

# STEEL IRON SHIP.

(Received at London Office, 12 MAY 88)

No. **6895** Survey held at **West Hartlepool** Date, First Survey **19 Dec 87** Last Survey **5th May 1888**  
 On the **Steel S.S. "Lowlands"** Schooner Reg. 2 Masts. (53 visits)

TONNAGE under Tonnage Deck **1385.46** ONE, OR TWO DECKED, THREE DECKED VESSEL, SPAR, OR AWNING DECKED VESSEL.

Master **J.R. Holman Esq**

Ditto of Third, Spar, or Awning Deck. **Bridge 242.89** Half Breadth (moulded) **18.16** Feet.

Built at **West Hartlepool**

Ditto of ~~Prop.~~ or Raised Qr. Dk. **138.35** Depth from upper part of Keel to top of Upper Deck Beams **20.08**

When built **1888** Launched **13 Apr. 88**

Ditto of Houses on Deck **4.56** Girth of Half Midship Frame (as per Rule) **34.00**

By whom built **W. Gray & Co.**

Ditto of Forecastle Houses **4.86** 1st Number **72.24**

Owners **Hardy Wilson & Co.**

Excess of Hatchways **13.20** 1st Number, if a 3-Decked Vessel deduct 7 feet

Residence **West Hartlepool**

Cross Tonnage **1789.32** Length **258.42**

Port belonging to **West Hartlepool**

Less Crew Space **52.21** 2nd Number **18668**

Destined Voyage **Mediterranean**

Less Engine Room **572.88** Proportions— Breadths to Length **7.11**

Surveyed while Building, Afloat, or in Dry Dock.

Register Tonnage as out on Beam **1164.53** Depths to Length—Upper Deck to Keel **12.56**

Main Deck ditto

LENGTH on deck as per Rule **258.5** BREADTH Moulded **36.4** DEPTH top of Floors to Upper Deck Beams **18.2 1/2** Power of Engines **150** No. of Decks with flat laid **2** No. of Tiers of Beams **20**

Dimensions of Ship per Register, length, **260.5** breadth, **36.6** depth, **18.2** Depth Moulded **19.5**

KEEL, depth and thickness **8 1/2 x 2 1/2** PLATES in Garboard Strakes, breadth and thickness **40 15 36 15**  
 STEM, moulding and thickness **8 1/2 x 5** " From Garboard to upper part of Bilges **11 11**  
 STERN-POST for Rudder do. do. **8 1/2 x 5** " Of d'bling at Bilge, or increased thickness, and length applied **10 10**  
 " " for Propeller **8 1/2 x 5** " From up. prt of Bilge to l.r. edge of Sh'rstrake **10 10**  
 Distance of Frames from moulding edge to moulding edge, all fore and aft **24 24** " Main Sheerstrake, breadth and thickness **40 12 36 12**

FRAMES, Angle Iron, for 1/2 length amidships **4 1/2 3 8 4 1/2 3 8** " Of d'bling at Sh'stk. & lng. applied **19 17 19 17**  
 Do. for 1/4 at each end **4 1/2 3 7 4 1/2 3 7** " From M'n. to Up. or Spar Dk. Sh'rstrake **16 3/4 13 12 14 16 3/4 13 12 14**  
 REVERSED FRAMES, Angle Iron **3 3 7 3 3 7** " Up. or Spar Dk Sh'rstrake, breadth & thickness  
 FLOORS, depth and thickness of Floor Plate at mid line for half length amidships **22 1/2 10.9 22 1/2 10.9** Butt Straps to outside plating, breadth & thickness  
 " thickness at the ends of vessel **11 1/4 11 1/4** Lengths of Plating **7 1/8 spaces**  
 " depth at 3/4 the half-bdth. as per Rule **4 1/2 4 1/2** Shifts of Plating and Stringers **2 spaces**  
 " height extended at the Bilges **4 1/2 4 1/2** Gunwale Plate on ends of Awaiting, Spar, or Upper Deck Beams, breadth and thickness **37 10 37 10**

