

IRON SHIPS.

Completed with the Rules and Table of 1500 tons & A grade.

No. 14618 Survey held at Ramsey 20th Jan Date Oct 23rd 1865

on the Screw Steamer "Delaware" Master W. Thompson.

Tonnage under tonnage deck 1339⁴/₁₀₀ Built at Ramsey 20th Jan. When built 1864¹/₁₀₀ Launched August 9th 1865.

Ditto of poop Round or square deck 42³/₁₀₀ By whom built Joley Man S.B. C^o Owners C. E. Dixon

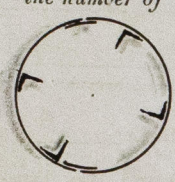
Ditto of engine room 44⁴/₁₀₀ Port belonging to Liverpool Destined Voyage Boston.

Total Register tonnage 1596⁸/₁₀₀ On the Building Slip and in dry dock at L'pool.

Feet.	Inches.	Feet.	Inches.	Depth from top of Upper Deck Beam to top of Floor	Feet.	Inches.	Horse.	N ^o . of Decks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Length aloft	312.0	Extreme Breadth	36.0		26.0		256	1 w.c.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
(Dimensions of Ship per Register, length 321 ¹⁰ / ₁₀₀ breadth 36 ¹⁰ / ₁₀₀ depth 26)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
<table border="1"> <thead> <tr> <th></th> <th>Inches in Ship.</th> <th>Inches required per Rule.</th> <th></th> <th>Inches in Ship.</th> <th>Inches required per Rule.</th> <th></th> <th>Inches in Ship.</th> <th>Inches required per Rule.</th> </tr> </thead> <tbody> <tr> <td>Side</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Keel, N^o bar iron, depth and thickness</td> <td>10 x 1¹/₁₆</td> <td>10 x 1¹/₈</td> <td>Plates in Garboard Strakes, breadth and thickness</td> <td>36</td> <td>16¹/₁₆</td> <td>36</td> <td>14¹/₁₆</td> <td></td> </tr> <tr> <td>Butts, N^o plate iron, breadth and thickness</td> <td>43¹/₂ x 1¹/₁₆</td> <td>41³/₄ x 1¹/₈</td> <td>Ditto from Garboard to upper part of Bilges</td> <td></td> <td>14¹/₁₆</td> <td></td> <td>13¹/₁₆</td> <td></td> </tr> <tr> <td>Stem, N^o bar iron, moulding and thickness</td> <td>10 x 3</td> <td>10 x 3</td> <td>" from upper part of Bilge to a perpendicular height from upper side of Keel of 2¹/₃ the entire depth of Hold</td> <td></td> <td>12¹/₁₆</td> <td></td> <td>12¹/₁₆</td> <td></td> </tr> <tr> <td>" N^o plate iron, breadth and thickness</td> <td></td> <td></td> <td>" from 2¹/₃ depth of Hold to lower edge of Sheerstrake</td> <td>8¹/₂</td> <td>11¹/₁₆</td> <td>8¹/₂</td> <td>11¹/₁₆</td> <td></td> </tr> <tr> <td>Stern-post, if bar iron, moulding and thickness</td> <td>10 x 6</td> <td>10 x 6</td> <td>Sheerstrake, breadth and thickness</td> <td>36</td> <td>14¹/₁₆</td> <td>36</td> <td>13¹/₁₆</td> <td></td> </tr> <tr> <td>Butts, N^o plate iron, breadth and thickness</td> <td></td> <td></td> <td>Butt Straps to outside plating, breadth and thickness</td> <td>10¹/₂</td> <td>16¹/₁₆ x 1¹/₁₆</td> <td>11¹/₂ x 9¹/₁₆</td> <td>16¹/₁₆ x 1¹/₁₆</td> <td></td> </tr> <tr> <td>Distance of Frames from moulding edge to moulding edge, all fore and aft</td> <td>21 from 2¹/₃ depth of Hold</td> <td>21</td> <td>Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness</td> <td>8¹/₂</td> <td>12¹/₁₆</td> <td>4¹/₂ x 12¹/₁₆</td> <td>12¹/₁₆ x 1¹/₁₆</td> <td></td> </tr> <tr> <td>Frames, Size of Angle Iron, single or double</td> <td>5¹/₂ 3¹/₂</td> <td>10¹/₁₆ 3¹/₂</td> <td>Angle Iron on ditto</td> <td>6 x 5</td> <td>9¹/₁₆</td> <td>6 x 5 x 9¹/₁₆</td> <td>9¹/₁₆</td> <td></td> </tr> <tr> <td>Reversed Iron, N^o to every frame</td> <td>4</td> <td>3¹/₂</td> <td>Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways</td> <td>13¹/₂</td> <td>12¹/₁₆</td> <td>13¹/₂</td> <td>11¹/₁₆</td> <td></td> </tr> <tr> <td>or every other frame</td> <td>4</td> <td>3¹/₂</td> <td>Diagonal Tie Plates on ditto</td> <td>13¹/₂</td> <td>12¹/₁₆</td> <td>13¹/₂</td> <td>11¹/₁₆</td> <td></td> </tr> <tr> <td>Floors, depth and thickness of Floor Plate at mid line</td> <td>27</td> <td>12¹/₁₆</td> <td>Planksheer, materials and scantlings</td> <td>13¹/₂</td> <td>12¹/₁₆</td> <td>13¹/₂</td> <td>11¹/₁₆</td> <td></td> </tr> <tr> <td>" Ditto