

# IRON SHIPS.

Rec 16/9/71

No. 22913 Survey held at Liverpool Date, First Survey 21 February Last Survey 15 July 1871

On the S.S. "ASTROLOGER" SCHOONER Master Marsen

Tonnage under Tonnage Deck	823.40	ONE, OR TWO DECKED VESSELS.	THREE DECKED VESSELS.	Built at <u>Liverpool</u>
Ditto of Span Deck or Running Deck		Half moulded breadth .... 14.6	Half Moulded Breadth....	When built <u>1871</u> Launched <u>3 June</u>
Ditto of Prop. or Raised Qr. Dk.	47.52	Depth from upper part of Keel to top of Upper Deck Beams (or as per Rule, Section 11).... 19.4	Total Depth if three or more Decks .....	By whom built <u>J. R. Gordon Sons.</u>
Ditto of Houses on Deck....	23.86	Girth of Half Midship Frame (as per Rule).... 30.7	Total Girth of Half Midship Frame .....	Owners <u>W. H. Dixon</u>
Ditto of Forecastle	23.20	1st Number ..... 64.5	3rd Number.....	Port belonging to <u>Liverpool.</u>
Gross Tonnage	917.18	Length..... 229.6	Length.....	Destined Voyage <u>Paguroy</u>
Crew Space, as per Rule	48.24	2nd Number.... 14.782	4th Number....	If Surveyed while Building, Afloat, <input checked="" type="checkbox"/> in Dry Dock
Net Tonnage		Depths to Length. <u>OVER 12</u>	Breadths to Length <u>OVER 7</u>	
Net Tonnage, as a Steamer, cut on the Beam	692.82			

Length on Deck	Feet. 229	Inches. 6	Moulded Breadth	Feet. 29	Inches. 1	Depths from top of Floors to Upper and Main Deck Beams, as per Rule	Feet. 17	Inches. 8	Power of Engines	Horse. 120	Nº. of Decks, <u>ONE</u>	Nº. of Tiers of Beams <u>TWO</u>
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Dimensions of Ship per Register, length, 229.2 breadth, 29. depth, 17.4

