

IRON SHIP.

No. 6338 Survey held at Port Glasgow Date, First Survey 16th October 1874 Last Survey 24th August 1875

On the Ship Orono now named Sirena Master Gerrard Kaye

TONNAGE under Tonnage Deck 1352.29 ONE OR TWO DECKED, THREE DECKED VESSEL.
 Ditto of Third, Spar, or Awning Deck. 85.05 SPAR, OR AWNING DECKED VESSEL.
 Ditto of Poop, or 20. HALF BREADTH (moulded) 19.05
 Ditto of Houses on Deck 61.89 DEPTH from upper part of Keel to top of Upper Deck Beams 26.
 Ditto of Forecastle 1519.23 GIRTH of Half Midship Frame (as per Rule) 38.28
 Gross Tonnage 81.83 1st NUMBER 83.33
 Less Crew Space 1434.40 1st NUMBER, if a THREE-DECKED VESSEL 83.33
 Less Engine Room 230. LENGTH 230.
 Register Tonnage as out on Beam 19.165. 2nd NUMBER 19.165.
 PROPORTIONS—Breadths to Length 6.03
 Depths to Length—Upper Deck to Keel 8.8
 Main Deck ditto 8.8

Built at Port Glasgow
 When built 1844: 75 Launched 20th July/75
 By whom built John Reid & Co.
 Owners W & C. Battersby & Co.
 Port belonging to Liverpool
 Destined Voyage Melbourne via London
 If Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 230. Breadth Moulded 38.1 DEPTH top of Floors to Upper Deck Beams 23.95 Power of Engines 2 No. of Decks with flat laid Two
 Do. do. Main Deck Beams 23.95 No. of Tiers of Beams Two

Dimensions of Ship per Register, length 239.4 breadth 38.3 depth 23.52

	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	92 x 22	92 x 22	92 x 22	92 x 22	92 x 22	92 x 22	92 x 22	92 x 22
STEM, moulding and thickness	9 x 22	9 x 22	9 x 22	9 x 22	9 x 22	9 x 22	9 x 22	9 x 22
STERN-POST for Rudder do. do.	9 x 22	9 x 22	9 x 22	9 x 22	9 x 22	9 x 22	9 x 22	9 x 22
for Propeller	24	24	24	24	24	24	24	24
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24	24	24	24	24	24	24
FRAMES, Angle Iron, for $\frac{3}{4}$ length amidships	5 x 32	5 x 32	5 x 32	5 x 32	5 x 32	5 x 32	5 x 32	5 x 32
Do. for $\frac{1}{4}$ at each end	5 x 32	5 x 32	5 x 32	5 x 32	5 x 32	5 x 32	5 x 32	5 x 32
REVERSED FRAMES, Angle Iron	32 x 3	32 x 3	32 x 3	32 x 3	32 x 3	32 x 3	32 x 3	32 x 3
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	24 x 2	24 x 2	24 x 2	24 x 2	24 x 2	24 x 2	24 x 2	24 x 2
thickness at the ends of vessel	12 x 2	12 x 2	12 x 2	12 x 2	12 x 2	12 x 2	12 x 2	12 x 2
depth at $\frac{3}{4}$ the half-bdth. as per Rule	69	69	69	69	69	69	69	69
height extended at the Bilges	48	48	48	48	48	48	48	48
BEAMS, Upper, Spar, or Awning Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	9	9	9	9	9	9	9	9
Single or double Angle Iron on Upper edge	48	48	48	48	48	48	48	48
Average space	9	9	9	9	9	9	9	9
BEAMS, Main, or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	9	9	9	9	9	9	9	9
Single or double Angle Iron on Upper Edge	48	48	48	48	48	48	48	48
Average space	9	9	9	9	9	9	9	9
BEAMS, Lower Deck, Hold, or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	9	9	9	9	9	9	9	9
Single or double Angle Iron on Upper Edge	48	48	48	48	48	48	48	48
Average space	9	9	9	9	9	9	9	9
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates	18	13	14	13	13	13	13	13
Rider Plate	9	13	8	10	10	10	10	10
Bulb Plate to Intercoastal Keelson	52	4	9	52	4	9	52	4
Angle Irons	52	4	9	52	4	9	52	4
Double Angle Iron Side Keelson	24	8	8	8	8	8	8	8
Side Intercoastal Plate	52	4	9	52	4	9	52	4
do. Angle Irons	3	3	3	3	3	3	3	3
Attached to outside plating with angle iron	52	4	9	52	4	9	52	4
BILGE Angle Irons	52	4	9	52	4	9	52	4
do. Bulb Iron	52	4	9	52	4	9	52	4
do. Intercoastal plates riveted to plating for length	52	4	9	52	4	9	52	4
BILGE STRINGERS Angle Irons	52	4	9	52	4	9	52	4
Intercoastal plates riveted to plating for length	52	4	9	52	4	9	52	4
SIDE STRINGER Angle Irons in Queen Decks	32	3	8	32	3	8	32	3

Transoms, material. Knight-heads. Hawse Timbers. Iron
 Windlass Iron Patent Pall Bitt

The FRAMES extend in one length from Keel to Cumwale Riveted through plates with $\frac{1}{8}$ in. Rivets, about $\frac{1}{4}$ apart.

The REVERSED ANGLE IRONS on floors and frames extend across middle line to Main Deck on every side 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 $\frac{1}{8}$ in. diameter, averaging 52 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets $\frac{1}{8}$ in. diameter, averaging 34 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets $\frac{1}{8}$ in. diameter averaging 34 ins. from centre to centre.

