

# STEEL IRON SHIP.

(Received at London Office, **THURSDAY** 1884)

No. **6785** Survey held at **Glasgow** Date, First Survey **24<sup>th</sup> August 1884** Last Survey **6<sup>th</sup> December 1885**  
On the **Screw Steamer "Carthaginian"** Master **A. McNeil**

**TONNAGE** under Tonnage Deck **2444.26**  
Ditto of Third, Spar, or Awning Deck **1138.18**  
Ditto of Poop, or Raised Or. Dk. **3882.44**  
Ditto of House on Deck **236.59**  
Ditto of Forecastle **PL 75.14**  
Gross Tonnage **4214.20**  
Less Gross Space **110.53**  
Less Engine Room **1348.54**  
Register Tonnage as cut on Beam **2455.13**

**ONE, OR TWO DECKED, THREE DECKED VESSEL, SPAR, OR AWNING DECKED VESSEL.**  
Half Breadth (moulded) **22.50**  
Depth from upper part of Keel to top of Upper Deck Beams **31.48**  
Girth of Half Midship Frame (as per Rule) **49.10**  
1st Number **103.38**  
1st Number, if a 3-Decked Vessel deduct 7 feet **4.00**  
Length **384.16**  
2nd Number **370.25**  
Proportions - Breadths to Length **9.53**  
Depths to Length - Upper Deck to Keel **12.08**  
Main Deck ditto **15.98**

Built at **Glasgow**  
When built **1884** Launched **7<sup>th</sup> Oct 1884**  
By whom built **The Govan Shipbuilding Co.**  
Owners **J. & A. Allan**  
Residence **Glasgow**  
Port belonging to **Glasgow**  
Destined Voyage **Boston**  
If Surveyed while Building, Afloat, or in Dry Dock **Built under Special Survey**

Official Number **82992**

LENGTH on deck as per Rule **384.16** BREADTH Moulded **45.0** DEPTH top of Floors to Upper Deck Beams **29.45** Do. do. Main Deck Beams **21.45** Power of Engines **520** Horse. **520** No. of Decks with flat laid **3** No. of Tiers of Beams **3**

