

IRON SHIP.

No. 4118 Survey held at Port Glasgow Date, First Survey 11th April Last Survey 30th November 1846

On the Screw Steam Vessel "Emu" Master R W Osborne

TONNAGE under } 611.05 ONE, OR TWO DECKED, THREE DECKED VESSEL.
 Tonnage Deck }
 Ditto of Third, Spar, }
 or Awning Deck. }
 Ditto of Poop, or }
 Raised Qr. Dk. }
 Ditto of Houses } 10.10
 on Deck }
 Ditto of Forecastle }
 Gross Tonnage 621.23
 Less Crew Space 29.84
591.39
 Less Engine Room 198.49
 Register Tonnage } 392.6
 as out on Beam }

HALF BREADTH (moulded)... .. 12.41 Feet.
DEPTH from upper part of Keel to top of Upper Deck Beam... .. 12.83
GIRTH of Half Midship Frame (as per Rule)... .. 21.91
1st NUMBER 47.05
1st NUMBER, if a THREE-DECKED VESSEL (deduct 7 feet)
LENGTH 148.45
2nd NUMBER 8420
PROPORTIONS—Breathths to Length 4.2
 Depths to Length—Upper Deck to Keel
 Main Deck ditto 13.9

Built at Port Glasgow
 When built 1846 Launched 16 Sept^r 1846
 By whom built Blackwood & Gordon
 Owners Osborne & others
 Port belonging to Adelaide
 Destined Voyage Adelaide
 If Surveyed while Building, Afloat, or in Dry Dock.

PLAN CASE

LENGTH	BREADTH	DEPTH	Power of Engines	Horse	Nº. of Decks with flat laid	Nº. of Tiers of Beams
Feet. Inches. <u>148.45</u>	Feet. Inches. <u>24.02</u>	Feet. Inches. <u>12.83</u>	<u>95</u>	<u>95</u>	<u>two</u>	<u>two</u>
Dimensions of Ship per Register, length, <u>149.4</u> breadth, <u>25.1</u> depth, <u>10.4</u>						
KEEL , depth and thickness	<u>4 1/4 x 1 1/2</u>	<u>4 1/4 x 1 1/2</u>				
STEM , moulding and thickness	<u>6 1/2 x 1 1/2</u>	<u>6 1/2 x 1 1/2</u>				
STERN-POST for Rudder do. do.	<u>8 x 8 3/8</u>	<u>6 1/2 x 3 1/4</u>				
for Propeller	<u>21</u>	<u>21</u>				
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>21</u>	<u>21</u>				
FRAMES , Angle Iron, for 2/3 length amidships	<u>3 x 3</u>	<u>3 x 3</u>				
Do. for 1/3 at each end	<u>3 x 3</u>	<u>3 x 3</u>				
REVERSED FRAMES , Angle Iron	<u>2 1/2 x 2 1/2</u>	<u>2 1/2 x 2 1/2</u>				
FLOORS , depth and thickness of Floor Plate at mid line for half length amidships	<u>13 1/2</u>	<u>13 1/2</u>				
thickness at the ends of vessel	<u>7</u>	<u>7</u>				
depth at 2/3 the half-bdth. as per Rule	<u>4</u>	<u>6 3/4</u>				
height extended at the Bilges	<u>40</u>	<u>24</u>				
BEAMS , Upper, Spar, or Awning Deck	<u>4 1/2 x 2 1/2</u>	<u>4 1/2 x 2 1/2</u>				
Single or double Angle Iron, Plate or Tee Bulb Iron	<u>4 1/2</u>	<u>4 1/2</u>				
Single or double Angle Iron on Upper edge	<u>42</u>	<u>42</u>				
Average space	<u>42</u>	<u>42</u>				
BEAMS , Main, or Middle Deck	<u>6</u>	<u>6</u>				
Single or double Angle Iron, Plate or Tee Bulb Iron	<u>2 1/2 x 2 1/2</u>	<u>2 1/2 x 2 1/2</u>				
Single or double Angle Iron, on Upper Edge	<u>42</u>	<u>42</u>				
Average space	<u>42</u>	<u>42</u>				
BEAMS , Lower Deck, Hold, or Orlop	<u>3 1/2 x 3</u>	<u>3 1/2 x 3</u>				
Single or double Angle Iron, Plate or Tee Bulb Iron	<u>3 1/2</u>	<u>3 1/2</u>				
Single or double Angle Iron on Upper Edge	<u>4</u>	<u>4</u>				
Average space	<u>4</u>	<u>4</u>				
KEELSONS Centre line, single or double plate, box or intercostal, Plates	<u>11</u>	<u>11</u>				
" Rider Plate	<u>4 1/2</u>	<u>4 1/2</u>				
" Bulb Plate to Intercostal Keelson	<u>3 1/2</u>	<u>3 1/2</u>				
" Angle Irons	<u>3 1/2</u>	<u>3 1/2</u>				
" Double Angle Iron Side Keelson	<u>3 1/2</u>	<u>3 1/2</u>				
" Side Intercostal Plate	<u>4</u>	<u>4</u>				
" do. Angle Irons	<u>4</u>	<u>4</u>				
" Attached to outside plating with angle iron	<u>no</u>	<u>no</u>				
BILGE Angle Irons	<u>3 1/2 x 3</u>	<u>3 1/2 x 3</u>				
" do. Bulb Iron	<u>6</u>	<u>6</u>				
" do. Intercostal plates riveted to plating for length	<u>6</u>	<u>6</u>				
BILGE STRINGER Angle Irons	<u>3 1/2 x 3</u>	<u>3 1/2 x 3</u>				
Intercostal plates riveted to plating for length	<u>6</u>	<u>6</u>				
SIDE STRINGER Angle Irons	<u>3 1/2 x 3</u>	<u>3 1/2 x 3</u>				
Transoms, material. Knight-heads. Hawse Timbers.	<u>Iron</u>	<u>Iron</u>				
Windlass <u>Iron Patent</u> Pall Bitt	<u>Iron</u>	<u>Iron</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 two strakes

