

IRON SHIP

No. 1574 Survey held at Leith & Parkhead Date, First Survey 25th August 1879 Last Survey 2nd March 1880

On the Screw Steamer "George Gowland" Master Robert Meldrum

TONNAGE under Tonnage Deck } <u>498.42</u>	ONE, OR TWO DECKED, THREE DECKED VESSEL.	Built at <u>Leith</u>
Ditto of Poop, or Raised Or. Dk. } <u>29.54</u>	SPAR, OR AWNING DECKED VESSEL.	When built <u>1879-80</u> Launched <u>24th Jan 80</u>
Ditto of Houses on Deck } <u>38.11</u>	HALF BREADTH (moulded) <u>14</u> Feet.	By whom built <u>Ramage & Ferguson</u>
Ditto of Forecastle } <u>5.15</u>	DEPTH from upper part of Keel to top of Upper Deck Beams <u>16.08</u>	Owners <u>George Gowland</u>
Ditto of Forecastle } <u>21.32</u>	GIRTH of Half Midship Frame (as per Rule) <u>26.8</u>	Port belonging to <u>London</u>
Gross Tonnage } <u>592.54</u>	1st NUMBER <u>56.85</u>	Destined Voyage <u>Coasting</u>
Less Crew Space <u>26.91</u>	1st NUMBER, if a 2 DECKED VESSEL, deduct 7 feet	If Surveyed while Building, Afloat, or in Dry Dock. <u>Whilst building & afloat.</u>
Less Engine Room <u>189.62</u>	LENGTH <u>169</u>	
Register Tonnage as cut on Beam } <u>376.01</u>	2nd NUMBER <u>96272</u>	
	PROPORTIONS—Breathths to Length <u>6.03</u>	
	Depths to Length—Upper Deck to Keel <u>10.51</u>	
	Main Deck ditto	

LENGTH on deck as per Rule <u>169</u> Feet. <u>11</u> Inches.	BREADTH—Moulded... .. . <u>28</u> Feet. <u>0</u> Inches.	DEPTH top of Floors to Upper Deck Beams <u>14</u> Feet. <u>9 1/2</u> Inches.	Power of Engines <u>95</u> Horse.	No. of Decks with flat laid <u>One</u>	No. of Tiers of Beams <u>One hold</u>
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Dimensions of Ship per Register, length, 170.0 breadth, 28.3 depth, 13.5

