

# IRON SHIPS.

No. 1109 Surveyed at Newcastle Date 27<sup>th</sup> of January to 28<sup>th</sup> of Jan 1870

on the V.S.S. "Mid-Surrey" Master E. Harvey

Tonnage under tonnage deck 205.40 Built at Newcastle When built 1870 Launched 30<sup>th</sup> April

Ditto of quarter deck 46.90

Ditto of ~~forecastle~~ forecastle, other erections on upper deck 50.76

Ditto of engine room 288.98 Port belonging to London Destined Voyage Taganrog

Gross tonnage, less crew space 254.53

Total Register tonnage, as cut on beam 565.57 If Surveyed while Building, Afloat, or in Dry Dock while building

By whom built C. M. Palmer & Co. Owners Messrs Dixon & Harris

PLANS CASE

Length aloft	Feet. Inches.	Extreme Breadth	Feet. Inches.	Depth from top of Upper Deck Beam to top of Floor	Feet. Inches.	Power of Engines	Horse.	No. of Decks
220	0	29	0	17	6	99		one
Dimensions of Ship per Register, length <u>222.1</u> breadth <u>29.2</u> depth <u>17.5</u>								
Keel, $\frac{1}{2}$ bar iron, depth and thickness	Inches in Ship	Inches required per Rule for 200 tons Scale	Plates in Garboard Strakes, breadth and thickness					
" if plate iron, breadth and thickness	9 x 2 1/2	7 1/2 x 3	34	10	30	10		
Stem, $\frac{1}{2}$ bar iron, moulding and thickness	9 x 2 1/2	7 1/2 x 3	Ditto from Garboard to upper part of Bilges..					
" if plate iron, breadth and thickness			9	9				
Stern-post, $\frac{1}{2}$ bar iron, moulding and thickness	8 1/2 x 5 1/2	7 1/2 x 6	" from upper part of Bilge to a perpendicular height from upper side of Keel of 3/4ths the entire depth of Hold					
" if plate iron, breadth and thickness								
Distance of Frames from moulding edge to moulding edge, all fore and aft	21	21	" from 3/4ths depth of Hold to lower edge of Sheerstrake					
Frames, Size of Angle Iron, single or double	4 3 7	4 2 3 8	" Sheerstrake, breadth and thickness					
" Reversed Iron, $\frac{1}{2}$ to every frame	3 3 6	3 2 4 7	37	11	30	11		
Floors; depth and thickness of Floor Plate at mid line	18 1/2 x 7	19 x 9 1/8	Butt Straps to outside plating, breadth and thickness					
" Ditto ditto at Bilge Keelson			8 1/4	7 1/4	8 1/4	7 1/4		
" Size of Reversed Angle Iron, and No. <u>one</u> at top of Floor Plate	3 3 6	3 2 4 7	Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness					
Beams, Deck (No. <u>62</u> ) double Angle Iron, Plate, Tee, or Bulb Iron	7 x 7	7 x 7	32	8	31	11		
" double or single Angle Iron, on <u>top</u> edge	2 3/4 2 3/4 5	2 3/4 2 3/4 5	" <u>Red pine</u> on top of ditto					
" average space between <u>on alternate frames</u>			5 x 3 x 8	5 x 4 x 8				
" Hold, or Lower Deck (No. <u>32</u> ) double Angle, Tee, Plate or Bulb Iron	7 x 7	7 x 7	Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways					
" double or single Angle Iron, on <u>top</u> edge	2 3/4 2 3/4 5	2 3/4 2 3/4 5	10 1/2	8	10 1/2	9		
" average space between <u>between 4<sup>th</sup> and 5<sup>th</sup> frames</u>			Diagonal Tie Plates on ditto					
" Paddle, sided and moulded, thickness of Plate <u>size of Angle Iron</u>			10 1/2	8	10 1/2	9		
" Engine " <u>side</u>			Planksheer, materials and scantlings					
Keelson, single or double plate, box, or intercostal	26 x 18	24 x 16	Waterway ditto ditto					
" Size of Plates	5 3	5 4	Flat of Upper Deck, thickness and material					
" Size of Angle Irons			" " how fastened to Beams					
" Side single or double plate box or intercostal			Ceiling betwixt Decks and in Hold, thickness and material					
" Bilge (No. <u>one</u> and <u>also</u> at each Bilge, single, or double, plate, or box) <u>and brass plates</u>	5 3	5 4	Clamps or Spirketting ditto					
Transoms, material <u>iron</u> or, if none, in what manner compensated for.			Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness					
Knight-heads, and Hawse Timbers <u>iron</u>			Stringer or Tie Plates on and at outside Hatchways, on Hold or Lower Deck Beams					
The Frames extend in one length from <u>keel</u> to <u>gunwale</u> rivetted through plates with <u>3/4</u> in. rivets, about <u>6</u> apart.			Stringers in Hold <u>double A. Irons</u>					
