

IRON SHIP.

Rec'd 24th June 1883 No. 16936

No. 16936 Survey held at *Newcastle* Date, First Survey 29th Augt 1882 Last Survey 17 July 1883

On the Iron Ss. Rigged Screw Steamer "Cardiganshire"

TONNAGE under Tonnage Deck 2318.63
 Ditto of Third, Spar, or Awning Deck.
 Ditto of Poop, or Raised Or. Dk. 62.08
 Ditto of Houses on Deck 45.41
 Ditto of Forecastle 41.05
 Gross Tonnage 2485.81
 Less Crew Space 67.18
 Less Engine Room 795.46
 Register Tonnage as cut on Beam 1623.17

ONE, OR TWO DECKED, THREE DECKED VESSEL, SPAR, OR AWNING DECKED VESSEL.
 Half Breadth (moulded) 18.89
 Depth from upper part of Keel to top of Upper Deck Beams 27.66
 Girth of Half Midship Frame (as per Rule) 42.04
 1st Number 88.59
 1st Number, if a 3-Decked Vessel deduct 7 feet 81.59
 Length 315.4
 2nd Number 25733
 Proportions— Breadths to Length 8.39
 Depths to Length— Upper Deck to Keel 11.47
 Main Deck ditto 15.69

Master — Courtney
 Built at Newcastle
 When built 1882 & 83 Launched 24th May 1883
 By whom built Messrs J. S. Swan & Hunter
 Owners J. S. Jenkins & Co
 Residence 17 Lime Street
 Port belonging to London
 Destined Voyage Middlesbro' to Lond
 If Surveyed while Building, Afloat, or in Dry Dock. While building & Dry Dock.

LENGTH on deck as per Rule 315 5 **BREADTH** Moulded 37 9 **DEPTH** top of Floors to Upper Deck Beams 24 8 Do. do. Main Deck Beams 17 0 **Power of Engines** 275 **Horse.** 275 **No. of Decks with flat laid** Two **No. of Tiers of Beams** Three

Dimensions of Ship per Register, length, 317.3 breadth, 38.1 depth, 24.5

	Inches in Ship	16ths in Ship	Inches per Rule	16ths per Rule
KEEL , depth and thickness <i>side plates 10 x 1 1/2</i>	10	12	10	12
STEM , moulding and thickness	10 x 2 3/4	10	10 x 2 3/4	10
STERN-POST for Rudder do. do.	10 x 5 1/2	10	10 x 5 1/2	10
" for Propeller	10 x 5 1/2	10	10 x 5 1/2	10
Distance of Frames from moulding edge to moulding edge, all fore and aft	24	24	24	24
FRAMES , Angle Iron, for 3/4 length amidships	5 3 1/2 8	5 3 1/2 8	5 3 1/2 8	5 3 1/2 8
Do. for 1/2 at each end	5 3 1/2 7	5 3 1/2 7	5 3 1/2 7	5 3 1/2 7
REVERSED FRAMES , Angle Iron	3 1/2 3 1/2 8	3 1/2 3 1/2 8	3 1/2 3 1/2 8	3 1/2 3 1/2 8
FLOORS , depth and thickness of Floor Plate at mid line for half length amidships	36 7	36 7	36 7	36 7
" thickness at the ends of vessel	on cellular bottom			
" depth at 3/4 the half-bdth. as per Rule	principle and as			
" height extended at the Bilges	per approved tracing			
BEAMS , Upper, Spar, or Awning Deck	8 8	8 8	8 8	8 8
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6	3 3 6 3 3 6
Single or double Angle Iron on Upper edge	alternate frames			
Average space	6 3 9 6 3 9	6 3 9 6 3 9	6 3 9 6 3 9	6 3 9 6 3 9
BEAMS , Main, or Middle Deck	6 3 9 6 3 9	6 3 9 6 3 9	6 3 9 6 3 9	6 3 9 6 3 9
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	on every frame			
Single, or double Angle Iron, on Upper Edge				
Average space				
BEAMS , Lower Deck				
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron				
Single or double Angle Iron on Upper Edge				
Average space				
BEAMS , Hold, or Orlop	10 10	10 10	10 10	10 10
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	4 4 9 4 4 9	4 4 9 4 4 9	4 4 9 4 4 9	4 4 9 4 4 9
Single or double Angle Iron on Upper Edge	as per profile tracing			
Average space	46 10	46 10	46 10	46 10
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates	Constructed on the cellular bottom			
" Rider Plate	principle with 7/16			
" Bulb Plate to Intercoastal Keelson	solid floors and			
" Angle Irons	continuous for			
" Double Angle Iron Side Keelson	as per approved			
" Side Intercoastal Plate	tracing of mid section			
" do. Angle Irons				
" Attached to outside plating with angle iron				
BILGE Angle Irons	6 4 9 6 4 9	6 4 9 6 4 9	6 4 9 6 4 9	6 4 9 6 4 9
" do. Bulb Iron	3 1/2	3 1/2	3 1/2	3 1/2
" do. Intercoastal plates riveted to plating for length				
BILGE STRINGER Angle Irons	6 4 9 6 4 9	6 4 9 6 4 9	6 4 9 6 4 9	6 4 9 6 4 9
Intercoastal plates riveted to plating for length				
SIDE STRINGER Angle Irons				