ditto at Bilge Keelson</td> <td>8¹/₂</td> <td>12¹/₁₆</td> <td>Waterway ditto ditto</td> <td>13¹/₂</td> <td>12¹/₁₆</td> <td>13¹/₂</td> <td>11¹/₁₆</td> <td></td> </tr> <tr> <td>" Size of Reversed Angle Iron, and double N^o at top of Floor Plate</td> <td>4</td> <td>3¹/₂</td> <td>Flat of Upper Deck, thickness and material</td> <td>2¹/₈</td> <td>yellow pine</td> <td>4</td> <td></td> <td></td> </tr> <tr> <td>Beams, Deck (N^o) double Angle Iron</td> <td>9</td> <td>10¹/₁₆</td> <td>" how fastened to Beams</td> <td>By nut and screw</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Plate, Tee, or Bulb Iron</td> <td>9</td> <td>10¹/₁₆</td> <td>Ceiling betwixt Decks and in Hold, thickness and material</td> <td>3¹/₂</td> <td>Red pine</td> <td></td> <td></td> <td></td> </tr> <tr> <td>" double or single Angle Iron</td> <td>3¹/₂</td> <td>3¹/₂</td> <td>Clamps or Spiking</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>on upper edge</td> <td>3¹/₂</td> <td>3¹/₂</td> <td>Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness</td> <td>30</td> <td>12¹/₁₆</td> <td>33 x 1¹/₁₆</td> <td></td> <td></td> </tr> <tr> <td>" average space between</td> <td>42</td> <td></td> <td>Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams</td> <td>13¹/₂</td> <td>12¹/₁₆</td> <td>13¹/₂ x 1¹/₁₆</td> <td></td> <td></td> </tr> <tr> <td>" Hold, or Lower Deck (N^o) double Angle, Tee, Plate, or Bulb Iron</td> <td>9</td> <td>10¹/₁₆</td> <td>Stringers in Hold</td> <td>6 x 5 x 9¹/₁₆</td> <td>6 x 5 x 9¹/₁₆</td> <td></td> <td></td> <td></td> </tr> <tr> <td>" double or single Angle Iron</td> <td>3¹/₂</td> <td>3¹/₂</td> <td>Flat of Lower Deck, thickness and material</td> <td>3</td> <td>yellow pine</td> <td></td> <td></td> <td></td> </tr> <tr> <td>on upper edge</td> <td>3¹/₂</td> <td>3¹/₂</td> <td>Main piece of Rudder, diameter at head</td> <td>7¹/₂</td> <td></td> <td>7¹/₂</td> <td></td> <td></td> </tr> <tr> <td>" average space between</td> <td>42</td> <td></td> <td>" " " at heel</td> <td>5</td> <td></td> <td>3¹/₄</td> <td></td> <td></td> </tr> <tr> <td>" Paddle, sided and moulded, thickness of Plate size of Angle Iron</td> <td></td> <td></td> <td>(Can the Rudder be unshipped afloat)</td> <td>Yes</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>" Engine</td> <td></td> <td></td> <td>Bulkheads, N^o. 8 Thickness of</td> <td>8¹/₁₆</td> <td></td> <td>8¹/₁₆</td> <td></td> <td></td> </tr> <tr> <td>Keelson, single or double plate, box or intercostal</td> <td>See sketch of hull</td> <td></td> <td>Height up upper deck</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>" Size of Plates</td> <td>18 x 14¹/₁₆</td> <td>13¹/₂ x 12¹/₁₆</td> <td>how secured to the sides of the ship</td> <td>By double frames</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>" Size of Angle Irons</td> <td>6 x 5 x 9¹/₁₆</td> <td>5¹/₂ x 5¹/₂</td> <td>size of vertical angle irons and their distance apart</td> <td>about 30 apart</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Side, single or double plate, box or intercostal</td> <td>See sketch of hull</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>" Bilge (N^o) at each Bilge</td> <td>5</td> <td>9¹/₁₆</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>" single, or double, plate, or box</td> <td>203 feet 9 x 9¹/₁₆</td> <td>154 feet 8 x 9¹/₁₆</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Transoms, material or, if none, in what manner compensated for</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Knight-heads, and Hawse Timbers</td> <td>Iron plates and frames</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>The Frames extend in one length from</td> <td>Keel</td> <td>to gunwale</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>The reverse angle irons on the floors extend in one length across the middle line from</td> <td>side</td> <td>to side</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>" " " on the frames</td> <td>"</td> <td>"</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Keelson, how are the various lengths of plates or angle irons connected?