

IRON SHIP.

No. *4490* Survey held at *Post Glasgow and Glasgow* Date, First Survey *25th Decem^r 1879* Last Survey *5th May 1880*
 On the *J. S. S. "Harley"* Master *J. Creamer*

TONNAGE under Tonnage Deck *354.23*
 Ditto of Third, Spar, or Awning Deck. *18.44*
 Ditto of Poop, or *60.94*
 Ditto of Houses on Deck *3.44*
 Ditto of Forecastle *18.46*
 Gross Tonnage *455.54*
 Less Crew Space *23.21*
 Less Engine Room *145.48*
 Register Tonnage as cut on Beam *286.58*

ONE, OR TWO DECKED, THREE DECKED VESSEL.
 SPAR, OR AWNING-DECKED VESSEL.
 HALF BREADTH (moulded) *12.0*
 DEPTH from upper part of Keel to top of Upper Deck Beams *12.95*
 GIRTH of Half Midship Frame (as per Rule) *23.1*
 1st NUMBER *48.05*
 1st NUMBER, if a THREE DECKED VESSEL [deduct 7 feet] *168*
 LENGTH *168*
 2nd NUMBER *8072.4*
 PROPORTIONS—Breadth Length *7*
 Depths to Length—Upper Deck to Keel *12.9*
 Main Deck ditto *1*

Built at *Post Glasgow*
 When built *1879-80* Launched *30 Mar 1880*
 By whom built *Russell & Co*
 Owners *Messrs J. A. Harley & Co*
 Port belonging to *Glasgow*
 Destined Voyage *Glasgow via London*
 If Surveyed while Building, Afloat, or in Dry Dock.
While Building and afloat

LENGTH on deck as per Rule *168* Feet. Inches. *4*
 BREADTH Moulded *24* Feet. Inches. *0*
 DEPTH top of Floors to Upper Deck Beams *11* Feet. Inches. *10*
 Do. do. Main Deck Beams *10*
 Power of Engines *85* Horse.
 No. of Decks with flat laid *one*
 No. of Tiers of Beams *one*

Dimensions of Ship per Register, length, *168.85* breadth, *24.3* depth, *11.6*

	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	<i>See opposite</i>	<i>See opposite</i>
STEM, moulding and thickness	<i>6 1/2 x 1 7/8</i>	<i>6 1/2 x 1 7/8</i>
STERN-POST for Rudder do. do.	<i>6 1/2 x 3 3/4</i>	<i>6 1/2 x 3 3/4</i>
" " for Propeller	<i>6 1/2 x 3 3/4</i>	<i>6 1/2 x 3 3/4</i>
Distance of Frames from moulding edge to moulding edge, all fore and aft	<i>21</i>	<i>(Class 100A)</i>
FRAMES, Angle Iron, for 1/2 length amidships	<i>3 3 6 3 3 6</i>	<i>3 3 6 3 3 6</i>
Do. for 1/2 at each end	<i>3 3 5 3 3 5</i>	<i>3 3 5 3 3 5</i>
REVERSED FRAMES, Angle Iron	<i>2 1/2 2 1/2 5 2 1/2 2 1/2 5</i>	<i>2 1/2 2 1/2 5 2 1/2 2 1/2 5</i>
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	<i>13 1/2 x 6</i>	<i>13 1/2 x 6</i>
" thickness at the ends of vessel	<i>Eng 100A</i>	<i>Eng 100A</i>
" depth at 3/4 the half-bdth. as per Rule	<i>8 1/2</i>	<i>6 3/4</i>
" height extended at the Bilges	<i>27</i>	<i>27</i>
BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	<i>4 2 1/2 6 4 2 1/2 6</i>	<i>4 2 1/2 6 4 2 1/2 6</i>
Single or double Angle Iron on Upper edge	<i>bulb beams at hatchways</i>	<i>bulb beams at hatchways</i>
Average space	<i>21</i>	<i>21</i>
BEAMS, Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron		
Single, or double Angle Iron, on Upper Edge		
Average space		
BEAMS, Lower Deck, Hold, or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron		
Single or double Angle Iron on Upper Edge		
Average space		
KEELSONS Centre line, single or double plate, or Intercoastal, Plates	<i>17 x 7/8</i>	<i>17 x 7/8</i>
" Rider Plate	<i>7 1/2 x 4</i>	<i>7 1/2 x 4</i>
" Bulb Plate to Intercoastal Keelson		
" Angle Irons	<i>3 1/2 3 6 3 1/2 3 6</i>	<i>3 1/2 3 6 3 1/2 3 6</i>
" Double Angle Iron Side Keelson		
" Side Intercoastal Plate	<i>track plate</i>	<i>4</i>
" do. Angle Irons		<i>4</i>
" Attached to outside plating with angle iron		
BILGE Angle Irons	<i>3 1/2 3 6 3 1/2 3 6</i>	<i>3 1/2 3 6 3 1/2 3 6</i>
" do. Bulb Iron	<i>5 1/2 x 5</i>	<i>5 1/2 x 5</i>
" do. Intercoastal plates riveted to plating for length		<i>for 3/5 L.</i>
BILGE STRINGER Angle Irons	<i>3 1/2 3 6 3 1/2 3 6</i>	<i>3 1/2 3 6 3 1/2 3 6</i>
Intercoastal plates riveted to plating for length	<i>for 1/2 length</i>	<i>for 1/2 length</i>
SIDE STRINGER Angle Irons	<i>3 1/2 3 6 3 1/2 3 6</i>	<i>3 1/2 3 6 3 1/2 3 6</i>
Transoms, material. Knight-heads. Hawse Timbers. Plates & angles.		
Windlass <i>Iron (Napier's all Bitt Patent)</i>		

