

# IRON SHIPS.

No. 3070 Survey held at West Hartlepool Date, First Survey 1<sup>st</sup> November 1872 Last Survey 8<sup>th</sup> May 1872

On the Screw Steamer "Douglas" Master Luty

Tonnage under Tonnage Deck 882.66  
 Ditto of Third Spar, or Awning Deck 422.44  
 Ditto of Poop, or Raised Or. Dk. 1305.10  
 Ditto of Houses on Deck 30.99  
 Ditto of Forecastle 35.92  
 Gross Tonnage 1372.01  
 Net Space, as per Rule 60.18  
 Register Tonnage, as per Rule 1311.83  
 Net Space, as per Rule 409.04  
 Register Tonnage, as a 872.79  
 Steamers cut on Beam

ONE, OR TWO DECKED, SPAR, OR AWNING-DECKED VESSELS.

Half moulded breadth ....  
 Depth from upper part of Keel to top of Upper Deck Beams .....  
 Girth of Half Midship Frame (as per Rule) ...

1st Number .....  
 Length .....

2nd Number ....

Depths to Length. Within 10 Main Deck " 13

THREE DECKED VESSELS.

Half Moulded Breadth .... 16-2  
 Total Depth if three or more Decks ..... 25-6  
 Total Girth of Half Midship Frame ..... 37-0  
 3rd Number ..... 7-8  
 Length ..... 171-8  
 4th Number .... 17102  
 Breadths to Length ..... 7 1/2

Built at West Hartlepool

When built 1872 Launched 27<sup>th</sup> March

By whom built Denton Gray & Co.

Owners George Pym & Co.

Port belonging to West Hartlepool

Destined Voyage Cape of Good Hope

If Surveyed while Building, Afloat, or in Dry Dock.

Length on deck as per Rule 130 Feet. 0 Inches. Moulded Breadth 32 Feet. 4 Inches. Depths from top of Floors to Upper and Main Deck Beams, as per Rule ..... Feet. 16 Inches. 10 Power of Engines, 140 Horse. N<sup>o</sup>. of Decks with flat laid Two N<sup>o</sup>. of Tiers of Beams Three

