

# IRON SHIPS.

No. 2489 Survey held at Glasgow Date May 4<sup>th</sup> 1888  
 on the Scot. Ste. "Scotia" Master Mills  
 Tonnage under tonnage deck 270.2 Built at Glasgow When built 1880 Launched 19<sup>th</sup> Apr 1880  
 Ditto of poop or spar deck .00 By whom built Aitken & Mansel Owners Glasgow & Newcastle S. S. Co.  
 Ditto of engine room 88.0  
 Total Register tonnage 188.20 Port belonging to Grandemonth Destined Voyage Newcastle  
 Gross tonnage 270.20  
 If surveyed while Building, Afloat, or in Dry Dock while building and afloat

Length aloft 140.3 Extreme Breadth 21.1 Depth from top of Upper Deck Beam to top of Floor 13.3 Power of Engines 45 N<sup>o</sup>. of Decks One  
 (Dimensions of Ship per Register, length 140.3 breadth 21.1 depth 13.3)

	Inches in Ship.	Inches required per Rule.		Inches in Ship.	Inches required per Rule.		Inches in Ship.	Inches required per Rule.		Inches in Ship.	Inches required per Rule.
Keel, if bar iron, depth and thickness.....	<u>6 1/2 x 3 1/4</u>	<u>10 1/4 x 2</u>	Plates in Garboard Strakes, breadth and thickness .....	<u>30</u>	<u>9 1/8</u>	<u>24</u>					
„ if plate iron, breadth and thickness .....	<u>6 1/2 x 3 1/4</u>	<u>10 1/4 x 2</u>	Ditto from Garboard to upper part of Bilges..	<u>30</u>	<u>9 1/8</u>	<u>24</u>					
Stem, if bar iron, moulding and thickness ....	<u>6 1/2 x 3 1/4</u>	<u>10 1/4 x 2</u>	„ from upper part of Bilge to a perpen- dicular height from upper side of Keel of 3/4ths the entire depth of Hold .....	<u>30</u>	<u>9 1/8</u>	<u>24</u>					
„ if plate iron, breadth and thickness ....	<u>6 1/2 x 3 1/4</u>	<u>10 1/4 x 2</u>	„ from 3/4ths depth of Hold to lower edge of Sheerstrake .....	<u>30</u>	<u>9 1/8</u>	<u>24</u>					
Stern-post, if bar iron, moulding and thickness	<u>6 1/2 x 3 1/4</u>	<u>10 1/4 x 2</u>	„ Sheerstrake, breadth and thickness ....	<u>30</u>	<u>9 1/8</u>	<u>24</u>					
„ if plate iron, breadth and thickness	<u>6 1/2 x 3 1/4</u>	<u>10 1/4 x 2</u>	Butt Straps to outside plating, breadth and thickness .....	<u>9 1/8</u>	<u>7 1/8</u>	<u>9 1/8</u>					
Distance of Frames from moulding edge to moulding edge, all fore and aft .....	<u>21</u>	<u>21</u>	Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness	<u>30</u>	<u>9 1/8</u>	<u>24</u>					
Frames, Size of Angle Iron, single or double..	<u>3</u>	<u>2 1/2</u>	Angle Iron on ditto .....	<u>3</u>	<u>2 1/2</u>	<u>24</u>					
„ „ Reversed Iron, 1/2 to every frame	<u>3 1/2</u>	<u>2 1/2</u>	Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways ..	<u>9</u>	<u>9 1/8</u>	<u>24</u>					
„ „ and or every other frame .....	<u>3 1/2</u>	<u>2 1/2</u>	Diagonal Tie Plates on ditto .....	<u>9</u>	<u>9 1/8</u>	<u>24</u>					
Floors, depth and thickness of Floor Plate at mid line .....	<u>1 1/2</u>	<u>5 1/8</u>	Planksheer, materials and scantlings .....	<u>3</u>	<u>2 1/2</u>	<u>24</u>					
„ Ditto ditto at Bilge Keelson	<u>9</u>	<u>5 1/8</u>	Waterway ditto ditto .....	<u>3</u>	<u>2 1/2</u>	<u>24</u>					
„ Size of Reversed Angle Iron, and No. „ at top of Floor Plate	<u>3 1/2</u>	<u>2 1/2</u>	Flat of Upper Deck, thickness and material ..	<u>3</u>	<u>2 1/2</u>	<u>24</u>					
Beams, Deck (N <sup>o</sup> . „ ) double Angle Iron, Plate, Tee, or Bulb Iron .....	<u>8</u>	<u>5 1/8</u>	„ „ how fastened to Beams .....	<u>3</u>	<u>2 1/2</u>	<u>24</u>					
„ „ double or single Angle Iron, on upper edge .....	<u>3</u>	<u>2 1/2</u>	Ceiling betwixt Decks and in Hold, thickness and material .....	<u>3</u>	<u>2 1/2</u>	<u>24</u>					
„ „ average space between .....	<u>3</u>	<u>2 1/2</u>	Clamps or Spirketting ditto .....	<u>3</u>	<u>2 1/2</u>	<u>24</u>					
„ Hold, or Lower Deck (N <sup>o</sup> . „ ) double Angle, Tee, Plate, or Bulb Iron	<u>3</u>	<u>2 1/2</u>	Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness	<u>3</u>	<u>2 1/2</u>	<u>24</u>					
„ „ double or single Angle Iron on edge .....	<u>3</u>	<u>2 1/2</u>	Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams .....	<u>3</u>	<u>2 1/2</u>	<u>24</u>					
„ „ average space between .....	<u>3</u>	<u>2 1/2</u>	Stringers in Hold .....	<u>3</u>	<u>2 1/2</u>	<u>24</u>					
„ Paddle, sided and moulded, thick- ness of Plate size of Angle Iron	<u>3</u>	<u>2 1/2</u>	Flat of Lower Deck, thickness and material ..	<u>3</u>	<u>2 1/2</u>	<u>24</u>					
„ Engine „ „ „ „	<u>3</u>	<u>2 1/2</u>	Main piece of Rudder, diameter at head ....	<u>3 1/2</u>	<u>2 1/2</u>	<u>24</u>					
Keelson, single or double plate, box, or intercostal	<u>3</u>	<u>2 1/2</u>	„ „ „ at heel .....	<u>3 1/2</u>	<u>2 1/2</u>	<u>24</u>					
„ Size of Plates .....	<u>3</u>	<u>2 1/2</u>	(Can the Rudder be unshipped afloat) .....	<u>3 1/2</u>	<u>2 1/2</u>	<u>24</u>					
„ Size of Angle Irons .....	<u>3</u>	<u>2 1/2</u>	Bulkheads, N <sup>o</sup> . „ Thickness of .....	<u>3</u>	<u>2 1/2</u>	<u>24</u>					
„ Side, single or double, plate, box, or intercostal	<u>3</u>	<u>2 1/2</u>	„ Height up upper deck .....	<u>3</u>	<u>2 1/2</u>	<u>24</u>					
„ Bilge (No. „ at each Bilge, single, or double, plate, or box .....	<u>3</u>	<u>2 1/2</u>	„ how secured to the sides of the ship .....	<u>3</u>	<u>2 1/2</u>	<u>24</u>					

