

IRON SHIPS.

Nov 7/11/72

Survey held at Glasgow

Date, First Survey 15th Sept. 1871 Last Survey 21st Oct 1872

on the S.S. Courland

Master W. Newman

Tonnage under Tonnage Deck 1221.37
Ditto of Third Spar, or Awning Deck. -
Ditto of Poop, or Raised Qr. Dk. -
Ditto of Houses on Deck 19.42
Ditto of Forecastle -

Gross Tonnage 1240.79
Crew Space, 40.49

Register Tonnage, for Fees 1226.37
Register Tonnage, as a Steamer, cut on Beam 803.25

ONE OR TWO DECKED, SPAR, OR AWNING DECKED VESSELS.

Half moulded breadth 15.0
Depth from upper part of Keel to top of Upper Deck Beams 23.3
Girth of Half Midship Frame (as per Rule) .. 27.8

1st Number 66.100
Length 248.8

2nd Number 16445
Depths to Length. 10.8
15.9

THREE DECKED VESSELS.

Half Moulded Breadth 15.0
Total Depth if three or more Decks 23.3
Total Girth of Half Midship Frame 34.8

3rd Number 73.1
Length 248.8

4th Number 18087
Breadths to Length 8.2

Built at Glasgow

When built 1871-72 Launched 5th July 1872

By whom built R. Napier & Sons

Owner James Currie

Port belonging to Leith

Destined Voyage Clyde to Cape of Good Hope
and Surveyed while Building, Afloat, in Dry Dock.

Length on deck Feet. 248 Inches. 8 1/10 Moulded Breadth, Feet. 30 Inches. - Depths from top of Floors to Upper and Main Deck Beams, as per Rule 21 5 Feet. 14 Inches. 06 Power of Engines, 130 Horse. N^o. of Decks with flat laid Two N^o. of Tiers of Beams Three

Dimensions of Ship per Register, length, 250.4 breadth, 30.25 depth, 21.5

	Inches in Ship.	Inches required per Rule.
Keel, if bar iron, depth and thickness	<u>8 1/2 x 2 1/2</u>	<u>8 1/2 x 2 1/2</u>
Do. if centre through plate, depth and thickness	<u>8 x 2 1/2</u>	<u>8 x 2 1/2</u>
Stem, if bar iron, moulding and thickness	<u>8 x 2 1/2</u>	<u>8 x 2 1/2</u>
Stern-post for Rudder do. do.	<u>8 x 5</u>	<u>8 x 5</u>
Stern-post for Propeller	<u>8 x 5</u>	<u>8 x 5</u>
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>23</u>	<u>23</u>
Frames, size of Angle Iron, for 1/2 length amidships	<u>4 3 7</u>	<u>4 3 7</u>
Do. for 1/2 at each end	<u>4 3 7</u>	<u>4 3 7</u>
Reversed Frames, size of Angle Iron	<u>3 3 6</u>	<u>3 3 6</u>
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	<u>18 1/2 8</u>	<u>18 1/2 8</u>
Do. at the ends	<u>8 7 8</u>	<u>8 7 8</u>
Do. do. do. at Bilge Keelson	<u>8 7 8</u>	<u>8 7 8</u>
Do. height extended at the Bilges	<u>Twice</u>	<u>Twice</u>
Beams, Upper, Spar, or Awning Deck (No.)	<u>6 1/2 6</u>	<u>6 1/2 6</u>
single or double Angle Iron, Plate or Tee Bulb Iron	<u>6 1/2 6</u>	<u>6 1/2 6</u>
Single or double Angle Iron on Upper edge	<u>2 1/2 2 1/2 5</u>	<u>2 1/2 2 1/2 5</u>
Average space	<u>46</u>	<u>46</u>
Beams, Main or Middle Deck (No.)	<u>7 1/2 7</u>	<u>7 1/2 7</u>
single or double Angle Iron, Plate or Tee Bulb Iron	<u>7 1/2 7</u>	<u>7 1/2 7</u>
Single or double Angle Iron on Upper Edge	<u>3 2 1/2 5</u>	<u>3 2 1/2 5</u>
Average space	<u>46</u>	<u>46</u>
Beams, Lower Deck, Hold or Orlop (No.)	<u>7 1/2 7</u>	<u>7 1/2 7</u>
single or double Angle Iron, Plate or Tee Bulb Iron	<u>7 1/2 7</u>	<u>7 1/2 7</u>
Single or double Angle Iron on Upper Edge	<u>3 2 1/2 5</u>	<u>3 2 1/2 5</u>
Average space	<u>92</u>	<u>92</u>
Keelson Centre line, single or double plate, box, or Intercoastal, size of Plates	<u>10 x 12</u>	<u>92 15 12</u>
Do. Plate to Intercoastal Keelson	<u>7 3/4 x 9</u>	<u>7 3/4 9</u>
Do. Size of Angle Irons	<u>5 3 1/2 9</u>	<u>5 3 1/2 9</u>
Do. Side Intercoastal Keelson, size of Plates	<u>5 3 1/2 9</u>	<u>5 3 1/2 9</u>
Do. Angle Irons on tops of Floors	<u>5 3 1/2 9</u>	<u>5 3 1/2 9</u>
Do. Bilge Keelson, Bulb Iron	<u>5 3 1/2 9</u>	<u>5 3 1/2 9</u>
Do. do. Intercoastal plates riveted to plating for 1/2 length	<u>9</u>	<u>9</u>
Do. do. Angle Irons	<u>5 3 1/2 9</u>	<u>5 3 1/2 9</u>
Side Stringers (No.) size of Angle Irons	<u>5 3 1/2 9</u>	<u>5 3 1/2 9</u>
Do. Intercoastal plates riveted to plating for 3/5 length	<u>8</u>	<u>8</u>