</td> <td>By Butt straps double riveted</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Plates, Garboard, double or rivetted to keel, double or at upper edge, with rivets</td> <td>1¹/₄ x 1 ins.</td> <td>diameter, averaging</td> <td>3¹/₄ x 3 ins.</td> <td>apart.</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>" Edges from Garboards to upper part of bilge, worked clencher, double or single rivetted; with rivets</td> <td>1 in.</td> <td>diameter, averaging</td> <td>3 ins.</td> <td>apart.</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>" Butts from Keel to turn of bilge, worked carvel with butt straps</td> <td>16¹/₁₆ x 14¹/₁₆</td> <td>thick, double or single rivetted; with rivets</td> <td>1 in.</td> <td>diameter, averaging</td> <td>3¹/₄ ins.</td> <td>apart.</td> <td></td> <td></td> </tr> <tr> <td>Do the butt straps lap over and rivet through the lands of the strake below?</td> <td>No.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>" Edges from bilge to sheerstrake, worked carvel with a lining piece</td> <td>()</td> <td>thick, or clencher, double or single rivetted; with rivets</td> <td>7¹/₈ in.</td> <td>diameter, averaging</td> <td>3¹/₄ x 3 in.</td> <td>apart.</td> <td></td> <td></td> </tr> <tr> <td>Do the butt straps lap over and rivet through the lands of the strake below?</td> <td>No except</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>" Edges of Sheerstrake, double or single rivetted? At upper edge</td> <td>single to Bulb iron plate</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Butts from bilge to planksheers, worked carvel with butt straps</td> <td>16¹/₁₆ x 12¹/₁₆</td> <td>thick, double or single rivetted; with rivets</td> <td>7¹/₈ in.</td> <td>diameter, averaging</td> <td>3¹/₄ x 3 in.</td> <td>apart.</td> <td></td> <td></td> </tr> <tr> <td>Breadth of laps in double rivetting</td> <td>5 to 5¹/₂</td> <td>Breadth of laps in single rivetting</td> <td>()</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted?</td> <td>All double.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Planksheer, how secured to the plating of the sides</td> <td>Explain by sketch</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Waterway " " planksheer and to the Beams</td> <td>if necessary.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Deck Beams, how secured to the side?</td> <td>By knee plates fixed out of Bulb iron beams and riveted to frames.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Hold or Lower Deck ditto</td> <td>Ac</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Paddle " " all fore & aft ties are connected at ends by</td> <td>N^o. of breasthooks</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.</td> <td>Birmingham</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Manufacturer's name or trade mark</td> <td>Birmingham</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>We certify that the above is a correct description of the several particulars therein given.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Builder's Signature</td> <td>Philip Bennett</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Surveyor's Signature</td> <td>J. F. Light</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>										Inches in Ship.	Inches required per Rule.		Inches in Ship.	Inches required per Rule.		Inches in Ship.	Inches required per Rule.	