

# IRON SHIP.

1989

No. 4573 Survey held at Glasgow Date, First Survey 19<sup>th</sup> Decr 1876 Last Survey 27<sup>th</sup> Decr 1877  
 On the S. "Loch Etive" Master Wm Stuart

<b>TONNAGE</b> under Tonnage Deck } <u>1129.81</u>	ONE, OR TWO DECKED, THREE DECKED VESSEL. SPAR, OR AWNING-DECKED VESSEL.	Built at <u>Glasgow</u>
Ditto of Third, Spar, or Awning Deck. } <u>115.92</u>	<b>HALF BREADTH</b> (moulded) .. .. . <u>17.75</u> Feet.	When built <u>1877</u> Launched <u>22<sup>nd</sup> Nov 1877</u>
Ditto of Poop, or Raised Or. Dk. } <u>42.02</u>	<b>DEPTH</b> from upper part of Keel to top of Upper Deck Beams <u>23.7</u>	By whom built <u>A &amp; S. Inglis</u>
Ditto of Houses on Deck } <u>1287.75</u>	<b>GIRTH</b> of Half Midship Frame (as per Rule) .. .. . <u>36.15</u>	Owners <u>Glasgow Shipping Co</u>
Ditto of Forecastle } <u>52.94</u>	<b>1st NUMBER</b> .. .. . <u>77.6</u>	Port belonging to <u>Glasgow</u>
Gross Tonnage } <u>1234.81</u>	<b>1st NUMBER, if a THREE-DECKED VESSEL</b> .. .. . <u>77.6</u>	Destined Voyage <u>Melbourne</u>
Less Cross Space } <u>52.94</u>	<b>LENGTH</b> .. .. . <u>215.7</u>	Surveyed while Building, Afloat, or in Dock
Less Engine Room } <u>1234.81</u>	<b>2nd NUMBER</b> .. .. . <u>16738</u>	
Register Tonnage as cut on Beam } <u>1234.81</u>	<b>PROPORTIONS</b> —Breathths to Length .. over 6 and under 6 1/2	
	Depths to Length—Upper Deck to Keel .. .. .	
	Main Deck ditto .. .. .	

PLANS CASE

Official Number 4884

**LENGTH** on deck as per Rule ... 215 Feet. 9 Inches. **BREADTH**—Moulded... 35 Feet. 6 Inches. **DEPTH** top of Floors to Upper Deck Beams ... 21 Feet. 9 Inches. Power of Engines ... — Horse. No. of Decks with flat laid ... — No. of Tiers of Beams ... —