	Inches in Ship.	16ths in Ship.	Inches required per Rule.	16ths required per Rule.
Flat Keel Plates, breadth and thickness	<u>36</u>	<u>11</u>	<u>36</u>	<u>11</u>
Plates in Garboard Strakes, breadth and thickness	<u>10</u>	<u>-</u>	<u>-</u>	<u>10</u>
Do. from Garboard to upper part of Bilges	<u>10</u>	<u>-</u>	<u>-</u>	<u>10</u>
Do. of doubling at Bilge, or increased thickness, and length applied	<u>Bilge Intercoastal attached</u>	<u>-</u>	<u>-</u>	<u>9</u>
Do. fm up. part of Bilge to lr. edge of Sh'rstrake	<u>42</u>	<u>10</u>	<u>36</u>	<u>11</u>
Do. Main Sheerstrake, breadth and thickness	<u>42</u>	<u>10</u>	<u>36</u>	<u>11</u>
Do. of doubling at Sh'rstrake, & length applied	<u>36</u>	<u>9</u>	<u>36</u>	<u>7</u>
Do. from Mn. to Upr. or Spar Dk. Sh'rstrake	<u>36</u>	<u>9</u>	<u>36</u>	<u>7</u>
Do. Upr. or Spar Dk Sh'rstrake, brdth & thickness	<u>9 1/2 16 11 5 8</u>	<u>9 3/4</u>	<u>11 5 8</u>	<u>11 5 8</u>
Butt Straps to outside plating, breadth & thickness	<u>12 6</u>	<u>9 1/4</u>	<u>11 5 8</u>	<u>11 5 8</u>
Lengths of Plating	<u>5 9</u>	<u>two spaces</u>	<u>two spaces</u>	<u>two spaces</u>
Shifts of Plating, and Stringers	<u>5 9</u>	<u>two spaces</u>	<u>two spaces</u>	<u>two spaces</u>
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	<u>5 1/2 7</u>	<u>5 1/2 7</u>	<u>5 1/2 7</u>	<u>5 1/2 7</u>
Angle Iron on ditto	<u>5 x 4 x 9</u>	<u>4 x 4 x 8</u>	<u>4 x 4 x 8</u>	<u>4 x 4 x 8</u>
Tie Plates (fore and aft), outside Hatchways	<u>11 1/2 7</u>	<u>11 1/2 7</u>	<u>11 1/2 7</u>	<u>11 1/2 7</u>
Diagonal Tie Plates on Beams (No. of Pairs)	<u>none</u>	<u>none</u>	<u>none</u>	<u>none</u>
Planksheer material and scantling	<u>12 x 5</u>	<u>-</u>	<u>-</u>	<u>-</u>
Waterways do. do.	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>
Flat of Upper Deck do. do.	<u>4</u>	<u>4</u>	<u>4</u>	<u>4</u>
How fastened to Beams	<u>Nuts & Screws</u>	<u>Nuts & Screws</u>	<u>Nuts & Screws</u>	<u>Nuts & Screws</u>
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	<u>4 1/2 9</u>	<u>35 9</u>	<u>35 9</u>	<u>35 9</u>
(Is the Stringer Plate attached to the outside plating?)	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>
Angle Irons on ditto (No. 2)	<u>4 x 4 x 8</u>	<u>4 x 4 x 8</u>	<u>4 x 4 x 8</u>	<u>4 x 4 x 8</u>
Tie Plates, outside Hatchways	<u>11 1/2 9</u>	<u>11 1/2 9</u>	<u>11 1/2 9</u>	<u>11 1/2 9</u>
Diagonal Tie Plates on Beams (No. of pairs)	<u>4</u>	<u>11 1/2 9</u>	<u>11 1/2 9</u>	<u>11 1/2 9</u>
Waterways materials and scantlings	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>
Flat of Middle Deck do. do.	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>
How fastened to Beams	<u>Nuts & Screws</u>	<u>Nuts & Screws</u>	<u>Nuts & Screws</u>	<u>Nuts & Screws</u>
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	<u>30 1/2 8</u>	<u>30 1/2 8</u>	<u>30 1/2 8</u>	<u>30 1/2 8</u>
(Is the Stringer Plate attached to the outside plating?)	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>
Angle Irons on ditto (No. 2)	<u>4 x 4 x 8</u>	<u>4 x 4 x 8</u>	<u>4 x 4 x 8</u>	<u>4 x 4 x 8</u>
Stringer or Tie Plates, outside Hatchways	<u>4 x 4 x 8</u>	<u>4 x 4 x 8</u>	<u>4 x 4 x 8</u>	<u>4 x 4 x 8</u>
Flat of Lower Deck	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>
Ceiling betwixt Decks, thickness and material	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>
Do. in hold do. do. do.	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>	<u>3 1/2</u>
Main piece of Rudder, diameter at head	<u>5 3/4</u>	<u>5 3/4</u>	<u>5 3/4</u>	<u>5 3/4</u>
Do. do. at heel	<u>3</u>	<u>3</u>	<u>3</u>	<u>3</u>
(Can the Rudder be unshipped afloat?)	<u>No.</u>	<u>No.</u>	<u>No.</u>	<u>No.</u>
Bulkheads No. 6 Thickness of	<u>6</u>	<u>6</u>	<u>6</u>	<u>6</u>
Do. Height up	<u>To Deck</u>	<u>To Deck</u>	<u>To Deck</u>	<u>To Deck</u>
Do. How secured to the sides of the ship	<u>Double Frames</u>	<u>Double Frames</u>	<u>Double Frames</u>	<u>Double Frames</u>
Do. Size of Vertical Angle Irons, 3 x 3 1/2 and their distance apart	<u>30 ins</u>	<u>30 ins</u>	<u>30 ins</u>	<u>30 ins</u>
Do. Are the outside Plates doubled two spaces of Frames in length?	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>	<u>Yes</u>

