

IRON SHIP.

164 4/4
See 243/76

11425 Survey held at Sunderland Date, First Survey January 11th Last Survey May 24th 1876

the Barque "Scottish Hero" Master M. C. Lacharn

TONNAGE under Tonnage Deck 795.24 ONE, OR TWO DECKED, ~~THREE DECKED~~ VESSEL.
~~SPAR, OR AWNING DECKED VESSEL.~~

Ditto of Third, Spar, or Awning Deck. 76.35 HALF BREADTH (moulded) 16.37 Feet.

Ditto of Poop, or Raised Quarter Deck. 11.93 DEPTH from upper part of Keel to top of Upper Deck Beams 20.95

Ditto of Houses on Deck 27.06 GIRTH of Half Midship Frame (as per Rule) 32.5

Ditto of Forecastle 41.15 1st NUMBER 60.82

Gross Tonnage 910.58 1st NUMBER, if a **THREE-DECKED VESSEL** [deduct 7 feet]

Less Crew Space 869.43 LENGTH 120.86

Less Engine Room 5 PROPORTIONS—Breadths to Length 5

Register Tonnage as cut on Beam 869.43 Depths to Length—Upper Deck to Keel 8

Main Deck ditto 8

Built at Sunderland

When built 1876 Launched 6 May 1876

By whom built Wm. Hooper & Sons

Owners M. C. Lacharn, M. C. Lacharn & Co.
34 Leadenhall Street London

Port belonging to London

Destined Voyage London

Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule	Feet. <u>186</u>	Inches. <u>0</u>	BREADTH—Moulded	Feet. <u>32</u>	Inches. <u>9</u>	DEPTH top of Floors to Upper Deck Beams	Feet. <u>19</u>	Inches. <u>2</u>	Power of Engines	Horse. <u>0</u>	Nº. of Decks with flat laid	<u>two</u>
						Do. do. Main Deck Beams					Nº. of Tiers of Beams	<u>two</u>

Dimensions of Ship per Register, length 196.6 breadth, 33.5 depth, 19.1

	Inches in Ship.		Inches per Rule.		Inches in Ship.		Inches per Rule.	
	In Ship.							
KEEL, depth and thickness	8 x 2 3/8	7 x 2 3/8						
STEM, moulding and thickness	7 x 2 3/8							
STERN-POST for Rudder do. do. for Propeller	7 x 2 3/8							
Distance of Frames from moulding edge to moulding edge, all fore and aft	22 ins							
FRAMES, Angle Iron, for 1/2 length amidships	4 1/2 x 3							
Do. for 1/4 at each end	4 1/2 x 3							
REVERSED FRAMES, Angle Iron	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	21	21	21	21	21	21	21	21
thickness at the ends of vessel	7	7	7	7	7	7	7	7
depth at 1/2 the half-bdth. as per Rule	11	11	10 1/2	10 1/2	11	11	10 1/2	10 1/2
height extended at the Bilges	a fair taper							
BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	7 1/2 x 7							
Single or double Angle Iron on Upper edge	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3
Average space	alternate frames							
BEAMS, Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8
Single, or double Angle Iron, on Upper Edge	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3
Average space	alternate frames							
BEAMS, Lower Deck, Hold or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8	8 x 8
Single or double Angle Iron on Upper Edge	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3	3 x 3
Average space	alternate frames							
KEELSONS Centre line, single or double plate, box, or Intercostal, Plates	13 x 10							
Rider Plate	10 x 10							
Bulb Plate to Intercostal Keelson	4 1/2 x 3 1/2							
Angle Irons	4 1/2 x 3 1/2							
Double Angle Iron Side Keelson	4 1/2 x 3 1/2							
Side Intercostal Plate	6	6	6	6	6	6	6	6
do. Angle Irons	4 1/2 x 3 1/2							
Attached to outside plating with angle iron	4 1/2 x 3 1/2							
BILGE Angle Irons	4 1/2 x 3 1/2							
do. Bulb Iron	4 1/2 x 3 1/2							
do. Intercostal plates riveted to plating for length	4 1/2 x 3 1/2							
BILGE STRINGER Angle Irons	4 1/2 x 3 1/2							
Intercostal plates riveted to plating for length	4 1/2 x 3 1/2							
SIDE STRINGER Angle Irons	4 1/2 x 3 1/2							

	Inches. In Ship.	16ths. In Ship.	Inches. per Rule.	16ths. per Rule.
Flat Keel Plates, breadth and thickness	32	10	32	10
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied	alternately	alternately	alternately	alternately
fm up. part of Bilge to lr. edge of Sh'rstrake	9 1/2	9 1/2	9 1/2	9 1/2
Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Upr. or Spar Dk. Sh'rstrake.	alternately	alternately	alternately	alternately
Up. or Spar Dk Sh'rstrake, brdth & thickness	36	10	36	10
Butt Straps to outside plating, breadth & thickness	10 1/2	7 1/2	9 1/2	7 1/2
Lengths of Plating	11 feet			
Shifts of Plating, and Stringers	2 spaces of frames			
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	36	8	36	8
Angle Iron on ditto	4 1/2 x 3 1/2	7	4 1/2 x 3 1/2	7
Tie Plates fore and aft, outside Hatchways	10	8	10	8
Diagonal Tie Plates on Beams No. of Pairs				
Planksheer material and scantling				
Waterways do. do.				
Flat of Upper Deck do. do.	3 1/2	10	3 1/2	10
How fastened to Beams	galvanized iron			
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness				
Is the Stringer Plate attached to the outside plating?				
Angle Irons on ditto, No.				
Tie Plates, outside Hatchways				
Diagonal Tie Plates on Beams, No. of pairs				
Waterways materials and scantlings				
Flat of Middle Deck do. do.				
How fastened to Beams				
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	27	7	27	7
Is the Stringer Plate attached to the outside plating?	Yes			
Angle Irons on ditto, No. 2	3 1/2 x 3 1/2	7	3 1/2 x 3 1/2	7
Stringer or Tie Plates, outside Hatchways	3 1/2 x 3 1/2	7	3 1/2 x 3 1/2	7
Flat of Lower Deck	3 in			
Ceiling betwixt Decks, thickness and material in hold do. do.	2 1/2			
Main piece of Rudder, diameter at head do. at heel	4 3/4		4 3/4	
Can the Rudder be unshipped afloat?	Yes			
Bulkheads No. 1 Thickness of	6		6	
Height up	Upper deck			
How secured to sides of ship	between double frames			
Size of Vertical Angle Irons and distance apart	3 x 3 x 1/4		30	ins.
Are the outside Plates doubled two spaces of Frames in length?	Yes			

