

# IRON SHIP.

No. 4358 Survey held at Roway, Greenwich Date, First Survey 2<sup>nd</sup> Sept 1874 Last Survey 10<sup>th</sup> July 1876  
 On the S<sup>r</sup> Nemesis 3 masts Master W. J. M. Greig

**TONNAGE** under 1610 Tonnage Deck 2529.46 ONE, OR TWO DECKED, THREE DECKED VESSEL.  
 Ditto of Awning Deck. 266.92 SPAR, OR AWNING-DECKED VESSEL.  
 Ditto of Poop, or Raised Or. Dk. 1086.84 HALF BREADTH (moulded) 20.5 Feet.  
 Ditto of Houses on Deck 101.87 DEPTH from upper part of Keel to top of Upper Deck Beams 30.5  
 Ditto of Forecastle 221.3 GIRTH of Half Midship Frame (as per Rule) 43.2  
 Gross Tonnage 3396.30 1st NUMBER 94.2  
 Less Crew Space 101.87 1st NUMBER, if THREE DECKED VESSEL  
 Less Engine Room 1086.84 Compared with 1872 Rules - deduct 7 feet  
 Register Tonnage as cut on Beam 221.3 LENGTH 330.  
 2nd NUMBER 31039  
 PROPORTIONS—Breadths to Length 0.29  
 Depths to Length—Upper Deck to Keel 11.2  
 Main Deck ditto 11.2

Built at Glasgow  
 When built 1857 Launched 1857  
 By whom built Tad & M. Greig  
 Owners P. Denny & Others  
 Port belonging to London  
 Destined Voyage Ch. not fixed  
 & Surveyed while Building, Afloat, and in Dry Dock.

LENGTH on deck as per Rule 330 Feet. BREADTH—Moulded 41 Feet. DEPTH top of Floors to Upper Deck Beams 27 Feet. Do. do. Main Deck Beams 35 Feet. Power of Engines 550 Horse. N<sup>o</sup>. of Decks with flat laid 4 N<sup>o</sup>. of Tiers of Beams 4

