

# IRON SHIPS.

No. 2714 Survey held at Hartlepool Date May 22<sup>nd</sup> Decr 1860 Rev. 24/12/60  
 on the ship "Leatherworth" Master Phelps  
 Tonnage under tonnage deck 254.29 Built at Hartlepool When built 1860 Launched 30<sup>th</sup> November  
 Ditto of poop Raised deck 45.44 By whom built Denton Co. Owners Watts Milburn & Co.  
 Ditto of engine room Deck House 15.54  
 Deduct for crew stores 32.46  
 Total Register tonnage 802.81  
 Gross Tonnage 915.27 Port belonging to London Destined Voyage \_\_\_\_\_  
 Surveyed while Building, Afloat, or in Dry Dock While building

| Length aloft  | Feet.           | Inches.                   | Extreme Breadth | Feet. | Inches. | Depth from top of Upper Deck Beam to top of Floor | Feet. | Inches. | Power of Engines | Horse. | N <sup>o</sup> . of Decks |
|---|-----------------|---------------------------|-----------------|-------|---------|---|-------|---------|------------------|--------|---------------------------|
|   | 200             | -                         | 33              | 1     |         | 20  | -     |         |                  |        | Two                       |
| (Dimensions of Ship per Register, length <u>209.2</u> breadth <u>33 1/4</u> depth <u>19.9</u> ) |                 |                           |                 |       |         |   |       |         |                  |        |                           |
| Keel, if bar iron, depth and thickness.....   | Inches in Ship. | Inches required per Rule. |                 |       |         |   |       |         |                  |        |                           |
| „ if plate iron, breadth and thickness ....   | 10 x 2 1/2      | 7 1/2 x 3                 |                 |       |         |   |       |         |                  |        |                           |
| Stem, if bar iron, moulding and thickness ....  | 10 x 2 3/4      | 7 1/2 x 3                 |                 |       |         |   |       |         |                  |        |                           |
| „ if plate iron, breadth and thickness ....   |                 |                           |                 |       |         |   |       |         |                  |        |                           |
| Stern-post, if bar iron, moulding and thickness   | 9 x 2 3/8       | 7 1/2 x 3                 |                 |       |         |   |       |         |                  |        |                           |
| „ if plate iron, breadth and thickness  |                 |                           |                 |       |         |   |       |         |                  |        |                           |
| Distance of Frames from moulding edge to moulding edge, all fore and aft .....                  | 21              | 21                        |                 |       |         |   |       |         |                  |        |                           |
| Double across keel 4 ft.  |                 |                           |                 |       |         |   |       |         |                  |        |                           |
| Frames, Size of Angle Iron, single or double..  | 4 1/2 x 3       | 8/16                      | 4 1/2 x 3       | 8/16  |         |   |       |         |                  |        |                           |
| „ „ Reversed Iron, if to every frame or every other frame.....                                  | 3 x 3           | 7/16                      | 3 x 3           | 7/16  |         |   |       |         |                  |        |                           |
| Floors, depth and thickness of Floor Plate at mid line .....                                    | 22 x 4          | 9/16                      | 22 x 4          | 9/16  |         |   |       |         |                  |        |                           |
| „ Ditto ditto at Bilge Keelson  | 10 x 4          | 9/16                      | 10 x 4          | 9/16  |         |   |       |         |                  |        |                           |
| „ Size of Reversed Angle Iron, and No. one, at top of Floor Plate                               | 3 x 3           | 7/16                      | 3 x 3           | 7/16  |         |   |       |         |                  |        |                           |
| Beams, Deck (N <sup>o</sup> . 56) double Angle Iron, Plate, Tee, or Bulb Iron .....             | 8 x 8           | 8/16                      | 8 x 8           | 8/16  |         |   |       |         |                  |        |                           |
| „ „ double or single Angle Iron, on edge....  | 3 x 3           | 6/16                      | 3 x 3           | 6/16  |         |   |       |         |                  |        |                           |
| „ „ average space between .....   | 3 ft. 6 in.     | 3 ft. 6 in.               |                 |       |         |   |       |         |                  |        |                           |
| „ Hold, or Lower Deck (N <sup>o</sup> . 54) double Angle, Tee, Plate, or Bulb Iron              | 8 x 8           | 8/16                      | 8 x 8           | 8/16  |         |   |       |         |                  |        |                           |
| „ „ double or single Angle Iron on edge....   | 3 x 3           | 6/16                      | 3 x 3           | 6/16  |         |   |       |         |                  |        |                           |
| „ „ average space between .....   | 3 ft. 6 in.     | 3 ft. 6 in.               |                 |       |         |   |       |         |                  |        |                           |
| „ Paddle, sided and moulded, thickness of Plate size of Angle Iron                              |                 |                           |                 |       |         |   |       |         |                  |        |                           |
| „ Engine „ „ „ „ .....  |                 |                           |                 |       |         |   |       |         |                  |        |                           |
| Keelson, single or double plate, box, or intercostal  |                 |                           |                 |       |         |   |       |         |                  |        |                           |
| „ Size of Plates .....  | 15 x 12         | 12/16                     | 14 1/2 x 12     | 12/16 |         |   |       |         |                  |        |                           |
| „ Size of Angle Irons .....   | 5 x 4           | 8/16                      | 5 x 4           | 8/16  |         |   |       |         |                  |        |                           |
| „ Side, single or double, plate, box, or intercostal  |                 |                           |                 |       |         |   |       |         |                  |        |                           |
| „ Bilge (No. one) at each Bilge, single, or double, plate, or box .....                         | 5 x 4           | 8/16                      | 5 x 4           | 8/16  |         |   |       |         |                  |        |                           |