Dimensions of Ship per Register, length, 226.9 breadth, 35.95 depth, 24.65

	Inches in Ship.			Inches per Rule.			Flat Keel Plates, breadth and thickness	Inches. In Ship.	16ths. In Ship.	Inches. per Rule.	16ths. per Rule.
	Inches. In Ship.	Inches. In Ship.	16ths. In Ship.	Inches. per Rule.	Inches. per Rule.	16ths. per Rule.					
<b>KEEL</b> , depth and thickness	9 x 2 1/2	9 x 2 1/2	9 x 2 1/2	9 x 2 1/2	9 x 2 1/2	9 x 2 1/2	36	11	36	11	—
<b>STEM</b> , moulding and thickness	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	—	10	—	10	—
<b>STERN-POST</b> for Rudder do. do. for Propeller	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	8 1/2 x 2 1/2	—	11	—	11	—
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24	24	24	24	24	—	10	—	10	—
<b>FRAMES</b> , Angle Iron, for 3/4 length amidships Do. for 1/2 at each end	5 3 8	5 3 8	5 3 8	5 3 8	5 3 8	5 3 8	42	12	42	12	—
<b>REVERSED FRAMES</b> , Angle Iron	3 1/2 3 8	3 1/2 3 8	3 1/2 3 8	3 1/2 3 8	3 1/2 3 8	3 1/2 3 8	—	—	—	—	—
<b>FLOORS</b> , depth and thickness of Floor Plate at mid line for half length amidships thickness at the ends of vessel depth at 3/4 the half-bdth. as per Rule height extended at the Bilges	24 x 9	24 x 9	24 x 9	24 x 9	24 x 9	24 x 9	16 1/2 x 11 1/4	13-10	16 3/4 x 11 1/4	13-10	—
<b>BEAMS</b> , Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	—	—	—	—	—
Single or double Angle Iron on Upper edge Average space	3 3 7	3 3 7	3 3 7	3 3 7	3 3 7	3 3 7	—	—	—	—	—
<b>BEAMS</b> , Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	—	—	—	—	—
Single or double Angle Iron on Upper Edge Average space	48	48	48	48	48	48	—	—	—	—	—
<b>BEAMS</b> , Lower Deck, Hold, or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	8 1/2 x 8	—	—	—	—	—
Single or double Angle Iron on Upper Edge Average space	48	48	48	48	48	48	—	—	—	—	—
<b>KEELSONS</b> Centre line, single or double plate, box, or Intercostal, Plates	17 x 12	17 x 12	17 x 12	17 x 12	17 x 12	17 x 12	—	—	—	—	—
" Rider Plate	10 3/4 x 12	10 3/4 x 12	10 3/4 x 12	10 3/4 x 12	10 3/4 x 12	10 3/4 x 12	—	—	—	—	—
" Bulb Plate to Intercostal Keelson	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	—	—	—	—	—
" Angle Irons	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	—	—	—	—	—
" Double Angle Iron Side Keelson	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	—	—	—	—	—
" Side Intercostal Plate	3 1/2 3 8	3 1/2 3 8	3 1/2 3 8	3 1/2 3 8	3 1/2 3 8	3 1/2 3 8	—	—	—	—	—
" do. Angle Irons	3 1/2 3 8	3 1/2 3 8	3 1/2 3 8	3 1/2 3 8	3 1/2 3 8	3 1/2 3 8	—	—	—	—	—
" Attached to outside plating with angle iron	3 1/2 3 8	3 1/2 3 8	3 1/2 3 8	3 1/2 3 8	3 1/2 3 8	3 1/2 3 8	—	—	—	—	—
<b>BILGE</b> Angle Irons	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	—	—	—	—	—
" do. Bulb Iron	—	—	—	—	—	—	—	—	—	—	—
" do. Intercostal plates riveted to plating for length	—	—	—	—	—	—	—	—	—	—	—
<b>BILGE STRINGER</b> Angle Irons	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	5 4 9	—	—	—	—	—
Intercostal plates riveted to plating for length	—	—	—	—	—	—	—	—	—	—	—
<b>SIDE STRINGER</b> Angle Irons	—	—	—	—	—	—	—	—	—	—	—

Transoms, material. Knight-heads. Hawse Timbers. Iron  
 Windlass Harfield's Patent Pall Bitt —  
 The **FRAMES** extend in one length from Keel to Gumwale Riveted through plates with 3/4 in. Rivets, about 6 apart.  
 The **REVERSED ANGLE IRONS** on floors and frames extend from middle line to Gumwale

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

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double and Riveted?  
 Waterway, how secured to Beams Gutter (Explain by Sketch, if necessary.)  
 Beams of the various Decks, how secured to the sides? By knees turned down No. of Breasthooks, 5 Crutches, 4  
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Best  
 Manufacturer's name or trade mark, Frames Mossend, Plates Glasgow Iron Co, other angles Rocksolloch  
 The above is a correct description.  
 Builder's Signature, A. J. Inglis Surveyor's Signature, Saml Laphroan  
 Surveyor to Lloyd's Register of British and Foreign Shipping

06205740290

**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* 19892 In

Masts, Bowsprit, Yards, &c., are *all* 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 *Three Masts, Ship rigged.*  
*Extra Beat Best*  
*Borden Saw, Glasgow*  
*Iron Co. Motherwell*  
*Hot and well treated*  
 Bowsprit - 30 ins at 20 cap, 23 ft outboard, unskid to plating of Cutwater and 1 length 11 feet  
 Plate - 4 plates, in circle 8 1/2 x 1 1/2, double riveted edges, triple riveted butts, diameter 15 x 3/16  
 Fore Mast - 80 x 10 1/2 x 28 - 23 hoops 19 cap 23 hul } 4 plates in circle, 8 1/2 x 1 1/2, double riveted butts  
 Main Mast - 83.5 x 28 - 23 - 19 } 12 x 6, double riveted edges, triple and  
 Mizzen Mast - 77.7 1/2 x 23 1/2 - 19 - 15 1/2 } 19 hul, quadruple riveted butts.  
 Yards - Fore & Main lower 11 x 18 1/2 - 2 plates in circle 7-6-5, single riveted edges, triple double riveted butts  
 Crossjack - 63 x 15 - 2 - 6-5 - 16  
 Lower topsail - 67 x 15 1/2 - 2 - 5-4 - 16

