

IRON SHIPS.

Rev 8/4/72

No. 3466 Survey held at Glasgow Date, First Survey 3rd May 1871 Last Survey 5th April 1872
 On the S. S. Lady Lyett now named "Liffey" Master George Fowler
 Tonnage under Deck 1814.53 ONE, OR TWO DECKED, SPAR, OR AWNING DECKED VESSELS. THREE DECKED VESSELS.
 Deck of Main Deck } Half Moulded Breadth.... 16.4
 Deck of Upper Deck } Total Depth if three or more Decks } 24.75
 Deck of Lower Deck } Total Girth of Half Mid-ship Frame } 40.14
 Ditto of Houses on Deck } 18.17
 Ditto of Foremast } 3rd Number..... 81.55
 Ditto of Mainmast } Length..... 260.5
 Gross Tonnage 1832.70 1st Number..... 67.55 Length..... 260.5
 Crew Space, as per Rule }
 Deck Room } 2nd Number.... 17.596 4th Number.... 21.243
 Deck Tonnage, as a } Depths to Length. } 10.5 Breadths to Length..... 7.8
 measurer, cut on Beam } 14.6

Length on deck per Rule 260 Feet. 5 Inches. Moulded Breadth 32 Feet. 8 Inches. Depths from top of Floors to Upper and Main Deck Beams, as per Rule } 24 Feet. 75 Inches. Power of Engines, 150 Horse. N^o. of Decks with flat laid Two N^o. of Tiers of Beams Three

Dimensions of Ship per Register, length	breadth	depth	16ths required per Rule.			
262.6	33.15	24.55	17	75	17	75
Flat Keel Plates, breadth and thickness	4 1/2	7/16	36	7/16		
Plates in Garboard Strakes, breadth and thickness	4 1/2	7/16	36	7/16		
Do. from Garboard to upper part of Bilges	12/16	10/16	10	12		
Do. of doubling at Bilge, or increased thickness, and length applied	12/16	10/16	10	12		
Do. from up. part of Bilge to lr. edge of Sh'rstrake	10/16	10/16	10	16		
Do. Main Sheerstrake, breadth and thickness	36	12/16	36	12/16		
Do. of doubling at Sh'rstrake, & length applied	36	12/16	36	12/16		
Do. from Mn. to Up. or Spar Dk. Sh'rstrake	37	7/16	29	10/16		
Do. Up. or Spar Dk Sh'rstrake, brdth & thickness	37	10/16	29	10/16		
Butt Straps to outside plating, breadth & thickness	3 1/4	10/16	3 1/4	10/16		
Lengths of Plating	10 feet					
Shifts of Plating, and Stringers	5 feet					
Gunwale Plate on ends of Awaiting, Spar, or Upper Deck Beams, breadth and thickness	37	8/16	37	8/16		
Angle Iron on ditto	3 1/2	3 1/2	7/16	3 1/2	7/16	
Tie Plates (fore and aft), outside Hatchways	12 1/4	5/16	12	8/16		
Diagonal Tie Plates on Beams (No. of Pairs, 5)	12 1/4	5/16	12	8/16		
Planksheer material and scantling	1 1/2	1 1/2				
Waterways do. do.	4	4				
Flat of Upper Deck do. do.	4	4				
How fastened to Beams	Yes					
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	37	10/16	37	10/16		
(Is the Stringer Plate attached to the outside plating?)	Yes					
Angle Irons on ditto (No. Two)	4 x 4 x 9/16		4 x 4 x 9/16			
Tie Plates, outside Hatchways	Iron Deck		3 1/2	10/16		
Diagonal Tie Plates on Beams (No. of pairs, 3)	3/8		5/16			
Waterways materials and scantlings	3/8		5/16			
Flat of Middle Deck do. do.	Riveted					
How fastened to Beams	Riveted					
Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	3 1/2	9/16	3 1/2	9/16		
(Is the Stringer Plate attached to the outside plating?)	Yes					
Angle Irons on ditto (No. Four) and Side Plates	9 x 10/16					
Stringer or Tie Plates, outside Hatchways						
Flat of Lower Deck	Cope Iron					
Ceiling betwixt Decks, thickness and material	2 1/2		2 1/2			
Do. in hold do. do.	2 1/2		2 1/2			
Main piece of Rudder, diameter at head	6 3/4		6 3/4			
Do. do. at heel	3 1/4		3 1/4			
(Can the Rudder be unshipped afloat?)	Yes					
Bulkheads No. 5 Thickness of	3/8		3/8			
Do. Height up	To Deck					
Do. How secured to the sides of the ship	double framed					
Do. Size of Vertical Angle Irons, and their distance apart	3 x 3 x 7/16 and 30 ins					
Do. Are the outside Plates doubled two spaces of Frames in length?	Yes					

