

# IRON SHIP.

No. 5392 Survey held at Penryn Date, First Survey 24<sup>th</sup> March 1880 Last Survey 28<sup>th</sup> May 1881  
On the SS Aranmore (Master Schooner rig) Master John Hetherington

**TONNAGE** under Tonnage Deck 735.95  
Ditto of Third, Spar, or Awning Deck 43  
Ditto of Poop, or Raised Qr. Dk. 67.78  
Ditto of Houses on Deck 9.00  
Ditto of Fore-castle 19.60  
Gross Tonnage 832.76  
Less Crew Space 29.09  
803.67  
Less Engine Room 384.86  
Register Tonnage as cut on Beam 418.81

**ONE, OR TWO DECKED, THREE DECKED VESSEL.**  
**SPAR, OR AWNING-DECKED VESSEL.**

**HALF BREADTH** (moulded)... 14.75 Feet.  
**DEPTH** from upper part of Keel to top of Upper Deck Beams 10.86  
**GIRTH** of Half Midship Frame (as per Rule) 29.5  
**1st NUMBER** 63.11  
**1st NUMBER, if a 3-DECKED VESSEL, deduct 7 feet** 2

**LENGTH** 218.75  
**2nd NUMBER** 138.65

**PROPORTIONS** Breadths to Length 7.41  
Depths to Length Upper Deck to Keel 11.59  
Main Deck ditto

Built at Penryn  
When built 1880-1 Launched 30 April 1881  
By whom built Wm Simons & Co  
Owners Clyde Shipping Co.  
Port belonging to Glasgow  
Destined Voyage Coaster  
Surveyed while Building, Afloat, or in Dry Dock. Build under special survey

**LENGTH** on deck as per Rule 218.75 Feet. 10.86 Inches.  
**BREADTH** Moulded... 29.5 Feet. 15.75 Inches.  
**DEPTH** top of Floors to Upper Deck Beams 15.75 Feet. 15.75 Inches.  
Do do Main Deck Beams 15.75 Feet. 15.75 Inches.  
Power of Engines 170 Horse.  
N<sup>o</sup>. of Decks with flat laid 2  
N<sup>o</sup>. of Tiers of Beams 2

