

# IRON SHIP.

Dec 28/76 16948

No. 11444 Survey held at Sunderland Date, First Survey February 22nd Last Survey 16 Aug 76 1876

On the Barque "Kirkloch" Master Smith

TONNAGE under Tonnage Deck 747.62

Ditto of Third, Spar, or Awning Deck. 31.17

Ditto of Poop, or Raised Qr. Dk. 6.15

Ditto of Houses on Deck 29.61

Ditto of Forecastle 29.61

Gross Tonnage 784.04

Less Crew Space 29.61

Less Engine Room 29.61

Register Tonnage as cut on Beam 755.33

ONE, OR TWO DECKED, THREE DECKED VESSEL.

SPAR, OR AWNING DECKED VESSEL.

HALF BREADTH (moulded) 15.37

DEPTH from upper part of Keel to top of Upper Deck Beams 21.20

GIRTH of Half Midship Frame (as per Rule) 32.16

1st NUMBER 68.73

1st NUMBER, if THREE-DECKED VESSEL [deduct 7 feet]

LENGTH 181.5

2nd NUMBER 124.74

PROPORTIONS—Breadths to Length 8

Depths to Length—Upper Deck to Keel 8

Main Deck ditto 8

Built at Sunderland

When built 1876 Launched 24 June 76

By whom built Messrs. W. & A. Fairbank

Owners Joseph Steel Esq. 18, Rensselaer

Place Liverpool

Port belonging to Liverpool

Destined Voyage Valparaiso

If Surveyed while Building, Afloat, or in Dry Dock.

LENGTH of deck as per Rule 181 Breadth Moulded 30 DEPTH top of Floors to Upper Deck Beams 19 Power of Engines — No. of Decks with flat laid One No. of Tiers of Beams Two

