

# IRON SHIP.

No. 1756 Survey held at Woolston Date, First Survey 1 July Last Survey 30 Decr 1876  
On the Iron Vailing Ship "Cambrian Prince" Master David Davis

**TONNAGE** under Tonnage Deck } 1283.36  
Ditto of Third, Spar, or Awning Deck. }  
Ditto of Poop, or Raised Or. Deck } 78.99  
Ditto of Houses on Deck } 30.30  
Ditto of Forecasts }  
Gross Tonnage } 1392.65  
less Crew Space } 43.37  
less Engine Room } 1349.28  
less Register Tonnage as out on Beam } 1349.28

ONE, OR TWO DECKED, THREE DECKED VESSEL.  
SPAR, OR AWNING-DECKED VESSEL.

**HALF BREADTH** (moulded)... .. 18.46 Feet.  
**DEPTH** from upper part of Keel to top of Upper Deck Beams 24.96  
**GIRTH** of Half Midship Frame (as per Rule) ... .. 37.87  
**1st NUMBER** ... .. 8229  
**1st NUMBER, if a THREE-DECKED VESSEL** [deduct 7 feet] ... ..  
**LENGTH** ... .. 214.  
**2nd NUMBER** ... .. 17396.0  
**PROPORTIONS**—Breadths to Length Under 16  
Depths to Length—Upper Deck to Keel Under 9  
Main Deck ditto ... ..

Built at Woolston Southampton  
When built 1876 Launched 21 Dec  
By whom built J.P. Rosal  
Owners Messrs William & Herbert  
Port belonging to Liverpool  
Destined Voyage Foreign  
 Surveyed while Building, Afloat, or in Dry Dock.

**PLANS CLASS**

**LENGTH** on deck as per Rule ... 214 Feet. Inches. **BREADTH**—Moulded... .. 36 11 Feet. Inches. **DEPTH** top of Floors to Upper Deck Beams ... .. 22 10 1/2 Feet. Inches. Power of Engines ... .. **Horse.** **Nº. of Decks with flat laid** Two  
**Nº. of Tiers of Beams** Two