The **FRAMES** extend in one length from Keel to Gunwale Riveted through plates with 7/8 in. Rivets, about 6" apart.

The **REVERSED ANGLE IRONS** on floors and frames extend near middle line to chain deck and to Upper deck 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 1/2 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 7/8 in. diameter, averaging 3 1/2 ins. from centre to centre.
 " Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 1/2 ins. from centre to centre.
 " Butts of 3 Strakes at Bilge for half length, treble riveted with Butt Straps 7/8 thicker than the plates they connect.
 " Edges from Bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 7/8 in. diameter, averaging 3 1/2 ins. from cr. to cr.
 " Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 in. diameter, averaging 3 1/2 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 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted 1/2 length amidships.
 " Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for 1/2 length.
 " Breadth of laps of plating in double riveting 5 1/2 Breadth of laps of plating in single riveting 5

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Treble Riveted No. of Breasthooks, 6 Crutches, 4

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Angles & Bulbs: Stockton Malleable

Manufacturer's name or trade mark, Iron Co. & Dorman Long & Co. Plates: Consett Iron Co. Stockton Malleable Iron Co. and

The above is a correct description. Walker Rolling Mills

Builder's Signature, J. S. Swan & Hunter Surveyor's Signature, James McIlburn

Surveyor to Lloyd's Register of British and Foreign Shipping.

State clearly where plating is of alternate thicknesses as distinguished from diminished thickness at ends of vessel. * If Iron Deck, state if whole or part, and if wood deck is laid thereon.

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.*

Masts, Bowsprit, Yards, &c., are of *Iron* in *Good* condition, and sufficient in size and length. If of Iron or Steel give 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 riveting, quality of Materials, and if stamped with Maker's name.
State also Length and Diameter of Lower Masts and Bowsprit

Foremast length extreme 80'3". Diameter at partners 24". Two plate masts 7 1/2" to 6 1/2" 5/16" in thickness. Edges double riveted, and butts treble and double riveted. Masts doubled at the partners for a length of 4 ft with 7/16" plates. Makers of Iron West-Stockton Iron Co.

NUMBER for EQUIPMENT 29803

N ^o .	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Inches per Rule.	Machine where Tested & Suprntd.	ANCHORS.	N ^o .	Weight. Ex. Stock.	Test per Certificate.	Wght req'd per Rule.	Machine where Tested & Suprntd.
	Fore Sails,	Chain	270	1 7/8	63 1/2	270-1 1/4		Bower Anchors	1	35.3.0	32.18.3.0	34.0.0	
	Fore Top Sails,	Iron Stream Chain	75	1 1/2	22 3/4	75-1 1/2		(State Machine where Tested, Date, or No. of Certificate, & Name of Superintendent.)	1	33.0.21	31.1.1.0	34.0.0	
	Fore Topmast Stay Sails,	or Steel Wire ..	100	1 1/2	22 3/4	75-1 1/2			1	29.0.0	27.17.2.0	29.0.0	
	Towline, Hemp.	or Hempen Stem } Cable	90	2 1/2	100-12								
	Main Sails,	or Steel Wire ..	90	2 1/2	100-12								
	Main Top Sails,	Hawser	90	8	100-12								
	Standing and Running Rigging	Warp	260	6	90-8			Stream Anchor	1	10.3.14	12.15.1.7	10.3.0	
	The Windlass is	quality <i>Good</i>	120	4 1/2	90-8			Kedge ...	1	5.2.21	8.0.2.14	5.2.0	
		Manilla						2nd Kedge ...	1	2.2.0	5.0.0.0	2.2.0	

