

IRON SHIP.

(Received at London Office, _____)

No. _____ Survey held at _____ Date, First Survey _____ Last Survey _____ 18 _____

On the *Steel Screw Steamer Manora* classed *A1** in the Underwriters' Registry.

TONNAGE under Tonnage Deck } *2803.46*
Ditto of Third, Spar, or Awning Deck } *1186.56*
Ditto of Poop, or Raised Or. Dk. } *163.93*
Ditto of Houses on Deck } *21.16*
Ditto of Forecastle } *47.80*
Other enclosed Spaces } *484.38*
Gross Tonnage } *4704.29*
Less Crew Space } *161.03*
Less Engine Room } *1667.36*
Register Tonnage } *3039.93*
as cut on Beam }

ONE, OR TWO DECKED, THREE DECKED VESSEL, SPAR, OR AWNING-DECKED VESSEL.
Half Breadth (moulded) *22.40*
Depth from upper part of Keel to top of Upper Deck Beams *32.13*
Girth of Half Midship Frame (as per Rule) *49.46*
1st Number *104.09*
1st Number, if a 3-Decked Vessel . . deduct 7 feet *97.09*
Length *408.13*
2nd Number *396.25*
Proportions— Breadths to Length *9.06*
Depths to Length—Upper Deck to Keel *12.70*
Main Deck ditto *16.91*

Master _____
Built at *Dumbarton*
When built *1883* **Launched** *31st Dec 1883*
By whom built *Messrs J. & J. Denny & Sons*
Owners *Messrs Gray, Daines & Co*
Residence *London*
Port belonging to *Glasgow*
Destined Voyage _____
If Surveyed while Building, Afloat, or in Dry Dock. *While Building*

LENGTH on deck as per Rule . . . *408* **BREADTH—** Moulded . . . *45* **DEPTH** top of Floors to Upper Deck Beams . . . *29* **Power of Engines** . . . *650* **Nº. of Decks with flat laid** *Three* **Nº. of Tiers of Beams** *Two*

Dimensions of Ship per Register, length, *410.0* breadth, *45.2* depth, *29.7*

	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	<i>11 x 3 1/2</i>	<i>11 x 3 1/2</i>	STEM , moulding and thickness	<i>11 x 3 1/2</i>	<i>11 x 3 1/2</i>	STERN-POST for Rudder do. do.	<i>11 1/2 x 5</i>	<i>11 1/2 x 5</i>	" for Propeller	<i>11 3/4 x 6 1/2</i>	<i>11 3/4 x 6 1/2</i>
Distance of Frames from moulding edge to moulding edge, all fore and aft	<i>24"</i>	<i>24"</i>									
FRAMES , Angle Iron, for 2/3 length amidships	<i>6</i>	<i>3 1/2</i>	Do. for 1/3 at each end	<i>3 1/2</i>	<i>3 1/2</i>	REVERSED FRAMES , Angle Iron	<i>3 1/2</i>	<i>3 1/2</i>	FLOORS , depth and thickness of Floor Plate at mid line for half length amidships	<i>29</i>	<i>10</i>
" thickness at the ends of vessel	<i>15</i>	<i>15</i>	" depth at 2/3 the half-bath. as per Rule	<i>63</i>	<i>63</i>	" height extended at the Bilges	<i>8</i>	<i>8</i>	BEAMS , Upper, Spar, or Awning Deck Single or double Ang. Iron, Plate or Tee Bulb Iron	<i>8</i>	<i>8 1/2</i>
Single or double Angles Iron on Upper edge	<i>2nd frames</i>	<i>2nd frames</i>	Average space	<i>7 1/2</i>	<i>3</i>	BEAMS , Main, or Middle Deck Single or double Ang. Iron, Plate or Tee Bulb Iron	<i>10</i>	<i>10</i>	Single or double Angles Iron on Upper Edge	<i>2nd frames</i>	<i>2nd frames</i>
Average space	<i>10</i>	<i>10</i>	BEAMS , Lower Deck—Single or double Ang. Iron, Plate or Tee Bulb Iron	<i>10</i>	<i>10</i>	Single or double Angles Iron on Upper Edge	<i>2nd frames</i>	<i>2nd frames</i>	Average space	<i>10</i>	<i>10</i>
BEAMS , Hold, or Orlop—Single or double Ang. Iron, Plate or Tee Bulb Iron	<i>24</i>	<i>16 1/2</i>	Single or double Angle Iron on Upper Edge	<i>16</i>	<i>16 1/2</i>	KEELSONS Centre line, single or double plate, box, or intercostal, Plates	<i>18</i>	<i>10</i>	Rider Plate	<i>18</i>	<i>10</i>
Bulb Plate to Intercostal Keelson	<i>6</i>	<i>4</i>	Angles Irons	<i>6</i>	<i>4</i>	Double Angles Iron Side Keelson	<i>21</i>	<i>10</i>	Side Intercostal Plate	<i>19 1/2</i>	<i>13 1/2</i>
do.	<i>19 1/2</i>	<i>13 1/2</i>	Attached to outside plating with angle iron	<i>3 1/2</i>	<i>3 1/2</i>	BILGE (Angle Irons	<i>6</i>	<i>4</i>	do. Bulb Iron Plate, above floors	<i>19 1/2</i>	<i>13 1/2</i>
do. Intercostal plates riveted to plating for length	<i>15</i>	<i>10</i>	BILGE STRINGER Angle Irons	<i>6</i>	<i>4</i>	Intercostal plates riveted to plating for whole length	<i>10</i>	<i>9</i>	SIDE STRINGER Angle Irons	<i>6 1/2</i>	<i>4 1/2</i>