Transoms, material Iron, if none, in what manner compensated for.  
 Knight-heads, and Hawse Timbers Iron

The Frames extend in one length from middle line to gunwale rivetted through plates with ( $\frac{3}{4}$  in.) rivets, about (5-) apart.  
 The reverse angle irons on the floors extend in one length across the middle line from side stringer to Q

„ „ „ on the frames „ „ „ from middle line to gunwale  
 Keelson, how are the various lengths of plates or angle irons connected? by linking pieces

Plates, Garboard, double or single rivetted to keel, double or single at upper edge, with rivets ( $\frac{1}{2}$  in.) diameter, averaging (2 1/2) apart.  
 „ Edges from Garboards to upper part of bilge, worked clencher, double or single rivetted; with rivets ( $\frac{3}{4}$  in.) diameter, averaging (2 1/2) apart.  
 „ Butts from Keel to turn of bilge, worked carvel with butt straps ( $\frac{1}{10}$  in.) thick, double or single rivetted; with rivets ( $\frac{3}{4}$  in.) diameter, averaging (2 1/2) apart. Do the butt straps lap over and rivet through the lands of the strake below? No  
 „ Edges from bilge to sheerstrake, worked carvel with a lining piece, double or single rivetted; with rivets ( $\frac{1}{10}$  in.) diameter, averaging (2 in.) apart. Do the butt straps lap over and rivet through the lands of the strake below? No  
 „ Edges of Sheerstrake, double or single rivetted? At upper edge Single At lower edge Double  
 „ Butts from bilge to planksheers, worked carvel with butt straps ( $\frac{1}{10}$  in.) thick, double or single rivetted; with rivets ( $\frac{1}{10}$  in.) diameter, averaging (2 1/2) apart. Breadth of laps in double rivetting ( $\frac{1}{2}$  in.) Breadth of laps in single rivetting ( $\frac{1}{2}$  in.)

Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted?  
 Planksheer, how secured to the plating of the sides Explain by sketch  
 Waterway „ „ planksheer and to the Beams if necessary,  
 Deck Beams, how secured to the side? Welded knees rivetted to Frames

Hold or Lower Deck ditto  
 Paddle „ „ No. of breasthooks Three crutches Three  
 What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.? Blackburn  
 Manufacturer's name or trade mark

We certify that the above is a correct description of the several particulars therein given.  
 Builder's Signature Aitken & Mansel Surveyor's Signature A. J. Darling

IRON 439-0410



4787 Iron

**Workmanship.** Are the lands or laps of the clenchwork in all cases in breadth at least five and a half times the diameter of the rivets in double rivetted edges and butts, and at least three and a quarter times the diameter of the rivets where single rivetting is admitted? *Yes*

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*

Do the fillings between the ribs and plates fill in solid with single pieces? *or are they in short lengths of various thicknesses?* *Yes*

Do the holes for rivetting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *Yes* and are the rivet holes well and sufficiently countersunk in the outer plate? *Yes*

Are there any rivets which either break into or have been put through the seams or butts of the plating? *a few in corners of Butts*

Her Masts, Bowsprit, Yards, &c., are in *Wood* *Good* condition, and sufficient in size and length. (If they are of Iron or Steel give the 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 rivetting, quality of Materials, and if stamped with Maker's name.

She has SAILS.		CABLES, &c.			ANCHORS and their weights.		
No.		Fathoms.	Inches.	Tested to Tons.	No.	Weight.	Tested to Tons.
<i>1</i>	Fore Sails,	Chain <i>Black 1000</i>	<i>180</i>	<i>18</i>	<i>10</i>	<i>18.0.0</i>	<i>10.2.2</i>
<i>2</i>	Fore Top Sails,	Hempen Stream Cable	<i>90</i>	<i>9</i>	<i>2</i>	<i>2.2</i>	<i>10.2.2</i>
<i>3</i>	Fore Topmast Stay Sails,	Hawser	<i>90</i>	<i>5</i>	<i>3</i>	<i>3.0</i>	<i>18.0.0</i>
<i>4</i>	Main Sails,	Towlines	<i>90</i>	<i>5</i>	<i>1</i>	<i>3.3</i>	<i>14</i>
<i>5</i>	Main Top Sails,	Warp	<i>15</i>	<i>5</i>			
<i>6</i>	and	All of <i>Good</i> quality.	<i>180</i>	<i>3</i>	<i>1</i>	<i>1.1</i>	<i>14</i>

Her Standing and Running Rigging *Galv. Wire & Hemp* sufficient in size and *Good* in quality.

She has *two 22 feet* Long Boat and *a 10 feet* Boat

The present state of the Windlass is *new* Capstan *new* and Rudder *new* Pumps *new and efficient*

Order for Special Survey	DATES of	1st.
No. <i>✓</i>	Surveys held	On the several parts of the frame, when in place, and before the plating was wrought
Date <i>✓</i>	while building	2nd. On the plating during the progress of rivetting <i>Built under ordinary survey</i>
Order for Ordinary Survey	as per	3rd. When the beams were in and fastened, and before the decks were laid <i>from the 1st Jan 1866</i>
No. <i>✓</i>	Section 18.	4th. When the ship was complete, and before the plating was finally coated <i>the 4th May 1866</i>
Date <i>✓</i>		5th. After the ship was launched

State if she has a Spar Deck *No* Poop *No* or Forecastle *No*

**General Remarks,**

The Sheerstrake is increased an eighth of an inch in thickness as per Rule as compensation for excess of length

Side Stringer formed with a foundation plate 10 x 7/8. Built Bar 1 x 7/8 and two Angle Bars 3 x 3 x 7/8 rivetted to double Reverse Frames and extended aft fore and aft in line of Hold Beams as per accompanying approved Midship Section

Is fitted with a Steam Winch at Fore and a Crain at Main Hatch for taking in and discharging Cargo

In what manner are the surfaces preserved from oxidation? Inside *Red lead* +  
Ditto ditto Outside *Red lead and Oil paints*

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

The amount of the Fee .....£ *3* : : is received by me,  
*June 1866* Special .....£ *6* : 6 :  
Certificate (if required) .....£ : : *5* :

Committee's Minute *15th June* 18 *66*

Character assigned *A*

*A. B. Darling*

This Vessel appears eligible for the Class recommended above

*14 June 1866*

Lloyd's Register Foundation