

IRON SHIPS.

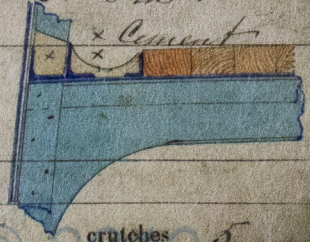
No. 1934 Survey held at Belfast Date 29th May 1889
 on the New Ship "Lady Cairns" Master —
 Tonnage under tonnage deck 1169.32 Built at Belfast When built 1889 Launched 24th April
 Ditto of poop or spar deck 90.98
 Ditto of engine room 50.60 By whom built Harland & Wolff Owners Harland & Wolff
 Total Register tonnage 1310.90
 Gross Tonnage 1244.59 Port belonging to Liverpool Destined Voyage —
 If Surveyed while Building, Afloat, or in Dry Dock Specially Surveyed while building

Length aloft	Feet.	Inches.	Extreme Breadth	Feet.	Inches.	Depth from top of Upper Deck Beam to top of Floor	Feet.	Inches.	Power of Engines	Horse.	N ^o . of Decks
<u>216</u>	<u>4</u>		<u>35</u>	<u>4</u>		<u>22</u>	<u>8 1/2</u>				<u>Two</u>
(Dimensions of Ship per Register, length <u>214</u> breadth <u>34</u> depth <u>22.5</u>)											
Keel, N bar iron, depth and thickness	Inches in Ship.		Inches required per Rule, tons Scale.		Plates in Garboard Strakes, breadth and thickness						
„ if plate iron, breadth and thickness	<u>9 x 3</u>		<u>9 x 3</u>		<u>35</u>						
Stem, N bar iron, moulding and thickness	<u>9 x 3</u>		<u>8 1/2 x 3</u>		Ditto from Garboard to upper part of Bilges..						
„ if plate iron, breadth and thickness	<u>9 x 3</u>		<u>8 1/2 x 3</u>		„ from upper part of Bilge to a perpendicular height from upper side of						
Stern-post, N bar iron, moulding and thickness	<u>9 x 3</u>		<u>8 1/2 x 3</u>		Keel of 3/4ths the entire depth of						
„ „ if plate iron, breadth and thickness	<u>21</u>		<u>21</u>		Hold						
Distance of Frames from moulding edge to					„ from 3/4ths depth of Hold to lower edge						
moulding edge, all fore and aft					of Sheerstrake						
					„ Sheerstrake, breadth and thickness						
Frames, Size of Angle Iron, single or double..	<u>5 x 3</u>		<u>5 x 3</u>		Butt Straps to outside plating, breadth and						
„ „ Reversed Iron, N to every frame	<u>3 1/2 x 3</u>		<u>3 1/2 x 3</u>		thickness						
or every frame	<u>9 1/2</u>		<u>9 1/2</u>		Gunwale Plate or Stringer on ends of Upper						
Floors, depth and thickness of Floor Plate at	<u>24</u>		<u>24</u>		Deck Beams, breadth and thickness						
mid line	<u>10 1/2</u>		<u>10 1/2</u>		Angle Iron on ditto						
„ Ditto ditto at Bilge Keelson	<u>9</u>		<u>9</u>		Stringer or Tie Plates fore and aft, on Upper						
„ Size of Reversed Angle Iron, and	<u>3 1/2 x 3</u>		<u>3 1/2 x 3</u>		Deck Beams, outside Hatchways ..						
No. 2 at top of Floor Plate	<u>8 1/2</u>		<u>8 1/2</u>		Diagonal Tie Plates on ditto						
Beams, Deck (N ^o .) double Angle Iron,)	<u>9</u>		<u>9</u>		Planksheer, materials and scantlings						
„ „ Tee, or Bulb Iron	<u>9 1/2</u>		<u>9 1/2</u>		Waterway ditto ditto						
„ „ double or single Angle Iron,)	<u>3 1/2 x 3</u>		<u>3 1/2 x 3</u>		Flat of Upper Deck, thickness and material..						
on Upper edge	<u>7 1/2</u>		<u>7 1/2</u>		how fastened to Beams..						
„ „ average space between	<u>4 1/2</u>		<u>4 1/2</u>		Ceiling betwixt Decks and in Hold, thickness						
„ Hold, or Lower Deck (N ^o .)	<u>9</u>		<u>9</u>		and material						
double Angle, Tee, Plate, or Bulb Iron)	<u>3 1/2 x 3</u>		<u>3 1/2 x 3</u>		Clamps or Spirketting ditto						
„ „ double or single Angle Iron)	<u>7 1/2</u>		<u>7 1/2</u>		Stringer Plates on ends of Hold or Lower						
on Upper edge	<u>4 1/2</u>		<u>4 1/2</u>		Deck Beams, breadth and thickness						
					Stringer or Tie Plates fore and aft outside						
					Hatchways, on Hold or Lower						
					Deck Beams						
					Stringers in Hold						
					Flat of Lower Deck, thickness and material..						
					Main piece of Rudder, diameter at head						
					„ „ „ at heel						
					(Can the Rudder be unshipped afloat 1/2)						
					Bulkheads, N ^o . <u>One</u> Thickness of						
					„ Height up to Upper deck						
					„ how secured to the sides of the ship						
					„ size of vertical angle irons <u>3 1/2 x 3 1/2</u> and their distance apart <u>20 inches</u>						