The **FRAMES** extend in one length from _____ to _____ Riveted through plates with _____ in. Rivets, about _____ apart.
The **REVERSED ANGLE IRONS** on floors and frames extend from middle line to *upper deck upper deck* and to *Middle Deck* 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 _____ in. diameter, averaging _____ ins. from centre to centre.
" **Edges of Garboards** and to upper part of Bilge, worked clench, double riveted; with rivets _____ in. diameter, averaging _____ ins. from centre to centre.
" **Butts from Keel to turn of Bilge**, worked carvel, double riveted; with rivets _____ in. diameter averaging _____ ins. from centre to centre.
" **Butts of** _____ Strakes at Bilge for _____ length, treble riveted with Butt Straps _____ thicker than the plates they connect.
" **Edges from Bilge to Main Sheerstrake**, worked clench, double or single riveted; with rivets _____ in. diameter, averaging _____ ins. from cr. to cr.
" **Butts from Bilge to Main Sheerstrake**, worked carvel, double riveted; with rivets _____ in. diameter, averaging _____ ins. from cr. to cr.
" **Edges of Main Sheerstrake**, double or single riveted. **Upper Sheerstrake**, double or single riveted. **Butts of Upper or Spar Sheerstrake**, treble riveted for _____ length amidships.
" **Butts of Main Sheerstrake**, treble riveted for _____ length amidships. **Butts of Upper or Spar Stringer Plate**, treble riveted for _____ length amidships.
" **Butts of Main Stringer Plate**, treble riveted for _____ length amidships. **Breadth of laps of plating in single riveting** _____
" **Breadth of laps of plating in double riveting** _____
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? _____ No. of Breasthooks, _____ Crutches, _____
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? _____
Manufacturer's name or trade mark, _____
The above is a correct description. _____
Builder's Signature, _____ Surveyor's Signature, _____
Surveyor to Lloyd's Register of British and Foreign Shipping.

Workmanship. Are the butts of plating planed or otherwise fitted?

45852 Lm

Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies?

Are the fillings between the ribs and plates solid single pieces?

Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other?

Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces?

