

# IRON SHIP.

No. 4317 Survey held at Glasgow Date, First Survey 15<sup>th</sup> March Last Survey 12 October 1888

On the "Star of the East" Master P. Pomroy

TONNAGE under Tonnage Deck 674 ONE, OR TWO DECKED, THREE DECKED VESSEL.  
SPAR, OR ANCHOR-DECKED VESSEL.  
 Ditto of Mast, Spar, or Landing Deck. 55 16 HALF BREADTH (moulded) 15 16  
 Ditto of Pop, or Raised R. Bk. 26 96 DEPTH from upper part of Keel to top of Upper Deck Beams 20 37  
 Ditto of Houses on Deck 756 87 GIRTH of Half Midship Frame (as per Rule) 30 66  
 Ditto of Forecastle 735 60 1st NUMBER 66 19  
 Ditto of Engine Room 735 60 2nd NUMBER 11 632  
 Ditto of Water Tonnage 735 60 PROPORTIONS—Breadths to Length 5 7  
 Ditto of Beam 735 60 Depths to Length—Upper Deck to Keel 8 6  
 Ditto of Water Tonnage 735 60

Built at Whiteinch Glasgow  
 When built 1876 Launched 21 Sept  
 By whom built Charles Cairns & Co  
 Owners Edwin Smith  
 Port belonging to Glasgow  
 Destined Voyage Singapore  
 If Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 175 75 BREADTH—Moulded... 30 32 DEPTH top of Floors to Upper Deck Beams 18 5 No. of Decks with flat laid One  
 No. of Tiers of Beams Two

Dimensions of Ship per Register, length, 183 3 breadth, 30 7 depth, 18 5

	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	<u>7 1/2</u> <u>2 1/4</u>	<u>7 1/2</u> <u>2 1/4</u>
STEM, moulding and thickness	<u>7</u> <u>2 1/4</u>	<u>7</u> <u>2 1/4</u>
POST for Rudder do. do.	<u>7</u> <u>2 1/4</u>	<u>7</u> <u>2 1/4</u>
of Frames from moulding edge to g edge, all fore and aft	<u>22</u>	<u>22</u>
Angle Iron, for 1/2 length amidships	<u>4</u> <u>3</u> <u>7</u>	<u>4</u> <u>3</u> <u>7</u>
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>
REVERSED FRAMES, Angle Iron	<u>3</u> <u>3</u> <u>6</u>	<u>3</u> <u>3</u> <u>6</u>
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	<u>20</u> <u>8</u> <u>20</u>	<u>20</u> <u>8</u> <u>20</u>
thickness at the ends of vessel	<u>7</u>	<u>7</u>
depth at 1/2 the half-bdth. as per Rule	<u>10</u>	<u>10</u>
height extended at the Bilges	<u>40</u>	<u>40</u>
BEAMS, Upper, Spar, or Awning Deck Single or double Angle Iron, Plate or Tee Bulb Iron	<u>7</u> <u>7</u> <u>7</u>	<u>7</u> <u>7</u> <u>7</u>
Single or double Angle Iron on Upper edge	<u>3</u> <u>3</u> <u>6</u>	<u>3</u> <u>3</u> <u>6</u>
Average space	<u>44</u>	<u>44</u>
BEAMS, Main, or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron	<u>7 1/2</u> <u>7</u> <u>7 1/2</u>	<u>7 1/2</u> <u>7</u> <u>7 1/2</u>
Single or double Angle Iron on Upper Edge	<u>3</u> <u>3</u> <u>6</u>	<u>3</u> <u>3</u> <u>6</u>
Average space	<u>44</u>	<u>44</u>
KEELSONS Centre line, single or double plate, Box, or V-shaped, Plates	<u>12</u> <u>10</u> <u>12</u>	<u>12</u> <u>10</u> <u>12</u>
" Rider Plate	<u>10</u> <u>10</u> <u>10</u>	<u>10</u> <u>10</u> <u>10</u>
" Bilge Plate to Keelsons	<u>4 1/2</u> <u>3</u> <u>7</u>	<u>4 1/2</u> <u>3</u> <u>7</u>
" Angle Irons	<u>4 1/2</u> <u>3</u> <u>7</u>	<u>4 1/2</u> <u>3</u> <u>7</u>
" Double Angle Iron Side Keelson	<u>4 1/2</u> <u>3</u> <u>7</u>	<u>4 1/2</u> <u>3</u> <u>7</u>
" Side Keelson Plate	<u>4 1/2</u> <u>3</u> <u>7</u>	<u>4 1/2</u> <u>3</u> <u>7</u>
" do. Angle Irons	<u>4 1/2</u> <u>3</u> <u>7</u>	<u>4 1/2</u> <u>3</u> <u>7</u>
" Attached to outside plating with angle iron	<u>4 1/2</u> <u>3</u> <u>7</u>	<u>4 1/2</u> <u>3</u> <u>7</u>
BILGE Angle Irons	<u>4 1/2</u> <u>3</u> <u>7</u>	<u>4 1/2</u> <u>3</u> <u>7</u>
" do. with wood	<u>4 1/2</u> <u>3</u> <u>7</u>	<u>4 1/2</u> <u>3</u> <u>7</u>
" do. Intercoastal plates riveted to plating for 1/2 length	<u>4 1/2</u> <u>3</u> <u>7</u>	<u>4 1/2</u> <u>3</u> <u>7</u>
BILGE STRINGER Angle Irons	<u>4 1/2</u> <u>3</u> <u>7</u>	<u>4 1/2</u> <u>3</u> <u>7</u>
Attached to outside plating with angle iron	<u>4 1/2</u> <u>3</u> <u>7</u>	<u>4 1/2</u> <u>3</u> <u>7</u>
SIDE STRINGER Angle Irons	<u>4 1/2</u> <u>3</u> <u>7</u>	<u>4 1/2</u> <u>3</u> <u>7</u>

PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges 32 7 32 7  
 A double or triple, or increased thickness, and length applied 5 8  
 fin up. part of Bilge to l. edge of Sh'rstrake 5 8  
 Main Sheerstrake, breadth and thickness 33 11 33 10  
 of Bilge to Sh'rstrake, & length applied 10 8 10 8  
 from l. edge of Sh'rstrake to l. edge of Bilge 10 8 10 8  
 Up. or Spar or Sh'rstrake, breadth and thickness 10 8 10 8  
 Butt Straps to outside plating, breadth & thickness 16 4 9 4 12 6 7 16 4 9 4 12 6 7  
 Lengths of Plating Eight Spans 5 Spans  
 Shifts of Plating, and Stringers Five Spans 3 Spans  
 Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness 35 8 34 8  
 Angle Iron on ditto 4 1/2 3 7 4 1/2 3 7  
 Tie Plates fore and aft, outside Hatchways 10 8 10 8  
 Diagonal Tie Plates on Beams No. 1 & 2, Breadth, breadth and thickness 10 8 10 8  
 Waterways do. do. Eight Spans  
 Flat of Upper Deck do. do. 32 7 32 7  
 How fastened to Beams Butt Straps  
 Stringer Plate on ends of Bilge or Middle Deck Beams, breadth and thickness 10 8 10 8  
 Is the Stringer Plate attached to the outside plating? Yes  
 Angle Irons on ditto, No. 2 3 1/2 3 1/2 7 3 1/2 3 1/2 7  
 Stringer or Tie Plates, outside Hatchways 10 8 10 8  
 Plate of Lower Deck 10 8 10 8  
 Ceiling betwixt Decks, thickness and material 2 1/2 8 2 1/2 8  
 in hold do. do. 2 1/2 8 2 1/2 8  
 Main piece of Rudder, diameter at head 4 1/2 4 1/2  
 do. at heel 2 1/4 2 1/4  
 Can the Rudder be unshipped afloat? No  
 Bulkheads No. 1 Thickness of 6 16  
 Height up Main Deck  
 How secured to sides of ship Double Frames  
 Size of Vertical Angle Irons 3 3 6 and distance apart 30 ins.  
 Are the outside Plates doubled two spaces of Frames in length? Yes

Transoms, material. Knight-heads. Hawse Timbers. Patent Leak  
 Windlass Simple Patent Pall Bitt Not required

The FRAMES extend in one length from Keel to gunwale Riveted through plates with 3/4 in. Rivets, about 6 apart.  
 The REVERSED ANGLE IRONS on floors and frames extend from middle line to Upper deck and to Side stringer 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 7/8 in. diameter, averaging 3 3/4 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 2 Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 1/4 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 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 or triple riveted.  
 Butts of Main Sheerstrake, treble riveted for 1/2 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted.  
 Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted.  
 Breadth of laps of plating in double riveting 5 1/4 4 1/2 Breadth of laps of plating in single riveting 3

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or triple Riveted?  
 Waterway, how secured to Beams (Explain by Sketch, if necessary.)  
 Beams of the various Decks, how secured to the sides? Trans welded to Beams No. of Breasthooks, 4 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, Anglo Swedish Clifton Plates For Head, Consett & Govan.

The above is a correct description.  
 Builder's Signature, Charles Cairns Surveyor's Signature, J. Lawrence  
 Surveyor to Lloyd's Register of British and Foreign Shipping.