Dimensions of Ship per Register, length 224.75 breadth, 37.12 depth, 22.65

	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.		
<b>KEEL</b> , depth and thickness ... ..	<u>9 x 2 1/2</u>	<u>9 x 2 1/2</u>				
<b>STEM</b> , moulding and thickness... ..	<u>9 x 2 1/2</u>	<u>8 1/2 x 2 1/2</u>				
<b>STERN-POST</b> for Rudder do. do. ... ..	<u>9 x 2 1/2</u>	<u>8 1/2 x 2 1/2</u>				
Distance of Frames from moulding edge to moulding edge, all fore and aft ... ..	<u>24</u> Inches					
<b>FRAMES</b> , Angle Iron, for 1/2 length amidships ... ..	<u>5 3 1/2</u>	<u>8</u>	<u>5 3 1/2</u>	<u>8</u>		
Do. for 1/4 at each end ... ..	<u>5 3 1/2</u>	<u>7</u>	<u>5 3 1/2</u>	<u>7</u>		
<b>REVERSED FRAMES</b> , Angle Iron ... ..	<u>3 1/2</u>	<u>3 1/2</u>	<u>8</u>	<u>3 1/2</u>	<u>8</u>	
<b>FLOORS</b> , depth and thickness of Floor Plate } at mid line for half length amidships ... .. } <u>25</u> } <u>10</u> } <u>24 1/2</u> } <u>10</u>						
thickness at the ends of vessel ... ..		<u>9.8</u>		<u>9.8</u>		
depth at 3/4 the half-bdth. as per Rule ... ..	<u>12 1/2</u>	<u>50</u>	<u>12 1/2</u>	<u>50</u>		
height extended at the Bilges... ..						
<b>BEAMS</b> , Upper, Spar, or Awning Deck } Single or double Angle Iron, Plate or Tee Bulb Iron } <u>8 1/2</u> } <u>8</u> } <u>8</u> } <u>8</u>						
Single or double Angle Iron on Upper edge ... ..	<u>3</u>	<u>3</u>	<u>7</u>	<u>3</u>	<u>3</u>	<u>7</u>
Average space... ..	<u>48</u>		<u>48</u>			
<b>BEAMS</b> , Main, or Middle Deck ... ..						
Single or double Angle Iron, Plate or Tee Bulb Iron } <u>8 1/2</u> } <u>8</u> } <u>8</u> } <u>8</u>						
Single or double Angle Iron on Upper edge ... ..	<u>3</u>	<u>3</u>	<u>7</u>	<u>3</u>	<u>3</u>	<u>7</u>
Average space... ..	<u>48</u>		<u>48</u>			
<b>BEAMS</b> , Lower Deck, Hold, or Orlop } Single or double Angle Iron, Plate or Tee Bulb Iron } <u>9</u> } <u>9</u> } <u>9</u> } <u>9</u>						
Single or double Angle Iron on Upper Edge ... ..	<u>3 1/2</u>	<u>3</u>	<u>7</u>	<u>3 1/2</u>	<u>3</u>	<u>7</u>
Average space... ..	<u>48</u>		<u>48</u>			
<b>KEELSONS</b> Centre line, single or double plate, box, or intercostal, plates ... ..	<u>17</u>	<u>12</u>	<u>17</u>	<u>12</u>		
" Rider Plate ... ..	<u>10 3/4</u>	<u>12</u>	<u>10 3/4</u>	<u>12</u>		
" Bulb Plate to Intercostal Keelson ... ..						
" Angle Irons ... ..	<u>5</u>	<u>4</u>	<u>9</u>	<u>5</u>	<u>4</u>	<u>9</u>
" Double Angle Iron Side Keelson ... ..	<u>5</u>	<u>4</u>	<u>9</u>	<u>5</u>	<u>4</u>	<u>9</u>
" Side Intercostal Plate ... ..		<u>10</u>		<u>8</u>		
" do. Angle Irons ... ..	<u>3 1/2</u>	<u>3 1/2</u>	<u>8</u>	<u>3 1/2</u>	<u>3 1/2</u>	<u>8</u>
" Attached to outside plating with angle iron ... ..						
<b>BILGE</b> Angle Irons ... ..	<u>5</u>	<u>4</u>	<u>9</u>	<u>5</u>	<u>4</u>	<u>9</u>
" do. Bulb Iron... ..						
" do. Intercostal plates riveted to plating for length ... ..						
<b>BILGE STRINGER</b> Angle Irons ... ..	<u>5</u>	<u>4</u>	<u>9</u>	<u>5</u>	<u>4</u>	<u>9</u>
Intercostal plates riveted to plating for length ... ..						
<b>SIDE STRINGER</b> Angle Irons ... ..	<u>5</u>	<u>4</u>	<u>9</u>	<u>5</u>	<u>4</u>	<u>9</u>
Transoms, material. Knight-heads. Hawse Timbers. <u>Plank &amp; Angliron</u>						
Windlass <u>Iron Patent</u> RAN Bit						

