

IRON SHIPS.

1908 Survey held at Melfast Date 5th March 1898

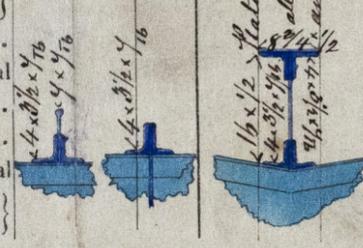
New Barque "Broughton" Master Anders Lundberg
 under tonnage deck 584.64 Built at Melfast When built 1898 Launched 25th January
 poop 2nd deck or spar deck 18.01 By whom built Harland & Wolff Owners Imray & others
 engine room
 register tonnage 599.80 Port belonging to Liverpool Destined Voyage San Francisco via Glasgow
 Gross Tonnage

Surveyed while Building, Afloat, or in Dry Dock Specially Surveyed while Building

Length aloft 172 Extreme Breadth 27 Depth from top of Upper Deck Beam to top of Floor 18 Power of Engines — No. of Decks One

Dimensions of Ship per Register, length 166 breadth 24.5 depth 18.3

	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.
Keel, N bar iron, depth and thickness	4 x 2 1/2	4 x 2 1/2	4 x 2 1/2	4 x 2 1/2	4 x 2 1/2	4 x 2 1/2
Stem, N bar iron, moulding and thickness	4 x 2 1/2	4 x 2 1/2	4 x 2 1/2	4 x 2 1/2	4 x 2 1/2	4 x 2 1/2
Stern-post, N bar iron, moulding and thickness	4 x 2 1/2	4 x 2 1/2	4 x 2 1/2	4 x 2 1/2	4 x 2 1/2	4 x 2 1/2
Distance of Frames from moulding edge to moulding edge, all fore and aft	21	21	21	21	21	21
Frames, Size of Angle Iron, single or double	4 2 1/2	4 2 1/2	4 2 1/2	4 2 1/2	4 2 1/2	4 2 1/2
Floors, depth and thickness of Floor Plate at mid line	18 1/2	18 1/2	19	19	18 1/2	18 1/2
Transoms, Deck (No.) double Angle Iron, Plate, Tee, or Bulb Iron	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2
Hold, or Lower Deck (No.) double Angle, Tee, Plate, or Bulb Iron	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2
Keelson, single or double plate, box, or intercostal	4 x 2 1/2	4 x 2 1/2	4 x 2 1/2	4 x 2 1/2	4 x 2 1/2	4 x 2 1/2



Transoms, material Iron or, if none, in what manner compensated for.
 Height-heads, and Hawse Timbers Iron
 Frames extend in one length from Keel to Gunwales rivetted through plates with (3/4 in.) rivets, about (6 in.) apart
 reverse angle irons on the floors extend in one length across the middle line from 2 1/2 to 4 1/2 feet on each side alternately to hold beams & stringers

Plates, Garboard, double or rivetted to keel, double or at upper edge, with rivets (1 1/8 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 1/2 ins.) apart.

Plates from Keel to turn of bilge, worked carvel with butt straps (11 x 10) thick, double or single rivetted; with rivets (3/4 in.) diameter.
 Do the butt straps lap over and rivet through the lands of the strake below? Alternately
 Edges from Keel to turn of bilge, worked carvel with a lining piece () thick, or clencher, double or single rivetted; with rivets (3/4 in.) diameter.
 Do the butt straps lap over and rivet through the lands of the strake below? Alternately

Sheerstrake, double or single rivetted? At upper edge Ligzag At lower edge Double
 Plates from bilge to planksheers, worked carvel with butt straps (9.8 x 11) thick, double or single rivetted; with rivets (3/4 in.) diameter, averaging (2 1/2 ins.) apart. Breadth of laps in double rivetting (4 1/4) Breadth of laps in single rivetting (2 1/2 + 2 3/4)
 Plates of Keelsons, Stringer and Tie Plates, double or single rivetted? Filled in with Holland Cement

How secured to the plating of the sides Explain by sketch
 How secured to the plating of the sides if necessary.
 Transoms, how secured to the side? Keel plates welded and rivetted to frames
 Upper or Lower Deck ditto The same as above
 Middle " " No. of breasthooks 4 crutches 4