| Description  | Inches in Ship |        | Inches per Rule |        | Description   | Inches in Ship |        | Inches per Rule |        |
|--|----------------|--------|-----------------|--------|---|----------------|--------|-----------------|--------|
|  | Inches         | Inches | Inches          | Inches |   | Inches         | Inches | Inches          | Inches |
| KEEL, depth and thickness  | 11             | 3 1/2  | 11              | 3 1/2  | Flat Keel Plates, breadth and thickness   | 36             | 24     | 36              | 24     |
| STEM, moulding and thickness   | 11             | 3 1/2  | 11              | 3 1/2  | PLATES in Garboard Strakes, br'dth & thickness                                    | 36             | 24     | 36              | 24     |
| STERN-POST for Rudder do. do.  | 11             | 3 1/2  | 11              | 3 1/2  | From Garboard to upper part of Bilges   | 20 1/2         | 14     | 20 1/2          | 14     |
| " " for Propeller  | 11             | 3 1/2  | 11              | 3 1/2  | Of d'bling at Bilge, or increased thickness, and length applied                   | 22             | 14     | 22              | 14     |
| Distance of Frames from moulding edge to moulding edge, all fore and aft         | 24             |        | 24              |        | From up. prt of Bilge to r. edge of Main Sheerstrake                              | 20 1/2         | 14     | 20 1/2          | 14     |
| FRAMES, Angle Iron, for 1/2 length amidships                                     | 5 1/2          | 3 1/2  | 5 1/2           | 3 1/2  | Main Sheerstrake, breadth and thickness   | 4 1/2          | 21     | 4 1/2           | 21     |
| Do. for 1/4 at each end  | 5 1/2          | 3 1/2  | 5 1/2           | 3 1/2  | Of d'bling at Sh'stk. & Ing. applied  | 21             | 14     | 21              | 14     |
| REVERSED FRAMES, Angle Iron  | 4              | 3 1/2  | 4               | 3 1/2  | From up. prt. to Spar Dk. Sh'rstrake  | 21             | 14     | 21              | 14     |
| FLOORS, depth and thickness of Floor Plate at mid line for half length amidships | 28             | 14     | 28              | 14     | Butt Straps to outside plating, breadth & thickness                               | 2 1/2          | 19     | 2 1/2           | 19     |
| thickness at the ends of vessel  | 14             |        | 14              |        | Lengths of Plating  |                |        |                 |        |
| depth at 3/4 the half-bdth. as per Rule  | 14             |        | 14              |        | Shifts of Plating, and Stringers  |                |        |                 |        |
| height extended at the Bilges  | 50             |        | 50              |        | Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness | 5 1/2          | 14     | 5 1/2           | 14     |
| BEAMS, Upper, Spar, or Awning Deck   | 10             | 6      | 10              | 6      | Angle Iron on ditto   | 4 1/2          | 15     | 4 1/2           | 15     |
| Single or d'ble Ang. Iron, Plate or Tee Bulb Iron                                |                |        |                 |        | Tie Plates fore and aft outside Hatchways   |                |        |                 |        |
| Single or double Angle Iron on Upper edge  | 4 1/2          | 14     | 4 1/2           | 14     | Diagonal Tie Plates on Beams, No. of Pairs  | 12             |        | 12              |        |
| Average space  | 48             |        | 48              |        | Flat of Up., Spar, or Awning Dk.  | 3 1/2          | 14     | 3 1/2           | 14     |
| BEAMS, Main, or Middle Deck  | 11             | 6      | 11              | 6      | How fastened to Beams   | 3 1/2          | 14     | 3 1/2           | 14     |
| Single or d'ble Ang. Iron, Plate or Tee Bulb Iron                                |                |        |                 |        | Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness        | 5 1/2          | 15     | 5 1/2           | 15     |
| Single or double Angle Iron on Upper Edge  | 4 1/2          | 14     | 4 1/2           | 14     | Is the Stringer Plate attached to the outside plating?                            | Yes            |        | Yes             |        |
| Average space  | 48             |        | 48              |        | Angle Irons on ditto, No. 2   | 4 1/2          | 15     | 4 1/2           | 15     |
| BEAMS, Lower Deck  | 11             | 6      | 11              | 6      | Tie Plates outside Hatchways  |                |        |                 |        |
| Single or d'ble Ang. Iron, Plate or Tee Bulb Iron                                |                |        |                 |        | Diagonal Tie Plates on Beams, No. of pairs  | 12             |        | 12              |        |
| Single or double Angle Iron on Upper Edge  | 4 1/2          | 14     | 4 1/2           | 14     | Flat of Middle Deck do.   | 3 1/2          | 14     | 3 1/2           | 14     |
| Average space  | 48             |        | 48              |        | How fastened to Beams   | 3 1/2          | 14     | 3 1/2           | 14     |
| BEAMS, Hold, or Orlop  |                |        |                 |        | Stringer Plates on ends of Lower Deck, Hold or Orlop Beams                        | 4 1/2          | 15     | 4 1/2           | 15     |
| Single or d'ble Ang. Iron, Plate or Tee Bulb Iron                                |                |        |                 |        | Is the Stringer Plate attached to the outside plating?                            | Yes            |        | Yes             |        |
| Single or double Angle Iron on Upper Edge  | 4 1/2          | 14     | 4 1/2           | 14     | Angle Irons on ditto, No. 2   | 4 1/2          | 15     | 4 1/2           | 15     |
| Average space  | 48             |        | 48              |        | Stringer or Tie Plates, outside Hatchways   |                |        |                 |        |
| KEELSONS Centre line, single or double plate, box, or Intercostal, Plates        | 3 1/2          | 24     | 3 1/2           | 24     | Flat of Lower Deck  | 1 1/2          | 14     | 1 1/2           | 14     |
| Rider Plate  | 1 1/2          | 24     | 1 1/2           | 24     | Ceiling betwixt Decks, thickness and material                                     | 3 x 5/8        | 14     | 3 x 5/8         | 14     |
| Bulb Plate to Intercostal Keelson  | 2 1/2          | 14     | 2 1/2           | 14     | " in hold do. do.   | 2 1/2          | 14     | 2 1/2           | 14     |
| Angle Irons  | 6 1/2          | 4 1/2  | 6 1/2           | 4 1/2  | Main piece of Rudder, diameter at head  | 9 1/2          |        | 9 1/2           |        |
| Double Tee Iron Side Keelson for 1/2 length                                      | 1 1/2          | 23     | 1 1/2           | 23     | do. at heel   | 4 1/2          |        | 4 1/2           |        |
| Side Intercostal Plate   | 1 1/2          | 23     | 1 1/2           | 23     | Can the Rudder be unshipped afloat?   | Yes            |        | Yes             |        |
| do. Angle Irons  | 6 1/2          | 4 1/2  | 6 1/2           | 4 1/2  | Bulkheads No. 4 No. per Rule  | 60             |        | 60              |        |
| Attached to outside plating with angle iron                                      | 4              | 3 1/2  | 4               | 3 1/2  | Thickness of iron 7/8 to 1 1/8  |                |        |                 |        |
| BILGE Angle Irons  | 6 1/2          | 4 1/2  | 6 1/2           | 4 1/2  | Height up   |                |        |                 |        |
| do. Bulb Iron  | 1 1/2          | 23     | 1 1/2           | 23     | How secured to sides of ship  | Double frames  |        | Double frames   |        |
| do. Intercostal plates riveted to plating for 1/2 length                         |                | 15     |                 | 15     | Size of Vertical Angle Irons  | 4 1/2 x 3 1/2  |        | 4 1/2 x 3 1/2   |        |
| BILGE STRINGER Angle Irons   | 6 1/2          | 4 1/2  | 6 1/2           | 4 1/2  | and distance apart  | 30 ins.        |        | 30 ins.         |        |
| Intercostal plates riveted to plating for 1/2 length                             |                | 15     |                 | 15     | Are the outside Plates doubled two spaces of Frames in length?                    | Yes            |        | Yes             |        |
| SIDE STRINGER Angle Irons  |                |        |                 |        |   |                |        |                 |        |

