

# IRON SHIP.

No. 4290 Survey held at West Hartlepool Date, First Survey 1<sup>st</sup> May 1879 Last Survey 4<sup>th</sup> November 1879  
On the Sea Lion "Wolverhampton" Master J. Gray

TONNAGE under Tonnage Deck 1306.96  
Ditto of Upper Spar or Awning Deck 140.24  
Ditto of Popp, or Raised Or. Dk. 165.10  
Ditto of Houses on Deck 4.34  
Ditto of Forecastle Hatchway 40.03  
Gross Tonnage 1750.20  
Less Crew Space 60.09  
Less Engine Room 562.65  
Register Tonnage as out on Beam 1135.54

ONE, OR TWO DECKED, THREE DECKED VESSEL.  
SPAR, OR AWNING-DECKED VESSEL.  
HALF BREADTH (moulded) 17.2 Feet.  
DEPTH from upper part of Keel to top of Upper Deck Beams 21.7  
GIRTH of Half Midship Frame (as per Rule) 34.7  
1st NUMBER 73.4  
1st NUMBER, if a 3-DECKED VESSEL, deduct 255 feet  
LENGTH 106.99  
2nd NUMBER 106.99  
PROPORTIONS—Breadths to Length with 7 1/2  
Depths to Length—Upper Deck to Keel with 12  
Main Deck ditto

Built at West Hartlepool  
When built 1879 Launched 14<sup>th</sup> Feb  
By whom built W. Gray & Co.  
Owners West Hartlepool Steam Navigation Co.  
Port belonging to West Hartlepool  
Destined Voyage Hamburg  
# Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 255 Feet. Inches. BREADTH—Moulded 34 Feet. Inches. DEPTH top of Floors to Upper Deck Beams 19 Feet. Inches. Do. do. Main Deck Beams 19 Feet. Inches. Power of Engines 150 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, 255.5 breadth, 34.6 depth, 19.7

KEEL, depth and thickness 9 x 2 1/2 Inches in Ship. Inches per Rule. 9 x 2 1/2  
STEM, moulding and thickness 8 1/2 x 2 1/2 Inches in Ship. Inches per Rule. 8 1/2 x 2 1/2  
STERN-POST for Rudder do. do. 8 1/2 x 5 Inches in Ship. Inches per Rule. 8 1/2 x 5  
" " for Propeller 8 1/2 x 5 Inches in Ship. Inches per Rule. 8 1/2 x 5  
Distance of Frames from moulding edge to moulding edge, all fore and aft 24 Inches in Ship. Inches per Rule. 24

FRAMES, Angle Iron, for  $\frac{3}{4}$  length amidships 5 x 3 x 0 16ths. Inches in Ship. Inches per Rule. 5 x 3 x 0 16ths. Do. for  $\frac{1}{4}$  at each end 5 x 3 x 0 16ths. Inches in Ship. Inches per Rule. 5 x 3 x 0 16ths. REVERSED FRAMES, Angle Iron 3 x 3 x 0 16ths. Inches in Ship. Inches per Rule. 3 x 3 x 0 16ths.

FLOORS, depth and thickness of Floor Plate at mid line for half length amidships 23 x 10 16ths. Inches in Ship. Inches per Rule. 23 x 10 16ths. thickness at the ends of vessel 7 Inches in Ship. Inches per Rule. 7 depth at  $\frac{3}{4}$  the half-bdth. as per Rule 15 Inches in Ship. Inches per Rule. 15 height extended at the Bilges 4.6 Inches in Ship. Inches per Rule. 4.6

BEAMS, Upper, Spar, or Awning Deck Single or double Angle Iron, Plate or Tee Bulb Iron 5 1/2 x 3 x 0 16ths. Inches in Ship. Inches per Rule. 5 1/2 x 3 x 0 16ths. Single or double Angle Iron on Upper edge Average space 24 Inches in Ship. Inches per Rule. 24

BEAMS, Main, or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron 8 1/2 x 3 x 0 16ths. Inches in Ship. Inches per Rule. 8 1/2 x 3 x 0 16ths. Single or double Angle Iron, on Upper Edge Average space 40 Inches in Ship. Inches per Rule. 40

BEAMS, Lower Deck, Hold, or Orlop Single or double Angle Iron, Plate or Tee Bulb Iron 9 1/2 x 3 x 0 16ths. Inches in Ship. Inches per Rule. 9 1/2 x 3 x 0 16ths. Single or double Angle Iron on Upper Edge Average space 8-10 x 12 16ths. Inches in Ship. Inches per Rule. 8-10 x 12 16ths.

KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates 19 x 11 x 12 16ths. Inches in Ship. Inches per Rule. 19 x 11 x 12 16ths. Rider Plate 11 x 12 16ths. Inches in Ship. Inches per Rule. 11 x 12 16ths. Bulb Plate to Intercoastal Keelson 5 x 4 x 9 16ths. Inches in Ship. Inches per Rule. 5 x 4 x 9 16ths. Angle Irons 5 x 4 x 9 16ths. Inches in Ship. Inches per Rule. 5 x 4 x 9 16ths. Double Angle Iron Side Keelson 24 x 0 x 0 16ths. Inches in Ship. Inches per Rule. 24 x 0 x 0 16ths. Side Intercoastal Plate 5 x 4 x 9 16ths. Inches in Ship. Inches per Rule. 5 x 4 x 9 16ths. do. Angle Irons 3 x 4 x 9 16ths. Inches in Ship. Inches per Rule. 3 x 4 x 9 16ths. Attached to outside plating with angle iron 5 x 4 x 9 16ths. Inches in Ship. Inches per Rule. 5 x 4 x 9 16ths.

BILGE Angle Irons 8 1/2 x 0 x 0 16ths. Inches in Ship. Inches per Rule. 8 1/2 x 0 x 0 16ths. do. Bulb Iron 5 x 4 x 9 16ths. Inches in Ship. Inches per Rule. 5 x 4 x 9 16ths. do. Intercoastal plates riveted to plating for length 5 x 4 x 9 16ths. Inches in Ship. Inches per Rule. 5 x 4 x 9 16ths.

BILGE STRINGER Angle Irons 5 x 4 x 9 16ths. Inches in Ship. Inches per Rule. 5 x 4 x 9 16ths. Intercoastal plates riveted to plating for length

SIDE STRINGER Angle Irons 5 x 4 x 9 16ths. Inches in Ship. Inches per Rule. 5 x 4 x 9 16ths. Transoms, material. Knight-heads. Hawse Timbers. Plates Windlass Emerson & Walker Pall Bitt Plates

The FRAMES extend in one length from Keel to Gunnwale Riveted through plates with 7/10 in. Rivets, about 7 in. apart.

The REVERSED ANGLE IRONS on floors and frames extend across middle line to above hold beam string and to Gunnwale 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 1/10 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 7/10 in. diameter, averaging 4 ins. from centre to centre.

" Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/10 in. diameter averaging 4 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. 2 strakes lapped

" Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 7/10 in. diameter, averaging 4 ins. from cr. to cr.

" Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/10 in. diameter, averaging 4 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 3/10 Breadth of laps of plating in single riveting

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

Waterway, how secured to Beams (Explain by Sketch, if necessary.) Plates to angle beams

Beams of the various Decks, how secured to the sides? Four turned & 2 plates welded & 2 plates No. of Breasthooks, Seven Crutches, Three

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

Manufacturer's name or trade mark, Hartlepool M. & Co. D.L. 20. West Hartlepool

The above is a correct description.

Builder's Signature, William Gray & Co. Surveyor's Signature, S. J. Gladstone Surveyor to Lloyd's Register of British and Foreign Shipping.



Do any rivets break into or through the seams or butts of the plating? *A few in butts*

24972.9

State also Length and Diameter of Lower Masts and Bowsprit *Lower masts made with three plates in the round Double*

State also Length and Diameter of Lower Masts and Bowsprit Lower Masts made with three plates in the round Double riveted at edges treble at butts  $6\frac{1}{8}$  at wedging tapered away to  $3\frac{1}{8}$  at head & cheeks one plate at wedging doubled for 10 ft. Main Mast length 60 ft. 7. Diameter at heel  $16\frac{1}{2}$ . Wedging  $22\frac{3}{4}$ . toward 10. head  $15\frac{1}{2}$ . Fore Mast length 74 ft. 6. Dia at heel  $16\frac{3}{4}$ . wedging  $2\frac{1}{2}$  toward 10. head  $15\frac{1}{2}$ . Fore Mast upper scale 1 found good Branded Consols.