	Inches in Ship.	Inches required per Rule.		Inches in Ship.	Inches required per Rule.
Keel, if bar iron, depth and thickness .....	7 1/2 x 2 3/4	8 1/2 x 2 3/8	Flat Keel Plates, breadth and thickness .....	31	11/16
Do. if centre through plate, depth and thickness .....	7 1/2 x 2 3/8	7 1/2 x 3 3/8	Plates in Garboard Strakes, breadth and thickness ..	30	11/16
Do. if bar iron, moulding and thickness .....	9 x 4 1/2	7 1/2 x 4 3/4	Do. from Garboard to upper part of Bilges ..	10/16	10/16
Stern-post do. do. do. ....	23 ins.	23 ins.	Do. of doubling at Bilge, or increased thickness, and length applied .....		
Distance of Frames from moulding edge to moulding edge, all fore and aft .....		(Class 100 A)	Do. from upper part of Bilge to lower edge of Sheerstrake .....	9/16	9/16
Frames, size of Angle Iron, for 2/3 length amidships	4 x 3 x 7/16	4 x 3 x 7/16	Do. Main Sheerstrake, breadth and thickness ..	29 1/2 x 13 1/16	30 x 13 1/16
Do. for 1/3 at each end .....	4 x 3 x 7/16	4 x 3 x 7/16	Do. of doubling at Sheerstrake, & length applied ..	INCREASED.	INCREASED.
Reversed Frames, size of Angle Iron .....	3 x 3 x 7/16	3 x 3 x 7/16	Do. from Main to Upper Deck Sheerstrake ..	2 1/16 for 3 1/4	1/16 for 3 1/4
Floors, depth and thickness of Floor Plate at mid line for half the length amidships .....	20 x 8 1/16	19 1/2 x 8 1/16	Do. Up Deck Sheerstrake, breadth and thickness ..		
Do. at the ends .....	20 x 7 1/16	19 1/2 x 7 1/16	Butt Straps to outside plating, breadth & thickness ..	10 1/4 x 1 1/2	9 3/4 x 1 1/2
Do. do. do. at Bilge Keelson	11 x 8 1/16	9 1/2 x 8 1/16	Lengths of Plating .....	9 1/2 x 1 1/2	9 1/2 x 1 1/2
Do. height extended at the Bilges .....	TWICE DEPTH	TWICE DEPTH	Shifts of Plating, and Stringers .....	TWO SPACES.	TWO SPACES.
Beams, Three Decked, Span, or Arming Decked (No. <u>1</u> ) single or double Angle Iron, Plate or Tee Bulb Iron .....	5 1/4 x 1 1/16		Gunwale Plate on ends of Main Deck, Span, or Upper Deck Beams, breadth and thickness ..	33 x 1 1/16	32 1/2 x 1 1/16
Single or double Angle Iron on Upper edge .....			Angle Iron on ditto .....	5 x 3 1/2 x 8 1/16	5 x 3 1/2 x 8 1/16
Average space .....			Tie Plates (fore and aft), outside Hatchways ..		
Beams, Upper or Middle Deck (No. <u>2</u> ) single or double Angle Iron, Plate or Tee Bulb Iron .....	7 x 7 1/16	7 x 7 1/16	Diagonal Tie Plates on Beams (No. of Pairs, Planksheer material and scantling .....		
Single or double Angle Iron on Upper Edge ..			Waterways do. do. ....	6 1/16 IRON.	6 1/16 IRON.
Average space .....	46 ins	46 ins	Flat of Deck do. do. ....	6 1/16 IRON.	6 1/16 IRON.
Beams, Lower Deck or Orlop (No. <u>3</u> ) single or double Angle Iron, Plate or Tee Bulb Iron ..	7 x 7 1/16	7 x 7 1/16	How fastened to Beams .....	28 1/2 x 8 1/16	
Single or double Angle Iron on Upper Edge ..			Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness .....		
Average space .....	2nd and 4th	2nd and 4th	(Is the Stringer Plate attached to the outside plating?)		
Keelson Centre line, single or double plate, bar, or intercostal, size of Plates .....	14 x 1 1/16	14 x 1 1/16	Angle Irons on ditto (No. <u>TWO</u> ) .....	3 1/2 x 3 1/2 x 8 1/16	3 1/2 x 3 1/2 x 8 1/16
Do. Bulb Plate to Intercostal Keelson .....	9 x 8 1/16	7 3/4 x 8 1/16	Tie Plates, outside Hatchways .....	10 1/2 x 9 1/16	
Do. Size of Angle Irons .....	5 x 3 1/2 x 8 1/16	5 x 3 1/2 x 8 1/16	Diagonal Tie Plates on Beams (No. of pairs, Waterways materials and scantlings .....		
Do. Side Intercostal Keelson, size of Plates ..	23 x 1 1/16	NONE	Flat of Deck do. do. ....		
Do. Angle Irons on tops of Floors .....	5 x 3 1/2 x 8 1/16	5 x 3 1/2 x 8 1/16	How fastened to Beams .....		
Do. Bilge Keelson, Bulb Iron <u>FOR 1/2 LENGTH</u> ..	6 1/2 x 7 1/16	7 x 7 1/16	Stringer Plates on ends of Lower Deck or Orlop Beams .....		
Do. do. Angle Irons .....	5 x 3 1/2 x 8 1/16	5 x 3 1/2 x 8 1/16	(Is the Stringer Plate attached to the outside plating?)		
Do. Side Stringers (No. <u>ONE</u> ) size of Angle Irons .....	5 x 3 1/2 x 8 1/16	5 x 3 1/2 x 8 1/16	Angle Irons on ditto (No. <u>1</u> ) .....		

Transoms, material Iron or, if none, in what manner compensated for.

Knight-heads Iron plates Hawse Timbers and angles

Windlass Barfield's Patent Pall Bitt

The Frames extend in one length from Keel to Gunwale Riveted through plates with (3/4-7/8 in.) Rivets, about 6 in. apart.

The Reverse Angle Irons on the floors extend across the middle line to above Wood Beam Stringer

On all the Frames and to Gunwale alternately.

Keelsons. Are the various lengths of Plates and Angle Irons properly connected? yes And are their butts properly shifted? yes.

Plates, Garboard, double or single Riveted to Keel, double or single at upper edge, with Rivets (1/2-7/8 in.) diameter, averaging (4-5 in.) from centre to centre.

Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets (3/16 in.) diameter, averaging (3 1/2 ins.) from centre to centre.

Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to each strakes (1/16-1/8) thick, treble, double or single Riveted; with Rivets (13/16 in.) diameter averaging (3 1/2 ins.) from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? no

Do. Edges from bilge to sheerstrake, worked carvel with a lining piece ( 1/16 ) thick, or clencher, double or single riveted; with rivets (13/16 in.) diameter, averaging (3 1/2 ins.) from centre to centre.

Do. Edges of Sheerstrake, double or single Riveted. At upper edge Single to Iron Bulwarks At lower edge Double

Do. Butts from Bilge to Planksheers, worked Carvel with Butt Straps (2-4) thick, double or single Riveted; with Rivets (3/4-7/8 in.) diameter, averaging (3 1/2 ins.) from centre to centre. Breadth of laps in double Riveting (4 1/2-5 1/4) Breadth of laps in single Riveting ( 1 )

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Keelsons Treble - Stringers Treble and Double.

