

# IRON OR STEEL SHIP

Received at London Office  
25 MARCH 1889

No. 9659 Survey held at  
On the sailing vessel

Date of writing Report 20/3/89  
Date First Survey 27th Augt/88  
"Sir Robert Fernie"

Port of Greenock  
Last Survey 24th March 1889  
Rig 4-Masted barque

TONNAGE under Tonnage Deck 2472.78

Under Upper Deck 2472.78

Under Lower Deck 2410.13

Under Tonnage Deck 2528.01

Under Upper Deck 117.88

Under Lower Deck 2410.13

ONE OR TWO DECKED, THREE DECKED VESSEL, SPAN OR TWINNED DECKED VESSEL

Half Breadth (moulded) 20.9

Depth from upper part of Keel to top of Upper Deck Beams 27.56

Girth of Half Midship Frame (as per Rule) 42.5

1st Number 90.96

2nd Number 28924

Length 296

Proportions— Breadths to Length 7.08

Depths to Length— Upper Deck to Keel 10.74

Master J. F. Cruickshanks

Year of appointment 1889

Built at Port Glasgow

When built 1888-89 Launched 19th Feb 1889

By whom built Russell & Co.

Owners W. J. Fernie

Managers W. T. Dixon & Sons

Residence 30 Brunswick Street Liverpool

Port belonging to London

Destined Voyage Batavia via Cardiff

If Surveyed while Building, Afloat, or in Dry Dock. Built under Special Survey

Dimensions of Ship per Register, length, 312.75 breadth, 41.95 depth, 24.55

Moulded depth 26.85

Feet. Inches. BREADTH— Moulded... 41 9 1/2

Feet. Inches. DEPTH top of Floors to Upper Deck Beams... 24 9

Feet. Inches. REVERSE OF DECK BEAMS... 24 9

No. of Decks with flat laid Two

No. of Tiers of Beams Two

	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule
KEEL, depth and thickness	10 x 3 1/2	10 x 3 1/2	10 x 3 1/2	10 x 3 1/2
STEM, moulding and thickness	10 x 3 1/2	10 x 3 1/2	10 x 3 1/2	10 x 3 1/2
STERN-POST for Rudder do. do.	10 x 3 1/2	10 x 3 1/2	10 x 3 1/2	10 x 3 1/2
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24	24	24
FRAMES, Angle Iron, for 1/2 length amidships	5 1/2 x 3 1/2	5 1/2 x 3 1/2	5 1/2 x 3 1/2	5 1/2 x 3 1/2
FRAMES, Angle Iron, for 1/4 at each end	3 1/2 x 3 1/2	3 1/2 x 3 1/2	3 1/2 x 3 1/2	3 1/2 x 3 1/2
FRAMES, depth and thickness of Floor Plate	3 1/2 x 9	3 1/2 x 9	3 1/2 x 9	3 1/2 x 9
FRAMES, mid line for half length amidships	8	8	8	8
FRAMES, thickness at the ends of vessel	14 1/2	14 1/2	14 1/2	14 1/2
FRAMES, depth at 1/2 the half-bath, as per Rule	7 1/4	7 1/4	7 1/4	7 1/4
FRAMES, height extended at the Bilges	10	10	10	10
BEAMS, Upper, Span or Awning Deck	3 1/2 x 7	3 1/2 x 7	3 1/2 x 7	3 1/2 x 7
BEAMS, Main or Middle Deck	11	11	11	11
BEAMS, Lower Deck	3 1/2 x 7	3 1/2 x 7	3 1/2 x 7	3 1/2 x 7
BEAMS, Hold or Orlop	11	11	11	11
KEELSONS, Centre line, single or double plate	21	21	21	21
KEELSONS, Rider Plate	13 3/4	13 3/4	13 3/4	13 3/4
KEELSONS, Bulb Plate to Intercoastal Keelson	6 1/2 x 4	6 1/2 x 4	6 1/2 x 4	6 1/2 x 4
KEELSONS, Angle Iron	6 1/2 x 4	6 1/2 x 4	6 1/2 x 4	6 1/2 x 4
KEELSONS, Double Angle Iron Side Keelson	6 1/2 x 4	6 1/2 x 4	6 1/2 x 4	6 1/2 x 4
KEELSONS, Side Intercoastal Plate	9	9	9	9
KEELSONS, Attached to outside plating with angle iron	3 1/2 x 8	3 1/2 x 8	3 1/2 x 8	3 1/2 x 8
BILGE Angle Iron	6 1/2 x 4	6 1/2 x 4	6 1/2 x 4	6 1/2 x 4
BILGE STRINGER Angle Iron	6 1/2 x 4	6 1/2 x 4	6 1/2 x 4	6 1/2 x 4
SIDE STRINGERS Angle Iron	6 1/2 x 4	6 1/2 x 4	6 1/2 x 4	6 1/2 x 4