Transoms, material Iron or, if none, in what manner compensated for.
 Knight-heads Iron Hawse Timbers Iron
 Windlass Patent Pall Bitt —
 The Frames extend in one length from Centre line to Upper Deck Riveted through plates with (3/4 in.) Rivets, about 6 apart.
 The Reverse Angle Irons on the floors and frames extend from the middle line — to Upper deck and to Main deck alternately
 Keelsons. Are the various lengths of Plates and Angle Irons properly connected? Yes And are their butts properly shifted? Yes
 Plates, Garboard, double — Riveted to Keel, double — at upper edge, with Rivets (7/8 in.) diameter, averaging (4 ins.) from centre to centre.
 Do. Edges from Garboards to upper part of Bilge, worked Clencher, double — Riveted; with Rivets (7/8 in.) diameter, averaging (4 ins.) from centre to centre.
 Do. Butts from Keel to turn of Bilge, worked Carvel with butt straps to strakes (13/16 10/16) thick, double — Riveted; with Rivets (7/8 in.) diameter averaging (4 ins.) from centre to centre. Do the Butt Straps lay over and Rivet through the lands of the strakes above or below? No.
 Do. of Iron Strakes at Bilge for 12 length, treble riveted with Butt Straps 7/16 thicker than their plates.
 Do. Edges from bilge to Main Sheerstrake, worked Carvel with a lining piece () thick, or clencher, double — riveted; with rivets (7/8 in.) diameter, averaging (4 ins.) from centre to centre.
 Do. Edges of Sheerstrake, Main, double or single Riveted. Upper, double or single Riveted. At upper edge Single At lower edge Double
 Do. Butts from Bilge to Main Sheerstrake, worked Carvel with Butt Straps (10/16) thick, double — Riveted; with Rivets (7/8 in) diameter, averaging (4 ins) from centre to centre.
 Do. Butts of Main Sheerstrake, double — Riveted. Butts of Upper or Spar Sheerstrake, and Upper Deck Stringer Plate, double — and treble Riveted for 1/2 length amidships. Breadth of laps of plating in double Riveting (6 times) Breadth of laps of plating in single Riveting (3 1/2 times)
 Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Treble and Double
 Planksheer, how secured to the plating of the sides. Waterway, how secured to the planksheer and to the Beams. (Explain by Sketch, if necessary.)
 Beams of the various Decks, how secured to the sides? Riveted to Frames No. of Breasthooks, Five Crutches, Five
 What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? B. Boiler
 Manufacturer's name or trade mark, Blochauer

We certify that the above is a correct description of the several particulars therein given.
 Builder's Signature, James Watson & Co. Surveyors Surveyor's Signature, Samuel Lathorn

120450-0437

Workmanship. Are the butts of plating planed or otherwise fitted? Planed 9973 Irish
 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? Yes
 Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes and are the rivets well and sufficiently countersunk in the plate and punched from the faying surfaces? 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 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 Big rigged Iron Masts

Tested by R. Burell, Low Walker 10th Nov^r 1871
 Tested by R. Burell Low Walker 8th and 23rd Nov^r and 20th Dec

N ^o .	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test as per Certificate.	In. req'd per Rule.	Test req'd per Rule.	ANCHORS, &c.	N ^o .	Weight. Ex. Stock.	Test as per Certificate.	Wght req'd per Rule.	T
	Number for equipment	21,243											
	Fore Sails,	Chain	300	1 7/8	47 1/2	11 1/16	47 1/2	Bowers	3	25.3.6	25.10.17	25 1/2	
One	Fore Top Sails,	(State Machine where Tested, and name of Superintendent).						(State Machine where Tested, and name of Superintendent).					
Quit	Fore Topmast Stay Sails	Hempen Stream Cable	60	1 1/16				Stream	1	11.0.17		10 1/2	
	Main Sails,	Hawser	90	10 1/2		10		Kedges	2	5.1.7		5 1/4	
	Main Top Sails,	Towlines	180	7		6						2 3/4	
		Warp	180	5									
	and	All of good quality.	90	4									

Her Standing and Running Rigging Wire & Hemp sufficient in size and good quality. She has Six Long Boats and
 The present state of the Windlass is 2 Capstan and Rudder good Pumps good and efficient
Barrow and Harfield's Patent Engine Room Skylights. How constructed? Plate & Angle Iron How secured in ordinary weather? Thick Glass & wire glass
 What arrangements are there for deadlights in such for bad weather? Paulins
 Coal Bunker Openings. How constructed? Cast Iron Cuttles How are lids secured? Stots How high above deck? Flush
 Scuppers, &c. What arrangements are there beyond the scuppers on deck, for clearing upper deck of water, in case of a sea coming on board? Flush deck
 Cargo Hatchways. How formed? Plate and Angle Irons State size 12x10 - 14x10
 If of extraordinary size, state how framed and secured? Shifting Beams
 What arrangement for shifting beams? Secured to Girdings with Nuts and Screws
 Hatches, themselves, whether strong and efficient? Strong Main Hatchways. State size 24x10

Order for Special Survey No. 766 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought Under Special
 Date June 7/71 Surveys held 2nd. On the plating during the progress of riveting Survey from 3rd May 1871
 Order for Ordinary Survey No. 159 while building 3rd. When the beams were in and fastened, and before the decks were laid to 5th April 1872
 Date as per 4th. When the ship was complete, and before the plating was finally coated or cemented
 No. 159 in builder's yard. Section 18. 5th. After the ship was launched and equipped

General Remarks,
 This vessel has been built in accordance with approved midship section attached and in conformity with the Rules for 1870-71, she is fitted with water Ballast Tanks in the Fore and after Holds efficient constructed and is submitted as eligible to be classed as recommended

State if one, two or three decked vessel, or if spar or awning decked, and lengths of poop, fore-castle or raised quarter deck, or of double or part double
 In what manner are the surfaces preserved from oxidation? Inside Red Lead & Cement Outside Red Lead and McDaniel's Paint
 I am of opinion this Vessel should be Classed 90 A 1 Part Double Bottom - 3 decks

The amount of the Entry Fee £ 5 : : is received by me,
 Special £ 40 : :
 Certificate gratis
 (Travelling Expenses) (if any) £ ---
 Committee's Minute 9th April 1872
 Character assigned 90 A 1
 I concur in the opinion that this vessel should be classed 90 A 1 3 decks - 1872
 Lloyd's Register Foundation