Dimensions of Ship per Register, length, 220.2 breadth, 29.7 depth, 15.7

	Inches in Ship.	Inches per Rule.		Inches in Ship.	Inches per Rule.
<b>KEEL</b> , depth and thickness <u>2 side plates</u> <u>8 x 15/16</u>	<u>8</u>	<u>15/16</u>	<b>PLATES</b> in Garboard Strakes, breadth and thickness <u>34</u> <u>10'</u> <u>34</u> <u>10</u>	<u>34</u>	<u>10</u>
<b>STEM</b> , moulding and thickness... <u>7 1/4 x 2 3/8</u>	<u>7 1/4</u>	<u>2 3/8</u>	ness from Garboard to upper part of Bilges <u>9</u> <u>9</u>	<u>9</u>	<u>9</u>
<b>STERN-POST</b> for Rudder do. do. <u>9 x 4 1/2</u>	<u>9</u>	<u>4 1/2</u>	" of doubling at Bilge, or increased thickness, and length applied <u>1 1/2</u> <u>10'</u> <u>1 1/2</u> <u>10</u>	<u>1 1/2</u>	<u>10</u>
" " for Propeller <u>7 1/2 x 5</u>	<u>7 1/2</u>	<u>5</u>	" fm up. part of Bilge to l. edge of Sh'rstrake. <u>9</u> <u>9</u>	<u>9</u>	<u>9</u>
Distance of Frames from moulding edge to moulding edge, all fore and aft <u>23</u>	<u>23</u>	<u>23</u>	" Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied <u>36</u> <u>12</u> <u>56</u> <u>12</u>	<u>36</u>	<u>12</u>
			from Mn. to Up. or Spar Dk. Sh'rstrake. <u>20</u> <u>9</u> at break.	<u>20</u>	<u>9</u>
			" Up. or Spar Dk. Sh'rstrake, brdth & thickness <u>16 1/2</u> <u>9 3/4</u> <u>16 1/2</u> <u>9 3/4</u>	<u>16 1/2</u>	<u>9 3/4</u>
<b>FRAMES</b> , Angle Iron, for 3/4 length amidships Do. for 1/2 at each end <u>4</u> <u>3</u> <u>7</u> <u>4</u> <u>3</u> <u>7</u>	<u>4</u>	<u>3</u>	Butt Straps to outside plating, breadth & thickness <u>16 1/2</u> <u>9 3/4</u> <u>16 1/2</u> <u>9 3/4</u>	<u>16 1/2</u>	<u>9 3/4</u>
<b>REVERSED FRAMES</b> , Angle Iron <u>3</u> <u>3</u> <u>6</u> <u>3</u> <u>3</u> <u>6</u>	<u>3</u>	<u>3</u>	Lengths of Plating <u>6</u> <u>6</u> <u>6</u> <u>6</u>	<u>6</u>	<u>6</u>
<b>FLOORS</b> , depth and thickness of Floor Plate at mid line for half length amidships <u>7 1/4</u> <u>2 3/8</u>	<u>7 1/4</u>	<u>2 3/8</u>	Shifts of Plating, and Stringers <u>12</u> <u>12</u> <u>12</u> <u>12</u>	<u>12</u>	<u>12</u>
" thickness at the ends of vessel <u>7 1/4</u> <u>2 3/8</u>	<u>7 1/4</u>	<u>2 3/8</u>	Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness... <u>22</u> <u>6</u> <u>22</u> <u>6</u>	<u>22</u>	<u>6</u>
" depth at 3/4 the half-bdth. as per Rule <u>7 1/2</u> <u>5</u>	<u>7 1/2</u>	<u>5</u>	Angle Iron on ditto <u>3</u> <u>3</u> <u>6</u> <u>3</u> <u>3</u> <u>6</u>	<u>3</u>	<u>3</u>
" height extended at the Bilges. <u>23</u>	<u>23</u>	<u>23</u>	Tie Plates fore and aft, outside Hatchways <u>7</u> <u>6</u> <u>7</u> <u>6</u>	<u>7</u>	<u>6</u>
<b>BEAMS</b> , Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron <u>6</u> <u>5</u> <u>6</u> <u>5</u> <u>6</u>	<u>6</u>	<u>5</u>	Diagonal Tie Plates on Beams No. of Pairs <u>7</u> <u>6</u> <u>7</u> <u>6</u>	<u>7</u>	<u>6</u>
Single or double Angle Iron on Upper edge Average space... <u>alt. frames</u>	<u>6</u>	<u>5</u>	Plankshoe material and scantling <u>3</u> <u>3</u> <u>6</u> <u>3</u> <u>3</u> <u>6</u>	<u>3</u>	<u>3</u>
<b>BEAMS</b> , Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron <u>7</u> <u>7</u> <u>7</u> <u>7</u> <u>7</u>	<u>7</u>	<u>7</u>	Waterways do. do. <u>3</u> <u>3</u> <u>6</u> <u>3</u> <u>3</u> <u>6</u>	<u>3</u>	<u>3</u>
Single or double Angle Iron on Upper Edge Average space... <u>alt. frames</u>	<u>7</u>	<u>7</u>	Flat of Upper Deck do. do. <u>3</u> <u>3</u> <u>6</u> <u>3</u> <u>3</u> <u>6</u>	<u>3</u>	<u>3</u>
