

# IRON SHIPS.

44387

No. 979 Survey held at Newcastle Date 19<sup>th</sup> June to 5<sup>th</sup> December 1865  
 on the S.S. "C.S. Butler" Master James Hodgson  
 Tonnage under tonnage deck 713.37 Built at Newcastle When built 1865 Launched 19<sup>th</sup> Aug<sup>ty</sup>  
 Ditto of upper or lower deck 46.81 By whom built Palmer Ship Co. Comp. Owners J. Clarke & others  
 Ditto of engine room 160.24 Port belonging to London Destined Voyage London  
 Total Register tonnage 591.94  
 Gross Tonnage 760.10  
 Surveyed while Building, Afloat, or in Dry Dock While building

Length aloft	Extreme Breadth	Depth from top of Upper Deck Beam to top of Floor	Power of Engines	Horse.	N <sup>o</sup> . of Decks
199.7	20.1	17.43	80		1
<i>(Dimensions of Ship per Register, length 199.7 breadth 20.1 depth 17.43)</i>					
Keel, if bar iron, depth and thickness	Inches in Ship. 7x3	Inches required per Rule. for 700 tons Scale. 7 1/4 x 2 3/4	Plates in Garboard Strakes, breadth and thickness	Inches in Ship. 39	16ths. In Ship. 9/16
Keel, if plate iron, breadth and thickness	7x3	7 1/4 x 2 3/4	Ditto from Garboard to upper part of Bilges..	8/16	9/16
Stem, if bar iron, moulding and thickness	7x3	7 1/4 x 2 3/4	.. from upper part of Bilge to a perpendicular height from upper side of Keel of 3/4ths the entire depth of Hold	7/16	8/16
Stem, if plate iron, breadth and thickness	7x3	7 1/4 x 2 3/4	.. from 3/4ths depth of Hold to lower edge of Sheerstrake	7/16 x 9/16	8/16
Stern-post, if bar iron, moulding and thickness	8 x 5/8	7 1/4 x 5/2	.. Sheerstrake, breadth and thickness	3.2	8/16
Stern-post, if plate iron, breadth and thickness	8 x 5/8	7 1/4 x 5/2	Butt Straps to outside plating, breadth and thickness	22 1/2	9/16
Distance of Frames from moulding edge to moulding edge, all fore and aft	21	21	Gunwale Plate or Stringer on ends of Upper Deck Beams, breadth and thickness	9 x 9/16 to 7/16	9/16
Frames, Size of Angle Iron, single or double	Inches. In Ship. 4 3	16ths. In Ship. 7/16 x 4 1/4 3	Angle Iron on ditto	2 1/2	9/16
Reversed Iron, to every frame or every frame	3 3	6/16 x 3 2 3/4 7/16	Stringer or Tie Plates fore and aft, on Upper Deck Beams, outside Hatchways ..	4 1/2 x 3/2 x 7/16 4 3/4 x 3 3/4 x 9/16	9/16
Floors, depth and thickness of Floor Plate at mid line	18	7/16 x 18 1/2 9/16	Diagonal Tie Plates on ditto	11	9/16
Ditto ditto at Bilge Keelson	8	- - - - -	Planksheer, materials and scantlings		
Size of Reversed Angle Iron, and No. at top of Floor Plate	3 3	6/16 x 3 2 3/4 7/16	Waterway ditto ditto	11 x 8 x 6/16	Red Pine
Beams, Deck (N <sup>o</sup> . 45) double Angle Iron, Plate, Tee, or Bulb Iron	7	7/16 x 7 7/16	Flat of Upper Deck, thickness and material..	3 1/2	Yellow Pine
double or single Angle Iron, on top edge	2 1/2 2 1/2	6/16 2 1/2 2 1/2 5/16	.. how fastened to Beams..	nut & screw bolts	
average space between	3 feet	bunched	Ceiling between Decks and in Hold, thickness and material	2 1/2	Pine
Hold, or Lower Deck (N <sup>o</sup> . 32) double Angle, Tee, Plate, or Bulb Iron	7	7/16 x 7 7/16	Clamps or Spircketting ditto		
double or single Angle Iron on top edge	2 1/2 2 1/2	6/16 2 1/2 2 1/2 5/16	Stringer Plates on ends of Hold or Lower Deck Beams, breadth and thickness	24	9/16
average space between	2 1/2 x 4 1/2	frame	Stringer or Tie Plates fore and aft outside Hatchways, on Hold or Lower Deck Beams	4 1/2 x 3/2 x 7/16 4 3/4 x 3 3/4 x 9/16	9/16
Paddle, sided and moulded, thickness of Plate size of Angle Iron			Stringers in Hold	4 1/2 x 3/2 x 7/16 4 3/4 x 3 3/4 x 9/16	9/16
Engine			Flat of Lower Deck, thickness and material..		
Keelson, single or double plate, box, or intercostal	24	8/16 x 22 9/16	Main piece of Rudder, diameter at head	5 1/4	5
Size of Plates	19	7/16 x 19 7/16	" " " at heel	3	3
Size of Angle Irons	4 3	7/16 x 4 3/4 3 3/4 9/16	(Can the Rudder be unshipped afloat)		
Side, single or d'ble, plate, box, or intercostal	3 3	7/16 x 3 3/4 3 3/4 9/16	Bulkheads, N <sup>o</sup> . 4 Thickness of		
Bilge (No. 2) at each Bilge, single, or double, plate, or box	4 1/2 3 1/2	7/16 x 4 3/4 3 3/4 9/16	Height up upper deck		

