

IRON SHIP.

No. 6990 Survey held at Port Glasgow Date, First Survey 10th Dec^r 1875 Last Survey 24th May 1876

On the Barque Mary Low now East Anglian Master George Dunlop

TONNAGE under Tonnage Deck 806.26
 Ditto of Third, Spar, or Awning Deck. 12.10
 Ditto of Poop, or Raised Or. Dk. 49.51
 Ditto of Houses on Deck 42.52
 Ditto of Forecastle 910.39
 Gross Tonnage 55.62
 Less Crew Space 854.77
 Less Engine Room
 Register Tonnage as cut on Beam

ONE, OR TWO DECKED, THREE DECKED VESSEL.
 SPAR, OR AWNING DECKED VESSEL.
 HALF BREADTH (moulded) 16.25
 DEPTH from upper part of Keel to top of Upper Deck Beams 21.5
 GIRTH of Half Midship Frame (as per Rule) 32.75
 1st NUMBER 70.5
 1st NUMBER, if a THREE-DECKED VESSEL [deduct 7 feet]
 LENGTH 108.8
 2nd NUMBER 13.310
 PROPORTIONS—Breadths to Length 5.8
 Depths to Length—Upper Deck to Keel
 Main Deck ditto 8.77

Built at Port Glasgow
 When built 1875:76 Launched 29th Apr^l 76
 By whom built R. Duncan & Co
 Owners John Low
 Port belonging to Greenock
 Destined Voyage San Francisco
 Surveyed while Building, Afloat, or in Dry Dock.

LENGTH on deck as per Rule 108.8 Breadth Moulded 32.5 DEPTH top of Floors to Upper Deck Beams 19.71 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 197.65 breadth 32.6 depth 19.45

	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	$8 \times 2 \frac{3}{8}$	$8 \times 2 \frac{3}{8}$
STEM, moulding and thickness	$7 \frac{1}{4} \times 2 \frac{3}{8}$	$7 \frac{1}{4} \times 2 \frac{3}{8}$
STERN-POST for Rudder do. do.	$7 \frac{1}{2} \times 2 \frac{3}{8}$	$7 \frac{1}{2} \times 2 \frac{3}{8}$
for Propeller	$2 \frac{3}{8}$	$2 \frac{3}{8}$
Distance of Frames from moulding edge to moulding edge, all fore and aft	$2 \frac{3}{8}$	$2 \frac{3}{8}$
FRAMES, Angle Iron, for $\frac{3}{4}$ length amidships	$4 \frac{1}{2} \times 3$	$4 \frac{1}{2} \times 3$
Do. for $\frac{1}{2}$ at each end	$4 \frac{1}{2} \times 3$	$4 \frac{1}{2} \times 3$
REVERSED FRAMES, Angle Iron	3×3	3×3
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	$2 \frac{1}{2} \times 9$	$2 \frac{1}{2} \times 9$
thickness at the ends of vessel	$11 \times 10 \frac{3}{4}$	$11 \times 10 \frac{3}{4}$
depth at $\frac{3}{4}$ the half-bdth. as per Rule	$11 \times 10 \frac{3}{4}$	$11 \times 10 \frac{3}{4}$
height extended at the Bilges	$11 \times 10 \frac{3}{4}$	$11 \times 10 \frac{3}{4}$
BEAMS, Upper, Spar, or Awning Deck	$7 \frac{1}{2} \times 7$	$7 \frac{1}{2} \times 7$
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3×3	3×3
Single or double Angle Iron on Upper edge	46×46	46×46
Average space	$3 \frac{1}{4} \times 6$	$3 \frac{1}{4} \times 6$
BEAMS, Main, or Middle Deck	$7 \frac{1}{2} \times 7$	$7 \frac{1}{2} \times 7$
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3×3	3×3
Single, or double Angle Iron, on Upper Edge	46×46	46×46
Average space	$3 \frac{1}{4} \times 6$	$3 \frac{1}{4} \times 6$
BEAMS, Lower Deck, Hold, or Orlop	$7 \frac{1}{2} \times 7$	$7 \frac{1}{2} \times 7$
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3×3	3×3
Single or double Angle Iron on Upper Edge	46×46	46×46
Average space	$3 \frac{1}{4} \times 6$	$3 \frac{1}{4} \times 6$
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates	14×14	14×14
Rider Plate	$10 \frac{3}{4} \times 11$	$10 \frac{3}{4} \times 11$
Bulb Plate to Intercoastal Keelson	$5 \times 3 \frac{1}{2}$	$5 \times 3 \frac{1}{2}$
Angle Irons	$5 \times 3 \frac{1}{2}$	$5 \times 3 \frac{1}{2}$
Double Angle Iron Side Keelson	$5 \times 3 \frac{1}{2}$	$5 \times 3 \frac{1}{2}$
Side Intercoastal Plate	$5 \times 3 \frac{1}{2}$	$5 \times 3 \frac{1}{2}$
do. Angle Irons	$5 \times 3 \frac{1}{2}$	$5 \times 3 \frac{1}{2}$
Attached to outside plating with angle iron	$5 \times 3 \frac{1}{2}$	$5 \times 3 \frac{1}{2}$
RE Angle Irons	$5 \times 3 \frac{1}{2}$	$5 \times 3 \frac{1}{2}$
do. Bulb Iron	$5 \times 3 \frac{1}{2}$	$5 \times 3 \frac{1}{2}$
do. Intercoastal plates riveted to plating for length	$5 \times 3 \frac{1}{2}$	$5 \times 3 \frac{1}{2}$
STRINGER Angle Irons	$5 \times 3 \frac{1}{2}$	$5 \times 3 \frac{1}{2}$
Intercoastal plates riveted to plating for length	$5 \times 3 \frac{1}{2}$	$5 \times 3 \frac{1}{2}$
STRINGER Angle Irons	$5 \times 3 \frac{1}{2}$	$5 \times 3 \frac{1}{2}$