Transoms, material Plate or, if none, in what manner compensated for.  
 Knight-heads, and Hawse Timbers Leak  
 The Frames extend in one length from Keel to gunwale rivetted through plates with ( 7/8 in.) rivets, about ( 6 in. ) apart.  
 The reverse angle irons on the floors extend in one length across the middle line from top of bilge to top of bilge  
 „ „ „ on the frames „ „ „ from bilge to above hold beam Stringers & alternately  
 Keelson, how are the various lengths of plates or angle irons connected? butts of plates & angles shifted & strapped & rivetted  
 Garboard, double or rivetted to keel, double or at upper edge, with rivets ( 1 1/8 ins.) diameter, averaging ( 4 in. ) apart.  
 Gages from Garboards to upper part of bilge, worked clencher, double or single rivetted; with rivets ( 7/8 in.) diameter, averaging ( 3 1/2 ins. ) apart.  
 Gages from Keel to turn of bilge, worked carvel with butt straps ( 10 x 1/2 ) thick, double or single rivetted; with rivets ( 7/8 in.) diameter, averaging ( 2 3/4 ins. ) apart.  
 Do the butt straps lap over and rivet through the lands of the strake below? no  
 Gages from bilge to sheerstrake, worked carvel with a lining piece ( ) thick, or clencher, double or single rivetted; with rivets ( 3/4 in. ) diameter, averaging ( 2 3/4 in. ) apart.  
 Do the butt straps lap over and rivet through the lands of the strake below? no  
 Sheerstrake, double or single rivetted? At upper edge single to bulwark At lower edge double  
 Gages from bilge to planksheers, worked carvel with butt straps ( 9 1/2 x 10 x 1/2 ) thick, double or single rivetted; with rivets ( 3/4 in. ) diameter, averaging ( 2 3/4 ins. ) apart. Breadth of laps in double rivetting ( 5 in. ) Breadth of laps in single rivetting ( none )  
 Stringer and Tie Plates, double or single rivetted? Double  
 Gages to the plating of the sides { Explain by sketch } Gutter waterways  
 Gages to planksheer and to the Beams { if necessary. }  
 Gages to the side? Beam ends turned & pieces welded  
 Same as deck

No. of breasthooks four crutches three  
 used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.? Good  
 Name or trade mark Hopkins & Co. Hartlepool Iron Works, & of Head & Co.  
 Is the above a correct description of the several particulars therein given.  
 Surveyor's Signature Dean Gray & Co.  
 Lloyd's Register Foundation  
 IRON 443-0235

6770 Iron

**Workmanship.** Are the lands or laps of the clenchwork in all cases in breadth at least five and a half times the diameter of the rivets in double rivetted edges and butts, and at least three and a quarter times the diameter of the rivets where single rivetting is admitted? yes

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 rivetting 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 outer plate? All through

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 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 rivetting, quality of Materials, and if stamped with Maker's name.