fm up. part of Bilge to l. edge of Sh'rstrake

Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Upper or Spar Dk. Sh'rstrake

Upper Deck Beams, breadth and thickness 21 x 6

Angle Iron on ditto 3 x 3 x 6

Tie Plates fore and aft, outside Hatchways 0

Diagonal Tie Plates on Beams No. of Pairs, 0

Planksheer material and scantling } 12 x 4

Waterways do. do. } 5 x 2 1/2

Flat of Upper Deck do. do. } Screw Bolts & Nuts

How fastened to Beams

Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness 42

Is the Stringer Plate attached to the outside plating? yes

Angle Irons on ditto, No. two

Tie Plates, outside Hatchways 0

Diagonal Tie Plates on Beams, No. of pairs 0

Waterways materials and scantlings } 12 x 5

Flat of Lower Deck do. do. } 3 1/2

How fastened to Beams

Stringer Plates on ends of Lower Deck, Hold or Orlop Beams

Is the Stringer Plate attached to the outside plating? no

Angle Irons on ditto, No. 0

Stringer or Tie Plates, outside Hatchways 0

Flat of Lower Deck 0

Ceiling betwixt Decks, thickness and material in hold do. do. 2 1/2

Main piece of Rudder, diameter at head 4 1/2

do. at heel 2 1/2

Can the Rudder be unshipped afloat? yes

Bulkheads No. 4 Thickness of 1/2

Height up to main Deck

How secured to sides of ship double frames

Size of Vertical Angle Irons 2 1/2 x 2 1/2 x 5/8 and distance apart 30 ins.

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

The **FRAMES** extend in one length from Keel to Gunnwale Riveted through plates with 3/4 in. Rivets, about 6 apart.

The **REVERSED ANGLE IRONS** on floors and frames extend across middle line to above Bilge Stringer and to above main or Orlop Stringer Angle Iron 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 in. diameter, averaging 5 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 1/4 ins. from centre to centre.