Side									Keel, N ^o bar iron, depth and thickness	10 x 1 ¹ / ₁₆	10 x 1 ¹ / ₈	Plates in Garboard Strakes, breadth and thickness	36	16 ¹ / ₁₆	36	14 ¹ / ₁₆		Butts, N ^o plate iron, breadth and thickness	43 ¹ / ₂ x 1 ¹ / ₁₆	41 ³ / ₄ x 1 ¹ / ₈	Ditto from Garboard to upper part of Bilges		14 ¹ / ₁₆		13 ¹ / ₁₆		Stem, N ^o bar iron, moulding and thickness	10 x 3	10 x 3	" from upper part of Bilge to a perpendicular height from upper side of Keel of 2 ¹ / ₃ the entire depth of Hold		12 ¹ / ₁₆		12 ¹ / ₁₆		" N ^o plate iron, breadth and thickness			" from 2 ¹ / ₃ depth of Hold to lower edge of Sheerstrake	8 ¹ / ₂	11 ¹ / ₁₆	8 ¹ / ₂	11 ¹ / ₁₆		Stern-post, if bar iron, moulding and thickness	10 x 6	10 x 6	Sheerstrake, breadth and thickness	36	14 ¹ / ₁₆	36	13 ¹ / ₁₆		Butts, N ^o plate iron, breadth and thickness			Butt Straps to outside plating, breadth and thickness	10 ¹ / ₂	16 ¹ / ₁₆ x 1 ¹ / ₁₆	11 ¹ / ₂ x 9 ¹ / ₁₆	16 ¹ / ₁₆ x 1 ¹ / ₁₆		Distance of Frames from moulding edge to moulding edge, all fore and aft	21 from 2 ¹ / ₃ depth of Hold	21	Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness	8 ¹ / ₂	12 ¹ / ₁₆	4 ¹ / ₂ x 12 ¹ / ₁₆	12 ¹ / ₁₆ x 1 ¹ / ₁₆		Frames, Size of Angle Iron, single or double	5 ¹ / ₂ 3 ¹ / ₂	10 ¹ / ₁₆ 3 ¹ / ₂	Angle Iron on ditto	6 x 5	9 ¹ / ₁₆	6 x 5 x 9 ¹ / ₁₆	9 ¹ / ₁₆		Reversed Iron, N ^o to every frame	4	3 ¹ / ₂	Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways	13 ¹ / ₂	12 ¹ / ₁₆	13 ¹ / ₂	11 ¹ / ₁₆		or every other frame	4	3 ¹ / ₂	Diagonal Tie Plates on ditto	13 ¹ / ₂	12 ¹ / ₁₆	13 ¹ / ₂	11 ¹ / ₁₆		Floors, depth and thickness of Floor Plate at mid line	27	12 ¹ / ₁₆	Planksheer, materials and scantlings	13 ¹ / ₂	12 ¹ / ₁₆	13 ¹ / ₂	11 ¹ / ₁₆		" Ditto ditto at Bilge Keelson	8 ¹ / ₂	12 ¹ / ₁₆	Waterway ditto ditto	13 ¹ / ₂	12 ¹ / ₁₆	13 ¹ / ₂	11 ¹ / ₁₆		" Size of Reversed Angle Iron, and double N ^o at top of Floor Plate	4	3 ¹ / ₂	Flat of Upper Deck, thickness and material	2 ¹ / ₈	yellow pine	4			Beams, Deck (N ^o) double Angle Iron	9	10 ¹ / ₁₆	" how fastened to Beams	By nut and screw					Plate, Tee, or Bulb Iron	9	10 ¹ / ₁₆	Ceiling betwixt Decks and in Hold, thickness and material	3 ¹ / ₂	Red pine				" double or single Angle Iron	3 ¹ / ₂	3 ¹ / ₂	Clamps or Spiking						on upper edge	3 ¹ / ₂	3 ¹ / ₂	Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness	30	12 ¹ / ₁₆	33 x 1 ¹ / ₁₆			" average space between	42		Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams	13 ¹ / ₂	12 ¹ / ₁₆	13 ¹ / ₂ x 1 ¹ / ₁₆			" Hold, or Lower Deck (N ^o) double Angle, Tee, Plate, or Bulb Iron	9	10 ¹ / ₁₆	Stringers in Hold	6 x 5 x 9 ¹ / ₁₆	6 x 5 x 9 ¹ / ₁₆				" double or single Angle Iron	3 ¹ / ₂	3 ¹ / ₂	Flat of Lower Deck, thickness and material	3	yellow pine				on upper edge	3 ¹ / ₂	3 ¹ / ₂	Main piece of Rudder, diameter at head	7 ¹ / ₂		7 ¹ / ₂			" average space between	42		" " " at heel	5		3 ¹ / ₄			" Paddle, sided and moulded, thickness of Plate size of Angle Iron			(Can the Rudder be unshipped afloat)	Yes					" Engine			Bulkheads, N ^o . 8 Thickness of	8 ¹ / ₁₆		8 ¹ / ₁₆			Keelson, single or double plate, box or intercostal	See sketch of hull		Height up upper deck						" Size of Plates	18 x 14 ¹ / ₁₆	13 ¹ / ₂ x 12 ¹ / ₁₆	how secured to the sides of the ship	By double frames					" Size of Angle Irons	6 x 5 x 9 ¹ / ₁₆	5 ¹ / ₂ x 5 ¹ / ₂	size of vertical angle irons and their distance apart	about 30 apart					Side, single or double plate, box or intercostal	See sketch of hull								" Bilge (N ^o) at each Bilge	5	9 ¹ / ₁₆							" single, or double, plate, or box	203 feet 9 x 9 ¹ / ₁₆	154 feet 8 x 9 ¹ / ₁₆							Transoms, material or, if none, in what manner compensated for									Knight-heads, and Hawse Timbers	Iron plates and frames								The Frames extend in one length from	Keel	to gunwale							The reverse angle irons on the floors extend in one length across the middle line from	side	to side							" " " on the frames	"	"							Keelson, how are the various lengths of plates or angle irons connected?	