*Main & Fore Mast of 7/16 plate tapered to 9/16 at heads, single rivetted edges double at butts, three angles inside 3 1/2 x 3 1/4 length of plates 10 ft. by Top Head. Bowsprit made the same*

| No. | She has SAILS.          | CABLES, &c.                 | Fathoms. | Inches. | Test as per Certificate. | In. req'd per Rule. | Test req'd per Rule. | ANCHORS, &c. | No. | Weight. Ex. Stock. | Test as per Certificate. | Wght req'd per Rule. | Test req'd per Rule. |
|-----|-------------------------|-----------------------------|----------|---------|--------------------------|---------------------|----------------------|--------------|-----|--------------------|--------------------------|----------------------|----------------------|
|     |                         |                             |          |         |                          |                     |                      |              |     |                    |                          |                      |                      |
|     | Fore Sails,             | Chain .....                 | 300      | 1 5/8   | 47-10                    | 300                 | 47-10                | Bowers ..... | 3   | 25-3-12            | 25-10-1                  | 25-2-0               | 25-2-0               |
|     | Fore Top Sails,         |                             |          |         |                          |                     |                      |              |     | 25-3-4             | 25-9-0                   | 25-2-0               | 25-2-0               |
|     | Fore Topmast Stay Sails | Hempen Stream Cable         | 90       | 1       |                          |                     |                      |              |     | 22-0-21            | 22-10-1                  | 22-2-20              | 22-2-20              |
|     | Main Sails,             | Hawser .....                | 90       | 1       |                          |                     |                      | Stream ..... | 1   | 10-2-8             |                          |                      |                      |
|     | Main Top Sails,         | Towlines .....              | 90       | 10      |                          |                     |                      |              |     |                    |                          |                      |                      |
|     |                         | Warp .....                  | 90       | 5 1/2   |                          |                     |                      |              |     |                    |                          |                      |                      |
|     |                         | All of <u>good</u> quality. | 90       | 4 1/2   |                          |                     |                      | Kedges ..... | 2   | 5-1-0              |                          |                      |                      |

Her Standing and Running Riggings Wire & Hemp sufficient in size and good in quality.

She has One Long Boat and Two others

The present state of the Windlass is Seak Capstan One and Rudder good Pumps 2 of 7 in diameter

| Order for Special Survey | No.        | DATES of       | 1st.   | 2nd.  | 3rd.  | 4th.  | 5th.                        |
|--------------------------|------------|----------------|--|---|---|---|-----------------------------|
|                          |            |                |  |   |   |   |                             |
|                          | <u>204</u> | Surveys held   | On the several parts of the frame, when in place, and before the plating was wrought | On the plating during the progress of rivetting | When the beams were in and fastened, and before the decks were laid | When the ship was complete, and before the plating was finally coated | After the ship was launched |
|                          |            | while building |  |   |   |   |                             |
|                          |            | as per         |  |   |   |   |                             |
|                          |            | Section 18.    |  |   |   |   |                             |

State if she has a Spar Deck Raised Deck Peep & Monkey or Forecastle

**General Remarks.** *Has a raised deck aft frames all to the top height, Beams of 2 1/2 x 7/16, double angles on top edge 3 x 3 x 5/16 Stinger plates on 2 1/2 x 7/16, Angle Irons on 2 1/2 x 4 x 0/16 side plating 7/16 Tie & Diagonal plates 12 x 0/16 Deck 3 in G. Pine, Waterways Seak 8 x 12, A Deck house fitted between fore & main hatch framed with angles 4 x 3 x 0/16 spaced 3 ft 6 in. rivetted to angles on top of Deck beams 6 x 3 x 0/16 planked at sides with Pine Length of house 20 ft 9 in + 15 ft 6 in + 6 ft 10 in. Main & Fore yards of Steel 4 thick at Slings tapered to 3/4 at ends, plates doubled at slings, three angles fitted inside.*

*Deaton Gray*

In what manner are the surfaces preserved from oxidation? Inside Plat cemented with Portland  
Ditto ditto Outside other parts with three coats

I am of opinion this Vessel should be Classed A 1  
The amount of the Fee £ 5 : 0 : 0 is received by me,  
Dec. 1888 Special £ 45 : 15 : 0  
Certificate (if required) £ : : -

Committee's Minute 24 December 1888

Character assigned A 1  
ATCP

*James of opinion  
Ship Unlikely to  
be Classificat  
ed as such*