„ „ „ or, if none, in what manner compensated for.
 „ „ „ and Hawse Timbers Iron
 „ „ „ extend in one length from Keel to Gunwale rivetted through plates with (1/8 in.) rivets, about (4 in) apart
 „ „ „ angle irons on the floors extend in one length across the middle line from 2 1/2 to 3 feet on each side alternately to hold beams together
 „ „ „ on the frames „ „ „ from 8 to 8
 „ „ „ how are the various lengths of plates or angle irons connected? With butt straps
 „ „ „ Garboard, double or rivetted to keel, double or at upper edge, with rivets (1 1/4 in.) diameter, averaging (3 1/2 in.) apart.
 „ „ „ Edges from Garboards to upper part of bilge, worked clench, double or single rivetted; with rivets (1/8 in.) diameter, averaging (2 3/4 in.) apart.
 „ „ „ Butts from Keel to turn of bilge, worked carvel with butt straps (1 1/2 x 1 1/2) thick, double or single rivetted; with rivets (1/8 in.) diameter, averaging (2 3/4 in.) apart.
 „ „ „ Do the butt straps lap over and rivet through the lands of the strake below? Alternately
 „ „ „ Edges from bilge to sheerstrake, worked carvel with a lining piece () thick, or clench, double or single rivetted; with rivets (1/8 in.) diameter, averaging (2 3/4 in.) apart.
 „ „ „ Do the butt straps lap over and rivet through the lands of the strake below? alternately
 „ „ „ 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 (1 1/2 x 1 1/2) thick, double or single rivetted; with rivets (1/8 in.) diameter, averaging (2 3/4 in.) apart. Breadth of laps in double rivetting (5 in) Breadth of laps in single rivetting (3 in)

Butt Straps of Keelsons, Stringer and Tie Plates, double or single rivetted?
 Planksheer, how secured to the plating of the sides
 Waterway „ „ planksheer and to the Beams
 Deck Beams, how secured to the side? Keel plates welded & rivetted to frames
 Hold or Lower Deck ditto Same as above
 Paddle „ „



No. of breasthooks 5 crutches 5
 What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.? Angle Iron from Hopkins & Co.
 Manufacturer's name or trade mark Angle Iron from Hopkins & Co.
 We certify that the above is a correct description of the several particulars therein given.
 Builder's Signature Harland & Wolff Surveyor's Signature Wm. Linton

7312 Iron

Do the edges of the rivet work and the rivets 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? Filled in solid
Do the holes for rivetting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes 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)

Masts Lower Mast, Bowsprit, Lower Yards, Fore & Main Lower topsail Yards are of Iron, Masts and Bowsprit plates $\frac{3}{8}$ thick. Three angle irons in each $8\frac{1}{2} \times 3\frac{1}{16}$ the entire length, Fore & Main lower topsail Yards plate $\frac{5}{16}$ tapering to $\frac{4}{16}$ at ends, three doubling plates at stings 7 feet long, $7 \times 8\frac{1}{16}$ three angle irons in each $8\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{16}$ about 44 long each, Fore & Main lower topsail Yard & cross back Yard plate $\frac{4}{16}$ tapering to $\frac{3}{16}$ at ends, three doubling plates at stings 7 feet long $6\frac{1}{2}$ feet long $6\frac{1}{2} \times \frac{3}{16}$, three angle irons as above $28 \times 5\frac{1}{2}$ feet long, Butts fastened with 2, 3 & 4 Seam & Chain rivetting.

She has SAILS, CABLES, &c., tested at Lloyd's Tipton House

ANCHORS, tested at Lloyd's Tipton House

No.		Chain	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.
2	Fore Sails,	Chain	4572	23 March 1868	300	1 $\frac{1}{16}$	59.2.0	Bowers	1	4215	13 April 1868	3.3.0.24	31.1.0
2	Fore Top Sails,	Hemp							1	4212	" "	3.3.3.0	31.8.0
2	Fore Topmast Stay Sails,	Chain-Stream Cable	-	-	90	1	12.0.1.1	Stream	1	4214	" "	28.2.14	24.1.0
2	Main Sails,	Hawser			90	10			1	1007		10.2.0	12.17.2
2	Main Top Sails,	Towlines			90	4		Kedges	1	1008		1.2.20	
		Warp			90	4				1009		3.2.24	

and were found in Good quality.

Her Standing and Running Rigging Found to be sufficient in size and Good in quality.

She has 2 Life Boats Long Boat and 2 others Good

The present state of the Windlass is Good Capstan Good and Rudder Good Pumps 2 best Iron Good

Order for Special Survey	DATES of	1st.	On the several parts of the frame, when in place, and before the plating was wrought	<u>November 1868</u>
No. <u>276</u>	Surveys held	2nd.	On the plating during the progress of rivetting	<u>December "</u>
Date <u>13 Oct 1868</u>	while building	3rd.	When the beams were in and fastened, and before the decks were laid	<u>January 1869</u>
Order for Ordinary Survey	as per	4th.	When the ship was complete, and before the plating was finally coated	<u>February "</u>
No. _____	Section 18.	5th.	After the ship was launched	<u>May "</u>
Date _____				

State if she has a Spar Deck No Poop Yes Forecastle Yes

General Remarks, Middle line keelson 19 inches deep amidships tapering to 14 inches at ends of vessel.
Fore Mast 84 feet & Main Mast 85 $\frac{1}{2}$ feet long plates $\frac{3}{8}$ 9 feet long, lands $2\frac{1}{2}$ in $\frac{3}{4}$ Rivet and treble Chain rivetted, straps 11 & 19 in wide, 7.9 feet long 24 in diameter. Bowsprit 30 feet long 24 in rivetting as above

In what manner are the surfaces preserved from oxidation? Inside Flat of bottom with Portland Cement
Ditto ditto Outside Red Lead and oil Paint

I am of opinion this Vessel should be Classed A 1

The amount of the Fee £ 5 : 0 : 0 is received by me, Wm Linton

Special £ 63 : 4 : 6
Certificate (if required) £ _____

Committee's Minute 27th August 1869

Character assigned A 1