By Butt straps double riveted								Plates, Garboard, double or rivetted to keel, double or at upper edge, with rivets	1 ¹ / ₄ x 1 ins.	diameter, averaging	3 ¹ / ₄ x 3 ins.	apart.					" Edges from Garboards to upper part of bilge, worked clencher, double or single rivetted; with rivets	1 in.	diameter, averaging	3 ins.	apart.					" Butts from Keel to turn of bilge, worked carvel with butt straps	16 ¹ / ₁₆ x 14 ¹ / ₁₆	thick, double or single rivetted; with rivets	1 in.	diameter, averaging	3 ¹ / ₄ ins.	apart.			Do the butt straps lap over and rivet through the lands of the strake below?	No.								" Edges from bilge to sheerstrake, worked carvel with a lining piece	()	thick, or clencher, double or single rivetted; with rivets	7 ¹ / ₈ in.	diameter, averaging	3 ¹ / ₄ x 3 in.	apart.			Do the butt straps lap over and rivet through the lands of the strake below?	No except								" Edges of Sheerstrake, double or single rivetted? At upper edge	single to Bulb iron plate								Butts from bilge to planksheers, worked carvel with butt straps	16 ¹ / ₁₆ x 12 ¹ / ₁₆	thick, double or single rivetted; with rivets	7 ¹ / ₈ in.	diameter, averaging	3 ¹ / ₄ x 3 in.	apart.			Breadth of laps in double rivetting	5 to 5 ¹ / ₂	Breadth of laps in single rivetting	()						Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted?	All double.								Planksheer, how secured to the plating of the sides	Explain by sketch								Waterway " " planksheer and to the Beams	if necessary.								Deck Beams, how secured to the side?	By knee plates fixed out of Bulb iron beams and riveted to frames.								Hold or Lower Deck ditto	Ac								Paddle " " all fore & aft ties are connected at ends by	N ^o . of breasthooks								What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.	Birmingham								Manufacturer's name or trade mark	Birmingham								We certify that the above is a correct description of the several particulars therein given.									Builder's Signature	Philip Bennett								Surveyor's Signature	J. F. Light							
	Inches in Ship.	Inches required per Rule.		Inches in Ship.	Inches required per Rule.		Inches in Ship.	Inches required per Rule.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Side																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Keel, N ^o bar iron, depth and thickness	10 x 1 ¹ / ₁₆	10 x 1 ¹ / ₈	Plates in Garboard Strakes, breadth and thickness	36	16 ¹ / ₁₆	36	14 ¹ / ₁₆																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Butts, N ^o plate iron, breadth and thickness	43 ¹ / ₂ x 1 ¹ / ₁₆	41 ³ / ₄ x 1 ¹ / ₈	Ditto from Garboard to upper part of Bilges		14 ¹ / ₁₆		13 ¹ / ₁₆																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Stem, N ^o bar iron, moulding and thickness	10 x 3	10 x 3	" from upper part of Bilge to a perpendicular height from upper side of Keel of 2 ¹ / ₃ the entire depth of Hold		12 ¹ / ₁₆		12 ¹ / ₁₆																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
" N ^o plate iron, breadth and thickness			" from 2 ¹ / ₃ depth of Hold to lower edge of Sheerstrake	8 ¹ / ₂	11 ¹ / ₁₆	8 ¹ / ₂	11 ¹ / ₁₆																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Stern-post, if bar iron, moulding and thickness	10 x 6	10 x 6	Sheerstrake, breadth and thickness	36	14 ¹ / ₁₆	36	13 ¹ / ₁₆																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Butts, N ^o plate iron, breadth and thickness			Butt Straps to outside plating, breadth and thickness	10 ¹ / ₂	16 ¹ / ₁₆ x 1 ¹ / ₁₆	11 ¹ / ₂ x 9 ¹ / ₁₆	16 ¹ / ₁₆ x 1 ¹ / ₁₆																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Distance of Frames from moulding edge to moulding edge, all fore and aft	21 from 2 ¹ / ₃ depth of Hold	21	Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness	8 ¹ / ₂	12 ¹ / ₁₆	4 ¹ / ₂ x 12 ¹ / ₁₆	12 ¹ / ₁₆ x 1 ¹ / ₁₆																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Frames, Size of Angle Iron, single or double	5 ¹ / ₂ 3 ¹ / ₂	10 ¹ / ₁₆ 3 ¹ / ₂	Angle Iron on ditto	6 x 5	9 ¹ / ₁₆	6 x 5 x 9 ¹ / ₁₆	9 ¹ / ₁₆																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Reversed Iron, N ^o to every frame	4	3 ¹ / ₂	Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways	13 ¹ / ₂	12 ¹ / ₁₆	13 ¹ / ₂	11 ¹ / ₁₆																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
