

# IRON SHIP.

16692  
Reg 17/7/76

No. 4259 Survey held at Glasgow Date, First Survey 28 January 76 Last Survey 6 July 76 1876.

On the S.S. "Balachava" Master [Signature]

**TONNAGE** under Tonnage Deck 269.79 ONE, OR TWO DECKED, THREE DECKED VESSEL.  
 Ditto of Upper, Spar, or Lower Deck 57.36 ~~SEMI, OR KANGAROO-DECKED VESSEL.~~  
 Ditto of Prop. or Raised Qr. Dk. 11.71 HALF BREADTH (moulded) 10.9 Feet.  
 Ditto of Houses on Deck 12.36 DEPTH from upper part of Keel to top of Upper Deck Beams 13.05  
 Ditto of Forecastle 12.36 GIRTH of Half Midship Frame (as per Rule) 21.00  
 Gross Tonnage 351.22 1st NUMBER 4495  
 Less Crew Space 18.29 2nd NUMBER 6441  
 Less Engine Room 112.39 PROPORTIONS—Breathths to Length Under 7  
 Register Tonnage as cut on Beam 220.54 Depths to Length—Upper Deck to Keel 11  
 Ditto 11 ~~Mid Deck to Keel~~

Built at Whiteinch Glasgow  
 When built 1876 Launched 5 June  
 By whom built Arthur & Manuel  
 Owners Newcomb & Thomson  
 Port belonging to London  
 Destined Voyage [Blank]  
 If Surveyed while Building, Afloat, or in Dry Dock. [Blank]

Official Number

LENGTH on deck as per Rule	Feet. <u>143</u> Inches. <u>3</u>	BREADTH—Moulded	Feet. <u>21</u> Inches. <u>8</u>	DEPTH top of Floors to Upper Deck Beams	Feet. <u>11</u> Inches. <u>9 1/2</u>	Power of Engines	Horse. <u>50</u>	Nº. of Decks with flat laid	<u>One</u>
				Do. do. Main Deck Beams				Nº. of Tiers of Beams	<u>Two</u>

