      |   |                  | 3-0-2              |                       | 2-0-0                  |                      |

Standing and Running Rigging *hemp* sufficient in size and *good* in quality. She has *one* Long Boat and *one* other  
The Windlass is *good* Capstan *good* and Rudder *good* Pumps *good* & sufficient  
Engine Room Skylights.—How constructed? *solid plating & bulwarks* How secured in ordinary weather? *lashed down*  
What arrangements for deadlights in bad weather? *see above*

Coal Bunker Openings.—How constructed? *cut in ribs* How are lids secured? *by straps* Height above deck? *1 1/2 on bow*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *five ports and mooring  
pumps on each side.*

Cargo Hatchways.—How formed? *iron comings & head ledges riveted together*

State size Main Hatch *14' 6" x 10' 0"* Forehatch *4' 6" x 8' 0"* Quarterhatch *14' 9" x 10' 0"*

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

What arrangement for shifting beams? *none required*

Hatches, If strong and efficient? *yes*

|  |  |   |
|--|--|---|
| Order for Special Survey No. <i>27</i> | 1st. On the several parts of the frame, when in place, and before the plating was wrought  | <i>Built under Special Survey.</i>                      |
| Date <i>12th July 1874</i>             | 2nd. On the plating during the process of riveting   | <i>1872 May 10-19 June 7-14-23 July 2-11</i>            |
| Order for Ordinary Survey No. <i>—</i> | 3rd. When the beams were in and fastened, and before the decks were laid....               | <i>21-26-28 Aug 2-11-20 Sep 4-12-20-29</i>              |
| Date <i>—</i>                          | 4th. When the ship was complete, and before the plating was finally coated or cemented.... | <i>Oct 4-10-16 Nov 1-5-17-21 Dec 3-8-23</i>             |
| No. <i>27</i> in builder's yard.       | 5th. After the ship was launched and equipped  | <i>1874 Jan 7-12-17 Feb 4-11-19 June 6-11 Aug 18-21</i> |

General Remarks,  
*She is fitted with double bottom in fore and after holds of the united lengths of 94 ft side plates 4/8 top plates 5/8—  
This vessel is well built and worthy of the class as recommended below—*

Committee's Minute *8th September 1874.*  
Character assigned *GOAL AOE P*

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.

How are the surfaces preserved from oxidation? Inside *Copper in bottom Painted* Outside *Painted*

I am of opinion this Vessel should be Classed *GOAL and marked "part double bottom."*

The amount of the Entry Fee ... £ *5* ... is received by me, *James Jones* R. J. Reed.

Special Certificate ... £ *31* ... 29 Aug 1874

(Travelling Expenses) (if any) £ *—*

Committee's Minute *1st September 1874* *3rd September 1874*

Character assigned *GOAL*

*See Case No. 121 Double Bottom*

|   |  |                                     |  |   |  |   |  |
|---|--|-------------------------------------|--|---|--|---|--|
| Register Tonnage as cut on Beam   |  | Depths to Length—Upper Deck to Keel |  | Main Deck ditto   |  | If Surveyed while Building, Afloat, or in Dry Dock. |  |
| LENGTH on deck as per Rule  |  | BREADTH—Moulded                     |  | DEPTH top of Floors to Upper Deck Beams Do. do. Main Deck Beams |  | Power of Engines                                    |  |
| Feet. Inches.   |  | Feet. Inches.                       |  | Feet. Inches.   |  | Horse.  |  |
| breadth,  |  | depth,                              |  | Inches in Ship.   |  | Inches per Rule.                                    |  |
| KEEL, depth and thickness   |  | STEM, moulding and thickness        |  | STERN-POST for Rudder do. do.                                   |  | Flat Keel Plates, breadth and thickness             |  |
| Inches in Ship.   |  | Inches per Rule.                    |  | Inches in Ship.   |  | Inches per Rule.                                    |  |
| PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thick- |  | Inches in Ship.                     |  | Inches per Rule.  |  | Inches in Ship.                                     |  |
| 16ths. required   |  | 16ths. required                     |  | 16ths. required   |  | 16ths. required                                     |  |



Fore Sails, Chain ... *Wrecking Star #2-3/16*  
 (State Machine where Tested, Date. *13-1-14 15-1-2-7 11-1-25 136/20*)

**NUMBER for EQUIPMENT** *11,217*

| N <sup>o</sup> .     | SAILS.                  | CABLES, &c.   | Fathoms.         | Inches.       | Test per Certificate. | Lngh. & Size req'd pr Rule | Test req'd per Rule. |
|----------------------|-------------------------|---|------------------|---------------|-----------------------|----------------------------|----------------------|
| <i>One full suit</i> | Fore Sails,             | Chain ... <i>Bearing strain</i>                               | <i>240</i>       | <i>1 1/4</i>  | <i>28 1/8</i>         | <i>210-14/16</i>           | <i>28 2/20</i>       |
|                      | Fore Top Sails,         | (State Machine where Tested, Date, & name of Superintendent.) |                  |               | <i>42 3/16</i>        |                            |                      |
|                      | Fore Topmast Stay Sails | <i>Iron</i>   | <i>12 and 21</i> |               | <i>Nov 1873</i>       |                            |                      |
|                      |                         | <del>Hemp</del> Strm Cbl                                      | <i>60</i>        | <i>1 3/16</i> |                       |                            |                      |
|                      | Main Sails,             | Hawser ...  | <i>90</i>        | <i>7</i>      |                       | <i>90-13/16</i>            |                      |
|                      | Main Top Sails,         | Towlines ...  | <i>90</i>        | <i>5</i>      |                       | <i>90-7</i>                |                      |
|                      | and                     | Warp ...  | <i>60</i>        | <i>4</i>      |                       | <i>90-4</i>                |                      |
|                      |                         | quality <i>good</i>   |                  |               |                       |                            |                      |

| ANCHORS, &c.  | N <sup>o</sup> . | Weight. Ex. Stock. | Test per Certificate. | W'ght req'd per Rule. | Test req'd per Rule. |
|---|------------------|--------------------|-----------------------|-----------------------|----------------------|
| Bowers ...  | <i>3</i>         | <i>14-0-18</i>     | <i>15-16-3-14</i>     | <i>13-2-0</i>         | <i>15-3/20</i>       |
| (State Machine where Tested, Date, and name of Superintendent.) |                  |                    |                       |                       |                      |
|   |                  | <i>13-2-27</i>     | <i>15-0-0-14</i>      | <i>13-2-0</i>         | <i>13 6/20</i>       |
|   |                  | <i>13-1-14</i>     | <i>15-1-2-7</i>       | <i>11-1-25</i>        | <i>13 6/20</i>       |
|   |                  | <i>4</i>           | <i>Nov 1873</i>       |                       |                      |
| Stream ...  | <i>1</i>         | <i>9-2-0</i>       |                       | <i>6-0-0</i>          |                      |
| Kedges ...  | <i>2</i>         | <i>6-0-2</i>       |                       | <i>3-0-0</i>          |                      |
|   |                  | <i>3-0-7</i>       |                       | <i>1-2-0</i>          |                      |

Coal Bunker Openings.—How constructed? *cast iron rim* How are lids secured? *by straps* Height above deck? *1 1/2 on house*

Scummers, &c.—What arrangements for clearing under deck of water in case of shipping ...