Planksheer, how secured to the plating of the sides, { Explain by Sketch, } IRON DECK

Waterway " " planksheer and to the Beams, { if necessary. }

Beams of the various Decks, how secured to the sides? Knees welded Rivetted. No. of Breasthooks, 4 Crutches, 2

What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Angles: Best ship. T.K. 3

Manufacturer's name or trade mark, Plates: "Kinnear's" Clough Hall

We certify that the above is a correct description of the several particulars therein given.

Builder's Signature, Thomas R. Gordon Surveyor's Signature, James Indici

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**Workmanship.** Are the butts of plating planed or otherwise fitted? Planed where practicable.  
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 single pieces  
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? yes. and are 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 in Butts only

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 Fore mast 69 ft. 6 in. diam. 3 1/8 in. Main 59.6 x 18 in of iron  
two plates in the round. 5/16. tapering to 4/16. two angles 3 x 2 1/2 x 5/16. running entire  
length of masts. Single Riveted at Edges and double at Butts. table in note of particulars  
the and main Bowsprits. Ketch pine set into Lower mast 8 feet.

N <sup>o</sup> .	Number for equipment	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N <sup>o</sup> .	Weight. Ex. Stock.	Test as per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
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		Fore Sails,	Chain .....	270	1 1/16	34	1 1/16	34	Bowers ....	3	16.3.21	18 3/4	16 3/4	18
		Fore Top Sail	(State Machine where Tested, and name of Superintendent).											
		Fore Topmast Stay Sails	Hempen Stream Cable	90	7/8									
		Main Sails,	Hawser .....	90	10		10							
		Main Top Sails,	Towlines ...	90	8		8							
			Warp .....	135	6		5							
			All of good quality.	135	5									

Her Standing and Running Rigging Wire & Rump sufficient in size and good in quality. She has one Life Long Boat and three others.

The present state of the Windlass is Barfield's Patent Capstan one good and Rudder good. Pumps four six inch (one to each compartment)

**Engine Room Skylights.**—How constructed? Iron coming 36 in high How secured in ordinary weather? Boiled to iron coming up.

What arrangements are there for deadlights in such for bad weather? Iron dead lights for bad weather.

**Coal Bunker Openings.**—How constructed? Iron frames & lids. How are lids secured? Locked & latched How high above deck? one inch

**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? Three ports on each side in iron Bulwarks.

**Cargo Hatchways.**—How formed? Plates and angle iron. State size 18.9 x 10.6 - 7.3 x 9.0 and 11 x 9 -

If of extraordinary size, state how framed and secured?

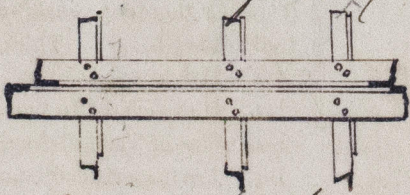
What arrangement for shifting beams? Shifting Beams to main Hatch.

**Hatches, themselves, whether strong and efficient?** yes. **Main Hatchways.**—State size See above.

Order for Special Survey No. 49 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought under  
Date 23 March 1871 Surveys held 2nd. On the plating during the progress of riveting special survey the  
Order for Ordinary Survey No. while building 3rd. When the beams were in and fastened, and before the decks were laid whole time of  
Date as per 4th. When the ship was complete, and before the plating was finally coated or cemented Building.  
No. in builder's yard, Section 18. 5th. After the ship was launched and equipped

### General Remarks,

Vessel is fitted with Raised Quarter Deck and Forecastle -  
over Twelve Klapths. The sheersstrakes increased 2/16 in. Three-fourths length (being 1/16 more than required by Rules) Upper Deck Stringer increased 1/16 in. Three-fifths length and Bulk Iron main Belge angles for Half Length amidships -  
Butt straps of Upper deck Stringer - sheersstrake and three strakes round Belges for Three-fourths and Half Length. increased 1/16 inch and Plate Riveted -  
The angle bars for Belge and Intercoastal, and side stringer are Rivetted to the single Reverse Bars on each floor. (Engine Room excepted) two Rivets in each Bar. at every floor. Thus.



In other respects vessel is well built and I beg to submit her for the favourable consideration of the Committee for the class as recommended below.

From the 21 Feb. to 4 April 71. this vessel was built under Mr. Wheeler's survey. at which date she was about Three-fourths plated.

In what manner are the surfaces preserved from oxidation? Inside Bottom Cemented paint above Outside Paint

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

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

Travelling Expenses, Special .....£ 10: 17: : 14/8/71 R. W. M.

(if any). Certificate .... Gratuit

Committee's Minute

Character assigned

Machinery Certificate attached

Lloyd's Register Foundation