or every other frame	4	3 ¹ / ₂	Diagonal Tie Plates on ditto	13 ¹ / ₂	12 ¹ / ₁₆	13 ¹ / ₂	11 ¹ / ₁₆																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Floors, depth and thickness of Floor Plate at mid line	27	12 ¹ / ₁₆	Planksheer, materials and scantlings	13 ¹ / ₂	12 ¹ / ₁₆	13 ¹ / ₂	11 ¹ / ₁₆																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
" Ditto ditto at Bilge Keelson	8 ¹ / ₂	12 ¹ / ₁₆	Waterway ditto ditto	13 ¹ / ₂	12 ¹ / ₁₆	13 ¹ / ₂	11 ¹ / ₁₆																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
" Size of Reversed Angle Iron, and double N ^o at top of Floor Plate	4	3 ¹ / ₂	Flat of Upper Deck, thickness and material	2 ¹ / ₈	yellow pine	4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Beams, Deck (N ^o) double Angle Iron	9	10 ¹ / ₁₆	" how fastened to Beams	By nut and screw																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Plate, Tee, or Bulb Iron	9	10 ¹ / ₁₆	Ceiling betwixt Decks and in Hold, thickness and material	3 ¹ / ₂	Red pine																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
" double or single Angle Iron	3 ¹ / ₂	3 ¹ / ₂	Clamps or Spiking																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
on upper edge	3 ¹ / ₂	3 ¹ / ₂	Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness	30	12 ¹ / ₁₆	33 x 1 ¹ / ₁₆																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
" average space between	42		Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams	13 ¹ / ₂	12 ¹ / ₁₆	13 ¹ / ₂ x 1 ¹ / ₁₆																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
" Hold, or Lower Deck (N ^o) double Angle, Tee, Plate, or Bulb Iron	9	10 ¹ / ₁₆	Stringers in Hold	6 x 5 x 9 ¹ / ₁₆	6 x 5 x 9 ¹ / ₁₆																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
" double or single Angle Iron	3 ¹ / ₂	3 ¹ / ₂	Flat of Lower Deck, thickness and material	3	yellow pine																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
on upper edge	3 ¹ / ₂	3 ¹ / ₂	Main piece of Rudder, diameter at head	7 ¹ / ₂		7 ¹ / ₂																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
" average space between	42		" " " at heel	5		3 ¹ / ₄																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
" Paddle, sided and moulded, thickness of Plate size of Angle Iron			(Can the Rudder be unshipped afloat)	Yes																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
" Engine			Bulkheads, N ^o . 8 Thickness of	8 ¹ / ₁₆		8 ¹ / ₁₆																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Keelson, single or double plate, box or intercostal	See sketch of hull		Height up upper deck																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
" Size of Plates	18 x 14 ¹ / ₁₆	13 ¹ / ₂ x 12 ¹ / ₁₆	how secured to the sides of the ship	By double frames																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
" Size of Angle Irons	6 x 5 x 9 ¹ / ₁₆	5 ¹ / ₂ x 5 ¹ / ₂	size of vertical angle irons and their distance apart	about 30 apart																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Side, single or double plate, box or intercostal	See sketch of hull																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
" Bilge (N ^o) at each Bilge	5	9 ¹ / ₁₆																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