BEAMS, Upper, Spar, or Awning Deck **6 3 8 6 3 8** Angle Iron on ditto **5 x 4 x 9 5 x 4 x 9**  
 Single or d'ble Ang. Iron, Plate or Tee Bulb Iron **24 24** Tie Plates fore and aft, outside Hatchways  
 Single or double Angle Iron on Upper Edge **24 24** Diagonal Tie Plates on Beams No. of Pairs  
 Average space **24 24** Flat of Up., Spar, or Awning Dk. **5/8 6 5/8 6**  
 BEAMS, Main, or Middle Deck **10 10** How fastened to Beams **with Iron Rivets**  
 Single or d'ble Ang. Iron, Plate or Tee Bulb Iron **4 4 9** Stringer Plate on ends of Main or Middle Deck  
 Single or double Angle Iron on Upper Edge **See Section** Beams, breadth and thickness  
 Average space **See Section** Is the Stringer Plate attached to the outside plating?

BEAMS, Lower Deck **17 12 17 12** Angle Irons on ditto, No.  
 Single or d'ble Ang. Iron, Plate or Tee Bulb Iron **11 12 11 12** Tie Plates, outside Hatchways  
 Single or double Angle Iron on Upper Edge **See Section** Diagonal Tie Plates on Beams, No. of pairs  
 Average space **See Section** Flat of Middle Deck\* do. do.  
 BEAMS, Hold, or Orlop **10 10** How fastened to Beams  
 Single or d'ble Ang. Iron, Plate or Tee Bulb Iron **4 4 9** Stringer Plates on ends of Lower Deck, Hold or Orlop Beams  
 Single or double Angle Iron on Upper Edge **See Section** Is the Stringer Plate attached to the outside plating?

KEELSONS Centre line, single or double plate, box, or intercostal, Plates **17 12 17 12** Angle Irons on ditto, No.  
 " Rider Plate **11 12 11 12** Stringer or Tie Plates, outside Hatchways  
 " Bulb Plate to Intercostal Keelson **5 4 9 5 4 9** Flat of Lower Deck\*  
 " Angle Irons **5 4 9 5 4 9** Ceiling betwixt Decks, thickness and material **2 1/2 Red Pine**  
 " Double Angle Iron Side Keelson **5 4 9 5 4 9** " in hold do. **2 1/2**  
 " Side Intercostal Plate **8 8** Main piece of Rudder, diameter at head **6 1/4 6 1/4**  
 " do. Angle Irons **3 3 7 3 3 7** " do. at heel **3 1/4 3 1/4**  
 " Attached to outside plating with angle iron **5 4 9 5 4 9** Can the Rudder be unshipped afloat? **Yes**

Large Angle Irons **5 4 9 5 4 9** Bulkheads No. **4** No. per Rule **4**  
 " do. Bulb Iron **8 1/2 8 8 1/2 8** " Thickness of **6/20**  
 " do. Intercostal plates riveted to plating for length **See Section** " Height up to Upper Deck  
 BILGE STRINGER Angle Irons **5 4 9 5 4 9** " How secured to sides of ship between double frames  
 Intercostal plates riveted to plating for length **See Section** " Size of Vertical Angle Irons **4 7/8 x 3 x 7/8** and distance apart **30** ins.

SIDE STRINGER Angle Irons **5 4 9 5 4 9** " Are the outside Plates doubled two spaces of Frames in length? **Yes**  
 The FRAMES extend in one length from **centre line** to **gunwale** Riveted through plates with **7/8** in. Rivets, about **7** apart.  
 The REVERSED ANGLE IRONS on floors and frames extend from **middle line** to **Upper Deck** and to **Upper Intercostal** 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** in. diameter, averaging **3 1/2** ins. from centre to centre.

" Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets **7/8** in. diameter, averaging **3 1/2** ins. from centre to centre.  
 " Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets **7/8** in. diameter averaging **3 1/6** ins. from centre to centre.  
 " Butts of **3** Strakes at Bilge for **1/2** length, treble riveted with Butt Straps **3/20** thicker than the plates they connect.  
 " Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets **7/8** in. diameter, averaging **3 1/2** ins. from cr. to cr.  
 " Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets **7/8** in. diameter, averaging **3 1/6** 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 **1/2** length amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.  
 " Butts of Main Stringer Plate, treble riveted for **1/2** length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for length.  
 " Breadth of laps of plating in double riveting **6 5/4 1/2** Breadth of laps of plating in single riveting **6 5/4 1/2**

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? **Yes** No. of Breasthooks, **7** Crutches, **4**  
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? **Siemens Martin Steel**  
 Manufacturer's name or trade mark, **Dorman Long & Co. Middlesbrough and Moor Iron Co. Stockton**  
 The above is a correct description.  
 Builder's Signature, **W. Gray** Surveyor's Signature, **Thos. Phillipps**  
 Surveyor to Lloyd's Register of British and Foreign Shipping.