The FRAMES extend in one length from **Keel** to **Gunwale** Riveted through plates with **1** in. Rivets, about **5** apart.  
The REVERSED ANGLE IRONS on floors and frames extend **from** middle line to **Gunwale, and on alternate frames, from middle line to Gunwale.**  
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 1/2** 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 **1** in. diameter, averaging **4** ins. from centre to centre.  
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets **1** in. diameter averaging **4** ins. from centre to centre.  
Butts of all Strakes at Bilge for **3/4** length, treble riveted with Butt Straps **3/16** thicker than the plates they connect.  
Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets **1** in. diameter, averaging **4** ins. from cr. to cr.  
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets **1** 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 Upper or Spar Sheerstrake, treble riveted for **3/4** length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for **3/4** length amidships.  
Main Stringer Plate, treble riveted for **3/4** length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for **3/4** length amidships.  
Edges of plating in double riveting **6** ins. Breadth of laps of plating in single riveting **6** ins.  
Stringer and Tie Plates, treble, double or single Riveted **2** plates double No. of Breasthooks, **4** Crutches, **6**  
and for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? **With Steel (Siemens) process**  
"Shell"  
Ditto of Iron-Consolidated Harlepool.  
Surveyor's Signature, **J. F. House**  
Surveyor to Lloyd's Register of British and Foreign Ships

State clearly where plating is of alternate thickness, and distinguish thickness at each place.

If Iron Deck, state if solid or built, and if wood deck, state thickness.

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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? *Yes*  
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*

Masts, Bowsprit, Yards, &c., are *good* 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

*Foremast 128' 6" 20" x 1/2" 28" x 1/2" 22" x 1/2" 19" x 1/2" 9" x 1/2"*  
*Mainmast 130' 4" 20" x 1/2" 28" x 1/2" 22" x 1/2" 19" x 1/2" 9" x 1/2"*  
*Mizzenmast of Wood*  
*Schooner Rigged.*

*Three plates in the round. Landa to lower masts double riveted. Butts tubular riveted throughout.*

| NUMBER for EQUIPMENT | SAILS.                   | CABLES, &c.           | Fathoms. | Inches. | Test per Certificate. | Inches per Rule. | Machine where Tested & Suprntd. | ANCHORS.      |               | No.        | Weight. Ex. Stock. | Test per Certificate. | W'ght req'd per Bulb. | Machine where Tested & Suprntd. |
|----------------------|--------------------------|-----------------------|----------|---------|-----------------------|------------------|---------------------------------|---------------|---------------|------------|--------------------|-----------------------|-----------------------|---------------------------------|
|                      |                          |                       |          |         |                       |                  |                                 | Bower Anchors | Stream Anchor |            |                    |                       |                       |                                 |
|                      | Fore Sails,              | Chain                 | 300      | 2 1/2   | 65 12000              | 300 x 2 1/2      | 1887                            | 8367          | 43.2.21       | 38.8.3.0   | 43                 | 1887                  | Lipton                |                                 |
|                      | Fore Top Sails,          | Iron Stream Chain     | 90       | 4 1/2   | 65.39000              | 90 x 4 1/2       | 1887                            | 8366          | 43.1.21       | 38.5.0.0   | 43                 | 1887                  | E.P. Smith            |                                 |
|                      | Fore Topmast Stay Sails, | or Hompon-Strap Cable | 120      | 13      |                       | 120 x 14         | 1887                            | 8364          | 42.3.14       | 37.15.2.14 | 43                 | 1887                  | Superintd.            |                                 |
|                      | Main Sails,              | Hawser                | 90       | 3 1/2   | 65.29000              | 90 x 4           | 1887                            | 8374          | 36.0.0        | 33.2.2.0   | 36 1/2             | 1887                  |                       |                                 |
|                      | Main Top Sails, and      | Warp                  | 20       | 8       | 70.20000              | 90 x 10          | 1887                            | 8372          | 7.2.0         | 9.13.3.0   | 7                  | 1887                  |                       |                                 |

