

IRON SHIPS.

Reg 20/6/80

No. 21313 Survey held at Liverpool Date July 7 to Aug 9 1868
 on the "Pendragon" Master Newton
 Tonnage under tonnage deck 1138.80 Built at Liverpool When built 1868 Launched March 26
 Ditto of poop House aft House amidships 21.47 By whom built Royden & Son Owners Mc. Scarmid Greenhields
 Ditto of engine room 35.96
 Total Register tonnage 1277.68 Port belonging to Liverpool Destined Voyage Calcutta
 Gross tonnage 1317.83
 Surveyed while Building, Afloat, or in Dry Dock While Building, Afloat, & Queen's Graving & Mary dock

Builders	Feet.	Inches.	Feet.	Inches.	Depth from top of Upper Deck Beam to top of Floor	Feet.	Inches.	Horse.	N ^o . of Decks	
Length aloft	<u>211</u>		Extreme Breadth	<u>35</u>	<u>8 1/2</u>	<u>23</u>			<u>Two</u>	
(Dimensions of Ship per Register, length <u>256</u> breadth <u>35.8</u> depth <u>22.6</u>)										
Keel, if bar iron, depth and thickness	Inches in Ship.		Inches required per Rule.		Plates in Garboard Strakes, breadth and thickness		Inches. In Ship.	16ths. In Ship.	Inches. required per Rule.	16ths. required per Rule.
" if plate iron, breadth and thickness	<u>8 1/2 x 3</u>		<u>8 1/2 x 3</u>		Ditto from Garboard to upper part of Bilges..		—	<u>12/16</u>	—	<u>12/16</u>
Stem, if bar iron, moulding and thickness	<u>8 1/2 x 3</u>		<u>8 1/2 x 3</u>		" from upper part of Bilge to a perpendicular height from upper side of Keel of 2/3ths the entire depth of Hold		—	<u>11/16</u>	—	<u>11/16</u>
" if plate iron, breadth and thickness	<u>8 1/2 x 3</u>		<u>8 1/2 x 3</u>		" from 2/3ths depth of Hold to lower edge of Sheerstrake		ends	<u>9/16</u>	ends	<u>9/16</u>
Stern-post, if bar iron, moulding and thickness	<u>8 1/2 x 3</u>		<u>8 1/2 x 3</u>		" Sheerstrake, breadth and thickness		<u>36</u>	<u>12/16</u>	<u>36</u>	<u>12/16</u>
" " if plate iron, breadth and thickness	<u>8 1/2 x 3</u>		<u>8 1/2 x 3</u>		Butt Straps to outside plating, breadth and thickness		ends	<u>10/16</u>	ends	<u>10/16</u>
Distance of Frames from moulding edge to moulding edge, all fore and aft	<u>24</u>		<u>24</u>		Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness		<u>30</u>	<u>10/16</u>	<u>30</u>	<u>10/16</u>
Please see remarks other side										
Frames, Size of Angle Iron, single or double	Inches. In Ship.	Inches. In Ship.	16ths. In Ship.	Inches. required per Rule.	Inches. required per Rule.	16ths. required per Rule.	Angle Iron on ditto			
" " Reversed Iron, to every frame	<u>5</u>	<u>3</u>	<u>9/16</u>	<u>5</u>	<u>3</u>	<u>9/16</u>	Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways			
" " of every alternate frame, to	<u>3 1/2</u>	<u>3</u>	<u>9/16</u>	<u>3 1/2</u>	<u>3</u>	<u>9/16</u>	Diagonal Tie Plates on U.D. ditto			
Floors, depth and thickness of Floor Plate at mid line	<u>24 1/4</u>	ends	<u>9/16</u>	<u>24</u>	ends	<u>9/16</u>	Planksheer, materials and scantlings			
