

IRON SHIP.

No. 4134 Survey held at Port Glasgow Date, First Survey 17th November 1876 Last Survey 23rd January 1877

On the Ship "Saranaki" Master Not appointed

TONNAGE under Tonnage Deck } 1041.61 ONE OR TWO DECKED, THREE DECKED VESSEL.
 Ditto of Third, Spar, or Awning Deck. }
 Ditto of Poop, or Raised Or. Dk. }
 Ditto of Houses on Deck }
 Ditto of Forecastle }
 Gross Tonnage } 1793.13
 Less Crew Space } 66.94
 Less Engine Room } 1126.19
 Register Tonnage as cut on Beam }

HALF BREADTH (moulded)... .. 14.50 Feet.
 DEPTH from upper part of Keel to top of Upper Deck Beam... .. 23.16
 GIRTH of Half Midship Frame (as per Rule) 34.9
 1st NUMBER 45.56
 1st NUMBER, if a THREE-DECKED VESSEL [deduct 7 feet]
 LENGTH 218.64
 2nd NUMBER 16.523
 PROPORTIONS—Breadths to Length 6.24
 Depths to Length—Upper Deck to Keel
 Main Deck ditto 9.43

Built at Port Glasgow
 When built 1876 Launched 13th Jan 7 1877
 By whom built A. Duncan & Co
 Owners Albin Shipping Company
 Port belonging to Glasgow
 Destined Voyage New Zealand
 Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule ... 218.67 Feet. Inches. BREADTH—Moulded... .. 35 Feet. Inches. DEPTH top of Floors to Upper Deck Beams 21.21 Feet. Inches. Power of Engines 3 Horse. No. of Decks with flat laid Two No. of Tiers of Beams Two

Dimensions of Ship per Register, length 228.1 breadth, 35.2 depth, 20.95

	Inches in Ship.			Inches per Rule.		
	Inches.	Inches.	16ths.	Inches.	Inches.	16ths.
KEEL, depth and thickness	<u>0 1/2</u>	<u>2 9/16</u>		<u>0 1/2</u>	<u>2 1/2</u>	
STEM, moulding and thickness... ..	<u>0</u>	<u>2 1/2</u>		<u>0</u>	<u>2 1/2</u>	
STERN-POST for Rudder do. do.	<u>0</u>	<u>2 1/2</u>		<u>0</u>	<u>2 1/2</u>	
for Propeller				<u>23</u>		
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>23</u>					
FRAMES, Angle Iron, for 3/4 length amidships	<u>5</u>	<u>3</u>	<u>0</u>	<u>5</u>	<u>3</u>	<u>0</u>
Do. for 1/2 at each end	<u>5</u>	<u>3</u>	<u>7</u>	<u>5</u>	<u>3</u>	<u>7</u>
REVERSED FRAMES, Angle Iron	<u>3</u>	<u>3</u>	<u>7</u>	<u>3</u>	<u>3</u>	<u>7</u>
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	<u>23 1/2</u>		<u>9</u>	<u>23 1/2</u>		<u>9</u>
thickness at the ends of vessel			<u>0</u>			<u>0</u>
depth at 3/4 the half-bdth. as per Rule	<u>12</u>			<u>11 3/4</u>		
height extended at the Bilges... ..	<u>61</u>			<u>47</u>		
BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron Single or double Angle Iron on Upper edge						
Average space... ..	<u>46</u>			<u>46</u>		
BEAMS, Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron Single or double Angle Iron on Upper Edge	<u>8</u>	<u>3</u>	<u>6</u>	<u>8</u>	<u>3</u>	<u>6</u>
Average space... ..	<u>46</u>			<u>46</u>		
BEAMS, Lower Deck, Hold, or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron Single or double Angle Iron on Upper Edge	<u>8</u>	<u>3</u>	<u>0</u>	<u>8 1/2</u>	<u>3</u>	<u>7</u>
Average space... ..	<u>46</u>			<u>46</u>		
KEELSONS Centre line, single or double plate, box, or intercostal, Plates	<u>16</u>		<u>12</u>	<u>16</u>		<u>12</u>
" Rider Plate	<u>11</u>		<u>12</u>	<u>10 3/4</u>		<u>12</u>
" Bulb Plate to Intercostal Keelson						
" Angle Irons	<u>5</u>	<u>3 1/2</u>	<u>9</u>	<u>5</u>	<u>3 1/2</u>	<u>9</u>
" Double Angle Iron Side Keelson	<u>24</u>		<u>0</u>			<u>0</u>
" Side Intercostal Plate	<u>5</u>	<u>3 1/2</u>	<u>9</u>	<u>5</u>	<u>3 1/2</u>	<u>9</u>
" do. Angle Irons	<u>3</u>	<u>3</u>	<u>7</u>	<u>3</u>	<u>3</u>	<u>7</u>
" Attached to outside plating with angle iron						
BILGE Angle Irons	<u>5</u>	<u>3 1/2</u>	<u>9</u>	<u>5</u>	<u>3 1/2</u>	<u>9</u>
" do. Bulb Iron... ..						
" do. Intercostal plates riveted to plating for length						
BILGE STRINGER Angle Irons	<u>5</u>	<u>3 1/2</u>	<u>9</u>	<u>5</u>	<u>3 1/2</u>	<u>9</u>
Intercostal plates riveted to plating for length.						
SIDE STRINGER Angle Irons in tween-decks	<u>3</u>	<u>3</u>	<u>7</u>			
Transoms, material. Knight-heads. Hawse Timbers.				<u>Iron</u>		
Windlass <u>Iron Patent</u> Pall Bitt						