Transoms, material. Iron Knight heads. Iron Naws Timbers. Iron

Windlass Imerson & Walker Patent Pall Bitt Iron

The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 3/4 in. Rivets, about 6 apart.

The REVERSED ANGLE IRONS on floors and frames extend near middle line to 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 1/16 in. diameter, averaging 5 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 1/4 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 1/4 ins. from centre to centre.

Butts of 2 Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 1/16 thicker than the plates they connect.

Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 3/4 in. diameter, averaging 3 1/4 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 1/2 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted 1/2 length amidships.

Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for 1/2 length.

Breadth of laps of plating in double riveting 4 3/4 Breadth of laps of plating in single riveting nil

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? double and treble throughout

Waterway, how secured to Beams Gutter gunwale (Explain by Sketch, if necessary.)

Beams of the various Decks, how secured to the sides? Turned down ends and riveted to frames and stringer plates No. of Breasthooks, 4 Crutches, 39 transom

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

Manufacturer's name or trade mark. Iron Co. & Bolton, Crugher & Co.; Angles, Stockton malleable Iron Co.

The above is a correct description.

Builder's Signature, William Odaford & Sons Surveyor's Signature, James Sibbald

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

IRON 466-0425

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 very well*
 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 *of Iron &* 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 *please see sketch attached*

16444 Iron

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.	
SAILS.		270	1 5/8	47 1/2	270-1 1/16	47 5/10	Bowers	1	25.3.0	25.8.0	25.2.0	25 3/20	
CABLES, &c.		3 links of each length tested to breaking strain of 6 1/2 tons, signed J. Hartness, marked R.W.C.P.I., dated 16 March 1876											
Chain		16 March 1876											
N ^o .													
2	Fore Sails,							1	25.2.14	25.5.3	25.1.1	22 3/20	
2	Fore Top Sails,							1	22.1.0	22.1.0	21.3.0	22 3/20	
2	Fore Topmast Stay Sails												
2	Main Sails,												
2	Main Top Sails,												
and others as used													
	Hmpn Strm Cbl	80	6				Stream	1	10.2.26		10.2.0		
	Hawser Chain	60	6				Kedges	1	5.2.26		5.1.0		
	Towlines	90	10										
	Warp	80	6										
	quality good	80	5										

Standing and Running Rigging *Wire & hemp* sufficient in size and *good* in quality. She has *one* Long Boat and *3* others
 The Windlass is *good* Capstan *good* and Rudder *good* Pumps *Metal & good*

Engine Room Skylights.—How constructed? *How secured in ordinary weather?*

Coal Bunker Openings.—How constructed? *How are lids secured?* Height above deck?

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *4 Ports and 4 Scuppers on each side*

Cargo Hatchways.—How formed? *Iron plate Comings and Headledges*
 State size Main Hatch *14'8" x 10'0"* Forehatch *7'4" x 6'0"* Quarterhatch *7'4" x 5'0"*

If of extraordinary size, state how framed and secured?
 What arrangement for shifting beams?

Hatches, If strong and efficient? *Yes*

Order for Special Survey No.	Date	1st.	2nd.	3rd.	4th.	5th.
26114	26 th January 1876	On the several parts of the frame, when in place, and before the plating was wrought	On the plating during the process of riveting	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 or cemented..	After the ship was launched and equipped
		<i>Built under plating and surveyed 1876 Jan 11 14 20 25 26</i>				
		<i>34 15 17 22 23 March 16 9 13 15 20 22 24 28 31 April 26 1 11 13 19 24 26 May 1 10 12 15 18 20</i>				
		<i>23 24</i>				

General Remarks (State quality of workmanship, &c.) *This vessel has been constructed in accordance with the rules, and tracing of Midship Section submitted and approved by the Committee. She has a full Poop about 40'6" in length, and Top-gallant Forecastle about 26 feet in length; A House on deck about 22 feet in length, and is fitted with Immerson & Walker's patent windlass. The quality of materials and workmanship being of a good description*

The Iron used in the construction of the Lower Masts, Yards, and Bowsprit, has been subjected to both Hot and cold tests, and the quality further ascertained by breaking a piece across the fibre of the Iron, which proved very satisfactory.

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 *Portland Cement to upper* Outside *3 Coats of paint*
 I am of opinion this Vessel should be Classed *100A* *Plan of bilges & paint above*

The amount of the Entry Fee ... £ 5 : - : - is received by me, *HW*
 Special ... £ 43 : 9 : - *24th May 1876*
 Certificate ... - : - : -

Committee's Minute *26th May 1876*

Character assigned *100A*
JBW A.P.P.