	Inches in Ship		Inches per Rule		Class <u>90A</u>		Class <u>90A</u>	
	Inches	16ths	Inches	16ths	Inches	16ths	Inches	16ths
KEEL, depth and thickness	<u>6 3/4</u>	<u>2 1/2</u>						
STEM, moulding and thickness... .. .	<u>6 3/4</u>	<u>4 1/4</u>						
STERN-POST for Rudder do. do.	<u>6 3/4</u>	<u>4 1/4</u>						
" " for Propeller	<u>6 3/4</u>	<u>4 1/4</u>						
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>22 ins</u>		<u>22 ins</u>		<u>22 ins</u>		<u>22 ins</u>	
FRAMES, Angle Iron, for 2/3 length amidships	<u>3 1/2</u>	<u>3</u>						
Do. for 1/3 at each end	<u>3 1/2</u>	<u>3</u>						
REVERSED FRAMES, Angle Iron	<u>3</u>	<u>2 1/2</u>						
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	<u>As per Sketches</u>							
" thickness at the ends of vessel	<u>As per Sketches</u>							
" depth at 3/4 the half-bdth. as per Rule	<u>As per Sketches</u>							
" height extended at the Bilges... .. .	<u>As per Sketches</u>							
BEAMS, Upper, Spar, or Awning Deck } Single or d'ble Ang. Iron, Plate or Tee Bulb Iron } <u>5</u> <u>3</u> <u>6</u> <u>5</u> <u>3</u> <u>6</u>								
Single or double Angle Iron on Upper edge	<u>3</u>	<u>2 1/2</u>						
Average space... .. .	<u>29 ins</u>		<u>29 ins</u>		<u>29 ins</u>		<u>29 ins</u>	
BEAMS, Main, or Middle Deck } Single or d'ble Ang. Iron, Plate or Tee Bulb Iron } <u>3</u> <u>2 1/2</u> <u>5</u> <u>3</u> <u>2 1/2</u> <u>5</u>								
Single, or double Angle Iron, on Upper Edge	<u>3</u>	<u>2 1/2</u>						
Average space... .. .	<u>As per Sketches</u>							
BEAMS, Lower Deck, Hold, or Orlop } Single or d'ble Ang. Iron, Plate or Tee Bulb Iron } <u>5</u> <u>3</u> <u>6</u> <u>5</u> <u>3</u> <u>6</u>								
Single or double Angle Iron on Upper Edge	<u>3</u>	<u>2 1/2</u>						
Average space... .. .	<u>As per Sketches</u>							
KEELSONS Centre line, single or double plate, box, or intercostal, Plates <u>Girders</u>	<u>7 1/2</u>	<u>6</u>						
" Rider Plate <u>Other Girders, plates on Eng. Beams, & Bulb Plate to Intercostal Keelsons</u>	<u>6</u>	<u>5</u>	<u>6</u>	<u>5</u>	<u>6</u>	<u>5</u>	<u>6</u>	<u>5</u>
" Angle Irons <u>to Girders, above & below</u>	<u>3</u>	<u>6</u>	<u>4</u>	<u>3</u>	<u>6</u>	<u>4</u>	<u>3</u>	<u>6</u>
" Double Angle Iron Side Keelson	<u>3</u>	<u>6</u>	<u>4</u>	<u>3</u>	<u>6</u>	<u>4</u>	<u>3</u>	<u>6</u>
" Side Intercostal Plate	<u>3</u>	<u>6</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>6</u>
" do. Both Angle Irons <u>at sides of keels</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>6</u>
Attached to outside plating with angle iron	<u>As per Sketches</u>							
BILGE Angle Irons	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>
" do. Bulb Iron	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>
" do. Intercostal plates riveted to plating for length	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>
EDGE STRINGER Angle Irons <u>for 1/2 length</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>
Intercostal plates riveted to plating for length	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>
WIDE STRINGER Angle Irons <u>Bulb for 3/5 vessel's length</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>	<u>4</u>	<u>3</u>
Transoms, material <u>Knight-heads</u> . <u>Hasse Timbers</u>	<u>Iron</u>		<u>Iron</u>		<u>Iron</u>		<u>Iron</u>	
Windlass <u>Iron</u> . Pall Bitt	<u>Iron</u>		<u>Iron</u>		<u>Iron</u>		<u>Iron</u>	

The FRAMES extend in one length from middle line to gunwale Riveted through plates with 3/4 in. Rivets, about 10 apart.

The REVERSED ANGLE IRONS on floors and frames extend are in keelson middle line to tank sides & continued alternately to Bilge stringer & 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 7/8 in. diameter, averaging 3 5/8 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 1/2 ins. from centre to centre.

" Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 3/4 in. diameter averaging 3 5/8 & 3 1/8 ins. from centre to centre.

" Butts of two Strakes at Bilge for half length, treble riveted with Butt Straps 1/6 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 3/8 ins. from cr. to cr.

" Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 3/8 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 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted half length amidships.

" Butts of Main Stringer Plate, treble riveted for length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for half length.

" Breadth of laps of plating in double riveting 5 3/8 & 4 3/4 Breadth of laps of plating in single riveting 3.

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

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

Beams of the various Decks, how secured to the sides? Welded knees No. of Breasthooks, Four Crutches, One

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

Manufacturer's name or trade mark, Angles - Mossend. Plates - Consett.

The above is a correct description.

Builder's Signature, Ramage & Ferguson Surveyor's Signature, John Dawkins

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

IRON 490 - 0323

Workmanship. Are the butts of plating planed or otherwise fitted?

