

IRON SHIP.

Rec 14/9/74

No. 6620 Survey held at Port Glasgow Date, First Survey 9th February Last Survey 9th September 1874

On the Ship "Lammermoor" Yard Number 5/F Master George Duncan

TONNAGE under Tonnage Deck) <u>1535.45</u>	ONE, OR TWO DECKED, THREE DECKED VESSEL.	Built at <u>Port Glasgow</u>
Ditto of Third, Spar, or Awning Deck.)	SPAR, OR AWNING DECKED VESSEL.	When built <u>1874</u> Launched <u>13 August 1874</u>
Ditto of Poop, or Raised Quarter Deck.) <u>91.31</u>	HALF BREADTH (moulded) <u>19.9</u>	By whom built <u>John Reid & Co.</u>
Ditto of Houses on Deck <u>22.42</u>	DEPTH from upper part of Keel to top of Upper Deck Beams <u>26.</u>	Owners <u>Williamson, Milligan & Co.</u>
Ditto of Forecastle <u>61.</u>	GIRTH of Half Midship Frame (as per Rule) <u>38.9</u>	Port belonging to <u>Liverpool</u>
Gross Tonnage <u>1710.48</u>	1st NUMBER <u>84.8</u>	Destined Voyage <u>Calcutta</u>
Less Crew Space <u>84.95</u>	1st NUMBER, if a THREE-DECKED VESSEL	<input checked="" type="checkbox"/> Surveyed while Building, Afloat, or in Dry Dock.
Less Engine Room	deduct 7 feet	
Register Tonnage as cut on Beam) <u>1625.53</u>	LENGTH <u>249.5</u>	
	2nd NUMBER <u>21.54</u>	
	PROPORTIONS —Breadths to Length <u>6.2</u>	
	Depths to Length—Upper Deck to Keel	
	Main Deck ditto <u>9.59</u>	

Official Number 40866

LENGTH on deck as per Rule 249.5 **BREADTH** Moulded... 39.8 **DEPTH** top of Floors to Upper Deck Beams 23.9 **Power of Engines** 3 **Horse.** 3 **N^o. of Decks with flat laid** Two **N^o. of Tiers of Beams** Two

Dimensions of Ship per Register, length 260.25 breadth, 40.4 depth, 23.5

	Inches in Ship.	Inches per Rule.
KEEL , depth and thickness	<u>9 1/2 x 2 1/2</u>	<u>9 1/2 x 2 1/2</u>
STEM , moulding and thickness	<u>9 x 2 1/2</u>	<u>9 x 2 1/2</u>
STERN-POST for Rudder do. do.	<u>9 x 2 1/2</u>	<u>9 x 2 1/2</u>
for Propeller		
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>24</u>	<u>24</u> (Class <u>100A</u>)
FRAMES , Angle Iron, for 2/3 length amidships	<u>5 3/2</u>	<u>5 3/2</u>
Do. for 1/3 at each end	<u>3 1/2</u>	<u>3 1/2</u>
REVERSED FRAMES , Angle Iron	<u>3 1/2</u>	<u>3 1/2</u>
FLOORS , depth and thickness of Floor Plate at mid line for half length amidships	<u>25</u>	<u>25</u>
thickness at the ends of vessel	<u>9 1/8</u>	<u>9 1/8</u>
depth at 3/4 the half-bdth. as per Rule	<u>12 1/2</u>	<u>12 1/2</u>
height extended at the Bilges... .. .	<u>8 1/2</u>	<u>50</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... .. .		
BEAMS, Main or Middle Deck Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	<u>10</u>	<u>9 1/2</u>
Single, or double Angle Iron, on Upper Edge		
Average space... .. .	<u>48</u>	<u>48</u>
BEAMS, Lower Deck, Hold or Orlop Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	<u>10</u>	<u>9 1/2</u>
Single or double Angle Iron on Upper Edge		
Average space... .. .	<u>48</u>	<u>48</u>
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates	<u>14 1/2</u>	<u>13</u>
" Rider Plate	<u>8 1/2</u>	<u>10</u>
" Bulb Plate to Intercoastal Keelson	<u>5 1/2</u>	<u>4</u>
" Angle Irons	<u>5 1/2</u>	<u>4</u>
" Double Angle Iron Side Keelson		
" Side Intercoastal Plate	<u>2 1/4</u>	<u>8</u>
" do. Angle Irons	<u>5 1/2</u>	<u>4</u>
" Attached to outside plating with angle iron	<u>3</u>	<u>3</u>
BILGE Angle Irons	<u>5 1/2</u>	<u>4</u>
" do. Bulb Iron... .. .		
" do. Intercoastal plates riveted to plating for length		
BILGE STRINGER Angle Irons	<u>5 1/2</u>	<u>4</u>
Intercoastal plates riveted to plating for length		
SIDE STRINGER Angle Irons	<u>5 1/2</u>	<u>4</u>
Transoms, material. Knight-heads. Hawse Timbers. <u>Span</u>	<u>3 1/2</u>	<u>3</u>