The FRAMES extend in one length from *Keel to Forecastle Stringer*
 The REVERSED ANGLE IRONS on floors and frames extend *from middle line to 6" above st. above bilge and to upper deck*
 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 *7/8* in. diameter, averaging *3 3/4* 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 *One* Strakes at Bilge for *half* length, double riveted with Butt Straps *1/16* thicker than the plates they connect.
 Edges from bilge to Main Sheerstrake, worked clencher, *double* 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 1/4* ins. from cr. to cr.
 Edges of Main Sheerstrake, double or single riveted *upper edge* Upper Sheerstrake, double or single riveted.
 Butts of Main Sheerstrake, double riveted for *whole* length amidships. Butts of Upper or Spar Sheerstrake, treble riveted *✓* length amidships.
 Butts of Main Stringer Plate, treble riveted for *whole* length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for *✓* length.
 Breadth of laps of plating in double riveting *5 1/2, 4 1/2* Breadth of laps of plating in single riveting *3*
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double *✓* Riveted?
 How secured to Beams *Butt* (Explain by Sketch, if necessary.)
 Beams of the various Decks, how secured to the sides? *By Solid welded knees* No. of Breasthooks, *2* Crutches, *2*
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *Good*
 Manufacturer's name or trade mark, *James & Kerswell frame, Glasgow; Floors, Consell; Beams, Clifton; Deck and outside plating Shackleton Iron Co.*
 The above is a correct description.
 Builder's Signature, *Russell & Co* Surveyor's Signature, *J. H. M. Lloyd*
 Surveyor to Lloyd's Register of British and Foreign Shipping.

IRON 492-0277

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.* 26506 Iron.

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? *In a few cases at butts only.*

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

Rig. Three Masted Schooner.

$$8072 + 70 = \frac{8072}{807}$$

NUMBER for EQUIPMENT *8879*

N ^o .	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per 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.
		Chain	195	1 1/8	22 1/2	2.80.	2.80.	Bowers	1	10.0	22 1/2	10.0	12
		Netherton Pressing House			6 1/4	2.80.	2.80.		1	9.3	11.14	3.4	10 1/2
		Emp. Strm Cbl	60	3/4	10 1/8	15 1/8	60-126		1	8.2	10.14	2.0	8 1/2
		Hawser ...	45	8 1/2			45-82						
		Towlines	90	6 1/2			90-62						
		Warp ...											
		quality <i>good</i>											
		and <i>no others.</i>											

Standing and Running Rigging *fine & efficient* sufficient in size and *good* in quality. She has 1-18ft Life Boat and 1-14ft boat.

The Windlass is *good & efficient* Capstan *✓* and Rudder *efficient* Pumps *efficient*

Engine Room Skylights.—How constructed? *Scab framing on iron beams* How secured in ordinary weather? *by bolts & fly nuts.*

What arrangements for deadlights in bad weather? *none req'd. Skylight fitted on poop deck.*

Coal Bunker Opening.—How constructed? *Iron beams* How are lids secured? *Solid hatchco. by iron bars.* Height above deck? *24 1/2 ins.*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Four pairs of facing ports and four pairs of scuppers.*

Cargo Hatchways.—How formed? *Plates and angles.*

State size Main Hatch *10.6 x 11.0 = 36.3 x 11.0* Forehatch *10.6 x 11.0 = 47.3 x 11.0* Quarterhatch *snub.*

If of extraordinary size, state how framed and secured? *Iron deck, deep strong iron beams, with efficient deep web.*

What arrangement for shifting beams? *plates riveted to them as shown on sketches and 3 fore rafters in each hatch.*

Hatches, If strong and efficient? *Yes. 3' solid.*

Order for Special Survey No. *953*

Date *29 December 1879*

Order for Ordinary Survey No. *953*

Date *✓*

No. *29* in builder's yard

DATES of Surveys held while building as per Section 18.

1st. On the several parts of the frame, when in place, and before the plating was wrought

2nd. On the plating during the process of riveting

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

4th. When the ship was complete, and before the plating was finally coated or cemented...

5th. After the ship was launched and equipped

Specially Surveyed 1880.

This vessel was framed when placed under my survey

1849 Dec 23, 24. H.M.B. 1880. January 16, 31 Feb 7, 12.

24. March 1, 2, 15, 16, 22, 23. April 14, 24, 28, 30.

May 5.

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

This vessel has been constructed in accordance with the

accompanying tracings & h. submitted and approved please

see Secty's Letters 21st Nov. 1879 and 5 March 1880.

She has a top gallant forecabin and full poop.

The Collision bulkhead has been additionally strengthened

on account of water ballast to be carried in fore peak, the

compartment has been keeled with a head of water to the

height of Deck line and proved tight.

The requirements of the Committee as contained in the

Letters above referred to have been complied with.

One decked vessel.

State if one, two, or three decked vessel, or if spar, or awning decked; and the lengths of poop, forecabin, or raised quarter deck, and the length of double, or part double bottom.

How are the surfaces preserved from oxidation? Inside *Cemented to upper part of bilge* Outside *Three coats of paint*

I am of opinion this Vessel should be Classed *100 A.1.*

The amount of the Entry Fee ... £ *5:0:0* is received by me, *May 11/80*

Special ... £ *21:12:0* *May 1880*

Certificate ... £ *0:0:0*

(Travelling Expenses, if any, £ *1/11*.) *£26:12:0*

Committee's Minute *✓*

Character assigned *100 A.1.*

Tuesday, May, 11th 1880.

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