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? *yes a few in butts.*

Masts, Bowsprit, Yards, &c., are *P. Pine* 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

No.	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 Rule.	Machine where Tested & Suprntd.
								Bower Anchors	Stream Anchors					
	Fore Sails,	Chain	195	1 3/4	25 3/8	100	1855	4874	12-1-21	11-6-1-0	12-1-0			
	Fore Top Sails,	Iron Str'm Chain	60	1 3/4	11 3/8	60	11 3/8	4875	11-3-14	13-15-0-0	11-3-0			
	Fore Topmast Stay Sails,	Hmpn Strm Cbl	45	9		75-9		4876	10-1-11	12-6-2-7	10-1-0			
	Main Sails,	Hawser ...	145	7		40-7		4880	4-1-5	6-15-0-0	4-0-0			
	Main Top Sails, and	Towlines ...	70	6				13/10/79 20/1862	2-0-4	4-12-2-0	2-0-0			
		Warp ...		5					1-1-0		1-0-0			

Standing and Running Rigging *galvanized wire* sufficient in size and *good* in quality. She has *two* Life Boats and *each* 19 ft long & 14 ft high.
The Windlass *and* Capstan *good* and Rudder *good* Pumps *good*.

Engine Room Skylights.—How constructed? *Plak Company on top of casing* How secured in ordinary weather? *Bolts & nuts.*
What arrangements for deadlights in bad weather? *formed of 3/4 plates 8 x 8 almost 2 1/2*

Coal Bunker Openings.—How constructed? *Self Draining hatchways* How are lids secured? *with lead & chest* Height above deck? *13 ins.*
Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Three ports 24 x 15 & four scuppers*

Cargo Hatchways.—How formed? *Plates 3 1/2 in deep & thick riveted to main beam & iron deck*
State size Main Hatch *Forward* Quarterhatch

If of extraordinary size, state how framed and secured? *Shipping beams as shown on long & deck plan & two fore & afters in each.*
What arrangement for shifting beams? *yes 3/4 thick*

Hatches, If strong and efficient? *yes 3/4 thick*

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.	2nd.	3rd.	4th.	5th.
265	5 th Sept 1879			15			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
							Built under Special Survey & Surveyed 1879 Aug 25, 29 Sept 2, 4, 5, 26, 27, 29, Oct 12, 14, 6, 7, 10, 13, 15, 18, 20, 24, 27, 31 Nov 3, 7, 10, 12, 15, 17, 20, 24, 25, 28, 29 Dec 2, 5, 6, 8, 10, 15, 19 Dec 23, 24, 31 1880. Jan 3, 7, 8, 12, 14, 15, 16, 19, 21, 23, 24, 26, 27 Hartlepool, Feb 1				

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

This vessel has been built in accordance with the accompanying approved sketches, 3 no. & with the Rules.
Ming boards of 2 Swedish red fir have been fitted
Forecastle 2 1/2 long Poop 2 1/2 & Double bottom 128 ft - 4
Hartlepool 2nd March 1880 Tested inner bottom by a head of water to the height of loadline & found tight
all of plate stone

State if one, two, or three decked vessel, or if spar, or running 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 *Cement & oxide of Iron* Outside *oxide of Iron & red rust*

I am of opinion this Vessel should be Classed *90A.1.*

The amount of the Entry Fee ... £ 5 : 0 : is received by me,
Special ... £ 29 : 13 : 2nd March 1880
Certificate ... : :
John Dewar
Surveyor to Lloyd's Register of British and Foreign Shipping.

(Travelling Expenses, if any, £ ...)
This vessel appears to be eligible to be classed *90A.1* as recommended by the Rules.

Committee's Minute *Friday, March, 5th 1880*

Character assigned *Lloyd's Register of British and Foreign Shipping*
Double Bottom 128 ft
573/100

(The Surveyors are requested not to write on or below the space for Committee's Minute.)