The reverse angle irons on the floors extend in <u>one</u> length across the middle line from <u>bilge</u> to <u>bilge</u> , and on alternate <u>frames</u> to <u>gunwale</u> .			Flat of Lower Deck, thickness and material					
Keelson, how are the various lengths of plates or angle irons connected? <u>by double rivetted butt straps</u>			Main piece of Rudder, diameter at head					
Plates, Garboard, double rivetted to keel, double <u>or</u> at upper edge, with rivets <u>1 1/2</u> in. diameter, averaging <u>3 3/4</u> in. apart.			" " " at heel					
Edges from Garboards to upper part of bilge, worked clencher, double <u>or</u> single rivetted; with rivets <u>3/4</u> in. diameter, averaging <u>2 1/2</u> ins. apart.			(Can the Rudder be unshipped afloat) <u>Yes</u>					
Butts from Keel to turn of bilge, worked carvel with butt straps ( <u>9 x 10</u> ) thick, double <u>or</u> single rivetted with rivets <u>3/4</u> in. diameter, averaging <u>2 1/2</u> ins. apart. Do the butt straps lap over and rivet through the lands of the strake below? <u>no</u>			Bulkheads, No. <u>4</u> Thickness of <u>6/16</u>					
Edges from bilge to sheerstrake, worked carvel with a living piece ( <u>9</u> ) thick, or clencher, double <u>or</u> single rivetted; with rivets <u>3/4</u> in. diameter, averaging <u>2 1/2</u> in. apart. Do the butt straps lap over and rivet through the lands of the strake below? <u>no</u>			" Height up <u>upper deck</u>					
Edges of Sheerstrake, double or single rivetted? At upper edge <u>single</u> At lower edge <u>double</u>			" how secured to the sides of the ship <u>by double plates</u>					
Butts from bilge to planksheers, worked carvel with butt straps ( <u>7 1/2</u> ) thick, double <u>or</u> single rivetted; with rivets <u>3/4</u> in. diameter, averaging <u>2 1/2</u> ins. apart. Breadth of laps in double rivetting ( <u>4 1/4</u> ) Breadth of laps in single rivetting ( <u>2 3/4</u> )			" size of vertical angle irons <u>3 x 3 x 6</u> and their distance apart <u>30</u>					
Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted? <u>double rivetted</u>			The Frames extend in one length from <u>keel</u> to <u>gunwale</u> rivetted through plates with <u>3/4</u> in. rivets, about <u>6</u> apart.					
Planksheer, how secured to the plating of the sides Explain by sketch <u>gutter</u>			The reverse angle irons on the floors extend in <u>one</u> length across the middle line from <u>bilge</u> to <u>bilge</u> , and on alternate <u>frames</u> to <u>gunwale</u> .					
Waterway " " planksheer and to the Beams if necessary.			Keelson, how are the various lengths of plates or angle irons connected? <u>by double rivetted butt straps</u>					
Deck Beams, how secured to the side? <u>welded knees rivetted to frames</u>			Plates, Garboard, double rivetted to keel, double <u>or</u> at upper edge, with rivets <u>1 1/2</u> in. diameter, averaging <u>3 3/4</u> in. apart.					
Hold or Lower Deck ditto <u>welded knees rivetted to frames</u>			Edges from Garboards to upper part of bilge, worked clencher, double <u>or</u> single rivetted; with rivets <u>3/4</u> in. diameter, averaging <u>2 1/2</u> ins. apart.					
Paddle " " No. of breasthooks <u>4</u> crutches <u>4</u>			Butts from Keel to turn of bilge, worked carvel with butt straps ( <u>9 x 10</u> ) thick, double <u>or</u> single rivetted with rivets <u>3/4</u> in. diameter, averaging <u>2 1/2</u> ins. apart. Do the butt straps lap over and rivet through the lands of the strake below? <u>no</u>					
What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.? <u>Palmer's</u>			Edges from bilge to sheerstrake, worked carvel with a living piece ( <u>9</u> ) thick, or clencher, double <u>or</u> single rivetted; with rivets <u>3/4</u> in. diameter, averaging <u>2 1/2</u> in. apart. Do the butt straps lap over and rivet through the lands of the strake below? <u>no</u>					
Manufacturer's name or trade mark <u>Palmer's</u>			Edges of Sheerstrake, double or single rivetted? At upper edge <u>single</u> At lower edge <u>double</u>					