Dimensions of Ship per Register, length 191.8 breadth 31 depth 19.25

	Inches in Ship.	Inches per Rule.		Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	8 x 2 3/8	8 x 2 3/8	FLAT KEEL PLATES, breadth and thickness	33	10
STEM, moulding and thickness	7 x 2 3/8	7 x 2 3/8	PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges	33	10
STERN-POST for Rudder do. do.	7 x 2 3/8	7 x 2 3/8	of doubling at Bilge, or increased thickness, and length applied	alternately	alternately
Distance of Frames from moulding edge to moulding edge, all fore and aft	22 ins	22 ins	fm up. part of Bilge to l. edge of Sh'rstrake	alternately	alternately
FRAMES, Angle Iron, for 2/3 length amidships	4 1/2 x 3	4 1/2 x 3	Main Sheerstrake, breadth and thickness	36	10
Do. for 1/3 at each end	4 1/2 x 3	4 1/2 x 3	of d'bling at Sh'rstrake, & length applied from Mn. to Upr. or Spar Dk. Sh'rstrake.	—	—
REVERSED FRAMES, Angle Iron	3 x 3	3 x 3	Up. or Spar Dk Sh'rstrake, brdth & thickness	—	—
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	—	—	Butt Straps to outside plating, breadth & thickness	10 1/2 x 7 1/2	7 1/2 x 10 1/2
thickness at the ends of vessel	—	—	Lengths of Plating	11 feet	—
depth at 2/3 the half-bdth. as per Rule	—	—	Shifts of Plating, and Stringers	2 spaces	of frames
height extended at the Bilges	—	—	Gunwale Plate on ends of Awning Spar, or Upper Deck Beams, breadth and thickness	36	8
BEAMS, Upper, Spar, or Awning Deck	—	—	Angle Iron on ditto	4 1/2 x 3 1/2	7
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	—	—	Tie Plates fore and aft, outside Hatchways	10	8
Single or double Angle Iron on Upper edge	3 x 3	3 x 3	Diagonal Tie Plates on Beams No. of Pairs	—	—
Average space	alternately frames	alternately frames	Planksheer material and scantling	—	—
BEAMS, Main, or Middle Deck	—	—	Waterways do. do.	—	—
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	—	—	Flat of Upper Deck do. do.	4	3
Single, or double Angle Iron, on Upper Edge	—	—	How fastened to Beams	—	—
Average space	—	—	Stringer Plate on ends of Main or Middle Deck	—	—
BEAMS, Lower Deck, Hold, or Orlop	—	—	Beams, breadth and thickness	—	—
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	—	—	Is the Stringer Plate attached to the outside plating?	—	—
Single or double Angle Iron on Upper Edge	3 x 3	3 x 3	Angle Irons on ditto, No.	—	—
Average space	alternately frames	alternately frames	Tie Plates, outside Hatchways	—	—
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates	13	10	Diagonal Tie Plates on Beams, No. of pairs	—	—
Rider Plate	10	10	Waterways materials and scantlings	—	—
Bulb Plate to Intercoastal Keelson	—	—	Flat of Middle Deck do. do.	—	—
Angle Irons	4 1/2 x 3 1/2	7	How fastened to Beams	—	—
Double Angle Iron Side Keelson	3	3	Stringer Plates on ends of Lower Deck, Hold, or Orlop Beams	27	7
Side Intercoastal Plate	—	—	Is the Stringer Plate attached to the outside plating?	Yes	—
do. Angle Irons	—	—	Angle Irons on ditto, No.	3 1/2 x 3 1/2	7
Attached to outside plating with angle iron	3	3	Stringer or Tie Plates, outside Hatchways	double angle iron at	—
BILGE Angle Irons	6	3	Flat of Lower Deck	central 3 1/2 x 3 1/2	7
do. Bulb Iron	4 1/2	3 1/2	Ceiling betwixt Decks, thickness and material in hold	2 1/2	—
do. Intercoastal plates riveted to plating for length	—	—	Main piece of Rudder, diameter at head	4 3/4	—
BILGE STRINGER Angle Irons	4 1/2	3 1/2	do. at heel	2 3/4	—
Intercoastal plates riveted to plating for length	—	—	Can the Rudder be unshipped afloat?	Yes	—
SIDE STRINGER Angle Irons	—	—	Bulkheads No. 1 Thickness of	6 x 7/16	—
—	—	—	Height up	Upper deck	—
—	—	—	How secured to sides of ship	between double frames	—
—	—	—	Size of Vertical Angle Irons	3 x 3 x 7/16	and distance apart 30 ins.
—	—	—	Are the outside Plates doubled two spaces of Frames in length?	Yes	—

Insoms, material. Knights heads. Iron

Windlass Greenheart Pall Bitt Iron

The FRAMES extend in one length from Keel to gunwale Riveted through plates with 3/4 in. Rivets, about 6 apart.

The REVERSED ANGLE IRONS on floors and frames extend near middle line to Hold and to gunwale 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 in. diameter, averaging 5 ins. from centre to centre.

Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 1/4 ins. from centre to centre.

Butts of 2 Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 7/16 thicker than the plates they connect.

Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets 3/4 in. diameter, averaging 3 1/4 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 1/4 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 1/2 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted — length amidships.

Butts of Main Stringer Plate, treble riveted for 1/2 length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for — length.

Breadth of laps of plating in double riveting 4 1/2 Breadth of laps of plating in single riveting —

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? double & treble throughout

Waterway, how secured to Beams Gutter gunwale (Explain by Sketch, if necessary.)

Beams of the various Decks, how secured to the sides? Turned down ends

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

Manufacturer's name or trade mark Stockton malleable Iron Co.; Angles by Hopkin, Gibbs & Co.

The above is a correct description.