Butts of Three Strakes at Bilge for half length, treble riveted with Butt Straps $\frac{1}{16}$ thicker than the plates they connect.

Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets $\frac{1}{8}$ in. diameter, averaging 34 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets $\frac{1}{8}$ in. diameter, averaging 34 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 — length amidships.

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

Breadth of laps of plating in double riveting 54 Breadth of laps of plating in single riveting —

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 Iron plates No. of Breasthooks, 4 Crutches, 5
 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 Coats. Bulb Messend. Plates. Newport, & Bowes Iron Co.
 The above is a correct description.
 Builder's Signature John Reid & Co. Surveyor's Signature Wm R. Croucher
 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 150559

Masts, Bowsprit, Yards, &c., are Sprun 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 Fore Mast 88' 9" dia 31" Main 84' 6" dia 31" Mizzen 81' 10" dia 28" Bowsprit 22' 10" dia 28"
Fore & Main Mast plates 8/16 to 6/16. all in two plates edges double riveted, and butts treble.
Mizzen Mast & Bowsprit 4/16 to 6/16. plates doubled in way of partners, and 2 angle irons in each
42" x 32" x 8/16.

19,320 Rules 1842.

NUMBER for EQUIPMENT		21081	Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per 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.	133' 1"	1 1/2"	63 1/2 x 88 1/2	240 fms.	63 1/2	Bowers.	236	35' 1.4	32' 12.0.0	34' 0.0	31' 12.0
	Fore Sails,	4/8/75	106' 12"	1 1/8"	63 1/2 x 88 1/2	144	63 1/2	(State Machine where tested, Date, & name of superintendent.)	239	33' 1.0	31' 1.1.0	34' 0.0	31' 12.0
	Fore Top Sails,	4/8/75	30' 13"	1 1/8"	63 1/2 x 88 1/2				240	29' 2.14	28' 6.3.0	29' 3.14	24' 12.0
	Fore Topmast Stay Sails	4/8/75	90	1"									
	Main Sails,	4/8/75	90	8"		10	6	Stream	1	13' 3.15		13' 2.0	
and	Main Top Sails,	4/8/75	90	12"				Kedges	1	6' 3.18		6' 3.0	
		quality good	90	6"									

Standing and Running Rigging Wm. Kempen sufficient in size and good in quality. She has Two Life Boats and Three others
The Windlass is Emerson Walker Patent 2 Capstans, 3 Winches and Rudder Efficient Pumps 2 & 2 Bilge Pumps

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? Ports & Scuppers

Cargo Hatchways. How formed? Sprun platings

State size Main Hatch 15' 8" x 11' 0" Forehatch 4' 8" x 4' 0" Quarterhatch 4' 8" x 4' 0"

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

What arrangement for shifting beams? One at Main Hatchway

Hatches, If strong and efficient? Yes

Order for Special Survey No. 144 Date 25 August 1875
Order for Ordinary Survey No. _____ Date _____
No. 57 in builder's yard.

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 13 built under S.S. and surveyed 1874 - October 16, 20, 24, 29.
2nd. On the plating during the process of riveting November 20, December 2, 15, 18, 23, 29, 1875 - January 13.
3rd. When the beams were in and fastened, and before the decks were laid... February 10, 16, 22, 25, March 5, 12, 15, 19, April 1, 6, 15, 19, 21.
4th. When the ship was complete, and before the plating was finally coated or cemented... May 4, 13, 20, 24, June 4, 11, 23, 28, July 14, 16, 19, 21, 26.
5th. After the ship was launched and equipped August 2, 4, 5, 16, 19, 24.

General Remarks (State quality of workmanship, &c.) This Vessel has been built in conformity with the Rules for 1872 and midship section herewith appended; the reverse frames has carried up to Main Deck an energy frame in lieu of seven deck stringer.
The workmanship and materials are of the very best description.

Fore & Main Lower Yards 82' dia 19 1/2" plates 7/16 to 4/16 2 angle irons 3 1/2 x 3 x 7/16 all in two plates
L^r Lower Topsail Yards 41' . 13" . 6/16 to 4/16 2 angle irons 3 x 2 1/2 x 6/16 edges single riveted
High Jack Yard 68' . 14" . 6/16 to 4/16 2 angle irons 3 1/2 x 3 x 6/16 and butts treble
Mizzen Lower Topsail Yard 58' . 15" . 6/16 to 4/16 2 angle irons 3 1/2 x 2 1/2 x 6/16 riveted

State if one, two, or three, decked vessel, or if open, or opening-decked; and the lengths of poop, forecabin, or forecabin quarter deck, and the length of double, or part double bottom. 45' 43 1/2'
How are the surfaces preserved from oxidation? Inside Portland Cement 16 above Bilges Red Outside 3 Coats of Red Lead Paint
I am of opinion this Vessel should be Classed 100 A1

The amount of the Entry Fee ... £ 5 : 0 : 0 is received by me, Edmund Boncher
Special ... £ 60 : 18 : 6 3 Sept. 1875
Certificate ... £ 0 : 0 : 0
(Travelling Expenses, if any, £ _____).
Committee's Minute 7th September 1875
Character assigned 100 A1
20 Oct 1875
This vessel has been built in accordance with the Rules 1873-4 and is classed 100 A1 as recommended -
Lloyd's Register Foundation