Dimensions of Ship per Register, length 352.6 breadth 41.5 depth 35

	Inches in Ship.	Inches per Rule.		Inches in Ship.	Inches per Rule.
KEEL, depth and thickness <u>as per section</u>	<u>12 x 3</u>	<u>11 x 3</u>	FLAT KEEL PLATES, breadth and thickness	<u>24</u>	<u>10. 36 13</u>
STEM, moulding and thickness	<u>12 x 3</u>	<u>11 x 3</u>	PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilge of doubling at Bilge, or increased thickness, and length applied	<u>24</u>	<u>10. 36 13</u>
STERN-POST for Rudder do. do. for Propeller	<u>14 x 7</u>	<u>14 x 4 1/2</u>	in up. part of Bilge to Ir. edge of Sh'rstrake	<u>13</u>	<u>14 Doubling</u>
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>21 24</u>	<u>(Class 100A)</u>	Lower Main Sheerstrake, breadth and thickness of doubling at Sh'rstrake, & length applied from Main to Upper Deck Sh'rstrake.	<u>29</u>	<u>12 40 16</u>
FRAMES, Angle Iron, for 1/2 length amidships	<u>6 1/2 42 10 5 1/2 3 1/2 9</u>	<u>3 1/2 3 1/2 9</u>	from Main to Upper Deck Sh'rstrake.	<u>29</u>	<u>12 40 16</u>
Do. for 1/2 at each end	<u>4 1/2 3 1/2 9 3 1/2 3 1/2 9</u>	<u>3 1/2 3 1/2 9</u>	Amidships or Spar Dk Sh'rstrake, breadth & thickness	<u>36</u>	<u>10 14 5 1/2 15 6</u>
REVERSED FRAMES, Angle Iron	<u>4 1/2 3 1/2 9 3 1/2 3 1/2 9</u>	<u>3 1/2 3 1/2 9</u>	Butt Straps to outside plating, breadth & thickness	<u>12 1/2</u>	<u>10 14 5 1/2 15 6</u>
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	<u>30</u>	<u>10 26 10</u>	Lengths of Plating	<u>6 1/2 to 10 1/2</u>	<u>10 14 5 1/2 15 6</u>
thickness at the ends of vessel	<u>10</u>	<u>0</u>	Shifts of Plating, and Stringers. one and two spaces of frames	<u>36</u>	<u>9 42 6</u>
depth at 1/2 the half-bdth. as per Rule	<u>as per section</u>	<u>-</u>	Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	<u>36</u>	<u>9 42 6</u>
height extended at the Bilges	<u>as per section</u>	<u>-</u>	Angle Iron on ditto <u>as per section</u>	<u>4 1/2</u>	<u>4 4 9</u>
BEAMS, Upper, Spar, or Awning Deck	<u>7</u>	<u>7 6 1/2 4 1/2 9</u>	Tie Plates fore and aft, outside Hatchways	<u>10</u>	<u>9 12 7</u>
Single or double Ang. Iron, Plate or Tee Bulb Iron	<u>6 1/2 3 1/2 0</u>	<u>6 1/2 4 1/2 9</u>	Diagonal Tie Plates on Beams No. of Pairs	<u>13 1/2</u>	<u>4 1/2</u>
Single or double Angle Iron on Upper edge	<u>4 1/2 3 1/2 0</u>	<u>4 1/2 4 1/2 9</u>	Planksheer material and scantling	<u>13 1/2</u>	<u>4 1/2</u>
Average space	<u>42</u>	<u>40</u>	Waterways do. do. 3	<u>3 1/2</u>	<u>3</u>
BEAMS, Main, or Middle Deck	<u>10</u>	<u>7 10 10</u>	Flat of Upper Deck do. do. 3	<u>3 1/2</u>	<u>3</u>
Single or double Ang. Iron, Plate or Tee Bulb Iron	<u>3 1/2 3 1/2 7</u>	<u>3 1/2 3 1/2 7</u>	How fastened to Beams	<u>40</u>	<u>10 15 1/2 10</u>
Single or double Angle Iron, on Upper Edge	<u>4 1/2 3 1/2 7</u>	<u>4 1/2 4 1/2 9</u>	Stringer Plate on ends of Main or Middle Deck	<u>40</u>	<u>10 15 1/2 10</u>
Average space	<u>42</u>	<u>40</u>	Beams, breadth and thickness	<u>40</u>	<u>10 15 1/2 10</u>
BEAMS, Lower Deck, Hold, or Orlop	<u>10</u>	<u>9 10 10</u>	Is the Stringer Plate attached to the outside plating?	<u>yes</u>	<u>✓</u>
Single or double Ang. Iron, Plate or Tee Bulb Iron	<u>3 1/2 3 1/2 0</u>	<u>3 1/2 3 1/2 7</u>	Angle Irons on ditto, No. size obtainable	<u>26</u>	<u>10 16 10</u>
Single or double Angle Iron on Upper Edge	<u>4 1/2 3 1/2 7</u>	<u>4 1/2 4 1/2 9</u>	Tie Plates, outside Hatchways	<u>26</u>	<u>10 16 10</u>
Average space	<u>42</u>	<u>40</u>	Diagonal Tie Plates on Beams, No. of pairs	<u>3</u>	<u>0 1/2</u>
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates	<u>30</u>	<u>13 23 14 11</u>	Waterways materials and scantlings	<u>as per section</u>	<u>-</u>
" Rider Plate	<u>-</u>	<u>0</u>	Flat of Middle Deck do. do. 3	<u>3 1/2</u>	<u>4</u>
" Bulb Plate to Intercoastal Keelson	<u>-</u>	<u>0</u>	How fastened to Beams	<u>26</u>	<u>10 16 10</u>
" Angle Irons	<u>6 1/2 4 1/2 9</u>	<u>6 1/2 4 1/2 9</u>	Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	<u>30</u>	<u>10 16 10</u>
" Double Angle Iron Side Keelson	<u>6 1/2 4 1/2 9</u>	<u>6 1/2 4 1/2 9</u>	Is the Stringer Plate attached to the outside plating?	<u>no</u>	<u>✓</u>
" Side Intercoastal Plate	<u>6 1/2 4 1/2 9</u>	<u>6 1/2 4 1/2 9</u>	Angle Irons on ditto, No. size obtainable	<u>26</u>	<u>10 16 10</u>
" do. Angle Irons	<u>6 1/2 4 1/2 9</u>	<u>6 1/2 4 1/2 9</u>	Stringer or Tie Plates, outside Hatchways	<u>26</u>	<u>10 16 10</u>
" Attached to outside plating with angle iron	<u>6 1/2 4 1/2 9</u>	<u>6 1/2 4 1/2 9</u>	Flat of Lower Deck	<u>4 1/2</u>	<u>4 1/2</u>
BILGE Angle Irons	<u>4 1/2 3 1/2 0</u>	<u>6 1/2 4 1/2 9</u>	Ceiling betwixt Decks, thickness and material	<u>2 1/2</u>	<u>2 1/2</u>
" do. Bulb Iron	<u>0</u>	<u>0</u>	in hold do. do.	<u>2 1/2</u>	<u>2 1/2</u>
" do. Intercoastal plates riveted to plating for length	<u>26</u>	<u>14 10 36 9</u>	Main piece of Rudder, diameter at head	<u>7 1/2</u>	<u>8 1/2</u>
BILGE STRINGER Angle Irons	<u>6 1/2 4 1/2 9</u>	<u>6 1/2 4 1/2 9</u>	do. at heel	<u>7 1/2</u>	<u>8 1/2</u>
Intercoastal plates riveted to plating for length	<u>26</u>	<u>14 10 36 9</u>	Can the Rudder be unshipped afloat?	<u>no</u>	<u>✓</u>
SIDE STRINGER Angle Irons	<u>6 1/2 4 1/2 9</u>	<u>6 1/2 4 1/2 9</u>	Bulkheads No. 5 Thickness of	<u>2 1/2</u>	<u>2 1/2</u>
Transoms, material. Knight-heads. Hawse Timbers.	<u>Iron</u>	<u>Iron</u>	Height up Fore to upper Dk. sheer to middle Dk.	<u>7 1/2</u>	<u>8 1/2</u>
Windlass	<u>Iron Capstan</u>	<u>Pall Bar</u>	How secured to sides of ship	<u>Double frames</u>	<u>Double frames</u>