**Flat Keel Plates**, breadth and thickness ... .. 38 11.10 36 11  
**PLATES** in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied ... .. }  
fm up. part of Bilge to Ir. edge of Sheerstrake } 10.8 } 10  
Main Sheerstrake, breadth and thickness of Abutting at Sheerstrake, & length applied from Aft. to Up. or Spar Pl. Sheerstrake. Up. or Spar Pl. Sheerstrake, breadth & thickness } 41 12.9 40 12  
Butt Straps to outside plating, breadth & thickness } 11 1/2 12.10 } 11 1/4 12.10  
Lengths of Plating ... .. } 10 feet } 10 feet  
Shifts of Plating, and Stringers... .. } 6 feet } 4 feet  
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness... } 44 10 44 10  
Angle Iron on ditto ... .. } 5 x 4 9.8 } 5 x 4 9.8  
Tie Plates fore and aft, outside Hatchways ... } 13 10.8 } 13 10.8  
Diagonal Tie Plates on Beams No. of Pairs, } 13 } 10  
Planksheer material and scantling ... .. } Galvanised  
Waterways do. do. } Galvanised  
Flat of Upper Deck do. do. ... .. } 4 } 4  
How fastened to Beams Galvanised Nut & Screw bolts  
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness ... .. }  
Is the Stringer Plate attached to the outside plating? Yes  
Angle Irons on ditto, No. ... .. }  
Tie Plates, outside Hatchways ... .. }  
Diagonal Tie Plates on Beams, No. of pairs ... .. }  
Waterways materials and soundings ... .. }  
Flat of Middle Deck do. do. ... .. }  
How fastened to Beams ... .. }  
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams ... .. } 32 9 } 32 9  
Is the Stringer Plate attached to the outside plating? Yes  
Angle Irons on ditto, No. ... .. } 4 x 4 9 } 4 x 4 9  
Stringer or Tie Plates, outside Hatchways ... } 13 10 } 13 10  
Flat of Lower Deck ... .. }  
Ceiling betwixt Decks, thickness and material ... } Batten and Space  
in hold do. do. ... .. } 2 1/2 } 2 1/2  
Main piece of Rudder, diameter at head ... .. } 6 } 6  
do. at heel ... .. } 3 } 3  
Can the Rudder be unshipped afloat? Yes  
Bulkheads No. One Thickness of 7/16  
Height up to Upper Deck Beams  
How secured to sides of ship between double frames  
Size of Vertical Angle Irons 3 1/2 x 3 1/2 x 5/16 and distance apart 30 ins.  
Are the outside Plates doubled two spaces of Frames in length? Yes

The **FRAMES** extend in one length from Centre Line to Gunnwale Riveted through plates with 1 1/16 in. Rivets, about 4 apart.  
The **REVERSED ANGLE IRONS** on floors and frames extend across middle line to Gunnwale and to alternately  
**KEELSONS**. Are the various lengths of Plates and Angle Irons properly connected? Yes And butts properly shifted? Yes  
**PLATING**.—Garboard, double riveted to Keel, with rivets 1 1/16 in. diameter, averaging 5 1/2 ins. from centre to centre.  
Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 1 1/16 in. diameter, averaging 3 3/4 ins. from centre to centre.  
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 1 1/16 in. diameter averaging 3.3 3/4 ins. from centre to centre.  
Butts of Three Strakes at Bilge for half length, treble riveted with Butt Straps 1/16 thicker than the plates they connect.  
Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 1 1/16 in. diameter, averaging 3.3 3/4 ins. from cr. to cr.  
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 1 1/16 in. diameter, averaging 3.3 3/4 ins. from cr. to cr.  
Edges of Main Sheerstrake, double or single riveted. **Upper Sheerstrake**, double or single riveted.  
Butts of Main Sheerstrake, treble riveted for half length amidships. Butts of Upper or Spar Sheerstrake, treble riveted length amidships.  
Butts of Main Stringer Plate, treble riveted for half length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for length.  
Breadth of laps of plating in double riveting 5 1/4 Breadth of laps of plating in single riveting ... ..  
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted?  
Waterway, how secured to Beams Galvanised (Explain by Sketch, if necessary.)  
Beams of the various Decks, how secured to the sides? Edges turned down & riveted to No. of Breasthooks, 5 Crutches, 2  
That description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Galvanised  
Manufacturer's name or trade mark, Malleable Iron Company  
The above is a correct description.  
Builder's Signature, W. Wood Surveyor's Signature, Edw. J. M. Smith  
Surveyor to Lloyd's Register of British

**Workmanship.** Are the butts of plating planed or otherwise fitted? *planed*  
 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*  
 Are the fillings between the ribs and plates solid single pieces? *Yes*  
 Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *Yes*  
 Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *Yes*  
 Do any rivets break into or through the seams or butts of the plating? *a few in the butts* 17555 Iron