Transoms, material Iron or, if none, in what manner compensated for.
Knight-heads Iron Hawse Timbers Iron
Windlass Napier's Patent Pall Bitt -

The Frames extend in one length from Keel to Gunwale Riveted through plates with (3/4 in.) Rivets, about 6 apart.
The Reverse Angle Irons on the floors and frames extend from the middle line to Upper and to Main Deck alternately
Keelsons. Are the various lengths of Plates and Angle Irons properly connected? Yes And are their butts properly shifted? Yes

Plates, Garboard, double 4 Riveted to Keel, double 4 at upper edge, with Rivets (3/16 in.) diameter, averaging (3/2 ins.) from centre to centre.
Do. Edges from Garboards to upper part of Bilge, worked Clencher, double 4 Riveted; with Rivets (3/4 in.) diameter, averaging (33/8 ins.) from centre to centre.
Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes (11/16) thick, double 4 Riveted; with Rivets (3/4 in.) diameter averaging (33/8 ins.) from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? No
Do. of 3 Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 1/16 thicker than their plates.
Do. Edges from bilge to Main Sheerstrake, worked carvel with a lifting piece (11/16) thick, 4 clencher, double 4 riveted; with rivets (3/4 in.) diameter, averaging (33/8 ins.) from centre to centre.
Do. Edges of Sheerstrake, Main, double 4 Riveted. Upper, double or single Riveted. At upper edge Single At lower edge Double
Do. Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps (11/16) thick, double or single Riveted; with Rivets (3/4 in) diameter, averaging (33/8 ins) from centre to centre.
Do. Butts of Main Sheerstrake, double 4 Riveted. Butts of Upper or Spar Sheerstrake, and Upper Deck Stringer Plate, double 4 treble Riveted for 1/2 length amidships. Breadth of laps of plating in double Riveting (6 times) Breadth of laps of plating in single Riveting (3 1/2 times)