	Inches in Ship	Inches per Rule	Inches in Ship	Inches per Rule
PLATES in Garboard Strakes, br'dth & thickness	36	36	36	36
PLATES, From Garboard to upper part of Bilges	11 1/2	11 1/2	11 1/2	11 1/2
PLATES, From up. prt of Bilge to l. edge of h'rstrake	11 1/2	11 1/2	11 1/2	11 1/2
PLATES, Main Sheerstrake, breadth and thickness	40	40	40	13
PLATES, From up. prt of Bilge to l. edge of h'rstrake	13	13	13	12
PLATES, Upper Span Dk Sheerstrake, br'dth & thickness	19-14 1/2	19-11	19-11 1/2	18-11
PLATES, Gunwale Plate on ends of Awning Spars	4 1/2	4 1/2	4 1/2	4 1/2
PLATES, Upper Deck Beams, breadth and thickness	6 1/2 x 4 x 9			
PLATES, Angle Iron on ditto	4	4	4	4
PLATES, Diagonal Tie Plates on Beams, No. of Pairs	14	14	14	14
PLATES, Flat of Up., Span or Awning Dk	14	14	14	14
PLATES, How fastened to Beams	As required	As required	As required	As required
PLATES, Stringer Plate on ends of Main or Middle Deck	41	41	41	41
PLATES, Beams, breadth and thickness	16	16	16	16
PLATES, Is the Stringer Plate attached to the outside plating?	Yes	Yes	Yes	Yes
PLATES, Angle Iron on ditto, No. 2	4 1/2 x 4 x 9			
PLATES, Stringer Tie Plates, outside Hatchways	16	16	16	16
PLATES, Flat of Lower Deck	3	3	3	3
PLATES, Ceiling betwixt Decks, thickness and material	2" W.P. Sparring	2" W.P. Sparring	2" W.P. Sparring	2" W.P. Sparring
PLATES, Main piece of Rudder, diameter at head	8	8	8	8
PLATES, Main piece of Rudder, diameter at heel	3 3/4	3 3/4	3 3/4	3 3/4
PLATES, Can the Rudder be unshipped afloat?	Yes	Yes	Yes	Yes
PLATES, Bulkheads No. per Rule	2	2	2	2
PLATES, Thickness of	2 1/2	2 1/2	2 1/2	2 1/2
PLATES, Height up	Upper deck	Upper deck	Upper deck	Upper deck
PLATES, How secured to sides of ship	Double Frames	Double Frames	Double Frames	Double Frames
PLATES, Size of Vertical Angle Iron	5 1/2 x 3 1/2 x 8			
PLATES, Are the outside Plates doubled two spaces of Frames in length?	Yes	Yes	Yes	Yes

The REVERSED ANGLE IRONS on floors and frames extend from middle line to gunwale, all to midg and to dk, & all bars to alternately

KEELSONS. Are the various lengths of Plates and Angle Iron properly connected? Yes And butts properly shifted? Yes

PLATING. Garboard, double riveted to Keel, with rivets 1/8 in. diameter, averaging 5 5/8 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 1/2 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 1/2 ins. from centre to centre.