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

Knight-heads, and Hawse Timbers chocked

The Frames extend in one length from Keel to Gunwale rivetted through plates with (3/4 in.) rivets, about (6) apart

The reverse angle irons on the floors extend in one length across the middle line from at double to bottom to bilges, and from thence to hold beam stringer & alternately to deck,

Keelson, how are the various lengths of plates or angle irons connected? Butt Straps

Plates, Garboard, double or rivetted to keel, double or end at upper edge, with rivets (1 x 3/4 ins.) diameter, averaging (3 1/2 ins.) apart.

Edges from Garboards to upper part of bilge, worked clencher, double or single rivetted; with rivets (3/4 in.) diameter, averaging (2 3/4 ins.) apart.

Butts from Keel to turn of bilge, worked carvel with butt straps (9/16 to 8/16) thick, double or single rivetted; with rivets (3/4 in.) diameter, averaging (2 3/4 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 (3/4 in.) diameter, averaging (2 3/4 in.) apart. Do the butt straps lap over and rivet through the lands of the strake below? no

Edges of Sheerstrake, double or single rivetted? At upper edge single At lower edge double

Butts from bilge to planksheers, worked carvel with butt straps (8/16 x 7/16) thick, double or single rivetted; with rivets (3/4 in.) diameter, averaging (2 3/4 ins.) apart. Breadth of laps in double rivetting (4 1/4) Breadth of laps in single rivetting (2 5/8)

Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted? double rivetted

Planksheer, how secured to the plating of the sides

Waterway " " planksheer and to the Beams } Explain by sketch } Bolted to stringer & outside plating if necessary.

Deck Beams, how secured to the side? Bracket ends rivetted to frames

Hold or Lower Deck ditto do do

Paddle " " No. of breasthooks 5 crutches

What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.?

Manufacturer's name or trade mark Plate & angle iron marked Palmer's Best.

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

Builder's Signature Palmer & Co. Limited Surveyor's Signature J. H. Saltman

IRON 439-0066

4438 Iron

**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? no slips observed

Do the fillings between the ribs and plates fill in solid with single pieces? or are they in short lengths of various thicknesses? Solid with single

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? 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.)

No.	SAILS.	CABLES, &c., tested at <u>Lloyd's Lipton</u>				ANCHORS, tested at <u>Lloyd's Lyne</u>					
		No. on Chain seen by me.	No. and date on Certificate	Fathoms.	Inches.	Tested to. Tons.	No.	No. on Anchor seen by me.	No. and date on Certificate.	Weight. Ex. stock.	Tested to. Tons.
	Fore Sails,	Chain .....	1244	19.8.65	135	1 7/16	37.4.0.0	Bowers .....	429	19.8.65	9.2.0.20.6.0.0
<u>one</u>	Fore Top Sails,	<del>Chain</del> Hempen	1245	19.8.65	135	1 7/16	37.4.0.0	3	930	19.8.65	10.2.0.19.8.3.0
	Fore Topmast	Stream Cable			90	1 7/8			931	19.8.65	15.3.14.7.5.1.7
<u>first</u>	Stay Sails,	Hawser .....			90	1 8		Stream .....	1		8.3.0
	Main Sails,	Towlines .....			90	1 6		Kedges .....	2		4.1.12 2.0.20
	Main Top Sails,	Warp .....			90	1 5					
	and	All of <u>new</u> quality.									

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

She has one Long Boat and three others

The present state of the Windlass is Good Capstan Good and Rudder Good Pumps 2 deck pumps and Engine Pumps

Order for Special Survey	DATES of Surveys held while building	1st.	2nd.	3rd.	4th.	5th.
No. <u>515</u>		On the several parts of the frame, when in place, and before the plating was wrought	On the plating during the progress of rivetting	When the beams were in and fastened, and before the decks were laid	When the ship was complete, and before the plating was finally coated	After the ship was launched
Date <u>22<sup>nd</sup> June 1865</u>						
Order for Ordinary Survey	as per Section 18.					
No. <u>—</u>						
Date <u>—</u>						

} Special Survey

State if she has a Spar Deck raised 2 upper deck 6 feet on Forecastle

**General Remarks,** This vessel has a double bottom about 112 feet long. She is constructed in all respects similar to the S.S. "J. M. Strachan", Report No 4772, and classed A.

In what manner are the surfaces preserved from oxidation? Inside Red lead and paint

Ditto ditto Outside do do

I am of opinion this Vessel should be Classed A

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

Special .....£ 30: : :  
Certificate (if required) .....£ : : :

Committee's Minute 12<sup>th</sup> December 1865

Character assigned A

J. H. Saltman



T. M. P. R. & Co. Shipwrights & Shipbuilders, 15, Old Broad Street, London, E.C.