Masts, Bowsprit, Yards, &c., are *Iron & Wood* in *Good* condition, and sufficient in size and length. If of Iron or Steel give Scanlings 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 *Please see sketch Attached*

NUMBER for EQUIPMENT 18555		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS.	N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
N <sup>o</sup> .	SAILS.	CABLES, &c.										
		Chain										
		Stud										
		Power										
		Wear										
		Chain										
		Strm Cbl										
		Hawser ...										
		Towlines ...										
		Warp ...										
		quality										
		Good										
		240										
		1 13/16										
		59 3/4										
		82 3/4										
		240.116										
		59 3/4										
		82 3/4										
		90										
		1										
		90										
		9 1/2										
		90										
		6										
		90										
		5 1/2										
		1										
		1										
		13.00										
		13.00										
		6.3.21										
		6.2.0										
		3.0.21										
		3.1.0										

Standing and Running Rigging *Wool Hemp* sufficient in size and *Good* in quality. She has *2 Life Lines* Boats and *1 Pig + 1 Muffoly*  
 The Windlass is *Harford's Patent Iron* Capstan *Good* and Rudder *Good* Pumps *Good*  
 Engine Room Skylights.—How constructed? *As above* How secured in ordinary weather? *As above*

What arrangements for deadlights in bad weather? *As above*  
 Coal Bunker Openings.—How constructed? *As above* How are lids secured? *As above* Height above deck? *As above*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *She is fitted with 4 Scuppers*  
*4 Ports and 2 Mooring Ports in Bulwarks on each side*

Cargo Hatchways.—How formed? *Iron plates and Angle Irons in the ordinary manner*  
 State size Main Hatch *16 feet x 10 feet* Forehatch *6 feet x 5 feet* Quarterhatch *8 feet x 6 feet*

If of extraordinary size, state how framed and secured? *As above*  
 What arrangement for shifting beams? *Double Angle Irons riveted together, Ends turned down and secured to Coamings with Nut & Screw bolts*

Matches, *As above* strong and efficient? *As above*  
 Order for Special Survey No. *34* DATES of Surveys held while building as per Section 18.  
 Date *5 Aug 1876* 1st. On the several parts of the frame, when in place, and before the plating was wrought } *At various times before building*  
 Order for Ordinary Survey No. *153* 2nd. On the plating during the process of riveting } *and getting out*  
 Date *5 Aug 1876* 3rd. When the beams were in and fastened, and before the decks were laid... }  
 No. *153* in builder's yard. 4th. When the ship was complete, and before the plating was finally coated or cemented... }  
 5th. After the ship was launched and equipped }

**General Remarks** (State quality of workmanship, &c.) *The workmanship is good, the punching countersinking and rivetting is well done*  
*This vessel has been built under special survey in accordance with the scantlings and arrangements shown in accompanying approved tracing of midship section for Hull, and approved tracing of Mast and Yards, except that the vessel has been increased in length from 206 to 214 feet and the throat of the midship plates extended to 3/5 instead of 1/2 the length amidships since the submitting of the tracing sketch of midship section, and in all other respects in accordance with the rules. She has a mouthy fore-castle 21 feet long a house on deck amidships for the accommodation of the crew 25 feet long and 17 feet wide; and a poop 47 feet long with rounded top*

are the surfaces preserved from oxidation? Inside *Cement in Pills Paint Above* Outside *Paint & Composition*  
 of opinion this Vessel should be Classed *100 A 1*

Amount of the Entry Fee ... £ 5 : 0 : 0 is received by me, *James ...*  
 Special ... £ 58 : 14 : 6 30 Dec 1876  
 Certificate ... required  
 if any, £ *None*  
 Minute *5* January 1877  
 ed *100 A 1*  
 It is submitted that vessel appears eligible to be classed 100 A 1  
 Lloyd's Register  
 Foundation