Do any rivets break into or through the seams or butts of the plating?

Masts, Bowsprit, Yards, &c., are *Steel & P. Pine* in 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 Lower Mast 10 1/2 length x 8 1/2 to 6 1/2 thick, 31 dia. 3 Angles 4 x 3 x 6 1/2*
Main " " 10 3/4 " x 7 1/4 to 6 1/2 " 28 " Seams Double + Butts
Mizen " " 80 " x 6 1/2 to 5 " 24 1/2 " Ribs rivetted.

Topmasts of Litch Pine.

Lower Land Steel 8 1/2 length x 18 1/2 dia. x 5 1/2 to 3 1/2 thick

NUMBER for EQUIPMENT

46,322

N ^o .	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Supratd.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	Wght req'd per Rule.	Machine where Tested & Supratd.
		Chain	<i>300</i>	<i>2 3/4</i>	<i>16.2.20</i>		<i>Chester</i>	Bower Anchors					
	Fore Sails,	(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)					<i>10th/11/85</i>	(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	<i>7897</i>	<i>13.3.0</i>	<i>38.8.3</i>		
	Fore Top Sails,	Iron Stream Chain	<i>90</i>	<i>1 1/2</i>					<i>7911</i>	<i>13.1.2 1/2</i>	<i>38.4.3</i>		
	Fore Topmast Stay Sails,	or Steel Wire ..							<i>7900</i>	<i>37.0.8</i>	<i>33.16.1</i>		
		or Hempen Strm Cable							<i>7899</i>	<i>36.3.8</i>	<i>33.13.0</i>		<i>Chester</i>
	Main Sails,	Twine, Hemp.	<i>90</i>	<i>4</i>									<i>8/10/14/18</i>
	Main Top Sails,	or Steel Wire ..	<i>90</i>	<i>2 3/4</i>				Stream Anchor	<i>7901</i>	<i>17.2.10</i>	<i>16.3.0.0</i>		
	and	Hawser	<i>90</i>	<i>12</i>				Kedge ...	<i>7902</i>	<i>8.3.11</i>	<i>9.11.2.0</i>		
		Warp	<i>90</i>	<i>16</i>				2nd Kedge ...	<i>7903</i>	<i>4.2.16</i>	<i>6.3.0.0</i>		
		quality											

Standing and Running Rigging *Best L.L.L.* sufficient in size and in quality. She has Long Boat and

The Windlass is Capstan and Rudder 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?

Cargo Hatchways. How formed? *Steel Coaming 3 1/4 inch above deck x 10 1/2 thick*

State size Main Hatch *24 x 12* Forehatch *11 x 9 x 12.0* Quarterhatch

If of extraordinary size, state how framed and secured?

What arrangement for shifting beams?

Hatches, If strong and efficient?

Order for Special Survey No.	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
Date		2nd. On the plating during the process of riveting
Order for Ordinary Survey No.		3rd. When the beams were in and fastened, and before the decks were laid...
Date		4th. When the ship was complete, and before the plating was finally coated or cemented..
No. in builder's yard.		5th. After the ship was launched and equipped

State dates of letters respecting this case

General Remarks (State quality of workmanship, &c.) *See remarks on paper attached*

State if one, two, or three decked vessel, or if spar, or awning decked; and the lengths of poop, bridge, forecabin, or raised quarter deck. (If double bottom, state particulars on separate form.)

How are the surfaces preserved from oxidation? Inside Outside

I am of opinion this Vessel should be Classed *100 A 1*

The amount of the Entry Fee£ : : is received by me, }
Special£ : : 18 }

(to be sent as per margin). Certificate ... : :

(Travelling Expenses, if any, £

Committee's Minute *3rd December 1885.*

Character assigned *100 A. 1. Steel*

Chas H. Ireland
Surveyor to Lloyd's Register of British and Foreign Shipping.
25. 11. 85

Subject to being surveyed and reported to be in good Condition.