Dimensions of Ship per Register, length, 239-8 breadth, 32-4 depth, 25-6

	Inches in Ship.	Inches required per Rule.
Keel, if bar iron, depth and thickness .....	<u>9 x 2 1/2</u>	<u>9 x 2 1/2</u>
Do. if centre through plate, depth and thickness .....	<u>8 1/2 x 2 1/2</u>	<u>8 1/2 x 2 1/2</u>
Stem, if bar iron, moulding and thickness .....	<u>10 x 4 1/2</u>	<u>8 1/2 x 5</u>
Stern-post for Rudder do. do. ....	<u>10 x 4 1/2</u>	<u>8 1/2 x 5</u>
Stern-post for Propeller .....	<u>10 x 4 1/2</u>	<u>8 1/2 x 5</u>
Distance of Frames from moulding edge to moulding edge, all fore and aft .....	<u>24</u>	<u>24</u>
Frames, size of Angle Iron, for 1/2 length amidships .....	<u>4 1/2 x 3</u>	<u>4 1/2 x 3</u>
Do. for 1/2 at each end .....	<u>4 1/2 x 3</u>	<u>4 1/2 x 3</u>
Reversed Frames, size of Angle Iron .....	<u>4 1/2 x 3</u>	<u>4 1/2 x 3</u>
Floors, depth and thickness of Floor Plate at mid line for half the length amidships .....	<u>20 x 9/16</u>	<u>20 x 9/16</u>
Do. at the ends .....	<u>20 x 9/16</u>	<u>20 x 9/16</u>
Do. do. do. at Bilge Keelson .....	<u>17 x 9/16</u>	<u>17 x 9/16</u>
Do. height extended at the Bilges .....	<u>40</u>	<u>40</u>
Beams, Upper, Spar, or Awning Deck (No. 60) single or double Angle Iron, Plate or Tee Bulb Iron .....	<u>6 1/2 x 4 1/6</u>	<u>6 1/2 x 4 1/6</u>
Single or double Angle Iron on Upper edge .....	<u>2 1/2 x 5/16</u>	<u>2 1/2 x 5/16</u>
Average space .....	<u>40</u>	<u>40</u>
Beams, Main or Middle Deck (No. 50) single or double Angle Iron, Plate or Tee Bulb Iron .....	<u>8 x 8/16</u>	<u>8 x 8/16</u>
Single or double Angle Iron on Upper Edge .....	<u>3 x 3/16</u>	<u>3 x 3/16</u>
Average space .....	<u>40</u>	<u>40</u>
Beams, Lower Deck, Hold or Orlop (No. 25) single or double Angle Iron, Plate or Tee Bulb Iron .....	<u>8 x 8/16</u>	<u>8 x 8/16</u>
Single or double Angle Iron on Upper Edge .....	<u>3 x 3/16</u>	<u>3 x 3/16</u>
Average space .....	<u>40</u>	<u>40</u>
Keelson Centre line, single or double plate, box, or intercostal, size of Plates .....	<u>16 x 12/16</u>	<u>16 x 12/16</u>
Do. Bulb Plate to Intercostal Keelson .....	<u>4 x 9/16</u>	<u>4 x 9/16</u>
Do. Size of Angle Irons .....	<u>5 x 8/16</u>	<u>5 x 8/16</u>
Do. Side Intercostal Keelson, size of Plates .....	<u>2 1/2 x 5/16</u>	<u>2 1/2 x 5/16</u>
Do. Angle Irons on tops of Floors .....	<u>5 x 4/16</u>	<u>5 x 4/16</u>
Do. Bilge Keelson, Bulb Iron .....	<u>8 x 8/16</u>	<u>8 x 8/16</u>
Do. do. Intercostal plates riveted to plating for half length .....	<u>4 x 9/16</u>	<u>4 x 9/16</u>
Do. do. Angle Irons .....	<u>5 x 8/16</u>	<u>5 x 8/16</u>
Side Stringers (No. one) size of Angle Irons .....	<u>5 x 4/16</u>	<u>5 x 4/16</u>
Do. Intercostal plates riveted to plating for length .....	<u>5 x 4/16</u>	<u>5 x 4/16</u>

Transoms, material Plate or, if none, in what manner compensated for.

Knight-heads Plate Hayse Timbers Plate

Windlass Emerson & Wallers Pall Bitt

The Frames extend in one length from Keel to Gunnwale

The Reverse Angle Irons on the floors and frames extend across the middle line to above main deck stringers and to Gunnwale alternately

Keelsons. Are the various lengths of Plates and Angle Irons properly connected? yes And are their butts properly shifted? yes

Plates, Garboard, double or Riveted to Keel, double or at upper edge, with Rivets ( 1/8 in.) diameter, averaging ( 5 1/2 ins.) from centre to centre.

Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets ( 3/4 in.) diameter, averaging ( 3 1/2 ins.) from centre to centre.

Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes ( 1/2 x 1/2 ) thick, double or single Riveted; with Rivets ( 3/4 in.) diameter averaging ( 3 1/4 ins.) from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? no

Do. of three Strakes at Bilge for half length, treble riveted with Butt Straps 1/6 thicker than their plates. 5 butts lapped & treble riveted.

Do. Edges from bilge to Main Sheerstrake, worked carvel with a lining piece ( ) thick, or clencher, double or single riveted; with rivets ( 3/4 in.) diameter, averaging ( 3 1/2 ins.) from centre to centre.

Do. Edges of Sheerstrake, Main, double or single Riveted. Upper, double or single Riveted. At upper edge Single At lower edge Double

Do. Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps ( 10 x 9/16 ) thick, double or single Riveted; with Rivets ( 3/4 in.) diameter, averaging ( 8 1/2 ins.) from centre to centre.