<b>BEAMS</b> , Lower Deck, Hold, or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron <u>7</u> <u>7</u> <u>7</u> <u>7</u> <u>7</u>	<u>7</u>	<u>7</u>	How fastened to Beams <u>3</u> <u>3</u> <u>6</u> <u>3</u> <u>3</u> <u>6</u>	<u>3</u>	<u>3</u>
Single or double Angle Iron on Upper Edge Average space... <u>alt. frames</u>	<u>7</u>	<u>7</u>	Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness <u>44</u> <u>9</u> <u>44</u> <u>9</u>	<u>44</u>	<u>9</u>
<b>KEELSONS</b> Centre line, single or double plate, box, or intercostal, Plates <u>44</u> <u>0</u> <u>44</u> <u>0</u>	<u>44</u>	<u>0</u>	Is the Stringer Plate attached to the outside plating? <u>Yes</u>	<u>Yes</u>	<u>Yes</u>
" Rider Plate <u>48</u> <u>0</u> <u>48</u> <u>0</u>	<u>48</u>	<u>0</u>	Angle Irons on ditto, No. 2 <u>5</u> <u>5 1/2</u> <u>7</u> <u>5 1/2</u> <u>7</u>	<u>5</u>	<u>5 1/2</u>
" Bulb Plate to Intercostal Keelson <u>48</u> <u>0</u> <u>48</u> <u>0</u>	<u>48</u>	<u>0</u>	Tie Plates, outside Hatchways <u>10</u> <u>9</u> <u>10</u> <u>9</u>	<u>10</u>	<u>9</u>
" Angle Irons <u>5</u> <u>4</u> <u>10</u> <u>5</u> <u>4</u> <u>10</u>	<u>5</u>	<u>4</u>	Diagonal Tie Plates on Beams, No. of pairs <u>7</u> <u>6</u> <u>7</u> <u>6</u>	<u>7</u>	<u>6</u>
" Double Angle Iron Side Keelson <u>5</u> <u>4</u> <u>10</u> <u>5</u> <u>4</u> <u>10</u>	<u>5</u>	<u>4</u>	Waterways materials and scantlings <u>3</u> <u>3</u> <u>6</u> <u>3</u> <u>3</u> <u>6</u>	<u>3</u>	<u>3</u>
" Side Intercostal Plates 2. <u>3 1/2</u> <u>3</u> <u>6</u> <u>3 1/2</u> <u>3</u> <u>6</u>	<u>3 1/2</u>	<u>3</u>	Flat of Middle Deck do. do. <u>3 1/2</u> <u>3</u> <u>6</u> <u>3 1/2</u> <u>3</u> <u>6</u>	<u>3 1/2</u>	<u>3</u>
" do. Angle Irons <u>3 1/2</u> <u>3</u> <u>6</u> <u>3 1/2</u> <u>3</u> <u>6</u>	<u>3 1/2</u>	<u>3</u>	How fastened to Beams <u>3</u> <u>3</u> <u>6</u> <u>3</u> <u>3</u> <u>6</u>	<u>3</u>	<u>3</u>
" Attached to outside plating with angle iron <u>3 1/2</u> <u>3</u> <u>6</u> <u>3 1/2</u> <u>3</u> <u>6</u>	<u>3 1/2</u>	<u>3</u>	Stringer Plates on ends of Lower Deck, Hold or Orlop Beams <u>20</u> <u>0</u> <u>20</u> <u>0</u>	<u>20</u>	<u>0</u>
<b>BILGE</b> Angle Irons <u>4</u> <u>4</u> <u>9</u> <u>4</u> <u>4</u> <u>9</u>	<u>4</u>	<u>4</u>	Is the Stringer Plate attached to the outside plating? <u>Yes</u>	<u>Yes</u>	<u>Yes</u>
" do. Bulb Iron <u>4</u> <u>4</u> <u>9</u> <u>4</u> <u>4</u> <u>9</u>	<u>4</u>	<u>4</u>	Angle Irons on ditto, No. 3 <u>5 1/2</u> <u>5 1/2</u> <u>7</u> <u>5 1/2</u> <u>7</u>	<u>5 1/2</u>	<u>5 1/2</u>
Manquin do. Intercostal plates riveted to plating for <u>44</u> <u>0</u> <u>44</u> <u>0</u>	<u>44</u>	<u>0</u>	Stringer or Tie Plates, outside Hatchways <u>10</u> <u>9</u> <u>10</u> <u>9</u>	<u>10</u>	<u>9</u>
<b>BILGE STRINGER</b> Angle Irons <u>5</u> <u>3 1/2</u> <u>7</u> <u>5</u> <u>3 1/2</u> <u>7</u>	<u>5</u>	<u>3 1/2</u>	Flat of Lower Deck <u>2 1/2</u> <u>2 1/2</u> <u>6</u> <u>2 1/2</u> <u>2 1/2</u> <u>6</u>	<u>2 1/2</u>	<u>2 1/2</u>
" Intercostal plates riveted to plating for length <u>5</u> <u>3 1/2</u> <u>7</u> <u>5</u> <u>3 1/2</u> <u>7</u>	<u>5</u>	<u>3 1/2</u>	Ceiling betwixt Decks, thickness and material <u>2 1/2</u> <u>2 1/2</u> <u>6</u> <u>2 1/2</u> <u>2 1/2</u> <u>6</u>	<u>2 1/2</u>	<u>2 1/2</u>
<b>SIDE STRINGER</b> Angle Irons <u>5</u> <u>3 1/2</u> <u>7</u> <u>5</u> <u>3 1/2</u> <u>7</u>	<u>5</u>	<u>3 1/2</u>	" in hold do. do. <u>2 1/2</u> <u>2 1/2</u> <u>6</u> <u>2 1/2</u> <u>2 1/2</u> <u>6</u>	<u>2 1/2</u>	<u>2 1/2</u>