	Inches in Ship.	16ths in Ship.	Inches required	16ths required
Flat Keel Plates, breadth and thickness	34×10	34×10	34×10	34×10
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges	9×9	9×9	9×9	9×9
of doubling at Bilge, or increased thickness, and length applied	9×9	9×9	9×9	9×9
fm up. part of Bilge to l. edge of Sh'rstrake	9×9	9×9	9×9	9×9
Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Upr. or Spar Dk. Sh'rstrake.	36×11	36×11	36×11	36×11
Up. or Spar Dk Sh'rstrake, brdth & thickness	36×11	36×11	36×11	36×11
Butt Straps to outside plating, breadth & thickness	$9 \frac{3}{4} \times 10 \frac{1}{2}$	$9 \frac{3}{4} \times 10 \frac{1}{2}$	$9 \frac{3}{4} \times 10 \frac{1}{2}$	$9 \frac{3}{4} \times 10 \frac{1}{2}$
Lengths of Plating	7×16	7×16	7×16	7×16
Shifts of Plating, and Stringers	2×11	2×11	2×11	2×11
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness	36×9	36×9	36×9	36×9
Angle Iron on ditto	36×9	36×9	36×9	36×9
Tie Plates fore and aft, outside Hatchways	10×9	10×9	10×9	10×9
Diagonal Tie Plates on Beams No. of Pairs	10×9	10×9	10×9	10×9
Planksheer material and scantling	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$
Waterways do. do.	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$
Flat of Upper Deck do. do.	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$
How fastened to Beams	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$
Stringer Plate on ends of Main or Middle Deck	20×8	20×8	20×8	20×8
Beams, breadth and thickness	20×8	20×8	20×8	20×8
Is the Stringer Plate attached to the outside plating?	Yes			
Angle Irons on ditto, No. <u>one</u>	$5 \times 3 \frac{1}{2} \times 7$	$5 \times 3 \frac{1}{2} \times 7$	$5 \times 3 \frac{1}{2} \times 7$	$5 \times 3 \frac{1}{2} \times 7$
Tie Plates, outside Hatchways	10×9	10×9	10×9	10×9
Diagonal Tie Plates on Beams, No. of pairs	10×9	10×9	10×9	10×9
Waterways materials and scantlings	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$
Flat of Middle Deck do. do.	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$
How fastened to Beams	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	20×8	20×8	20×8	20×8
Is the Stringer Plate attached to the outside plating?	Yes			
Angle Irons on ditto, No. <u>2</u>	$3 \frac{1}{2} \times 3 \frac{1}{2} \times 8$	$3 \frac{1}{2} \times 3 \frac{1}{2} \times 8$	$3 \frac{1}{2} \times 3 \frac{1}{2} \times 8$	$3 \frac{1}{2} \times 3 \frac{1}{2} \times 8$
Stringer or Tie Plates, outside Hatchways	10×9	10×9	10×9	10×9
Flat of Lower Deck	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$
Ceiling betwixt Decks, thickness and material	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$
in hold do. do.	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$
Main piece of Rudder, diameter at head	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$
do. at heel	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$	$3 \frac{1}{2} \times 7$
Can the Rudder be unshipped afloat?	Yes			
Bulkheads No. <u>one</u> Thickness of <u>6/16</u>	$6/16$	$6/16$	$6/16$	$6/16$
Height up <u>Main Deck</u>	$6/16$	$6/16$	$6/16$	$6/16$
How secured to sides of ship	<u>Double frames</u>			
Size of Vertical Angle Irons <u>2x3x7/16</u> and distance apart <u>30</u> ins.	$2 \times 3 \times 7/16$	30	$2 \times 3 \times 7/16$	30
Are the outside Plates doubled two spaces of Frames in length?	Yes			

Material. Knight-heads. Hawse Timbers.

Patent Pall Bitt

in one length from Keel to Gunwale Riveted through plates with 3/4 in. Rivets, about 6 apart.