Capstans *Good* and Rudder *Good* Pumps *Good*
Engine Room Skylights. How constructed? *Iron trunk to bridge deck & iron* How secured in ordinary weather? *Bolted to angles.*

What arrangements for deadlights in bad weather? *Solid shutters & bulls eyes.*
Coal Bunker Openings. How constructed? *Cast Iron Comings* How are lids secured? *Chump bands* Height above deck? *9"*

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? *Ten ports each side besides mooring pipes.*

Cargo Hatchways. How formed? *Iron comings and headledges riveted*

State size Main Hatch *24 x 12* Fore Hatch *16 x 12* Quarter Hatch *16 x 12*

If of extraordinary size, state how framed and secured? *Ordinary size*

What arrangement for shifting beams? *Two deep web plates in main, one deep web plate in fore & two after hatchways, & two wood fore & afters in each hatchway*

Hatches, If strong and efficient? *Yes (Solid hatches)*

Order for Special Survey No. <i>1649</i>	1st. On the several parts of the frame, when in place, and before the plating was wrought	1882 Aug 29. Sep 4. 11. 15. 18. 20. 23. 27. Oct 4. 6. 9. 10. 16. 19. 27
Date <i>30th Nov 1881</i>	2nd. On the plating during the process of riveting	Nov. 16. 22. 24. 29 Dec 4. 5. 8. 11. 15. 21. 26. 30.
Order for Ordinary Survey No. <i>1649</i>	3rd. When the beams were in and fastened, and before the decks were laid...	1883 Jan. 8. 16. 20. 25. 31. Feb 5. 13. 17. 21. 23. 27. March 2. 5. 9.
Date <i>✓</i>	4th. When the ship was complete, and before the plating was finally coated or cemented...	13. 21. 28. Apr 5. 13. 17. 21. 24. 30 May 2. 4. 10. 12. 17.
No. <i>41</i> in builder's yard.	5th. After the ship was launched and equipped	18. 21. 22. 24. June 2. 4. 7. 8. 11. 16. 19. 21. 23. 25 July 3. 5

General Remarks (State quality of workmanship, &c.) *This is a Three decked vessel constructed on the cellular system in the bottom. She is a sister ship to the S.S. "Linwood" Tonnage Report 16659 except in the deck arrangements, and arrangement of hold beams and sections. These are in accordance with the plans forwarded herewith.*

She has a complete iron middle deck, and the upper deck beams are plated between the hatch sides and stringer plates for 3/4 the length amidships, and from side to side where practicable in way of engine & boiler space, and a wood deck is fitted upon the iron deck. The Poop is 28 ft long, bridge with passage on each side of E. & B. casings 5 1/2 ft. and foremast 33 ft. The inner bottom of the length and capacity set forth in form hereto attached, tested with water to the height of the load line and found satisfactory, and the general quality of the workmanship is good.

Drawings of Midship Section & Profile forwarded with Tonnage Report No. 16902

State if one, two, or three decked vessel, or if spar, or awning decked; and the lengths of poop, bridge, foremast, or raised quarter deck. (If double bottom, state particulars on separate form.)

How are the surfaces preserved from oxidation? Inside *Asphalte Cement & Paint* Outside *Paint.*

I am of opinion this Vessel should be Classed *100A1 Two decks One iron & one part iron, and three tiers of beams.*

The amount of the Entry Fee ... £ 5 : - : - is received by me, *W. H. B.*

Special ... £ 85 : 9 : 6 *23rd July 1883*

Certificate *Gratis* (to be sent as per margin).

Travelling Expenses, if any, £ - : - : -

Committee's Minute

Character assigned

FRIDAY 27 JULY 1883 18

100A1 Arch 25 ft. 1 Iron plating 25 ft. 3 tiers of beams 26 7/8 ft.

Surveyor to Lloyd's Register of British and Foreign Shipping. It is submitted that the vessel appears worthy of favorable consideration of the Committee to be classed 100A1 Three decked Rule as recommended.

J. H. Cooke.

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