**Workmanship.** Are the butts of plating planed or smoothed? *Yes.*  
Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good or deficiencies? *Yes.*  
Are the fillings between the ribs and plates solid single pieces? *Yes.*  
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *Yes, generally.*  
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? *Yes. A few in the butts only.*

Masts, Bowsprit, Yards, &c., are *made* in *good* *quality* iron. The lower masts and bowsprit are constructed, showing the number of plates and angle iron, 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 iron, and if stamped with maker's name. The lower masts are of iron of the sizes as State also Length and Diameter of Lower Masts and Bowsprit. 11 Nov 87.

per enclosed sketch, approved by the Committee, 11 Nov 87. The iron used in these masts, has been tested as prescribed by the Rules. found satisfactory.

REPORTS No.	Weight.	Test per	W'ght req'd per Rule.	Machine where Tested and Superintended by
1	100 lbs	100 lbs	100 lbs	100 lbs

Standing and Running Riggings *Wire & manilla* sufficient in size and *good* in quality. She has *2* Long Boats and *2* oars.

The Windlass is *Iron* *food*. Capstan *Wheels* *food* and Rudder *food*. Pumps *food*.

How secured in ordinary weather? *By slide bars.*

The Windlass is Iron food Sapwood Y How secured in ordinary weather? My side 10 ft

Engine Room Skylights.—How constructed? of Iron & Steel

What arrangements for deadlights in bad weather? Strong steel shutters with bulls' eyes fitted bridge 16" and 30"

Height above deck? 2 1/2 ft 30"

**Coal Bunker Openings.**—How constructed? *of plate & angles* How are lids secured? *2 1/2 inch bolts*

**Scuppers, &c.**—What arrangements for clearing upper deck of water, in case of shipping a sea? *On each side:—2 Ports Forward*

**Cargo Hatchways.**—How formed? *of plates & angles*  
State size **Main Hatch** *22'-0" x 12'-0"* Forehatch *12' x 12'* Quarterhatches *25'-0" x 12'-0"*  
How framed and secured? *✓*

What arrangement for shifting beams? *Yes. 3" & 2 1/2" thick.*

Hatches, If strong and efficient? *Yes. 3" & 2 1/2" thick.*

*Built under Special Survey.*

Date 5 Nov 87

Order for Ordinary Survey No. \_\_\_\_\_

of Surveys \_\_\_\_\_

Section 1 \_\_\_\_\_

2nd. On the plating during the process of riveting \_\_\_\_\_

3rd. When the beams were in and fastened, }  
and before the decks were laid.... }

Date 1st Survey. 19 Dec 87.  
Last — 5 May 88.

No. 336 in builder's yard. Date 5th. After the ship was launched and equipped  
State dates of letters respecting this case 3 Nov. 87.

General Remarks (State quality of workmanship, *with the tracings approved by the Committee, (now in the London office)*

The whole of the material used in the hull was

The workmanship throughout has been  
The freeboards assigned by the Committee in the Secretary's letter of

3 Nov. 87 have	Summer Freeboard	1-3	and
Mr. 105	—	1-7½	the Register Book.

Fresh water

104° 0' 25' 6" 106° 9'

bridge, forecassle, or raised quarter deck. (If double bottom, state particulars on separate sheet.) Outside of beam.

How are the surfaces preserved from oxidation? Inside by paint

I am of opinion this Vessel should be Classed 100 A1

is received by me, L. H. Phillips

(to be sent as per margin). Certificate ...  
 (Travelling Expenses, if any, £ ...).  
**FRIDAY 18 MAY 1888**  
 Surveyor to Lloyd's Register of Shipping  
 From the further information now  
 it is submitted that - this ve

Character assigned	100 A1 Steel	100 A1 Steel as recommended
#S.N.C. 5788	10k Steel web frames	10k Steel web frames.

ARCP HMM D/S Recoro Treboard Foundation 183708