	Inches in Ship.	16ths in Ship.	Inches required	16ths required
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>36</u>	<u>12</u>	<u>36</u>	<u>12</u>
fm up. part of Bilge to l. edge of Sh'rstrake	<u>11</u>		<u>10 1/2</u>	<u>10</u>
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>40</u>	<u>13</u>	<u>40</u>	<u>13</u>
Butt Straps to outside plating, breadth & thickness				
Lengths of Plating				
Shifts of Plating, and Stringers... .. .				
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness... .. .				
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>41</u>	<u>10</u>	<u>35</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>5 1/2 x 4 1/2</u>	<u>9</u>	<u>5 1/2 x 4 1/2</u>	<u>9</u>
Tie Plates, outside Hatchways	<u>13</u>	<u>10</u>	<u>11 1/2</u>	<u>10</u>
Diagonal Tie Plates on Beams, No. of pairs <u>6</u>	<u>13</u>	<u>10</u>	<u>11 1/2</u>	<u>10</u>
Waterways materials and scantlings				
Flat of Middle Deck do. do. <u>G. Pine</u>	<u>5 1/4</u>		<u>4 1/2</u>	
How fastened to Beams	<u>Screw Bolts & Nuts</u>			
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	<u>3 1/2</u>	<u>9</u>	<u>2 1/2</u>	<u>9</u>
Is the Stringer Plate attached to the outside plating? <u>Yes</u>				
Angle Irons on ditto, No. <u>Two</u>	<u>4 1/4 x 4 1/4</u>	<u>9</u>	<u>4 1/4 x 4 1/4</u>	<u>9</u>
Stringer or Tie Plates, outside Hatchways	<u>13</u>	<u>9</u>	<u>11 1/2</u>	<u>9</u>
Flat of Lower Deck	<u>3</u>			
Ceiling betwixt Decks, thickness and material	<u>3 Battens</u>		<u>2 1/2</u>	
in hold do. do.	<u>2 1/2</u>		<u>2 1/2</u>	
Main piece of Rudder, diameter at head	<u>6 3/4</u>		<u>6 3/4</u>	
do. at heel	<u>3 1/4</u>		<u>3 1/4</u>	
Can the Rudder be unshipped afloat? <u>Yes</u>				
Bulkheads No. <u>One</u> Thickness of <u>7/16</u>				
Height up <u>to Main Deck</u>				
How secured to sides of ship <u>Double frames</u>				
Size of Vertical Angle Irons <u>3 1/2 x 3 x 3/16</u> and distance apart <u>30</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 1/8 in. Rivets, about 4 apart.

The **REVERSED ANGLE IRONS** on floors and frames extend from middle line to Main Deck for half length

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 1/8 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 1/8 in. diameter, averaging 3 1/4 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 1/8 in. diameter averaging 3 1/4 ins. from centre to centre.

Butts of three Strakes at Bilge for half length, treble riveted with Butt Straps 1/16 thicker than the plates they connect.

Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 1/8 in. diameter, averaging 3 1/4 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 1/8 in. diameter, averaging 3 1/4 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 5 1/4 Breadth of laps of plating in single riveting —

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

Waterway, how secured to Beams Span Gutter (Explain by Sketch, if necessary.)

Beams of the various Decks, how secured to the sides? Welded three plates No. of Breasthooks, 5 Crutches, 4

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

Manufacturer's name or trade mark, W. & A. Messend

The above is a correct description.

Builder's Signature, John Reid & Co. Surveyor's Signature, Edward Clouston

IRON 458-0386

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 13335 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.

