

## IRON SHIP.

No. 4258 Survey held at Glasgow Date, First Survey 28 January 1876 Last Survey 6 July 1876  
On the S.S. "Balachava" Master

TONNAGE under Tonnage Deck 269.79 ONE, OR TWO DECKED, THREE DECKED VESSEL.  
BUILT, OR UNKNOWN-BUILT VESSEL.  
HALF BREADTH (moulded) 10.9 Feet.  
DEPTH from upper part of Keel to top of Upper Deck Beams 13.05  
GIRTH of Half Midship Frame (as per Rule) 21.00  
1st NUMBER 44.95  
2nd NUMBER 6.44  
PROPORTIONS—Breadths to Length Under 7  
Depths to Length—Upper Deck to Keel 11  
Main Deck 11

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

LENGTH on deck as per Rule 143.3 Feet. Inches. BREADTH—Moulded 21.8 Feet. Inches. DEPTH top of Floors to Upper Deck Beams 11.92 Feet. Inches. Power of Engines 50 Horse. N° of Decks with flat laid One N° of Tiers of Beams Two

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

KEEL, depth and thickness 6 1/2 x 1 3/4  
STEM, moulding and thickness 6 1/4 x 1 5/8  
STERN-POST for Rudder do. do. 6 1/4 x 3 1/4  
for Propeller 6 1/4 x 3 1/4  
Distance of Frames from moulding edge to moulding edge, all fore and aft 21

FRAMES, Angle Iron, for 2/3 length amidships 3 1/2 x 2 1/2  
Do. for 1/3 at each end 3 1/2 x 2 1/2

REVERSED FRAMES, Angle Iron 2 1/2 x 2 1/2

FLOORS, depth and thickness of Floor Plate at mid line for half length amidships 12 1/2  
thickness at the ends of vessel 5  
depth at 3/4 the half-bdth. as per Rule 6 1/2  
height extended at the Bilges 2 1/2

BEAMS, Upper, Spar, or Stringer Deck Single or Double Ang. Iron, Plate or Bulb Iron 6 x 3  
Single or double Angle Iron on Upper edge 2 1/4 x 2 1/4  
Average space 42

SPARS, Main, or Middle Deck Single or Double Ang. Iron, Plate or Bulb Iron 7 x 3  
Single or double Angle Iron on Upper edge 6 1/2 x 3  
Average space 10

BEAMS, Lower Deck, Hold, or Bottom Single or Double Ang. Iron, Plate or Bulb Iron 7 x 3  
Single or double Angle Iron on Upper edge 6 1/2 x 3  
Average space 10

KEELSONS Centre line, Angle or double plate, 1/2 in. or Intercoastal, Plates 5  
Bulb Plate to Intercoastal Keelson 7 x 3  
Angle Irons 3 x 3  
Double Angle Iron 3 x 3  
Single Angle Iron 3 x 3

BILGE Angle Irons 3 x 3  
do. 3 x 3  
do. 3 x 3

BILGE STRINGER Angle Irons 3 x 3  
do. 3 x 3  
do. 3 x 3

SIDE STRINGER Angle Irons 3 x 3  
do. 3 x 3  
do. 3 x 3

Transoms, material. Knight-heads. Hawse Timbers. Plate & Angle iron  
Windlass Iron Patent Pall Bitt not required

The FRAMES extend in one length from Keel to Gunwale  
The REVERSED ANGLE IRONS on floors and frames extend from middle line to Gunwale

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 1/4 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, 1/2 in. diameter, averaging 3 ins. from cr. to cr.

PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges 30 x 8

of Rounding at Bilge, or increased thickness, and length applied 6 x 7

fm up. part of Bilge to lr. edge of Sh'rstrake 6 x 7

Main Sheerstrake, breadth and thickness 30 x 8

of Rounding at Sheerstrake, & length applied 6 x 7

from M. to Upr. or Spar Str. Sheerstrake 6 x 7

Upr. or Spar Str. Sheerstrake, breadth & thickness 6 x 7

Butt Straps to outside plating, breadth & thickness 1 1/2 x 1/4

Lengths of Plating 14 1/2

Shifts of Plating, and Stringers 5

Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness 31 x 6

Angle Iron on ditto 3 x 3

Tie Plates fore and aft, outside Hatchways 7 x 6

Diagonal Tie Plates on Beams No. of Plates 20

Planksheer material and scantling 20 x 6

Waterways do. do. 3

Flat of Upper Deck do. do. 3

How fastened to Beams 3

Stringer Plate on ends of Main or Middle Deck 20 x 6

Beams, Keelsons and Stringers 20 x 6

Is the Stringer Plate attached to the outside plating? Yes

Angle Irons on ditto, No. 3 3 x 3

Stringer or Tie Plates, outside Hatchways 3 x 3

Flat of Lower Deck 3 x 3

Ceiling betwixt Decks, thickness and material 2 1/4

Main piece of Rudder, diameter at head 3 1/4

do. at heel 2 1/4

Can the Rudder be unshipped afloat? Yes

Bulkheads No. 4 Thickness of 4 1/4

Height up 5 1/2

How secured to sides of ship 2 1/4

Size of Vertical Angle Irons 2 1/2 x 1/4

Are the outside Plates doubled two spaces of Frames in length? Yes

The FRAMES extend in one length from Keel to Gunwale

The REVERSED ANGLE IRONS on floors and frames extend from middle line to Gunwale

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 1/4 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, 1/2 in. diameter, averaging 3 ins. from cr. to cr.

Butts of Main Sheerstrake, treble riveted 1/2 in. diameter, averaging 3 ins. from cr. to cr.

Butts of Main Stringer Plate, treble riveted 1/2 in. diameter, averaging 3 ins. from cr. to cr.

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? 4

No. of Breasthooks, 4

Crutches, 2

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 Parkhouse & Thorne. Angles. Messrs. & Dalziel.

The above is a correct description.

Builder's Signature, Aitken & Marshall

Surveyor's Signature, J. Thomson

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



**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. Wood.*

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.
One	SAILS.	165		1	27818	165-1"	Bowers	2	7.2.11	9.15.3.0	7.1.0	9 9/20
	CABLES, &c.	165		1	27818	165-1"		2	7.1.16	9.12.1.0	7.1.0	9 9/20
	Chain	165		1	27818	165-1"		2	7.1.16	9.12.1.0	7.1.0	9 9/20
	Fore Sails,	165		1	27818	165-1"		2	7.1.16	9.12.1.0	7.1.0	9 9/20
	Fore Top Sails,	165		1	27818	165-1"		2	7.1.16	9.12.1.0	7.1.0	9 9/20
Sail	Fore Topmast Stay Sails	90		7 1/2	90.7 1/2	90.7 1/2	Stream	1	2.3.4	2.3.0	2.3.0	
	Main Sails,	90		5 1/2	90.5 1/2	90.5 1/2		1	1.1.8	1.1.0	1.1.0	
	Main Top Sails,	90		5 1/2	90.5 1/2	90.5 1/2		1	1.1.8	1.1.0	1.1.0	
	Hawser ...	90		5 1/2	90.5 1/2	90.5 1/2		1	1.1.8	1.1.0	1.1.0	
	Towlines	90		5 1/2	90.5 1/2	90.5 1/2		1	1.1.8	1.1.0	1.1.0	
Warp ...		90		5 1/2	90.5 1/2	90.5 1/2	Kedges		1		1.1.0	
quality <i>Good</i>		90		5 1/2	90.5 1/2	90.5 1/2	Kedges		1		1.1.0	

Standing and Running Rigging *new & strong* sufficient in size and *good* in quality. She has *1* Life *Boat* and *one* other  
 The Windlass is *Harfield's Patent* Capstan *12 branches* and Rudder *Good* Pumps *Steam to each side and 5 hand pumps*  
 Engine Room Skylights.—How constructed? *Teak on Iron Curbing* 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 Curbing*  
 State size Main Hatch *15' 9" x 8' 11"* Fore hatch *7' 0" x 5' 0"* Quarter hatch *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. <i>1128</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>January 28 February 8 15 28 March 6 9</i>
Date <i>27 Dec 1875</i>		2nd. On the plating during the process of riveting	<i>10. 15. 20. 24. 28 April 3. 7. 12. 17. 21. 26</i>
Inspector <i>William Henry R.C.</i>		3rd. When the beams were in and fastened, and before the decks were laid....	<i>May 2. 9. 11. 18. 23. 26. 27. June 2.</i>
<i>Done</i>		4th. When the ship was complete, and before the plating was finally coated or cemented..	<i>5. 7. 8. July 3. 5. + 6. 1876.</i>
No. <i>83</i> in builder's yard.		5th. After the ship was launched and equipped	

**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 post deck to bottom.  
 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,  
*July 1876* Special ... £ *16 : 13* July 13<sup>th</sup> 1876  
 Certificate ... *Grated*  
 (Travelling Expenses, if any, £ *3. 3/*.)  
 Committee's Minute *18 July 1876*  
 Character assigned *100A*  
*J.P.W. & Co. Lloyd's Reg.*