" single, or double, plate, or box	203 feet 9 x 9 ¹ / ₁₆	154 feet 8 x 9 ¹ / ₁₆																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Transoms, material or, if none, in what manner compensated for																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Knight-heads, and Hawse Timbers	Iron plates and frames																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
The Frames extend in one length from	Keel	to gunwale																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
The reverse angle irons on the floors extend in one length across the middle line from	side	to side																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
" " " on the frames	"	"																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Keelson, how are the various lengths of plates or angle irons connected?	By Butt straps double riveted																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Plates, Garboard, double or rivetted to keel, double or at upper edge, with rivets	1 ¹ / ₄ x 1 ins.	diameter, averaging	3 ¹ / ₄ x 3 ins.	apart.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
" Edges from Garboards to upper part of bilge, worked clencher, double or single rivetted; with rivets	1 in.	diameter, averaging	3 ins.	apart.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
" Butts from Keel to turn of bilge, worked carvel with butt straps	16 ¹ / ₁₆ x 14 ¹ / ₁₆	thick, double or single rivetted; with rivets	1 in.	diameter, averaging	3 ¹ / ₄ ins.	apart.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Do the butt straps lap over and rivet through the lands of the strake below?	No.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
" Edges from bilge to sheerstrake, worked carvel with a lining piece	()	thick, or clencher, double or single rivetted; with rivets	7 ¹ / ₈ in.	diameter, averaging	3 ¹ / ₄ x 3 in.	apart.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Do the butt straps lap over and rivet through the lands of the strake below?	No except																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
" Edges of Sheerstrake, double or single rivetted? At upper edge	single to Bulb iron plate																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Butts from bilge to planksheers, worked carvel with butt straps	16 ¹ / ₁₆ x 12 ¹ / ₁₆	thick, double or single rivetted; with rivets	7 ¹ / ₈ in.	diameter, averaging	3 ¹ / ₄ x 3 in.	apart.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Breadth of laps in double rivetting	5 to 5 ¹ / ₂	Breadth of laps in single rivetting	()																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted?	All double.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Planksheer, how secured to the plating of the sides	Explain by sketch																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Waterway " " planksheer and to the Beams	if necessary.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Deck Beams, how secured to the side?	By knee plates fixed out of Bulb iron beams and riveted to frames.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Hold or Lower Deck ditto	Ac																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Paddle " " all fore & aft ties are connected at ends by	N ^o . of breasthooks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.	Birmingham																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Manufacturer's name or trade mark	Birmingham																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
We certify that the above is a correct description of the several particulars therein given.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Builder's Signature	Philip Bennett																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Surveyor's Signature	J. F. Light																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	