Transoms, material. Knight-heads. Hawse Timbers. Iron  
Windlass Iron patent Pall Bitt not required

The **FRAMES** extend in one length from Centre line plate to Bilge Hence to Deck Riveted through plates with 3/4 in. Rivets, about 6 apart.  
The **REVERSED ANGLE IRONS** on floors and frames extend from middle line to and between each girder and to above L and R 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 1/8 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 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 3/4 in. diameter averaging 3 ins. from centre to centre.  
" Butts of 3 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 1/2 ins. from cr. to cr.  
" Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 ins. from cr. to cr.  
" Edges of Main Sheerstrake, double and 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 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 4 1/2 Breadth of laps of plating in single riveting 4 1/2

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Part treble the rest double  
Waterway, how secured to Beams Butt Waterway (Explain by Sketch, if necessary.)  
Beams of the various Decks, how secured to the sides? Taped knee ends No. of Breasthooks, 5 Crutches, 3  
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Best  
Manufacturer's name or trade mark, angle iron "Clifton". Plates "Glasgow". Beams "Mossend".  
The above is a correct description.  
Builder's Signature, Wm Simons & Co Surveyor's Signature, W. H. M. J. J.  
Surveyor to Lloyd's Register of British and Foreign Shipping



Workmanship. Are the butts of plating planed or otherwise fitted? *Planed* 5392 gl  
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 in corners of butts only.*

Masts, Bowsprit, Yards, &c., are *now* 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* *Fore and Main lower masts of steel. - Fore mast, 75.5 long over all, dia. 20 1/2 at partners, 16 at heel & 14 at head, built of two plates 5/16 thick at partners, 1/4 at head & heel, edges double, buttstraps 7/16 thick, and treble riveted. - Main Mast, 69.12 long over all, dia. 19 1/2 at partners, 17 1/2 at heel & 13 at head: two plates in round 5/16 thick at partners, reduced to 1/2 at head: edges double, buttstraps 7/16 thicker. Treble riveted. Both masts doubled at wedding for 12 feet, as approved by Sec. 2 June 1880.*

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntd.	ANCHORS.	N <sup>o</sup> .	Weight.	Test per Certificate.	Wt. req'd per Rule.	Machine where Tested & Suprntd.
SAILS.	CABLES, &c.											
N <sup>o</sup> .	Chain	135.1	1 1/16	43-18-0-0	270 x 1 1/16	Tested at reherberton 31 March 1881	Bower Anchors	10965	23-3-12	23-15-2-14	23 1/2	30 April 81
Fore Sails,	Iron Str m Chain	135.1	1 1/16	61-8-0-0	27 x 18 tons	Tested at reherberton 30 March 1881			23-2-0	23-10-0-0	23 1/2	
Fore Top Sails,	Ditto do.	270.2	1 1/16						5-4-3-19			
Fore Topmast Stay Sails,	Hmpn Str m Cbl	100	3/4		90 x 10	Tested at reherberton 30 March 1881	Stream	10979	8-1-5	10-10-0-0	8	
	Hawser ...	120	1 1/2		90 x 8		Kedge	11041	3-3-13	6-5-1-7	4	13 May 81
Main Sails,	Towlines ...	120	6 1/2		90 x 6		Ditto	11042	2-0-0	4-10-0-0	2	12 May 81
Main Top Sails, and good	Warp ...	120	6 1/2						5-0-1-24			
	quality good.	120	5 1/2									

Standing and Running Rigging *Wire and Hemp* sufficient in size and *good* in quality. She has *2* life-Long Boats and *2* others.