Dimensions of Ship per Register, length, 144.1 breadth, 21.9 depth, 11.8

	Inches in Ship.			Inches per Rule.			Flat Keel Plates, Keelsons and Stringers			
	Inches. In Ship.	Inches. In Ship.	16ths. In Ship.	Inches. per Rule.	Inches. per Rule.	16ths. per Rule.	Inches. In Ship.	16ths. In Ship.	Inches. per Rule.	16ths. per Rule.
KEEL, depth and thickness	<u>6 1/2</u>	<u>1 3/4</u>		<u>7</u>	<u>1 5/8</u>					
STEM, moulding and thickness	<u>6 1/4</u>	<u>1 5/8</u>		<u>6 1/4</u>	<u>1 5/8</u>					
STERN-POST for Rudder do. do.	<u>6 1/4</u>	<u>3 1/4</u>		<u>6 1/4</u>	<u>3 1/4</u>					
for Propeller	<u>6 1/4</u>	<u>3 1/4</u>		<u>6 1/4</u>	<u>3 1/4</u>					
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>21</u>			<u>21</u>						
FRAMES, Angle Iron, for 2/3 length amidships	<u>3</u>	<u>2 1/2</u>	<u>5</u>	<u>3</u>	<u>2 1/2</u>	<u>5</u>				
Do. for 1/3 at each end	<u>2 1/2</u>	<u>2 1/2</u>	<u>4</u>	<u>2 1/2</u>	<u>2 1/2</u>	<u>4</u>				
REVERSED FRAMES, Angle Iron	<u>12 1/2</u>	<u>6</u>	<u>12 1/2</u>	<u>6</u>	<u>12 1/2</u>	<u>6</u>				
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	<u>6 1/2</u>		<u>5</u>	<u>6 1/4</u>		<u>5</u>				
thickness at the ends of vessel	<u>6 1/2</u>		<u>5</u>	<u>6 1/4</u>		<u>5</u>				
depth at 3/4 the half-bdth. as per Rule	<u>6 1/2</u>		<u>5</u>	<u>6 1/4</u>		<u>5</u>				
height extended at the Bilges	<u>2 1/2</u>		<u>5</u>	<u>2 1/2</u>		<u>5</u>				
BEAMS, Upper, Spar, or Lower Deck Single or Double Ang. Iron, Plate or Bulb Iron	<u>6</u>	<u>3</u>	<u>7 1/2</u>	<u>6</u>	<u>3</u>	<u>7 1/2</u>				
Single or double Angle Iron on Upper edge	<u>2 1/4</u>	<u>2 1/4</u>	<u>5</u>	<u>2</u>	<u>2</u>	<u>5</u>				
Average space	<u>42</u>		<u>42</u>			<u>42</u>				
FRAMES, Main, or Middle Deck	<u>7</u>		<u>7</u>	<u>7</u>		<u>7</u>				
Single or Double Ang. Iron, Plate or Bulb Iron	<u>6 1/2</u>	<u>3</u>	<u>7 1/2</u>	<u>6 1/2</u>	<u>3</u>	<u>7 1/2</u>				
Single or double Angle Iron on Upper Edge	<u>10</u>		<u>10</u>	<u>10</u>		<u>10</u>				
Average space	<u>10</u>		<u>10</u>			<u>10</u>				
KEELSONS Centre line, Angle or Bulb Plate	<u>7</u>		<u>7</u>	<u>7</u>		<u>7</u>				
do. or Intercostal, Plates	<u>3</u>	<u>3</u>	<u>7 1/2</u>	<u>3</u>	<u>3</u>	<u>7 1/2</u>				
do. Bulb Plate to Intercostal Keelson	<u>3</u>	<u>3</u>	<u>7 1/2</u>	<u>3</u>	<u>3</u>	<u>7 1/2</u>				
do. Angle Irons	<u>3</u>	<u>3</u>	<u>7 1/2</u>	<u>3</u>	<u>3</u>	<u>7 1/2</u>				
do. Double Angle Iron Side Keelson	<u>3</u>	<u>3</u>	<u>7 1/2</u>	<u>3</u>	<u>3</u>	<u>7 1/2</u>				
do. Side Keelsons Plates	<u>3</u>	<u>3</u>	<u>7 1/2</u>	<u>3</u>	<u>3</u>	<u>7 1/2</u>				
do. do. Bulb Plates	<u>3</u>	<u>3</u>	<u>7 1/2</u>	<u>3</u>	<u>3</u>	<u>7 1/2</u>				
do. do. Bulb Plates	<u>3</u>	<u>3</u>	<u>7 1/2</u>	<u>3</u>	<u>3</u>	<u>7 1/2</u>				
BILGE Angle Irons	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>				
do. do. Bulb Plates	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>				
do. do. Keelsons Plates	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>				
BILGE STRINGER Angle Irons	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>				
do. do. Bulb Plates	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>				
do. do. Keelsons Plates	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>				
SIDE STRINGER Angle Irons	<u>3</u>	<u>3</u>	<u>6</u>	<u>3</u>	<u>3</u>	<u>6</u>				
Transoms, material. Knight-heads. Hawse Timbers.	<u>Plate &amp; Angle Iron</u>									
Windlass	<u>Iron Patent</u>									
Pall Bitt	<u>Not required</u>									

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 gunwale 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 in. diameter, averaging 4 1/4 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 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 Strakes at Bilge for length, treble riveted with Butt Straps 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 single riveted.  
 Butts of Main Sheerstrake, treble riveted for length amidships.  
 Butts of Main Stringer Plate, treble riveted for 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 3

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted?  
 Waterway, how secured to Beams (Explain by Sketch, if necessary)  
 Beams of the various Decks, how secured to the sides? transverse to beam No. of Breasthooks, 4 Crutches, 29  
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Best  
 Manufacturer's name or trade mark, Plate Parkhead & Thorne. Angles. Messrs. & Dalziel  
 The above is a correct description.  
 Builder's Signature, Arthur & Manuel Surveyor's Signature, [Signature]  
 Surveyor to Lloyd's Register of British and Foreign Shipping.