" Ditto ditto at Bilge Keelson	<u>12</u>	—	—	—	—	—	Waterway ditto ditto			
" Size of Reversed Angle Iron, and No. one at top of Floor Plate	<u>3 1/2</u>	<u>3</u>	<u>9/16</u>	<u>3 1/2</u>	<u>3</u>	<u>9/16</u>	Flat of Upper Deck, thickness and material			
Beams, Deck (N ^o .) double Angle Iron,	<u>9</u>	—	<u>9/16</u>	<u>8 1/2</u>	—	<u>8 1/4</u>	" " how fastened to Beams			
At alternate Plate, Tee, or Bulb Iron	<u>3 1/2</u>	<u>3</u>	<u>7/16</u>	<u>3</u>	<u>3</u>	<u>6/16</u>	Ceiling betwixt Decks and in Hold, thickness and material			
" " double or single Angle Iron, on upper edge	<u>48</u>	—	—	<u>48</u>	—	—	Clamps or Spirketting ditto			
" " average space between	<u>9</u>	—	<u>9/16</u>	<u>9</u>	—	<u>9/16</u>	Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness			
" Hold, or Lower Deck (N ^o .)	<u>3 1/2</u>	<u>3</u>	<u>7/16</u>	<u>3 1/2</u>	<u>3</u>	<u>7/16</u>	Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams			
At alternate double Angle, Tee, Plate, or Bulb Iron	<u>48</u>	—	—	<u>48</u>	—	—	Stringers in Hold			
" " double or single Angle Iron, on upper edge	<u>9</u>	—	<u>9/16</u>	<u>9</u>	—	<u>9/16</u>	Flat of Lower Deck, thickness and material			
" " average space between	<u>3 1/2</u>	<u>3</u>	<u>7/16</u>	<u>3 1/2</u>	<u>3</u>	<u>7/16</u>	Main piece of Rudder, diameter at head			
" Paddle, sided and moulded, thickness of Plate size of Angle Iron	<u>48</u>	—	—	<u>48</u>	—	—	" " at heel			
" Engine	<u>10</u>	<u>3</u>	<u>10/16</u>	<u>10</u>	<u>3</u>	<u>10/16</u>	(Can the Rudder be unshipped afloat) <u>Yes</u>			
Keelson, single or double plate, box, or intercostal	<u>3 1/2 x 3</u>	—	<u>9/16</u>	<u>5 1/2</u>	<u>4 1/2</u>	<u>9/16</u>	Bulkheads, N ^o . <u>1</u> Thickness of Plates			
" Size of Plates	<u>18</u>	<u>3</u>	<u>14/16</u>	<u>16</u>	<u>13/16</u>	<u>13/16</u>	" Height up <u>To upper deck</u>			
" Size of Angle Irons	<u>5 1/2 x 4 1/2</u>	<u>3</u>	<u>9/16</u>	<u>5 1/2</u>	<u>4 1/2</u>	<u>9/16</u>	" how secured to the sides of the ship <u>Single frame brackets</u>			
" Side, single or double, plate, box, or intercostal	<u>5 1/2</u>	<u>4 1/2</u>	<u>9/16</u>	<u>5 1/2</u>	<u>4 1/2</u>	<u>9/16</u>	" size of vertical angle irons <u>3 1/2 x 3 1/2</u> and their distance apart <u>30 ins</u>			
" Bilge (No. one) at each Bilge, single, of double, plate, or box	<u>5 1/2</u>	<u>4 1/2</u>	<u>9/16</u>	<u>5 1/2</u>	<u>4 1/2</u>	<u>9/16</u>	The Frames extend in one length from <u>Keel</u> to <u>Gunnwale</u> rivetted through plates with (7/8 in.) rivets, about (4 1/2 to 5) apart.			
Transoms, material <u>Iron</u> or, if none, in what manner compensated for.	The reverse angle irons on the floors extend in one length across the middle line from <u>Bilge Keelson</u> to <u>Upper Stringer</u> angle irons.									