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mananship. Are the butts of plating planed or otherwise fitted? *Planed*

the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? *Yes*

the fillings between the ribs and plates solid single pieces? *Yes*

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? *In butts only*

17178 Iron

Masts, Bowsprit, Yards, &c., are *new* 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 Mast 67' 10" x 24 1/2 x 7 1/16* } *True plates in the round, edges double, butt ends*

*Main Mast 71' 1 1/2 x 24 1/2 x 7 1/16* }

*Bowsprit 28' 6" x 24 1/2 x 7 1/16* } *Fore & Main Yards 64' 0" x 16' x 6 1/16* } *Edges single, butts*

NUMBER for EQUIPMENT		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 per Rule.
N <sup>o</sup> .	SAILS.	CABLES, &c.	Chain				Bowers					
Two	Fore Sails,	<i>Tested at Sipton 21<sup>st</sup> &amp; 22<sup>nd</sup> September 1876</i>		<i>43 9/10</i>	<i>270-1 7/16</i>	<i>43 9/10</i>			<i>23.3.14</i>	<i>23.15.2.14</i>	<i>23.2.0</i>	<i>23.1</i>
	Fore Top Sails,	<i>Certificates signed S. Ferguson</i>		<i>61 4/10</i>					<i>23.3.7</i>	<i>23.14.2.21</i>	<i>23.2.0</i>	<i>23.10.0</i>
	Fore Topmast Stay Sails								<i>20.1.0</i>	<i>20.19.1.14</i>	<i>19.3.25</i>	<i>20.14.0</i>
	Main Sails,	<i>Tested at Sipton 30<sup>th</sup> September 1876</i>										
	Main Top Sails,	<i>Certificates signed S. Ferguson</i>										
and		quality <i>Good</i>					Stream	...	<i>10.0.1</i>		<i>10.0.0</i>	
							Kedges	...	<i>5.0.4</i>		<i>5.0.0</i>	
									<i>2.2.7</i>		<i>2.2.0</i>	

Standing and Running Rigging *Wire & hemp* sufficient in size and *good* in quality. She has *2* *Life* *Boats* and *2* *Others*.

The Windlass is *Wapins Patent* Capstan *Good* and Rudder *Good* Pumps *Hallam's Patent*

Engine Room *Electricity* *How constructed?*

*How secured in ordinary weather?*

What arrangements for *ventilation* in *bad* weather?

Coal Bunker *Openings* *How constructed?*

*How are they secured?*

*Height above deck?*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Four ports, four scuppers, and two pipes on each side.*

Cargo Hatchways.—How formed? *Iron Cornings*

State size Main Hatch *14' 5" x 9' 0"* Forehatch *7' 3" x 6' 0"* Quarterhatch *7' 2" x 6' 0"*

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

What arrangement for shifting beams? *One in Main Hatchway*

Hatches, If strong and efficient? *Yes (Solid)*

Order for Special Survey No. <i>1149</i>	1st. On the several parts of the frame, when in place, and before the plating was wrought	<i>March 15. 20. 24. 28. April 6. 12. 17. 24</i>
Date <i>18 February 1876</i>	2nd. On the plating during the process of riveting	<i>May 2. 10. 15. 16. 22. 29 June 1. 9. 13. 20. 26</i>
Order for Ordinary Survey No.	3rd. When the beams were in and fastened, and before the decks were laid....	<i>29 July 4. 28. 31. August 7. 11. 14. 23. 31</i>
Date	4th. When the ship was complete, and before the plating was finally coated or cemented..	<i>September 5. 12. 21. 27 30 October 4. 10. 11</i>
No. <i>102</i> in builder's yard.	5th. After the ship was launched and equipped	<i>12<sup>th</sup> 1876</i>

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

*The workmanship is good. She is built in accordance with the Office Midship Section attached. The sheerstrake is 1/16 thicker than required by Rule.*

*Deck House 33' 10" x 17' 4". Monkey Fauselle 32' 0" with Liverpool and Monkey*

*State if one, two, or three, decked vessel, or if open, or covering deck; and the lengths of poop, forecabin, or main quarter deck, and the lengths of hull, or part hull & bottom.*

How are the surfaces preserved from oxidation? Inside *Cement & Paint* Outside *Paint*

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

The amount of the Entry Fee ... £ *5* : : is received by me, *14<sup>th</sup> Oct 1876*

Special ... £ *36* : *11* : *October 1876*

Certificate ... *British*

(Travelling Expenses, if any, £ *3.3.0*.)

Committee's Minute *14<sup>th</sup> October 1876*

Character assigned *100 A*

*100 A*

*100 A*

*This vessel has been built in accordance with approved sketch of Midship Section and appears eligible to be classed 100 A. T. recommended 16/10/76*