

# IRON SHIP.

No. 4556 Survey held at Glasgow  
On the S. Orthes

Date, First Survey 1<sup>st</sup> Dec 1876

Last Survey 4<sup>th</sup> Dec

1877

Master P. Macfarlane

TONNAGE under  
Tonnage Deck } 1133.12  
Ditto of Third, Span,  
or Awning Deck }  
Ditto of Poop, or  
Raised Or. Dk. } 78.41  
Ditto of Houses  
on Deck } 12.03  
Ditto of Forecastle } 46.48  
Gross Tonnage } 1270.04  
Less Crew Space } 63.89  
Less Engine Room }  
Register Tonnage  
as cut on Beam } 1206.15

ONE, OR TWO DECKED, THREE DECKED VESSEL.  
SPAR, OR AWNING DECKED VESSEL.  
HALF BREADTH (moulded)... .. 17.8  
DEPTH from upper part of Keel to top of Upper Deck Beams 23.5  
GIRTH of Half Midship Frame (as per Rule) .. 35.6  
1st NUMBER .. .. 76.9  
1st NUMBER, if a THREE DECKED VESSEL  
[deduct 7 feet]  
LENGTH .. .. 215.5  
2nd NUMBER .. .. 16571  
PROPORTIONS—Breadths to Length .. .. 6.0  
Depths to Length—Upper Deck to Keel .. ..  
Main Deck ditto .. .. 9.5

Built at Glasgow

When built 1877 Launched 9<sup>th</sup> Nov 1877

By whom built J. & G. Thomson

Owners A. Russell & others

Managing Owner Wm. Hardy Glasgow

Port belonging to Glasgow

Destined Voyage Bombay

Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule ... 215 6 BREADTH—Moulded... 35 8 DEPTH top of Floors to Upper Deck Beams ... 21 6 Power of Engines... Horse. No. of Decks with flat laid 2 No. of Tiers of Beams 2

Dimensions of Ship per Register, length, 228.0 breadth, 35.85 depth, 21.4

	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness ...	8 1/2 x 2 1/2	8 1/2 x 2 1/2
STEM, moulding and thickness... ..	8 x 2 1/2	8 x 2 1/2
STERN-POST for Rudder do. do. ...	8 x 2 1/2	8 x 2 1/2
for Propeller ... ..	23	23
Distance of Frames from moulding edge to moulding edge, all fore and aft ... ..	23	23
FRAMES, Angle Iron, for 2/3 length amidships ...	5 3 8	5 3 8
Do. for 1/3 at each end ... ..	5 3 7	5 3 7
REVERSED FRAMES, Angle Iron ... ..	3 1/2 3 8	3 1/2 3 8
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships ...	24 x 9	24 x 9
thickness at the ends of vessel ... ..	8-7	8-7
depth at 3/4 the half-bdth. as per Rule ...	12	12
height extended at the Bilges... ..	Twice	Twice
BEAMS, 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
Single or double Angle Iron on Upper edge ...	3 3 7	3 3 7
Average space... ..	46	46
BEAMS, Main, or Middle Deck ... ..	8 1/2 x 8	8 1/2 x 8
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	8 1/2 x 8	8 1/2 x 8
Single or double Angle Iron on Upper Edge ...	3 3 7	3 3 7
Average space... ..	46	46
BEAMS, Lower Deck, Hold, or Orlop ... ..	8 1/2 x 8	8 1/2 x 8
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	8 1/2 x 8	8 1/2 x 8
Single or double Angle Iron on Upper Edge ...	3 3 7	3 3 7
Average space... ..	46	46
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates ...	16 x 12	16 x 12
" Rider Plate ... ..	11 x 12	11 x 12
" Bulb Plate to Intercoastal Keelson ...	5 3 1/2 9	5 3 1/2 9
" Angle Irons ... ..	5 3 1/2 9	5 3 1/2 9
" Double Angle Iron Side Keelson ... ..	5 3 1/2 9	5 3 1/2 9
" Side Intercoastal Plate ... ..	5 3 1/2 9	5 3 1/2 9
" do. Angle Irons ... ..	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
BILGE Angle Irons ... ..	5 3 1/2 9	5 3 1/2 9
" do. Bulb Iron ... ..	5 3 1/2 9	5 3 1/2 9
" do. Intercoastal plates riveted to plating for ... length	5 3 1/2 9	5 3 1/2 9
BILGE STRINGER Angle Irons ... ..	5 3 1/2 9	5 3 1/2 9
Intercoastal plates riveted to plating for length	5 3 1/2 9	5 3 1/2 9
SIDE STRINGER Angle Irons ... ..	5 3 1/2 9	5 3 1/2 9

Transoms, material. Knight-heads. Hawse Timbers. Iron  
Windlass Muir & Caldwell Iron, no fall bit 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 Gunwale and to 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 13/16 in. diameter, averaging 3 1/4 ins. from centre to centre.  
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 13/16 in. diameter averaging 3 1/4 ins. from centre to centre.  
Butts of Three 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 at this riveted; with rivets 13/16 in. diameter, averaging 3 1/4 ins. from cr. to cr.  
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 13/16 in. diameter, averaging 3 1/4 ins. from cr. to cr.  
Edges of Main Sheerstrake, double at this 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 5 1/2 Breadth of laps of plating in single riveting 1

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double at this 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, Six Crutches, Six  
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Best  
Manufacturer's name or trade mark, angles Plates and Bulbs all "Mossend"

The above is a correct description.