What description of Iron is used for the Frames, Beams, Keelsons, Tie and Stringer Plates, Outside Plating, &c.? Plates made by the Messrs Harland & Wolff, Glasgow
 Manufacturer's name or trade mark Angle iron made by Messrs Harland & Wolff, Glasgow
 We certify that the above is a correct description of the several particulars therein given.
 Surveyor's Signature Harland & Wolff Surveyor's Signature Alex. Sinton



6079 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? 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. Fox Head & Co. Middlesex

Mast & Bowsprit Fore & Main Masts, Bowsprit, & lower Yards are made of Iron. Mast plates $3/8$ thick for about 54 feet and from thence to head $5/16$. Three angle irons in each $3 \times 2 \frac{1}{2} \times 5/16$ entire length. Bowsprit plate $3/8$ thick. Three angle irons same as above. Fore and Main lower Yards plates $4/16$ thick for 30 feet and from thence to the ends $3/16$. Three angle irons $2 \frac{1}{2} \times 2 \frac{1}{2} \times 5/16$ each $33 \times 39 \times 44$ feet long. Also three doubling plate 11 feet long $7/8 \times 7/16$ at sting

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

N ^o .		No. on Chain seen by me.	No. and date on Certificate	Fathoms.	Inches.	Tested to Tons.	N ^o .	No. on Anchor seen by me.	No. and date on Certificate.	Weight. Ex. stock.	Tested to Tons.	
	Fore Sails,	Chain	3759	270	1 7/16	39.1.273	Bowers, Grant, & Co.	1	3405	3405	18.0.27	20.3.2
	Fore Top Sails,	Hamper Chain	3759	90	13/16		Croftmans	1	3406	3406	18.3.14	20.15
	Fore Topmast Stay Sails,	Stream Cable		90	9		"	1	3407	3407	16.0.10	18.7
	Main Sails,	Hawser		90	4		Stream	1	Oct 28 th 1867		8.1.7	
	Main Top Sails,	Towlines		90	5		Kedges	1			4.1.7	
		Warp		90	4			1			2.0.14	

and well forced in quality. All of quality.

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

She has Two 24 feet Long Boat and Two others

The present state of the Windlass is Good Capstan Good and Rudder Good Pumps 2 Cast-Iron good

Order for Special Survey No. 37 Date 15th March 1867 while building
 Order for Ordinary Survey No. _____ Date _____ as per Section 18.
 1st. On the several parts of the frame, when in place, and before the plating was wrought April - 1867
 2nd. On the plating during the progress of rivetting July
 3rd. When the beams were in and fastened, and before the decks were laid April
 4th. When the ship was complete, and before the plating was finally coated October
 5th. After the ship was launched March 5th 1868

State if she has a Spar Deck Raised Quarter Deck & a low Forecastle

General Remarks
 Sheerstrake $1 \frac{1}{2}$ thick for about 70 feet on each side, Ridge keelsons bulbion 4×1 rivetted between two bars of angle iron $4 \times 3 \frac{1}{2} \times 7/16$ for 100 feet on each side amidships an Intercostal keelson fitted about midway between the middle line keelson and bilge keelson plates $5/16 \times 5/16$ rivetted between two bars of angle iron $4 \times 3 \frac{1}{2} \times 7/16$ and angle irons rivetted back to back to the ends of vessel.

In what manner are the surfaces preserved from oxidation? Inside Portland Cemented, above this is coated with mixture of Red & White lead Paint
 Ditto ditto Outside Three coats of Red & White lead mixed, after wards Copalides Brown painted, in dry dock & bottom coated with wadding compound also coated with Gallow to 14 feet

I am of opinion this Vessel should be Classed A1
 The amount of the Fee £ 5 : 0 : 0 is received by me,
 Special £ 29 : 4 : 6
 Certificate (if required) £ : : :

Committee's Minute 13th March 1868

Character assigned A1

Alex. Linton

This Sailing Barge built of iron appears to be perfectly fit for service as recommended by Lloyd's Register
 12/3/68
 Lloyd's Register Foundation