Do. Butts of Main Sheerstrake, double or treble Riveted. Butts of Upper or Spar Sheerstrake, and Upper Deck Stringer Plate, double or treble Riveted for half length amidships. Breadth of laps of plating in double Riveting ( 4 1/2 ) Breadth of laps of plating in single Riveting ( 2 3/4 )

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

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? Ends turned & Plates Welded No. of Breasthooks, Six Crutches, Three

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

Manufacturer's name or trade mark, Hopkins & Co. Hartlepool Name Iron Works.

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

Builder's Signature, Denton Gray & Co. Surveyor's Signature, S. W. Gladstone

Lloyd's Register Foundation

180451-0087

**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? They do  
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? Yes  
Are there any rivets which either break into or have been put through the seams or butts of the plating? A few in Butts

Her Masts, Bowsprit, Yards, &c., are in Good <sup>shape</sup> 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 69 ft - 3 Diameter 21 in. Fore Mast 75 ft. Diameter

[illegible]

Her Standing and Running Riggings Wire sufficient in size and good in quality. She has Five Long Boats, and good

The present state of the Windlass is good Capstan 2 of iron and Rudder good Pumps Three of 1 inch metal

Engine Room Skylights.—How constructed? 3 1/2 inch 4 brass to top of bridge How secured in ordinary weather? Bulldozes

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

Coal Bunker Openings.—How constructed? Iron linnings How are lids secured? Wires How high above deck? 12 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? ports in bulwark

**Cargo Hatchways.**—How formed? 7/16 Plate State size 20 x 11 ft. height of comings 2 1/2 inches  
If of extraordinary size, state how framed and secured? \_\_\_\_\_  
What arrangement for shifting beams? 7/16 Plate in Centre the whole depth of comings Double angles on top edges  
**Hatches,** themselves, whether strong and efficient? Good **Main Hatchways.**—State size 24 ft. 4. x 11 ft. height of comings 2 1/2 inches

Order for Special Survey No. <u>301</u>	DATES of	1st.	On the several parts of the frame, when in place, and before the plating was wrought	Special Surveys
Date <u>31<sup>st</sup> Aug. 1877</u>	Surveys held	2nd.	On the plating during the progress of riveting	seen in all
Order for Ordinary Survey No. <u>    </u>	while building	3rd.	When the beams were in and fastened, and before the decks were laid	stages during
Date <u>    </u>	as per	4th.	When the ship was complete, and before the plating was finally coated or cemented	Building
No. <u>125</u> in builder's yard.	Section 18.	5th.	After the ship was launched and equipped	

General Remarks, Is fitted with Forecastle, frames all to the top height. 11 Seams of single iron  $5 \times 4 \times 9/16$ . Two of them built iron  $7 \times 7/16$ . Single Angles on top edged  $5 \times 4 \times 9/16$ . Stringers on ends 21 Angles on do.  $3 \frac{1}{2} \times 3 \times 7/16$ . Tie plates  $8 \times 6/16$ . Deck 3 in  $\frac{1}{2}$  Pine. Waterways Pitched to R. Pine. Plating outside  $5/16$ . Waterballast tanks fitted in fore & after hold frames cut off connection made with three plates, side plates  $7/16$  Angles on do.  $3 \frac{1}{2} \times 3 \frac{1}{2} \times 7/16$ . Web plates  $6/16$ . Ang on do.  $3 \times 3 \times 6/16$ . Top plating  $6/16$

Denton Gray

~~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 Plat lacquer-coated with Voth's Outside lacquer, other parts w/

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

The amount of the Entry Fee ..... £ 5 : 0 : 0 is received by me,

May 1885 Special ..... £ 57 : 15 : 6  
Certificate .... : :  
I concur in the opinion  
that this report shows

(Travelling Expenses)  
(if any) £ \_\_\_\_\_

Committee's Minute May 6 Mass 1872 *last double bottom*

Character assigned 100 B-1

A & C P /  
 T P B / m / h d r a l B o t o m