

# IRON SHIP.

No. 3760 Survey held at West Hartlepool Date, First Survey 1<sup>st</sup> Aug. 1876 Last Survey 15<sup>th</sup> Feb. 1877

On the Sea, S. "Enclyps" Master Fleetham

**TONNAGE** under } 972.55  
Tonnage Deck }  
Ditto of Third, Spdr, }  
or Awning Deck. }  
Ditto of Poop, or } 84.64  
Raised Or. Dk. }  
Ditto of Houses } 136.84  
on Deck }  
Ditto of Forecastle } 35.54  
Gross Tonnage } 1229.57  
Less Crew Space } 47.18  
Less Engine Room } 1182.39  
Less Engine Room } 393.46  
Register Tonnage } 788.93  
as cut on Beam }

ONE, OR TWO-DECKED, THREE-DECKED VESSEL.  
SPAR, OR AWNING-DECKED VESSEL.  
**HALF BREADTH** (moulded)... .. 15-6 1/2 Feet.  
**DEPTH** from upper part of Keel to top of Upper Deck Beams 10-9 1/2  
**GIRTH** of Half Midship Frame (as per Rule) ... .. 31-2  
**1st NUMBER** ... .. 65.6  
**1st NUMBER, if a THREE-DECKED VESSEL** [deduct 7 feet] 235.7  
**2nd NUMBER** ... .. 154.0  
**PROPORTIONS**—Breadths to Length within 0  
Depths to Length—Upper Deck to Keel within 13  
Main Deck ditto ... ..

Built at West Hartlepool  
When built 1876 Launched 2<sup>nd</sup> Dec  
By whom built W. Gray & Co.  
Owners Comerdale & Co.  
Port belonging to Hartlepool  
Destined Voyage Mediterranean  
If Surveyed while Building, Afloat, or in Dry Dock.

**LENGTH** on deck as per Rule ... 235 Feet. 7 Inches. **BREADTH**—Moulded... .. 31 Feet. 1 Inches. **DEPTH** top of Floors to Upper Deck Beams ... .. 19 Feet. 2 Inches. Do. do. Main Deck Beams... .. 17 Feet. 2 Inches. Power of Engines ... .. 110 Horse. N<sup>o</sup>. of Decks with flat laid One N<sup>o</sup>. of Tiers of Beams Two