	Inches. In Ship.	16ths. In Ship.	Inches. per Rule.	16ths. per Rule.
Flat Keel Plates, breadth and thickness	<u>34</u>	<u>11</u>	<u>34</u>	<u>11</u>
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied	<u>9x10</u>		<u>9x10</u>	
fin up. part of Bilge to lr. edge of Sh'rstrake Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake. Up. or Spar Dk Sh'rstrake, brdth & thickness	<u>9x10</u>		<u>9x10</u>	
Butt Straps to outside plating, breadth & thickness Lengths of Plating	<u>9 1/2 x 9 1/2</u>	<u>11 1/4 x 10 1/2</u>	<u>9 1/2 x 9 1/2</u>	<u>11 1/4 x 10 1/2</u>
Shifts of Plating, and Stringers... ..	<u>14 1/4 x 16 1/4</u>	<u>16 x 16</u>	<u>14 1/4 x 16 1/4</u>	<u>16 x 16</u>
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness... ..	<u>2</u>		<u>2</u>	
Angle Iron on ditto				
Tie Plates fore and aft, outside Hatchways Diagonal Tie Plates on Beams No. of Pairs, Planksheer material and scantling				
Waterways do. do.				
Flat of Upper Deck do. do.				
How fastened to Beams				
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	<u>30</u>	<u>10</u>	<u>30</u>	<u>10</u>
Is the Stringer Plate attached to the outside plating? <u>Yes</u>				
Angle Irons on ditto, No. <u>one</u>	<u>5x3 1/2 x 9</u>	<u>5x3 1/2 x 9</u>		
Tie Plates, outside Hatchways	<u>12</u>	<u>10</u>	<u>12</u>	<u>10</u>
Diagonal Tie Plates on Beams, No. of pairs <u>5</u>	<u>12</u>	<u>10</u>	<u>12</u>	<u>10</u>
Waterways materials and scantlings	<u>9 gutter</u>		<u>9 gutter</u>	
Flat of Middle Deck do. do. <u>U. Plating</u>	<u>4</u>		<u>4</u>	
How fastened to Beams	<u>see bolts & nuts</u>			
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	<u>31</u>	<u>9</u>	<u>31</u>	<u>9</u>
Is the Stringer Plate attached to the outside plating? <u>Yes</u>				
Angle Irons on ditto, No. <u>2</u>	<u>4x4x0</u>	<u>4x4x0</u>		
Stringer or Tie Plates, outside Hatchways Flat of Lower Deck	<u>12</u>	<u>10</u>	<u>12</u>	<u>10</u>
Ceiling betwixt Decks, thickness and material in hold do. do.	<u>Batten</u>		<u>2 1/2 Elm</u>	<u>2 1/2</u>
Main piece of Rudder, diameter at head do. at heel	<u>5 1/2</u>		<u>5 1/2</u>	<u>3</u>
Can the Rudder be unshipped afloat? <u>Yes</u>				
Bulkheads No. <u>one</u> Thickness of <u>6/16</u> <u>4/16</u> Height up <u>to main Deck and one aft up to head beam</u> How secured to sides of ship <u>Double frames</u> Size of Vertical Angle Irons <u>3x3x7/16</u> and distance apart <u>20</u> ins. Are the outside Plates doubled two spaces of Frames in length? <u>Yes</u>				

The FRAMES extend in one length from Keel to Gunwale Riveted through plates with 7/8 in. Rivets, about 7/8 apart.

The REVERSED ANGLE IRONS on floors and frames extend across middle line to Main Deck masonry and to frame 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 1/2 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 1/2 x 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 x 3 1/2 ins. from centre to centre.