[illegible]

Standing and Running Riggings <sup>1430</sup> <sup>4 1/2</sup> *Wre n Hemp* sufficient in size and *good* in quality. She has *4* *run* Long Boats and *4* *good*

The Windlass is Good Capstan Good and Rudder Good Pumps 4 of 6 in. pressure

**Engine Room Skylights.**—How constructed? *Laminated 6 1/4" by 12 1/2" T. 3 1/2" x 2 1/2"* How secured in ordinary weather? *Bulls' eyes*

What arrangements for deadlights in bad weather? *Bellows*

**Coal-Bunker Openings.**—How constructed? *Iron bonnets* How are lids secured? *Bars* Height above deck? *33 inches*

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

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

State size Main Hatch 20+12 ft Lomings 33 Forehatch 11 ft 9 + 10 ft Lomings 33 Quarterhatch 20+12 ft Lomings 23 Apr 8: 15 ft 9 + 12 ft

If of extraordinary size, state how framed and secured?

What arrangement for shifting beams? *One shifting web beam in each hatchway*

**Hatches.** If strong and efficient? *3 inch Pine good*

Order for Special Survey No. <u>746</u>	DATES OF SURVEYS held while building was per Section 18:	1st. On the several parts of the frame, when in place, and before the plating was wrought }	Special Survey Date of Survey 1879 May 1. June 7-10. July 17-23-25-29. Aug 1-4-11 13-10-20. Sept 1-3-4-15-17-10-22-25-26-30. Oct 2-6-8-9-29-30. Nov 3-4.
Date <u>1<sup>st</sup> May 1879</u>		2nd. On the plating during the process of riveting	
Order for Ordinary Survey No.		3rd. When the beams were in and fastened, and before the decks were laid.... }	
Date		4th. When the ship was complete, and before the plating was finally coated or cemented.. }	
No. <u>207</u> in builder's yard.		5th. After the ship was launched and equipped	

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

Is fitted with long Raised Quarter Bridge & Forecastle frames all to the top height. Raised  
Deck beams  $5\frac{1}{2} \times 3 \times 9\frac{1}{16}$  Stringer plates on end of Do.  $36 \times 10\frac{1}{16}$  Angles on Do.  $5 \times 4 \times 9\frac{1}{16}$ , Deck  $6\frac{1}{16}$   
plating outside  $9 \times 0 \times 7\frac{1}{16}$ . Roof beams  $6 \times 3 \times 8\frac{1}{16}$  Stringers on end  $27\frac{1}{2} \times 7\frac{1}{16}$  Angles on Do.  $3 \times 3 \times 7\frac{1}{16}$  Tie plates  
 $7 \times 6\frac{1}{16}$ . Plating outside  $7\frac{1}{16}$  Deck  $3\frac{1}{2}$  ft. Pine, Forecastle beams  $6\frac{1}{2} \times 6\frac{1}{16}$  Double Angles on top edges  $3 \times 2\frac{3}{4} \times 3\frac{1}{16}$   
Stringer plates  $20\frac{1}{2} \times 6\frac{1}{16}$  Angles on Do.  $3 \times 3 \times 6\frac{1}{16}$  Iron Deck  $3\frac{1}{16}$  for  $4\frac{1}{2}$  in width, 3 in ft. Pine at sides,  
Plating outside  $6\frac{1}{16}$ . Water ballast tanks fitted in fore & after hold frames each connection  
made with Pine plates, side plates  $7\frac{1}{16}$  Angles on Do.  $3\frac{1}{2} \times 3\frac{1}{2} \times 7\frac{1}{16}$  Mid plates  $6\frac{1}{16}$  Angles on Do.  $3 \times 3 \times 6\frac{1}{16}$   
top plating  $6\frac{1}{16}$ . Tested by a head of water to the height of load line.  
Additional strengthening at head of Raised Deck, main Deck stringer plates extend 6 frame spaces  
abaft head Raised Do. 6 frame space. Hold beam stringers overlap 20 ft. Sheerstrake plates  
& plates in stowage below increased  $2\frac{1}{16}$  in thickness.

State if one, two, or three decked vessel, ~~or if spar, or cuning 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 *Plas cemented with Portland cement* Outside & other parts with paint.

I am of opinion this Vessel should be Classed 100 A1

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

Special ... .. £ 64 : 9 : 0 - 5 hours 1879

(Travelling Expenses, if any, £ ✓ ).

Committee's Minute. 11th November, 1879.

*Character assigned*

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

The outfit of harness and traps are similar to what has been allowed by the Committee in some previous cases and is approved.

vessel appears eligible to be classified as

recommencement Vol 100 A.1. H.A.

180 2 50 13 5 FOUNDATION

116