State also Length and Diameter of Lower Masts and Bowsprit Iron Mast 90 ft dia 30. Main 90 ft dia 33. Mizzen 81 ft dia 30. Bowsprit 23 ft dia 30
Masts in three plates 3/16 thick tapering to 6/16. edges double riveted. butts treble, and the straps 1/16 thicker than plates; in way of wedging plates doubled, and three angle irons throughout 5 x 3 1/2 x 3/16.
Bowsprit in two plates 3/16 tapered to 1/16. edges double riveted. butts treble, and the straps 1/16 thicker than plates with three angle irons 5 x 3 1/2 x 3/16.

Tonnage for EQUIPMENT		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	No.	Weight. Ex. Stock.	Test per Certificate.	Weight req'd per Rule.	Test req'd per Rule.
No.	SAILS.	CABLES, &c.										
2	Fore Sails,	Chain 6/16 dia 135	146	6 1/2 B.S. 9420	240 6/20		Bowers	28	36.1.16	33.8.0.0	36.2.0	33.8.0
2	Fore Top Sails,	Chain 1 1/16 dia 135	146	6 1/2 B.S. 9420	146 64 20		(State Machine where Tested, Date, and name of Superintendent.)	1472	36.3.8	33.15.0.0	31.0.3	29.8.0
2	Fore Topmast Stay Sails,	Ham Strm Cbl 90	146				11 July 1844	1471	31.1.0	29.11.1.0		
2	Main Sails,	Hawser ... 90	102				11 July 1844					
2	Main Top Sails,	Towlines ... 90	13				11 July 1844					
	and others as usual	Warp ... 90	62				11 July 1844					
		quality good					11 July 1844					

Standing and Running Rigging Wire & Hempen sufficient in size and good in quality. She has one Life Boat and four others
 The Windlass is Harfield's Patent Capstan S. and Rudder efficient Pumps 3 in A.

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? Iron Comings

State size Main Hatch 15' 4" x 11' 0" Forehatch 4' 6" x 4' 0" Quarterhatch 4' 6" x 8' 6"

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

What arrangement for shifting beams? One shifting Beam in Main Hatch

Hatches, If strong and efficient? Yes

Order for Special Survey No. 656 DATES of Surveys held while building as per Section 18:
 Date 24 October 1843
 Order for Ordinary Survey No. _____
 Date _____
 No. 5/P in builder's yard.

- 1st. On the several parts of the frame, when in place, and before the plating was wrought Built under S.S. and surveyed 1844. Feb 9, 26, March 4, 11, 12, 14, 21, 25, 30, April 4, 7, 14, 20, 28, 30.
- 2nd. On the plating during the process of riveting March 4, 11, 12, 14, 21, 25, 30, April 4, 7, 14, 20, 28, 30.
- 3rd. When the beams were in and fastened, and before the decks were laid... May 1, 6, 9, 13, 15, 21, 25, 29, June 4, 11, 15, 19, 24, July 9, 14, 28.
- 4th. When the ship was complete, and before the plating was finally coated or cemented... August 20, 25, September 4, 7, 9.
- 5th. After the ship was launched and equipped

General Remarks, (State quality of workmanship &c.)
 This Vessel has been built in conformity with the midship section herewith appended, and approved by the Committee in letter dated 9th April 1844; and is in many respects in excess of the requirements of the Rules, the Reverse Bars being all carried up to the Main Deck for one half the length amidships, also the alternate strakes of Outside plating being 1/16 thicker, and from the Bilges upwards the butts are treble riveted, and the straps 1/16 thicker than plates: all the Iron Masts, and Spars have angle irons fitted.— The materials and workmanship are of the very best description.—

State if one, two or three decked vessel, or if spar or awning decked, and lengths of poop, fore-castle of raised quarter deck, or of double or part double bottom. 46 ft 10 ft

How are the surfaces preserved from oxidation? Inside Portland Cement to above turn of Bilge & Outside Three coats of Red Lead & One Red Lead above. of Patent Composition on 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 ... £ 65: 12: 6 11 Sept^r 1874
 Certificate ... £ 0: 0: 0
 (Travelling Expenses) £ 2: 40: 12: 6
 (if any) £ _____

Committee's Minute 15th September 87

Character assigned 100 A.1.
ADEP
J.W.

(Large blue ink stamp and signature)
 Lloyd's Register Foundation