Dimensions of Ship per Register, length, 237 breadth, 31-4 depth, 17-1

	Inches in Ship.	Inches per Rule.		Inches in Ship.	Inches per Rule.		Inches in Ship.	Inches per Rule.		Inches in Ship.	Inches per Rule.
<b>KEEL</b> , depth and thickness ... ..	<u>8 1/2 x 2 3/8</u>	<u>8 1/2 x 2 3/8</u>	<b>STEM</b> , moulding and thickness... ..	<u>7 1/2 x 2 3/8</u>	<u>7 1/2 x 2 3/8</u>	<b>STERN-POST</b> for Rudder do. do. ... ..	<u>8 1/2 x 4 3/4</u>	<u>7 1/2 x 4 3/4</u>	<b>for Propeller</b> ... ..	<u>8 1/2 x 4 3/4</u>	<u>7 1/2 x 4 3/4</u>
Distance of Frames from moulding edge to moulding edge, all fore and aft ... ..	<u>23</u>	<u>23</u>	<b>FRAMES</b> , Angle Iron, for 1/2 length amidships ... ..	<u>4 3/4 x 7/16</u>	<u>4 3/4 x 7/16</u>	Do. for 1/2 at each end ... ..	<u>4 3/4 x 7/16</u>	<u>4 3/4 x 7/16</u>	<b>REVERSED FRAMES</b> , Angle Iron ... ..	<u>3 3/4 x 7/16</u>	<u>3 3/4 x 7/16</u>
<b>FLOORS</b> , depth and thickness of Floor Plate } at mid line for half length amidships ... ..	<u>19 1/2 x 8/16</u>	<u>19 1/2 x 8/16</u>	thickness at the ends of vessel ... ..	<u>19 1/2 x 7/16</u>	<u>19 1/2 x 7/16</u>	depth at 3/4 the half-bdth. as per Rule ... ..	<u>14</u>	<u>10</u>	height extended at the Bilges... ..	<u>39</u>	<u>39</u>
<b>BEAMS</b> , Upper, Spar, or Awning Deck } Single or double Ang. Iron, Plate or Tee Bulb Iron } Single or double Angle Iron on Upper edge ... ..	<u>5 1/4 x 7/16</u>	<u>5 1/4 x 7/16</u>	Average space... ..	<u>23</u>	<u>23</u>	<b>BEAMS</b> , Main, or Middle Deck } Single or double Ang. Iron, Plate or Tee Bulb Iron } Single, or double Angle Iron, on Upper Edge ... ..	<u>5 1/4 x 7/16</u>	<u>5 1/4 x 7/16</u>	Average space... ..	<u>23</u>	<u>23</u>
<b>BEAMS</b> , Lower Deck, Hold, or Orlop } Single or double Ang. Iron, Plate or Tee Bulb Iron } Single or double Angle Iron on Upper Edge ... ..	<u>8 1/2 x 8/16</u>	<u>8 1/2 x 8/16</u>	Average space... ..	<u>8-10-12</u>	<u>8-10-12</u>	<b>KEELSONS</b> Centre line, single or double plate, } box, or Intercoastal, Plates ... ..	<u>15 x 1 1/16</u>	<u>15 x 1 1/16</u>	" Rider Plate ... ..	<u>11 x 1 1/16</u>	<u>10 3/4 x 1 1/16</u>
" Bulb Plate to Intercoastal Keelson ... ..	<u>5 x 3 1/2</u>	<u>5 x 3 1/2</u>	" Angle Irons ... ..	<u>5 x 3 1/2</u>	<u>5 x 3 1/2</u>	" Double Angle Iron Side Keelson ... ..	<u>5 x 3 1/2</u>	<u>5 x 3 1/2</u>	" Side Intercoastal Plate ... ..	<u>5 x 3 1/2</u>	<u>5 x 3 1/2</u>
" do. Angle Irons ... ..	<u>5 x 3 1/2</u>	<u>5 x 3 1/2</u>	" Attached to outside plating with angle iron ... ..	<u>5 x 3 1/2</u>	<u>5 x 3 1/2</u>	<b>BILGE</b> Angle Irons ... ..	<u>5 x 3 1/2</u>	<u>5 x 3 1/2</u>	" do. Bulb Iron... ..	<u>7 1/2 x 7/16</u>	<u>7 1/2 x 7/16</u>
" do. Intercoastal plates riveted to plating for length ... ..	<u>5 x 3 1/2</u>	<u>5 x 3 1/2</u>	<b>BILGE STRINGER</b> Angle Irons ... ..	<u>5 x 3 1/2</u>	<u>5 x 3 1/2</u>	Intercoastal plates riveted to plating for length ... ..	<u>5 x 3 1/2</u>	<u>5 x 3 1/2</u>	<b>SIDE STRINGER</b> Angle Irons ... ..	<u>5 x 3 1/2</u>	<u>5 x 3 1/2</u>
Transoms, material. Knight-heads. Hawse Timbers. <u>Plate</u>			Windlass <u>Comoran &amp; Waller Patent</u>			Pall Bitt					

The **FRAMES** extend in one length from Keel to gunwale Riveted through plates with 3/4 in. Rivets, about 6 1/2 apart.  
The **REVERSED ANGLE IRONS** on floors and frames extend across middle line to above hold beam 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 1/8 in. diameter, averaging 5 1/2 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 1/2 ins. from centre to centre.  
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 1/2 ins. from centre to centre.  
Butts of Three Strakes at Bilge for half 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 3/4 in. diameter, averaging 3 1/2 ins. from cr. to cr.  
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 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 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 5 1/2 x 4 3/4 Breadth of laps of plating in single riveting 5 1/2  
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double & Treble riveted  
Waterway, how secured to Beams (Explain by Sketch, if necessary.) By bolts & nuts to bulkhead  
Beams of the various Decks, how secured to the sides? By bolts & nuts to bulkhead No. of Breasthooks, Two Crutches, Two  
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Good  
Manufacturer's name or trade mark, Thorne, Robinson & Co. Ltd.  
The above is a correct description.  
Builder's Signature, Wm Gray & Co. Surveyor's Signature, M. Gladstone  
Surveyor to Lloyd's Register of British and Foreign Shipping.