The Windlass is *Iron patent* - *good* - Capstan and Rudder *good* Pumps *as approved*

Engine Room Skylights. - How constructed? *Leak over Engine casing 6 ft* How secured in ordinary weather? *Bolted*

What arrangements for deadlights in bad weather? *Gratings & tarpaulin covers*

Coal Bunker Openings. - How constructed? *Cast iron rims* How are lids secured? *Locking* Height above deck? *flush*

Scuppers, &c. - What arrangements for clearing upper deck of water, in case of shipping a sea? *4 scuppers and 4 freeing ports on each side at main deck. Poop deck flush at sides open bulwarks above.*

Cargo Hatchways. - How formed? *Iron Comings*

State size Main Hatch *15-3 x 11-10* Forehatch *11-5 x 9-11* Quarterhatch *9-10 x 11-11*

If of extraordinary size, state how framed and secured? *of ordinary size*

What arrangement for shifting beams? *Strong shifting beam in main hatch.*

Hatches, If strong and efficient? *Yes. Solid.*

Order for Special Survey No. <i>1458</i>	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	<i>1880. March 24, 29; April 2, 6, 13, 16, 20, 23, 26, 30; May 5, 17, 21.</i>
Date <i>16 March 1880</i>		2nd. On the plating during the process of riveting	<i>25, 28, June 1, 3, 7, 10, 14, 16, 22, 24, 29; July 2, 8, 22, 26, 29, 31;</i>
Order for Ordinary Survey No. <i>---</i>		3rd. When the beams were in and fastened, and before the decks were laid....	<i>Aug. 3, 9, 19, 24; Sept. 1, 4, 7, 14, 16, 23, 30; Oct. 11, 15, 25; Nov. 3,</i>
Date <i>---</i>		4th. When the ship was complete, and before the plating was finally coated or cemented..	<i>10, 18, 19; Dec. 7, 15; 1881. Jan. 11, 14, 21, 27, Feb. 18, 11, 18, 25.</i>
No. <i>220</i> in builder's yard.		5th. After the ship was launched and equipped	<i>March 5, 12, 15, 18, 23, 28; April 5, 9, 19, 26, 28; May 2, 12, 18, 25, 28.</i>

General Remarks (State quality of workmanship, &c.) *The quality of the workmanship is good.*

*This vessel has been built in accordance with the approved sketch of midship section and plans appended. She has a continuous double bottom constructed on the cellular system, in four separate compartments with wells between as shown on Profile Plan. And a fore peak tank to the height of the hold or lower deck beams. Each compartment has been successfully pressed to 10 lbs per square inch and found tight.*

*The Hawsers and Warps are supplied in accordance with Owner's specification, & in excess of the rules.*

*As required by the Committee's requirement dated 22 April 1880, the L R Load Line mark has been placed on the Vessel's side at a mean draft of 16.6.*

Erections on Deck. Poop and Bridge Deck, or partial shade deck = *133 feet long.*  
Shade deck horse between Fore and Main Hatch = *25 feet*  
Forecastle Deck = *34 feet*

*Wheel house on fore side of Engine Casing = 14 ft x 9 ft*  
*Engine and Boiler Casing = 34 ft x 9 ft*  
*House aft 13-6 x 8-0 x 7 ft high over Cabin*  
State if one, two, or three decked vessel, or if spar, or awning decked; and the lengths of *poop, forecastle, shade deck, and the length of double, or part double bottom.*

How are the surfaces preserved from oxidation? Inside *Cement and paint* Outside *Saint*

I am of opinion this Vessel should be Classed *\*100A* *part shade deck* *Load line = 16.6.*

The amount of the Entry Fee ... £ *5* : : : is received by me, *25th of shade deck - Cellular double bottom 176.5 ft x 170 tons: Fore Peak Tank 20 1/2 = 16 tons*

Special ... £ *40* : *4* : *27/57* 187

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

(Travelling Expenses, if any, £ *6.6*).

Committee's Minute *Tuesday, May, 21st 1881*

Character assigned *100A* *100 A.1 +*

*2 1/2 x 1 1/2 inch wire cable has been tested*

*100 A.1 +*

*100 A.1 +*