IRON 467-0150

2000 (12/75)

**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 in butts* 16602 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 *Two Pole Masts. Good.*

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 req'd per Rule.	
No.	SAILS.	165	1	27818	5000	165-1"	18+27 tons	Bowers	2	7.2.11	9.15.3.0	7.1.0	9.9.20
	CABLES, &c.												
One	Fore Sails,	90	7 1/2	90.7 1/2	90.7 1/2	90.5 1/2	Stream	1	2.3.4	✓	2.3.0	1.1.0	
	Fore Top Sails,												
	Fore Topmast Stay Sails												
	Main Sails,												
Six	Main Top Sails,	90	5 1/2	✓	90.5 1/2	Kedges	1	1.1.8	1.1.0	1.1.0	1.1.0		
	Warp												
quality <i>Good</i>													

Standing and Running Rigging *new & strong* sufficient in size and *good* in quality. She has *Life* ~~Keel~~ Boat and *One* other  
 The Windlass is *Harpin's Patent* Capstan *12 branches* and Rudder *Good* Pumps *Steam to each side and 5 hand*  
**Engine Room Skylights.**—How constructed? *Teak on Iron Cornings* How secured in ordinary weather? *bolts*  
 What arrangements for deadlights in bad weather?  
**Coal Bunker Openings.**—How constructed? *Cast Iron* How are lids secured? *Self locking* Height above deck? *Flush*  
**Scuppers, &c.**—What arrangements for clearing upper deck of water, in case of shipping a sea? *Gangway 2 Ports + 3 Scuppers on each side*  
**Cargo Hatchways.**—How formed? *Iron Cornings*  
 State size **Main Hatch** *15'9" x 8'11"* Forehatch *7'0" x 5'0"* Quarterhatch *12'5" x 7'6"*  
 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.*

Order for Special Survey No.	Date	1st.	2nd.	3rd.	4th.	5th.
1128	27 <sup>th</sup> Dec 1875	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
		January 28	February 8 15 28	March 6 9	April 3 7 12 17 21 26	May 2 9 11 18 23 26 27
		June 2	July 3 5 7 8	August 15 18 23 26 27	September 3 5 7 8	October 15 18 23 26 27
		November 15 18 23 26 27	December 15 18 23 26 27	January 15 18 23 26 27	February 15 18 23 26 27	March 15 18 23 26 27
		April 15 18 23 26 27	May 15 18 23 26 27	June 15 18 23 26 27	July 15 18 23 26 27	August 15 18 23 26 27
		September 15 18 23 26 27	October 15 18 23 26 27	November 15 18 23 26 27	December 15 18 23 26 27	January 15 18 23 26 27

**General Remarks** (State quality of workmanship, &c.)  
*The Workmanship is good. This is sister vessel to S.S. Ravensdowne Glasgow Report No 4243. The Water Ballast Tanks forward & aft (see Longitudinal Section) tested before launching.*

Raised Quarter Deck *75' 0"* Raised Forecastle *23' 0"*  
 with raised *and*  
 State if one, two, or three, decked vessel, or if spar, or carrying deck; also the lengths of poop, fore-castle, or raised quarter deck, and the length of keel, or part decked between  
 How are the surfaces preserved from oxidation? Inside *Cement + Paint* Outside *Paint*

I am of opinion this Vessel should be Classed *100A*  
 The amount of the Entry Fee ... £ 4 : 0 : 0 is received by me,  
 Special ... £ 16 : 13 : July 13<sup>th</sup> 1876  
 Certificate ... *Grates*  
 (Travelling Expenses, if any, £ 3 : 3 : )  
 Committee's Minute *18 July 1876*  
 Character assigned *100A*  
*J. Lawrence*  
 Lloyd's Register Foundation

To be called for at London Office Tuesday 18<sup>th</sup> July 1876 J.M.C.