Reference should be made to any correspondence connected with the vessel.

Standing and Running Rigging *Misc & Manila* sufficient in size and *good* in quality. She has *4.24 ft.* Long Boats and *1.24 ft.* Whaler boats.  
The Windlass is *Capstan* *Capstan* patent and Rudder *good* Pumps *good*

Engine Room Skylights.—How constructed? *Dark framing* How secured in ordinary weather? *Angle iron Cornings with*  
What arrangements for deadlights in bad weather? *Gratings of Tarpaulins* Height above deck? *Flush*

Coal Bunker Openings.—How constructed? *Cast iron frames* How are lids secured? *Lockings*  
Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Before bridge. Two scuppers on each side. No bulwarks.*

Cargo Hatchways.—How formed? *Deep plates forming Cornings and Carling.* Height above deck? *2 ft.*  
State size *Main Hatch 10 ft x 12 ft Fore hatch 16 ft x 12 ft Quarter hatch 16 ft x 12 ft*

If of extraordinary size, state how framed and secured? *Ordinary size*  
What arrangement for shifting beams? *One deep web plate in each of the 16 ft hatchways. Two fore and afters in each of the four hatchways.*

Order for Special Survey No. *1876* Date *12th July 1883*  
Order for Ordinary Survey No. *140* Date *16th Aug 1883*  
No. *140* in builder's yard.  
State dates of letters respecting this case *16th Aug 1883 & 24th Dec 1884*  
1st. On the several parts of the frame, when in place, and before the plating was wrought } *1883. Aug 24, 29. Sept 5, 10, 26, 28. Oct 3, 9, 16, 23, 29 & 31.*  
2nd. On the plating during the process of riveting } *Nov 5, 11, 14, 16, 20 & 23.*  
3rd. When the beams were in and fastened, and before the decks were laid... } *1884. Jan 14, 17, 21, 24, 28 & 30. Feb 5, 11, 18, 20, 21, 25 & 28. Mar 4, 7, 12, 14, 17, 20, 22, 27 & 28. April 2, 7, 10, 14, 17, 22, 24 & 30. May 5, 12, 16, 19, 20, 26 & 30.*  
4th. When the ship was complete, and before the plating was finally coated or cemented... } *June 3, 4, 6, 10, 11, 17, 19, 23, 26, 27 & 30. July 2, 8, 14, 15, 16, 17 & 30. Aug 4, 7, 19, 22, 26 & 28. Sept 2, 5, 9, 17, 18 & 26. Oct 4, 7, 8, 10, 15, 16, 17, 22 & 27. Nov 4, 10, 18, 19, 20, 22, 25, 26, 28 & 29. Dec 2, 3, 5 & 6.*  
5th. After the ship was launched and equipped

General Remarks (State quality of workmanship, &c.)  
*This vessel has been built in conformity with the approved tracings, No. 4, attached hereto, the instructions relating to same, and otherwise in compliance with the Rules with a view to the Class contemplated.*  
*The quality of workmanship and material is good.*  
*Note. The Pumping plan attached hereto is arranged in a similar manner to that approved by the Committee for the S.S. "Siberian", Glasgow Report No. 6659, and in consequence it was considered unnecessary to submit the plan for this vessel.*

*Three decked vessel, with Forecastle 53 feet. Bridge 148 feet.*

State if one, two, or three decked vessel, or if spar, or awning decked; and the lengths of poop, bridge, forecastle, or raised quarter deck. *Double bottom, state particulars on separate form.*  
How are the surfaces preserved from oxidation? Inside *Paint and Cement* Outside *Paint*

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

The amount of the Entry Fee .....£ 5: - is received by me, *J. J. Lewis*  
Special .....£ 124: 12: - *29/10/ 1884*

Committee's Minute  
Character assigned

FRIDAY 2 JAN 1885 18

*100 A1 Steel 3 Dns Steel*  
*J. J. Lewis*