IRONs on floors and frames extend from middle line to above Hold Beam and to Main Deck alternately

continuous lengths of Plates and Angle Irons properly connected? Yes And butts properly shifted? Yes

sole riveted to Keel, with rivets 1/2 in. diameter, averaging 5 1/2 ins. from centre to centre.

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.

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

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

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

strake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from cr. to cr.

or single riveted. Upper Sheerstrake, double or single riveted.

riveted for half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted — length amidships.

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

5x4 1/2 Breadth of laps of plating in single riveting —

double or single Riveted? —

(Explain by Sketch, if necessary.)

Welded two plates. No. of Breasthooks, 4 Crutches, 4

s, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Best

Mossend. Plates, Consell

Surveyor's Signature, H. B. Wood

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? *Very few*

16418 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 *Fore Mast 70.10 dia 26 Main 74.3 dia 26 Mizen 72.10 dia 19 Bowsprit 19.6 dia 25 All in two plates 6/16 to 5/16 edges single riveted butt straps outside and tuble & double riveted. Three angle irons in each 3x3 1/2 and plates doubled in way of wedging.*

13.200

NUMBER for EQUIPMENT *14.197*

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.	Wght req'd per Rule.	Test req'd per Rule.
		Chain	<i>135</i>	<i>5</i>	<i>4 1/2</i>	<i>166 1/2</i>	<i>270 lbs</i>	Bowers	<i>2560</i>	<i>26.0.21</i>	<i>25.15.7</i>	<i>25.2.0</i>	<i>25.3</i>
	Fore Sails,	where Tested, Date, & name of Superintendent	<i>135</i>	<i>5</i>	<i>4 1/2</i>	<i>166 1/2</i>	<i>270 lbs</i>		<i>2561</i>	<i>26.0.44</i>	<i>25.14.1.14</i>	<i>21.2.20</i>	<i>22 2/2</i>
	Fore Top Sails,	<i>Lipton Paving House</i>	<i>114</i>	<i>20</i>	<i>10</i>	<i>76</i>	<i>47 1/2</i>		<i>2559</i>	<i>22.2.0</i>	<i>22.15.0.0</i>	<i>10.2.0</i>	<i>2</i>
	Fore Topmast Stay Sails	<i>Samuel Regenna Superintendent</i>											
	Main Sails,	Harpn Strm Cbl	<i>90</i>	<i>7/8</i>		<i>14 1/6</i>		Stream	<i>1</i>	<i>10.3.18</i>		<i>10.2.0</i>	
	Main Top Sails,	Hawser	<i>90</i>	<i>7/8</i>		<i>8</i>		Kedges	<i>1</i>	<i>5.0.22</i>		<i>5.1.0</i>	
	and	Towlines	<i>90</i>	<i>6</i>		<i>5</i>				<i>2.3.24</i>		<i>2.3.0</i>	
		Warp quality <i>Good</i>	<i>90</i>	<i>6</i>									

Standing and Running Riggings *Double Hempen* sufficient in size and *good* in quality. She has *Two* Long Boats and *three* the

The Windlass is *Harfield's Patent* Capstan *S* and Rudder *Efficient* Pumps *2* Adams Patent

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 Casings*

State size Main Hatch *13.6 x 9.0* Forehatch *5.6 x 5.6* Quarterhatch *5.6 x 5.6*

If of extraordinary size, state how framed and secured?

What arrangement for shifting beams? *All in Main Hatch*

Hatches, If strong and efficient? *Yes*

Order for Special Survey No. <i>777</i>	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	<i>Built under S.S. and surveyed 1875</i>
Date <i>2 Dec 1875</i>		2nd. On the plating during the process of riveting	<i>Dec 10, 23, 28, 1876. - January 7, 19, 22, 28</i>
Order for Ordinary Survey No. <i>106</i>		3rd. When the beams were in and fastened, and before the deck was laid	<i>February 1, 7, 26, March 3, 7, 10, 16, 18, 20,</i>
Date <i>1</i>		4th. When the ship was complete, and before the plating was finally coated or cemented.	<i>April 1, 4, 22, 27, May 1, 4, 10, 15, 24</i>
No. <i>106</i> in builder's yard.		5th. After the ship was launched and equipped	

General Remarks (State quality of workmanship, &c.) *This Vessel has been built in accordance with the Rules and accompanying Midship section which was approved by the Committee in Letter dated 22nd November 1875*

The workmanship and materials are of the best description.

Fore & Main Lower Yards 66.6 dia 15 1/2 plates 7/16 to 3/16 in 2 plates edge
8° lower Topsail Yards 56.6 dia 13 1/2 plates 7/16 to 1/2 in 2 plates edge
Stutts lapped & throughout in way of

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

How are the surfaces preserved from oxidation? Inside *Portland cement to above Belge* Outside *Paint*

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, *May 1876*

Special ... £ *42: 14: 0* *25 May 1876*

Certificate ... £ *0: 0: 0*

(Travelling Expenses, if any, £ *49: 14: 0*)

Committee's Minute *30th May 1876*

Character assigned *100 A-1*

DM



Lloyd's Register Foundation