The FRAMES extend in one length from Keel to Upper Deck Riveted through plates with 1 in. Rivets, about 6 apart.  
 The REVERSED ANGLE IRONS on floors and frames extend from middle line to Upper Deck Stringers and to see section alternately.  
 KEELSONS. Are the various lengths of Plates and Angle Irons properly connected? Where seen And butts properly shifted? Where seen

PLATING. Garboard, double riveted to Keel, with rivets 1 1/2 in. diameter, averaging 4 ins. from centre to centre.  
 Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 1 in. diameter, averaging 3 1/2 ins. from centre to centre.  
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 1 in. diameter averaging 3 1/2 ins. from centre to centre.  
 Butts of Strakes at Bilge for length, treble riveted with Butt Straps thicker than the plates they connect.  
 Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 1 in. diameter, averaging 3 1/2 ins. from cr. to cr.  
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 1 in. diameter, averaging 3 1/2 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 fore & aft length amidships. Butts of Upper or Spar Sheerstrake, treble riveted half length amidships.  
 Butts of Main Stringer Plate, treble riveted fore & aft length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for half length.  
 Breadth of laps of plating in double riveting 5 Breadth of laps of plating in single riveting 5

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted 2  
 Waterways how secured to Beams Butted Bolt (Explain by Sketch, if necessary.)  
 Beams of the various Decks, how secured to the sides? Angled bracket knees No. of Breasthooks, 4 Crutches, 4  
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? No marks obtainable  
 Manufacturer's name or trade mark, No marks obtainable

The above is a correct description.  
 Builder's Signature, Not obtainable Surveyor's Signature, W. J. M. Greig  
 Surveyor to Lloyd's Register of British and Foreign Shipping.