Butts of all Strakes worked carvel for whole length, treble riveted with Butt Straps 2 5/8 thicker than the plates they connect.

Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 1/2 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 whole length amidships. Butts of Upper or Span Sheerstrake, treble riveted length amidships.

Butts of Main Stringer Plate, treble riveted for 3/4 length amidships. Butts of Upper or Span Stringer Plate, treble riveted for 3/4 length amidships.

Breadth of laps of plating in double riveting 5 1/2 x 6 Breadth of laps of plating in single riveting 5 1/2 x 6

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Double Treble No. of Breasthooks, 7 Flap Irons Crutches, 5 Flap Irons

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

Manufacturer's name or trade mark, J. & W. Thomson, Glasgow. Iron from W. & A. Mitchell.

The above is a correct description.

Builder's Signature, Russell & Co. Surveyor's Signature, R. F. Forth.

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

State clearly where plating is of alternate thickness—as distinguished from diminished thickness at ends of cases. \* If Iron Deck, state if whole or part, and if wood deck is laid thereon.

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 *Iron & Steel* in *good* condition, and sufficient in size and length. If of Iron or Steel give Scantlings, 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 Metal, and if stamped with Maker's name.

State also Length and Diameter of Lower Masts and Bowsprit. *The spars are in accordance with the approved drawing attached hereto. The material has been tested as required & found good.*

*Lower Masts & Bowsprit of Iron - Brand "West-Stockton"*  
*Topmasts & Yards of Steel - Brand "Clydesdale"*

Number for Equipment	CABLES, &c.				Machine where Tested and Superintendent, also Name of Chain Maker.	ANCHORS.				
	Number of Certificate	Fathoms	Inches	Tons per Certificate		Number of Certificate	Weight Ex. Stock	Test per Certificate	W'ght req'd per Rule	
Letter for do. <i>W</i>	<i>7601</i>	<i>270</i>	<i>2 7/8</i>	<i>107 7/10</i> <i>76 5/10</i>	<i>270-2 7/8</i>	<i>18388</i>	<i>40.3.14</i>	<i>26.8.0.14</i>	<i>40.0.0</i>	
SAILS. Fore Sails, Fore Top Sails, Fore Topmast Stay Sails, Main Sails, Main Top Sails, and quality	<i>7471</i>	<i>100</i>	<i>1 1/8</i>	<i>34 1/2</i> <i>22 3/4</i>	<i>100-1 1/8</i>	<i>18390</i>	<i>37.0.0</i>	<i>33.15.0.0</i>	<i>38.0.0</i>	
	<i>Iron Stream Chain, or Steel Wire ... Made by S Taylor &amp; Sons.</i>					<i>18389</i>	<i>36.1.0</i>	<i>33.5.2.14</i>	<i>36.0.0</i>	
	<i>Hampton Wire Ropes</i>					<i>All made by S. Taylor &amp; Sons and tested at Sunderland by J. Hartness</i>				
	<i>TOWLINE - Hemp or Steel Wire</i>					<i>90-1 1/2</i>	<i>114.0.14</i>	<i>13.19.2.21</i>	<i>12.0.0</i>	
	<i>Hawser</i>					<i>90-1 1/2</i>	<i>6.1.0</i>	<i>8.10.0.0</i>	<i>6.0.0</i>	
<i>Warp</i>					<i>90-7</i>	<i>3.0.14</i>	<i>5.12.0.21</i>	<i>3.0.0</i>		

Standing and Running Rigging *ful. Steel wire* sufficient in size and *good* in quality. She has *2 Life Boats* and *3 Others*

The Windlass is *Hampfield & Co's* Capstan *good* and Rudder *good* Pumps *good*

Engine Room Skylights *Have* been constructed? *Non secured in ordinary weather?*

What arrangements for deadlights in bad weather?