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

Builder's Signature C. M. Palmer & Co. Surveyor's Signature H. J. ...

Lloyd's Register  
Foundation

IRON 446 - 0402

8156 In

Workmanship. Are the lands or laps of the clenchwork in all cases in breadth at least five and a half times the diameter of the rivets in double rivetted edges and butts, and at least three and a quarter times the diameter of the rivets where single rivetting is admitted? Yes

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 rivetting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Fairly and are the rivet holes well and sufficiently countersunk in the outer plate? Yes

Are there any rivets which either break into or have been put through the seams or butts of the plating? A few

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 rivetting, quality of Materials, and if stamped with Maker's name.

Tested at Lloyd's Quay P. A. by Geo. R. Bennett, Esq.

N <sup>o</sup> .	She has 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.	Wght req'd per Rule.	Test req'd per Rule.
	Fore Sails,	Chain .....	270	4 1/16	3 1/4 4.00	1 1/16	3 1/10	Bowers .....	3	16. 0. 0	17. 7. 2. 0	15. 1. 6	16. 14. 0. 0
	Fore Top Sails,	<u>None</u>	90	7/8		7/8							
	Fore Topmast Stay Sails	<del>None</del> Stream Cable	90	9/8		8		with <u>strs</u>					
	Main Sails,	Hawser .....	90	6 1/2		5		Stream		8. 1. 4		8. 0. 0	
	Main Top Sails,	Towlines .....	140	5				Kedges	2	4. 0. 14		4. 0. 0	
	and	Warp .....	140	4						2. 0. 3		2. 0. 0	
		All of <u>good</u> quality.											

Her Standing and Running Rigging humps sufficient in size and good in quality.

She has one life Long Boat and 2 others

The present state of the Windlass is good Capstan good and Rudder good Pumps good & sufficient

Order for Special Survey DATES of

No. 744 Surveys held

Date 29 Jan 1870 while building

Order for Ordinary Survey as per

No. — Section 18.

Date —

1st. On the several parts of the frame, when in place, and before the plating was wrought

2nd. On the plating during the progress of rivetting

3rd. When the beams were in and fastened, and before the decks were laid

4th. When the ship was complete, and before the plating was finally coated

5th. After the ship was launched

built under Special Survey

raised quarter deck and

State if she has a Spar Deck — or Forecastle —

General Remarks,

This vessel is built in accordance with the midship section hereto attached & as suggested by the Principal Surveyors, as per Secretary's letter of the 15<sup>th</sup> January 1870 - excepting that a side plate has been added on to the deck stringers at sides 15<sup>in</sup> +  $\frac{0}{16}$  for about two-thirds the vessel's length.

In what manner are the surfaces preserved from oxidation? Inside by Portland cement & paint. Outside by paint & composition.

I am of opinion this Vessel should be Classed B.I.

The amount of the Fee ..... £ 5: 0: 0 is received by me,

July 1870 Special ..... £ 2: 15: 0 Certificate (if required) ..... £ : : :

Committee's Minute 8<sup>th</sup> July 18 70

Character assigned

4. New & improved by Spence & Co. Ltd.

Geo. R. Bennett  
H. A. Reed  
Please see certificate on file at Lloyd's Register of Shipping  
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