Surveyor's Signature, James Gibson

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

120468-0109



Workmanship. Are the butts of plating planed or otherwise fitted? *Planed* 16948 *Ern*  
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 very well*  
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 *See sketch attached.*

NUMBER for EQUIPMENT 13200					ANCHORS.				
N <sup>o</sup> .	SAILS.	CABLES, &c.	Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	N <sup>o</sup> .	Weight.
		Chain	270	15	47 1/2	270-1 1/2	47 1/2	Bowers	1 25.2.0
	Fore Sails,	of each 15 fathoms - 66 1/2 tons tested at							1 25.0.0
	Fore Top Sails,	R.W.C.P.T. by J. Hartness June 6 - 1876							1 22.2.24
	Fore Topmast Stay Sails	Hmpn Strm Cbl	80	6				Stream	1 10.1.14
	Main Sails,	Hawser chain	80	10					1 5.1.7
	Main Top Sails,	Towlines	80	5				Kedges	1 2.3.14
	and	Warp	80						
		quality <i>good</i>							

Standing and Running Rigging *Wire & hemp* sufficient in size and *good* in quality. She has *One* Long Boat and *2* others  
The Windlass is *good* Capstan *good* and Rudder *good* Pumps *Metal & good*  
Engine Room Skylights. How constructed? How secured in ordinary weather?

What arrangements for deadlights in bad weather?  
Coal Bunker Openings. How constructed? How are lids secured? Height above deck?  
Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? *4 Ports & 4 Scuppers on each side*

Cargo Hatchways. How formed? *Iron plate comings and Headstages*  
State size Main Hatch *4' 0" x 9' 6" x 14" high* Fore hatch *6' 0" x 5' 0" x 19" high* Quarter hatch *4' 9" x 4' 9" x 16" high*  
If of extraordinary size, state how framed and secured?  
What arrangement for shifting beams?  
Hatches, If strong and efficient? *Yes*

Order for Special Survey No. <i>2616</i>	DATES of Surveys held while building as per Section 18.	1st. On the several parts of the frame, when in place, and before the plating was wrought	<i>Built under J.P. and surveyed 1876 Feb. 22, 23, March 6, 9, 13, 15.</i>
Date <i>8th January 1876</i>		2nd. On the plating during the process of riveting	<i>20, 22, 24, 25, 31 April, 3, 6, 11, 19, 24, 26 May, 13, 15, 16, 17, 20, 23, 26, 30 June, 12, 13, 14, 16, 20, 24</i>
Order for Ordinary Survey No. <i>---</i>		3rd. When the beams were in and fastened, and before the decks were laid...	<i>24 July, 4, 8, 21 Aug. 10, 16</i>
Date <i>---</i>		4th. When the ship was complete, and before the plating was finally coated or cemented...	
No. <i>87</i> in builder's yard.		5th. After the ship was launched and equipped	

General Remarks (State quality of workmanship, &c.) *This vessel is constructed with a raised quarter deck about 40 feet in length, and a short Monkey Forecastle about 18 feet in length, with a House on deck about 18ft x 10ft for the accommodation of the crew. Diagonal tie-plates are fitted upon the Hold Beams in wake of the Fore and Main mast partners, and where the masts are wedged, in all respects the vessel is built in accordance with the rules and tracing of Midship section attached. The plating of masts and bowsprit have been tested in accordance with the Committee's circular N<sup>o</sup>. 350 and proved satisfactory. The workmanship and materials being of a good description*

State if one, two, or three, decked vessel, or if open, or running decked; and the lengths of poop, forecabin, or raised quarter deck, and the length of double, or part double bottom.  
How are the surfaces preserved from oxidation? Inside *Portland cement to upper turn* Outside *3 coats of paint of Kilgus and paint above*  
I am of opinion this Vessel should be Classed *100 A.I.*

The amount of the Entry Fee ... £ 5 : 0 : 0 is received by me, *H.W.*  
Special ... £ 37 : 15 : 0 *16th August 1876*  
Certificate ... : : :  
(Travelling Expenses, if any, £ ... )

Committee's Minute *18th August 1876*  
Character assigned *100 A.I.*  
*Rep 105*

*James Liburn*  
The vessel appears to be slightly to be classed 100 A.I. as recommended.  
The 8th 27th/11/1876  
Lloyd's Register  
Foundation