Builder's Signature, James & Sons

Surveyor's Signature, Saml. Laphore

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

160675-0069



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*

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*  
*"Best Best" Iron*  
*"Moosend"*  
*Hot and Cold tested*  
Bowsprit outboard 22.3 x beam 31.6, Bed 30 ins. Heel 24.5 x 19 in. 4 plates in circle 8 x 7 1/2 double riveted  
Fore Mast 82.0 - 30 parts, 22 heel 23 beams 19 1/2 head 4 plates in circle 8 x 7 1/2 double riveted at partners  
Main Mast 85.0 - 30 " 22 " 23 " 19 1/2 " } double riveted  
Mizen Mast 79.0 - 28 " 20 " 22 " 18 " } double riveted  
Lower Yards Fore & Main 77 x 19 Mizzen 66 x 16, 2 plates in circle 7 1/2 edges single butt triple riveted  
Lower Topail Yards Fore & Main 67 x 17 - 2 plates in circle 5 1/2 edges single riveted butt triple riveted

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS.	Nº.	Weight. Ex. Stock.	Test per Certificate	W't req'd per Rule.	Test req'd per Rule.
One suit and a half and	SAILS.	300		59.2.2.0	270-1 1/2	59 1/8	Bowers	1	32.1.1	30.8.10.0	32	30 3/20
	Fore Sails,	13		59.2.2.0	270-1 1/2	59 1/8	Stock	1	32.1.1	30.8.10.0	32	30 3/20
	Fore Top Sails,	11		59.2.2.0	270-1 1/2	59 1/8	Stock	1	32.1.1	30.8.10.0	32	30 3/20
	Fore Topmast Stay Sails	90		59.2.2.0	270-1 1/2	59 1/8	Stock	1	32.1.1	30.8.10.0	32	30 3/20
	Main Sails,	90		59.2.2.0	270-1 1/2	59 1/8	Stock	1	32.1.1	30.8.10.0	32	30 3/20
	Main Top Sails,	90		59.2.2.0	270-1 1/2	59 1/8	Stock	1	32.1.1	30.8.10.0	32	30 3/20
CABLES, &c.		300		59.2.2.0	270-1 1/2	59 1/8	Stream	1	32.1.1	30.8.10.0	32	30 3/20
Chain		300		59.2.2.0	270-1 1/2	59 1/8	Kedges	1	32.1.1	30.8.10.0	32	30 3/20
Hmpn Strm Cbl		90		59.2.2.0	270-1 1/2	59 1/8						
Hawser ...		90		59.2.2.0	270-1 1/2	59 1/8						
Towlines ...		90		59.2.2.0	270-1 1/2	59 1/8						
Warp ...		90		59.2.2.0	270-1 1/2	59 1/8						
quality		90		59.2.2.0	270-1 1/2	59 1/8						

Standing and Running Rigging *Wire & Hemp* sufficient in size and *good* in quality. She has *Four* *long* Boatswain (2 with buoyancy)  
The Windlass is *Good* Capstans *3* *Good* and Rudder *Good* Pumps *Stones*, *Good*  
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 5 ports & 2 mooring pipes each side*

Cargo Hatchways.—How formed? *Plate and angle iron*  
State size Main Hatch *15' 3" x 11' 0"* Forehatch *6' 0" x 6' 0"* Quarterhatch *6' 0" x 6' 0"*  
If of extraordinary size, state how framed and secured? *Portable Beam at Main Hatch*  
What arrangement for shifting beams? *—*  
Hatches, If strong and efficient? *Yes*

Order for Special Survey No. <i>1205</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>1876 - Dec 1. 5. 7. 14. 22. 29</i>
Date <i>Oct 3/76</i>		2nd. On the plating during the process of riveting	<i>1877 - Jan 4. 15. 19. 26. 30. Feb 4. 10. 15. 23. 26. 28</i>
Order for Ordinary Survey No. <i>✓</i>		3rd. When the beams were in and fastened, and before the decks were laid....	<i>March 7. 14. 17. 21. 29. April 6. 11</i>
Date <i>✓</i>		4th. When the ship was complete, and before the plating was finally coated or cemented..	<i>April 18. 25. 28. May 4. 9. 15. 18. 23</i>
No. <i>157</i> in builder's yard.		5th. After the ship was launched and equipped	<i>May 29. June 7. 12. 22. 25. 28. July 6. 12</i> <i>July 25. Aug 3. 9. 15. 27. Sept 11. Oct 1. 31</i> <i>Nov 2. 8. 9. 16. 22. 27. 30. Dec 1. 4</i>

General Remarks (State quality of workmanship, &c.)  
*The workmanship is of good quality— Built in accordance with the approved sketch of midship section which accompanied the Report No 4434 from here on the new ship "Salamanca" with which this is a sister ship and in which also the longitudinal arrangements are similar and in general conformity with the Rules with a view to the grade contemplated*

*Fitted with Poop 40 feet long Forecastle 38 ft. long and Midship House 28 x 13.3*

State if one, two, or three, decked vessel, or if spar, or awning 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 I*

The amount of the Entry Fee ... £ *5* : : is received by me, *J. J. Saml. Laphorn*  
Special ... £ *55* : *3* : Dec 1877  
Certificate ... *Printed*

(Travelling Expenses, if any, £ *6* . *6* / *2* .)

Committee's Minute 7th December, 1877.

Character assigned *100 A I*  
*JPW* *Agel*