Butts of three Strakes at Bilge for half length, treble riveted with Butt Straps 7/16 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 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 x 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 half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted 1/2 length amidships.

Butts of Main Stringer Plate, treble riveted for half length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for 1/2 length.

Breadth of laps of plating in double riveting 5 1/2 x 4 1/2 Breadth of laps of plating in single riveting 1/2

Butt Straps of Keelsons, Stringer and Tie Plates, treble double or single Riveted? Yes

Waterway, how secured to Beams Iron gutter (Explain by Sketch, if necessary.)

Beams of the various Decks, how secured to the sides? Welded knee plates No. of Breasthooks, 5 Crutches, 49

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

Manufacturer's name or trade mark, angle Iron Messrs Plate Consell

The above is a correct description.

Builder's Signature, A. Duncan & Co Surveyor's Signature, H. W. Wood

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

Official Number

IRON 470-0113

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? *Very few* 17728 Iron

Masts, Bowsprit, Yards, &c., are *Iron* 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. *Bowsprit 23 1/2 dia 2 9*

State also Length and Diameter of Lower Masts and Bowsprit *Fore Mast 81 ft dia 2 9 Main 83.0 dia 2 9 Mizzen 76.3 dia 2 5*
Fore & Main Masts & Bowsprit 5/16 to 3/16 all in three plates edges double riveted butt straps 1/16 thicker than plates fitted outside & treble riveted, plates doubled in way of wedging at both Main & lower decks. The angle

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	Weight req'd per Rule.	Test req'd per Rule.
N ^o .	SAILS.	CABLES, &c.										
	Fore Sails,	135	1 3/4	55	17 1/2	270	Bowers	3079	30.2.21	29.2.3.0	20.0.0	28 1/2
	Fore Top Sails,	135.0	1 1/4	55	17 1/2	270		3077	29.3.14	20.10.2.4	25.2.0	25 3/4
	Fore Topmast Stay Sails,							3074	25.1.7	25.1.2.1		
	Main Sails,	90	1 5/16				Stream	1	12.0.10		12.0.0	
	Main Top Sails,	90	1 1/2				Kedges	1	6.2.6		6.0.0	
	and	90	1 1/2						3.1.8		3.0.0	

Standing and Running Rigging *Wire & hemp* sufficient in size and *good* in quality. She has *one* Long Boat and *four* others
 The Windlass is *Harfield's Patent* 3 Capstan & *Steam* Winches and Rudder *Efficient* Pumps *2 Iron*

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? *8 Ports & 8 Scuppers*

Cargo Hatchways.—How formed? *Iron Coverings*

State size **Main Hatch** *11'6" x 10'0"* Forehatch *8'0" x 6'6"* Quarterhatch *6'6" x 6'0"*

If of extraordinary size, state how framed and secured? _____

What arrangement for shifting beams? _____

Hatches, If strong and efficient? *Yes*

Order for Special Survey No.	Date	Order for Ordinary Survey No.	Date	No.	in builder's yard.	DAIES of Surveys held while building as per Section 18.	1st.	2nd.	3rd.	4th.	5th.
776	11 Nov 1875			105			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

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

This Vessel has been built in conformity with the Rules and Midship Section, appended to Report on Sister Ship - "Marlborough" No 703B - which was submitted and approved by the Committee in letters dated 11th November 1875 and 29th Aug 1876. The Owners sanction having been obtained, as in the case of the Sister Ship above referred to, by the Builder to the scantlings of Hold beams. The workmanship and materials are of the best description.

*Fore & Main lower Yards 76 feet dia 1 7/8 plates 5/16 to 3/16 In two plates edges single riveted
 0 1/2 Toppers all 0 64 ft - 14 1/4 - 4/16 to 4/16 treble riveted, plates doubled in
 Cross Jack Yard 62 ft - 14 - 4/16 to 2/16 way of slings -
 4 1/2 ft 3/16*

State if one, two, or three, decked vessel, or if spar, or awning decked; and the lengths of poop, fore-castle, or raised quarter deck, and the length of double, or part double bottom.

How are the surfaces preserved from oxidation? Inside *Putland Cement to above Belguish dead iron* Outside *Red lead & Paint & Comp^o - in Bottom*

I am of opinion this Vessel should be Classed *100 A 1*

The amount of the Entry Fee ... £ 5 : 0 : 0 is received by me,
 Special ... £ 53 : 3 : 0 24 Jan 1877
 Certificate ... £ 0 : 0 : 0
 (Travelling Expenses, if any, £ ...) £ 58 : 3 : 0

Committee's Minute *30th January 1877*

Character assigned *100 A 1*