Coal Bunker Openings *Have* been constructed? *How are lids secured?*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *4 Ports, 2 Scuppers & 2 Pipes on each side forward; 3 Ports, 4 Scuppers, & 2 Pipes on each side aft.*

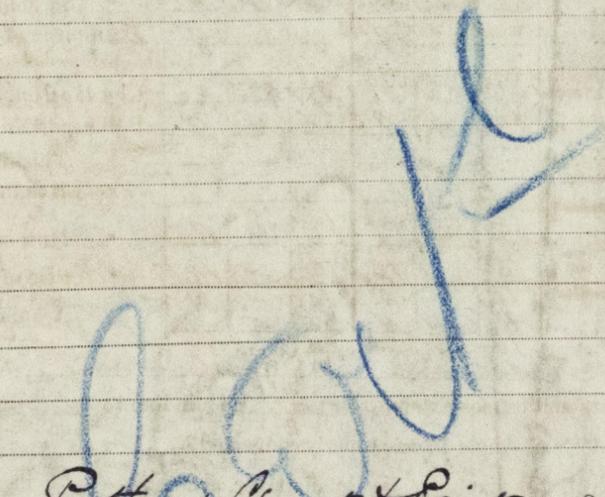
Cargo Hatchways.—How formed? *Iron coverings 30 1/2" high* Hatches, If strong and efficient? *Yes, solid*

State size Main Hatch *15' 10" x 11' 0"* Fore hatch *7' 11" x 5' 11"* Quarter hatch *11' 10" x 9' 0"* After hatch *11' 10" x 9' 0"*

What arrangement for shifting beams? *Shifting beam in main hatchway.*

Order for Special Survey No.	Date	1st.	2nd.	3rd.	4th.	5th.	Total No. of Visits
<i>1392</i>	<i>28th July, 1888</i>	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	<i>6</i>
<i>200</i>	<i>28th July, 1888</i>	<i>1888 - Augt. 27.30; Sept. 6.8.14.18.24.25.28; Oct. 2.3.8.12.17.19</i>	<i>22.23.24.26.29.31; Nov. 27.13.14.16.20.23.27.30;</i>	<i>Dec. 4.6.7.12.13.18.20.24.27.28; 1889 - Jan. 4.9.14.15.16.17.22.24</i>	<i>Feb. 4.6.7.11.13.18.19</i>	<i>Feb. 23.27; March 1.4.6.7.11.13.16.18.19.21.</i>	

General Remarks (State quality of workmanship, &c.) *The workmanship is good and the vessel has been constructed in accordance with the approved plans (3 L Ho.) which together with two Forging reports are attached hereto. The collision bulkhead has been tested by hose and found good.*



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

Particulars for Record in R.B.—Length of Deck *8* ft., Bridge Dk., *56* ft., F'castle *26* ft.; No. of Dks. (excluding spar, awn., &c.) *Two*

Material of dks *Iron & wood*; No. of tiers of beams (with and without dks. laid) *Two*

I am of opinion this Vessel should be Classed *100 A.1. "Steel"* Two decks (1 Iron, braced & tied) 2 tiers of frames

The amount of the Entry Fee .....£ *5* : : : is received by me, *J.M.*

Special .....£ *85* : : : *23/3 1889*

Committee's Minute *26 MARCH 1889*

Character assigned *100 A.1 Steel*

*2 do - 9.4.89*

*Res. Forling.*  
Surveyor to Lloyd's Register of British and Foreign Shipping  
*It is submitted that this vessel appears eligible to be classed 100 A.1 Steel as recommended by Lloyd's Register of Shipping*  
*25/3/89*

Reference should be made to any correspondence connected with the case.

Certificate to be sent to the Surveyors as requested not to write on or below the space for Committee's Minute.