IRON 467-0234



Workmanship. Are the butts of plating planed or otherwise fitted? *Not ascertainable*  
Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? *Not ascertainable*  
Are the fillings between the ribs and plates solid single pieces? *Solid pieces*  
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *Not ascertainable*  
Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *Not ascertainable*  
Do any rivets break into or through the seams or butts of the plating? *A few*

Masts, Bowsprit, Yards, &c., are *Iron* 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 *Foremast 93' 6" x 32" 4 plates in section 7/16 thick. Butts double riveted edges flush. Single riveted. Probably with Tim to rivet to. Mainmast 90' x 32" 4 plates in section 7/16 thick. Butts and edges double riveted. Mizzen Mast 80' 6" x 24" 4 plates in section 7/16 thick. Bowsprit (outboard) 23' 6" x 2 plates in section 7/16 thick. Foremast and Bowsprit flush plated like Foremast. Foremain lower yards 74' x 10". Foremain and lower topsail yards 34' x 13 1/2". Main yard only of iron. Main Bowsprit & Bowsprit appear by the rivets to have stiffening bars in them.*

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS.	No.	Weight. Ex. Stock.	Test per Certificate.	Weight req'd per Rule.	Test req'd per Rule.
No.	SAILS.	CABLES, &c.										
		Chain	300	2 1/2		300 2 1/2	Rodgers Bowers	-	41.3.0		40	35 1/2
<i>me</i>	Fore Sails,							*	40.1.7	35.19.22 1/2	40	
<i>put</i>	Fore Top Sails,								32.0.0		34	20.3.7
<i>and</i>	Fore Topmast Stay Sails	Hemp Strm Cbl	105	1 1/2		90 1 1/2	<i>(State Machine Testers Date &amp; name of Superintendent)</i>					
<i>done</i>	Main Sails,	Hawser ...	90	1 1/2		12						
<i>and</i>	Main Top Sails,	Towlines ...		8		0	Stream		15		15	
		Warp ...		4 1/2		0	Kedges		4 1/2		4 1/2	
		quality <i>Good</i>							4.1.16		3 1/2	

Standing and Running Rigging *Wire & hemp* sufficient in size and *Good* in quality. She has *2* Life Long Boat and *4* others.  
The Windlass is *Capstan* and Rudder *Good* Pumps *Good*

Engine Room Skylights.—How constructed? *in 10' x 12' iron coamings* How secured in ordinary weather? *Plates & bolts*

What arrangements for deadlights in bad weather? *Seal and fine gratings*

Coal Bunker Openings.—How constructed? *Iron covering deck* How are lids secured? *Stops* Height above deck? *Flush*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Open scutt & Stenton valves*

Cargo Hatchways.—How formed? *Teak. after hatch iron*

State size Main Hatch *60 x 8* Forehatch *9 x 8* Quarterhatch *8 1/2 x 8*

If of extraordinary size, state how framed and secured?

What arrangement for shifting beams?

Hatches, If strong and efficient? *Raised skylights of teak with wire gratings*

Order for Special Survey No.  Date  Order for Ordinary Survey No.  Date  No.  in builder's yard.

General Remarks (State quality of workmanship, &c.) *Iron done to accord with the S.S. No 3*

*Close ceiling in holds and lower two decks removed. The bunkers cleaned. The plating outside and in beaten and cleaned. The thickness of plating ascertained by drilling where thought necessary. The asphalt in the bottom repaired where requisite. The ceiling retaid and the plating recoated. The cables ranged and, with the rest of the outfit, examined. Boards of partial iron bulkheads properly spaced between the original lattice and the stern, between upper and awning decks. Iron fitted. The foremast bulkhead extended to the height of the upper deck. The equipment, so far as appears on account of its having been supplied before the public test was required, was completed by the addition of one lower and one kedge.*

*The load line mark as approved at the height of 24 feet was painted on the vessels sides in accordance with the Circular No 354*

*Secretary's letters referring to the above dated 10<sup>th</sup> and 18<sup>th</sup> Sept 1874 and 29<sup>th</sup> June 1876*

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

How are the surfaces preserved from oxidation? Inside *Asphalt and paint* Outside *Paint*

I am of opinion this Vessel should be Classed *100 A 1* 3 Decks and Awning deck

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

Special ... £ 15 : 15 : - July 11<sup>th</sup> 1876

Certificate ... £ 5 : - : -

Committee's Minute *14<sup>th</sup> July* 18 *76*

Character assigned *100 A 1* S.S. No 3 76

*8 Dps & Awning Dk* *TRW Load line 24 feet*