IRON 438-0492

4340
Workmanship. Are the lands or laps of the clewwork 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
 Do the holes for rivetting plate to frames, butt straps, or plate to plate, &c., conform well to each other? generally so 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? yes in butts (not very general)

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.)

 One and main masts of iron in two plates in the round and 7/16 thick, flush in butts and edges single riveted in edges and double in butts. 4 angle bars of 3 x 3 x 3/8. Bowsprit the same in construction. Plate 7/16 and head of mast 7/16. 3 angle bars of 3 x 3 x 3/8. Bowsprit the same in construction. Plate 7/16 and 5/16 at ends, 4 angle bars of 3 x 3 x 3/8. Fore and main lower yards of steel 5/16. 3/16 and 7/8 at ends, 3 angle bars of steel of 3 x 3 x 3/8. Plate in masts and bowsprit made of wrought iron and timber. All other spars of wood and good.

She has SAILS.

CABLES, &c.

ANCHORS, and their weights.

Fore Sails,

Fore Top Sails,

Fore Topmast Stay Sails,

Main Sails,

Main Top Sails,

Chain

Hempen Stream Cable

Hawser

Towlines

Warp

All of good quality.

Fathoms.

Inches.

Tested to Tons.

Public proof

Bowers, (from 51 tons)

Stream, including 51 tons

Kedges, ...

No.

Weight.

Ex. Stock

Tested to Tons.

1

53-2-7

31-5-3

1

33-0-14

30-19-1

1

27-2-14

26-16-3

1

13-3-25

13-1-1

1

7-1-10

8-2-3

1

3-1-0

5-1-1

Her Standing and Running Rigging of Wire and Hemp sufficient in size and good in quality.

She has two Life - Long Boat and five Others.

The present state of the Windlass is None Capstan Brown and Rudder good Pumps 5 in the respective compartments and 5 in the bilge

Order for Special Survey

No. 224

Date 8/4/14

Order for Ordinary Survey

No.

Date

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

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

Under Sp

Survey

the whole

time of

Build of

State if she has a Spar Deck no Poop no or Forecastle yes.

General Remarks, This vessel is built with a full fore-castle, the beams of which are of brass-iron 8 1/2 x 8 1/8 with double angle iron of 3 1/2 x 3 1/2 x 3/8. Stringer on ends of 2 1/2 x 1/2. Outside plating 5/16, single riveted in butts and edges. In way of engine-room and extending the fore and aft sides of the respective bulkheads, fitted an intercostal keelson as shown in sketch. No. 2 The vertical plates are 12 1/16, flat plate on top 18 x 12 1/16, upper angle iron 5 x 4 1/2 x 3/8, lower one 5 x 3 1/2. Where plates of 5 1/2 x 1/2 in way of engine-room are used, the butt straps are fitted from frame to frame. (The plates are in the 18 spacing, generally 9 feet long) The gross tonnage of this vessel exceeds 2000 which was not contemplated consequently the main piece of Rudder is 1/4 less in diameter than required by rule and the keelson angle iron small; but the fore and aft plates are 1/8 thicker than required by the rule, and the bottom plating, with gunwale stringer plates 1/8 in excess of the requirements. The bottom plating of this vessel is unfair, and I have had much trouble to get the riveting generally good. The decks is not well fitted to beams, arising chiefly from the unfairness of the angle iron on deck, and in many places badly cut over the deck tie plating. Some of the butts of lower deck stringer not well arranged in relation to butts of outside plating, I have called repeated attention to these matters, and written the Manager, Cap. Bennett on the subject, but with little effect. I may remark that the vessel is in my opinion thoroughly strong, but the workmanship rough, and I believe there has been a general disposition to do better, but the building of a vessel of this magnitude has nearly exceeded the capabilities of the Establishment. I am therefore unable to recommend the special survey.

In what manner are the surfaces preserved from oxidation? Inside By paint and Portland Cement in place of paint Ditto ditto Outside By paint.

I am of opinion this Vessel should be Classed A-1 without the special survey

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

Special £ 102 : 2 : 23/10/15

Certificate (if required) £

Committee's Minute 26th October 1885

Character assigned A-1 gunwale, 1/8 in. thick 7.9.E.

Machinery Certificate dated October 1885 attached

Referred to General Committee April 24th 1885

Lloyd's Register Foundation