IRON 470-0163



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? *Yes*

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? *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 in butts*

17770 Iron

Masts, Bowsprit, Yards, &c., are *Pine* 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. *Main Mast 68 ft. Diameter 18 in. Fore Mast 270 ft. Diameter 18 in.*

NUMBER for EQUIPMENT *16973*

No.	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Length & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS.	No.	Weight.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
		Chain	240	1 9/16	40 1/2	240 ft. 1 9/16	40 5/10	Bowers	3	21-3-14	22-5-0-14	21-0-0	21-12-0-0
	Fore Sails,	<i>At Sunderland 26 Oct. 1876</i>								21-2-14	22-1-1-14	21-0-0	21-12-0-0
	Fore Top Sails,									18-1-14	19-6-2-7	17-3-11	18-10-0-0
	Fore Topmast Stay Sails	<i>Hamp Strm Cbl</i>	60	1 5/16									
	Main Sails,	<i>Hawser ...</i>	20	7/8									
	Main Top Sails,	<i>Towlines ...</i>	20	7/8									
	and	<i>Warp ...</i>	20	6									
		<i>quality good</i>	80	5 1/2									

Standing and Running Rigging *Wire & Rope* sufficient in size and *good* in quality. She has *four* Long Boat *and* *good*

The Windlass is *good material* Capstan *two of iron* and Rudder *good* Pumps *four of iron metal*

Engine Room Skylights.—How constructed? *3 in. lead glassing 6 ft. 6 in. by 4 ft. 6 in.* How secured in ordinary weather? *Butt hinges*

What arrangements for deadlights in bad weather? *Butt hinges*

Coal Bunker Openings.—How constructed? *Iron coverings* How are lids secured? *Bars* Height above deck? *12 inches*

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

Cargo Hatchways.—How formed? *7/16 plates*

State size Main Hatch *19 ft. 2 in. x 11 ft. 10 in. beams 33* Fore hatch *11 ft. 6 in. x 11 ft. 10 in. beams 33* Quarter hatch *22 ft. 10 in. x 11 ft. 10 in. beams 23*

If of extraordinary size, state how framed and secured?

What arrangement for shifting beams? *Two shifting web beams in large hatchways*

Hatches, if strong and efficient? *Strong & efficient*

Order for Special Survey No. <i>502</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>Special Survey Date of Surveys, 1876</i>
Date <i>2 Aug. 1876</i>		2nd. On the plating during the process of riveting	<i>Aug 1-9-15-18-21-25-20 Sept 6-14-20-22-25</i>
Order for Ordinary Survey No.		3rd. When the beams were in and fastened, and before the decks were laid...	<i>Oct 3-19-20-24-26-27 Nov 2-3-9-14-20-23-2</i>
Date		4th. When the ship was complete, and before the plating was finally coated or cemented..	<i>1877 Jan 9-24-26 Feb 5</i>
No. <i>162</i> in builder's yard.		5th. After the ship was launched and equipped	

General Remarks (State quality of workmanship, &c.) *Workmanship & material good*

*Is fitted with long raised quarter deck frames all to the top height, beams of angles 5 1/2 x 3 x 7/16. To every frame stringer plates on ends of beams 33 x 10 1/6 angles on so. 5 x 3 1/2 x 9/16. Plating outside 9/16-8/16 & 7/16. Deck 6/16. Planed over the after part for 50 ft. with 3 in. y. pine. Forecastle frames all to the top height, beams of angles 5 x 3 x 7/16. Two of built 6 1/2 x 6 1/6. Double angles on top edge 3 x 3 x 6/16. Stringers on end 20 x 6 1/6. Angles on so. 3 x 3 x 7/16. Tie plates 7 x 6 1/6. Waterways 6 1/2 x 9 1/2 beam. Plating outside 6/16. Deck 3 in. y. pine.*

*Waterballast tanks fitted in fore & after hold frames cut, connection made with brace plates. Side plates 7/16. Angles on so. 3 1/2 x 3 1/2 x 7/16. Web plates 6/16. Angles on so. 3 x 3 x 6/16. Top plating 6/16. Tested by a head of water to the height of load line.*

*Additional strengthening at break of raised deck, main deck stringer plates extend 8 frame spaces abaft beam. Raised deck so. 4 spaces before sheerstrakes doubled for 20 ft. Hold beam stringers overlap 16 ft. Butts of shell plating in neighbourhood of frames double riveted.*

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

How are the surfaces preserved from oxidation? Inside *Flat cemented with Portland cement* Outside *with Paint & Black's Varnish*

I am of opinion this Vessel should be Classed *100 A1*

The amount of the Entry Fee ... £ *5* : 0 : 0 is received by me, *J. M. G. Stone*

Special ... £ *54* : 11 : 0 - *10 Feb 1877*

Certificate ... : : :

(Travelling Expenses, if any, £ ...)

Committee's Minute *13th February 1877*

Character assigned *100 A1*

*100 A1*

*Lloyd's Register*

*Lloyd's Register*