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

Butts of one Strake, at Bilge for half length, double 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 3/4 in. diameter, averaging 3 1/4 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 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, double riveted for whole length amidships. Butts of Upper or Spar Sheerstrake, treble riveted 1 length amidships.

Butts of Main Stringer Plate, double riveted for whole length amidships. **Butts of Upper or Spar Stringer Plate**, treble riveted for 1 length.

Breadth of laps of plating in double riveting 4 1/2 Breadth of laps of plating in single riveting 2 3/4

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

Waterway, how secured to Beams Screw Bolts & Nuts (Explain by Sketch, if necessary.)

Beams of the various Decks, how secured to the sides? Welded Knee 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, Angle Irons Dalziel Plates & Kerne

The above is a correct description.

Builder's Signature, John Blackwood & Gordon Surveyor's Signature, Edmund Borchmann

Manager

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

IRON 469-02.49

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* 17425 Iron
 Do any rivets break into or through the seams or butts of the plating? *very few*

Masts, Bowsprit, Yards, &c., are *of wood* 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 *Light Pole Masts (2 in No)*

No.	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.		No.	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
								Bowers	Stream					
		Chain	90.2	3	25.4.2.0	19.5.0.0		3304	12.2.14	14.8.1.0		12.0.0	15.2.0	
		Chain	105.0	1 1/2	38.0.0.0	1 1/2	25.0.0.38	3303	12.1.10	14.4.0.0		10.0.28	12.4.0	
		Hmpn Strm Cbl	90	3				3330	10.1.15	12.8.3.0		5.0.0		
		Hawser	90	4					1	5.0.5		2.2.0		
		Towlines	90	1/2					1	2.2.4		1.1.0		
		Warp	90	4					1	1.1.5				

Standing and Running Rigging *wired Hempen* sufficient in size and *good* in quality. She has *two* Boats and *2* others.
 The Windlass is *Napiers Patent* Capstan *2 1/2* Windlasses and Rudder *efficient* Pumps in *Each* Compartment
 Engine Room Skylights.—How constructed? *Iron Trunk Bulkheads* & *now* secured in ordinary weather? *Protrude into wire grating*
 What arrangements for deadlights in bad weather? *Tarpanlins*
 Coal Bunker Openings.—How constructed? *Cast Iron Lids* & *Lids* How are lids secured? *Self locking* Height above deck? *flush*
 Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shir ing a sea? *Open Bulwarks*

Cargo Hatchways.—How formed? *Iron Corning*
 State size Main Hatch Forehatch *12'0" x 8'0"* Quarterhatch *11'0" x 8'0"*
 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.	DATES OF SURVEYS held while building as per Section 18.	1st.	2nd.	3rd.	4th.	5th.
80	24 April 1876			139		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 & longitudinal plan herewith appended which were submitted to the Committee and approved in letter dated 20th April 1876. The Scantlings and arrangements in the Boiler space as shown in accompanying sketch and required by the Committee in letter of the 24th May 1876 have been complied with by doubling the stringer plate with 21 x 3/16 plating and attaching the Iron Deck over the Boiler to the stringer plate with 3/16 plate, and by one strong beam in Engine Room, the fore beam being of ordinary size attached to the Bulkhead across the ship*

The Lead line approved by the Committee viz 12 ft has been marked with a Diamond and Bar on the Deepel Amidships in accordance with Circular letter No 354
The workmanship & Materials are of the best description

State if one, two, or three, decked vessel, or if spar, or awning decked; and the lengths of poop, forecabin, or raised quarter deck, and the length of double, or part double bottom.
 How are the surfaces preserved from oxidation? Inside *Portland Cement to above Pilgers Red* Outside *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,
 Special ... £ 29: 11: 0
 Certificate ... £ 34: 11: 0
 (Travelling Expenses, if any, £ ...)
 Committee's Minute *5th December 1876*
 Character assigned *100A1*
12 feet lead line
15 feet awning deck
12 feet lead line