Knight-heads, and Hawse Timbers <u>Plates & angle Irons</u>	" " " on the frames " " " from <u>Middle line</u> to <u>Upper Stringer</u> to <u>Gunnwale</u> - alternate									
The Frames extend in one length from <u>Keel</u> to <u>Gunnwale</u>	Keelson, how are the various lengths of plates or angle irons connected? <u>By Covering pieces - well shifted.</u>									
The reverse angle irons on the floors extend in one length across the middle line from <u>Bilge Keelson</u> to <u>Upper Stringer</u> angle irons.	Plates, Garboard, <u>double</u> or <u>single</u> rivetted to keel, <u>double</u> or <u>single</u> at upper edge, with rivets (7/8 ins.) diameter, averaging (3 x 4 1/4) apart.									
" " " on the frames " " " from <u>Middle line</u> to <u>Upper Stringer</u> to <u>Gunnwale</u> - alternate	" Edges from Garboards to upper part of bilge, worked clencher, <u>double</u> or <u>single</u> rivetted; with rivets (7/8 in.) diameter, averaging (2 3/4 ins.) apart.									
Keelson, how are the various lengths of plates or angle irons connected? <u>By Covering pieces - well shifted.</u>	" Butts from Keel to turn of bilge, worked carvel with butt straps (13 x 12/16) thick, <u>double</u> or <u>single</u> rivetted; with rivets (7/8 in.) diameter, averaging (3 ins.) apart. Do the butt straps lap over and rivet through the lands of the strake below? <u>No</u>									
Plates, Garboard, <u>double</u> or <u>single</u> rivetted to keel, <u>double</u> or <u>single</u> at upper edge, with rivets (7/8 ins.) diameter, averaging (3 x 4 1/4) apart.	" Edges from bilge to sheerstrake, worked carvel with a lining piece () thick or clencher, <u>double</u> or <u>single</u> rivetted; with rivets (7/8 in.) diameter, averaging (2 3/4 in.) apart. Do the butt straps lap over and rivet through the lands of the strake below? <u>No</u>									
" Edges from Garboards to upper part of bilge, worked clencher, <u>double</u> or <u>single</u> rivetted; with rivets (7/8 in.) diameter, averaging (2 3/4 ins.) apart.	" Edges of Sheerstrake, <u>double</u> or <u>single</u> rivetted? At upper edge <u>to Gunnwale angle iron</u> At lower edge <u>Double</u>									
" Butts from Keel to turn of bilge, worked carvel with butt straps (13 x 12/16) thick, <u>double</u> or <u>single</u> rivetted; with rivets (7/8 in.) diameter, averaging (3 ins.) apart. Breadth of laps in <u>double</u> rivetting (5 1/4) Breadth of laps in <u>single</u> rivetting ()	" Butts from bilge to planksheers, worked carvel with butt straps (9.10 - 11 x 14/16) thick, <u>double</u> or <u>single</u> rivetted; with rivets (7/8 in.) diameter, averaging (3 ins.) apart.									
Butt Straps of Keelsons, Stringer and Tie Plates, <u>double</u> or <u>single</u> rivetted? <u>Double</u>	Planksheer, how secured to the plating of the sides { Explain by sketch } <u>Iron Gutter Waterway.</u>									
Planksheer, how secured to the plating of the sides	Waterway " " planksheer and to the Beams { if necessary. }									
Deck Beams, how secured to the side? <u>By welded knee plates 22 long & rivetted to the frames.</u>	Hold or Lower Deck ditto <u>By "</u>									
Hold or Lower Deck ditto	Paddle " " No. of breasthooks <u>crutches</u>									
Paddle " " No. of breasthooks <u>crutches</u>	What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.? <u>Half-penny & 3/4 penny</u>									
What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.? <u>Half-penny & 3/4 penny</u>	Manufacturer's name or trade mark <u>Clough Hall Iron Works & Stockton S.S. Co.</u>									
Manufacturer's name or trade mark <u>Clough Hall Iron Works & Stockton S.S. Co.</u>	We certify that the above is a correct description of the several particulars therein given.									
Builder's Signature <u>Thomas Royden Esq</u>	Surveyor's Signature <u>W. M. ...</u>									