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double 4 Riveted
Planksheer, how secured to the plating of the sides. Waterway, how secured to the planksheer and to the Beams. (Explain by Sketch, if necessary.)
Beams of the various Decks, how secured to the sides? Iron riveted to Frames No. of Breasthooks, Five Crutches, Five
What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? B. Boiler

Manufacturer's name or trade mark, Blochaim and Mossend
We certify that the above is a correct description of the several particulars therein given.
Builder's Signature, R. Napier & Sons Surveyor's Signature, Saml. Lapham

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
Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses? Solid Piece
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes the rivet holes
well and sufficiently countersunk in the plate and punched from the faying surfaces? Yes
Are there any rivets which either break into or have been put through the seams or butts of the plating? A few

Her Masts, Bowsprit, Yards, &c., are in good condition, and sufficient in size and length. If they are of Iron or Steel give the
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 Three Masts of Oregon Pine Schooner Rigged

Tested at Bristol 3rd & 12th February 1872
by John Saunders

Tested at Bristol 28th Nov^r 29th Nov^r
and 1st Decr 1871 by John Saunders

Number for equipment		Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, N ^o . &c.	Weight. Ex. Stock.	Test as per Certificate.	W't req'd per Rule.	Test req'd per Rule.
N ^o .	SAILS.	CABLES, &c.									
	Fore Sails,	Chain	300	1 1/16	44	19/16	33 light	23.0.23	23.5.1.7	23 1/2	23 10/20
One	Fore Top Sails,	(State Machine where Tested, and name of Superintendent).					6 heavy	23.2.6	23.10.0.0	23 1/2	23 10/20
Two	Fore Topmast Stay Sails	Hampden Stream					(State Machine where Tested, and name of Superintendent).	20.0.13	20.17.0.21	19.3.25	20 14/20
Two	Main Sails,	Iron Cable	90	1	18	9 1/2	Stream	10.0.9		10	
Two	Main Top Sails,	Hawser	90	9 1/2							
		Towlines	90	6 1/2							
		Warp	90	5 1/2							
		All of good quality.	90	5 1/2			Kedges	5.0.14		5	
			190	5 1/2				2.2.9		2 1/2	

Her Standing and Running Rigging Wire & Hemp sufficient in size and good in quality. She has Four Long Boats and 2 Life Boats
The present state of the Windlass is good Capstan — and Rudder good Pumps good and efficient
Engine Room Skylights.—How constructed? Leak frame on screw House How secured in ordinary weather? By Brass Bars
What arrangements are there for deadlights in such for bad weather? Thick Glass and Paulines
Coal Bunker Openings.—How constructed? Iron Castings How are lids secured? Screwed How high above deck? Flush
Scuppers, &c.—What arrangements are there beyond the scuppers on deck, for clearing upper deck of water, in case of a sea coming on board?
Flush deck

Cargo Hatchways.—How formed? Plate and Angle Iron State size 6.6 x 7 — 7.6 x 8
If of extraordinary size, state how framed and secured?
What arrangement for shifting beams? Two shifting Beams in Main Hatch
Hatches, themselves, whether strong and efficient? Yes Main Hatchways.—State size 19.6 x 11.0

Order for Special Survey No. 80 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought Under Special
Date 22nd Sept 1871 Surveys held 2nd. On the plating during the progress of riveting Survey from 15th Sept 1871
Order for Ordinary Survey No. — while building 3rd. When the beams were in and fastened, and before the decks were laid to 21st Oct 1872
Date — as per 4th. When the ship was complete, and before the plating was finally coated or cemented
No. 317 in builder's yard. Section 18. 5th. After the ship was launched and equipped

General Remarks,

This vessel has been built in accordance with the
Section appended to the S.S. Elizabeth Martin
(Glasgow Report No. 3557) with which she is a sister
ship and in general conformity with the Rules
with a view to Class 100 A1

She is fitted with a Water tight Ballast Tank
amidships about 18.4 long at height of lower
Course of Beams plated with 7/16 in iron

State if one, two or three decked vessel, or if spar or awning decked, and lengths of poop, forecabin or raised quarter deck, or of double or part double bottom.

In what manner are the surfaces preserved from oxidation? Inside Cement and Paint Outside Paint

I am of opinion this Vessel should be Classed 100 A1 - 3 Decks

The amount of the Entry Fee£ 5 : : : is received by me,

Special£ 55 : 10 : 6

Certificate Gratis

(Travelling Expenses)
(if any) £ —

Committee's Minute 8th Nov 1872

Character assigned 100 A1

Saml. Laphorn

This ship appears to be
eligible to be classed
as recommended, viz.
100 A1
3 Decks.

Lloyd's Register
Foundation