NUMBER for EQUIPMENT 17853		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS. N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate	W'ght req'd per Rule.	Test req'd per Rule.
N <sup>o</sup> .	SAILS.	CABLES, &c.		59 1/8	270-1 1/2	59 1/8	Bowers	32.0.24	30.5.1.0	32	30 7/20
	Fore Sails,	3	1 1/2	82 3/4		82 3/4	Nethuts	6.2.12			
	Fore Top Sails,	3	1 1/2				3 may	32.0.26	30.6.1.0	32	30 7/20
	Fore Topmast Stay Sails	1	1				4 June	6.2.5			
	Main Sails,	90	1		90-1 Iron or 10 in Hemp		4 June	27.1.12	26.13.0.0	27 1/4	26 10/20
	Main Top Sails,	90	10 1/2		90-9 1/2		5 June	5.2.5			
	and	90	6		90-6		Total	91.3.6	Total	91 1/4	
	Standing and Running Rigging	Wire & Hemp					Stream	12.3.20	12.13.0.0	13	
	The Windlass is	Good					Kedges	6.1.24	7.14.0.0	6 1/2	
	Engine Room Skylights.	How constructed?						3.1.10	5 1/4	3 1/4	
	What arrangements for deadlights in bad weather?										
	Coal Bunker Openings.	How constructed?									
	Scuppers, &c.	What arrangements for clearing upper deck of water, in case of shipping a sea?									
	Cargo Hatchways.	How formed?									
	State size Main Hatch	16 x 11.6									
	Forehatch	6.3 x 6.0									
	Quarterhatch	6.3 x 6.0									
	If of extraordinary size, state how framed and secured?										
	What arrangement for saifting beams?										
	Hatches, If strong and efficient?	Yes.									

Standing and Running Rigging *Wire & Hemp* sufficient in size and *good* in quality. She has *Four* Boats (2 with buoyancy)  
 The Windlass is *Good* Capstan *3. Good* and Rudder *Good* Pumps *Good* (detans)

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

What arrangements for deadlights in bad 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 scuppers, 4 water ports, and 2 side pipes each side*

Cargo Hatchways. How formed? *Plate and angle iron*

State size Main Hatch *16 x 11.6* Forehatch *6.3 x 6.0* Quarterhatch *6.3 x 6.0*

If of extraordinary size, state how framed and secured?

What arrangement for saifting beams?

Hatches, If strong and efficient? *Yes.*

Order for Special Survey No.	Date	Order for Ordinary Survey No.	Date	No.	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	1876 - Decr 19. 23. 26. 28
							2nd. On the plating during the process of riveting	1877 Jan'y 9. 13. 16. 20. 23. 26. 31. Feb. 1. 12. 13. 16. 21
							3rd. When the beams were in and fastened, and before the decks were laid...	Feb'y 22. 27. March 1. 2. 6. 7. 12. 15. 16. 20. 21. 26
							4th. When the ship was complete, and before the plating was finally coated or cemented...	April 2. 4. 7. 10. 12. 17. 20. 27. May 1. 7. 10. 11. 14
							5th. After the ship was launched and equipped	May 21. 31. June 12. 15. 22. 24. 30. July 2. 12
								Aug. 3. 7. 14. 22. 27. Sep 3. 8. 19. 20. 21. 25. 28
								Oct 2. 3. 4. 29. Nov. 5. 6. 9. 12. 15. 21. 28
								Decr 13. 14. 27

General Remarks (State quality of workmanship, &c.)

*The workmanship is of good quality. Built in accordance with the approved sketch of midship section herewith and generally in conformity with the Rules with a view to the grade contemplated*

*The longitudinal arrangements are as nearly similar as practicable as in the ships "Lock Tyne", "Lock Long" and "Lock Ryan", vessels of about the same principal dimensions recently built here for the same Owners*

*Fitted with Poop 44 feet long, Forecastle 37 feet long, House amidships 36 x 19*

State if one, two, or three, decked vessel, or if spar, or acing 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 *Cement and Paint* Outside *Paint*

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

The amount of the Entry Fee ... £ 5 : : : is received by me, *Dec 27th Saml. Saphorn*  
 Special ... £ 55 : 14 : Decr 1877  
 Certificate ... *Gratis*

(Travelling Expenses, if any, £ ...)

Committee's Minute 28th December, 1877.

Character assigned *100 A 1*

