

## IRON SHIP.

Reg 14/7/80

2694 Survey held at Belfast

Date, First Survey 15<sup>th</sup> Dec 1879Last Survey 10<sup>th</sup> July 1880

in the S.S. "White Head"

Master J. Mc. Calmoun

TONNAGE under Tonnage Deck } 917.44	ONE, OR TWO DECKED, THREE DECKED VESSEL.
of Third, Spar, or Awning Deck. }	SPAR, OR AWNING-DECKED VESSEL.
of Poop, or Raised Or. Dk. }	HALF BREADTH (moulded) ... .. 15.5
of Houses on Deck }	DEPTH from upper part of Keel to top of Upper Deck Beams ... 19.16
of Forecastle ... 34.07	GIRTH of Half Midship Frame (as per Rule) ... 30
Tonnage ... 1192.50	1st NUMBER ... 66
of Space ... 66.73	1st NUMBER, if a THREE-DECKED VESSEL deduct 7 feet
of Room ... 351.60	LENGTH ... 247.58
Tonnage Beam } 744.17	2nd NUMBER ... 16503.68
	PROPORTIONS—Breadths to Length ... 7.9
	Depths to Length—Upper Deck to Keel ... 12.9
	Main Deck ditto ...

Built at	Belfast
When built	1880
Launched	5 <sup>th</sup> May 80
By whom built	Harland & Wolff
Owners	Tilster Steam Ship Co
Port belonging to	Belfast
Destined Voyage	Gronstadt to the Barrow
Surveyed while Building, Afloat, or in Dry Dock.	

Feet. Inches.	Feet. Inches.	Feet. Inches.	Feet. Inches.	Power of Engines ...	Horse.	No. of Decks with flat laid	No. of Tiers of Beams
247	4	31	0	19	2	130	Two

Dimensions of Ship per Register, length, 247.7 breadth, 31.2 depth, 15.53

KEEL, depth and thickness ...	Inches in Ship. 8 1/2 x 2 1/2	Inches per Rule. 8 1/2 x 2 1/2	
STEM, moulding and thickness ...	8 1/2 x 2 1/2	8 1/2 x 2 1/2	
STERN-POST for Rudder do. do.	8 x 5	8 x 5	
for Propeller ...	8 x 5	8 x 5	
Distance of Frames from moulding edge to moulding edge, all fore and aft ...	23	(Class 100 A)	
FRAMES, Angle Iron, for 3/4 length amidships ...	Inches. 4	Inches. 3	16ths. 4
Do. for 1/2 at each end ...	4	3	4
REVERSED FRAMES, Angle Iron ...	3	3	6
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships ...	Braced floors on every frame 7/16	Braced floors on every frame 7/16	
thickness at the ends of vessel ...	9/16	9/16	
depth at 3/4 the half-bdth. as per Rule ...	Double bottom	Double bottom	
height extended at the Bilges ...			
BEAMS, Upper, Spar, or Awning Deck Single or double Ang. Iron, Plate or Tee Bulb Iron ...	5 1/2 x 3	5 1/2 x 3	8
Angle or double Angle Iron on Upper edge ...	23	23	
Average space ...			
BEAMS, Main, or Middle Deck Angle or d'ble Ang. Iron, Plate or Tee Bulb Iron ...			
Angle, or double Angle Iron, on Upper Edge ...			
Average space ...			
BEAMS, Lower Deck, Hold, or Orlop Angle or d'ble Ang. Iron, Plate or Tee Bulb Iron ...	7 1/2 x 4	7 1/2 x 4	7
Angle or double Angle Iron on Upper Edge ...	3	3	6
Average space ...	12 frame spaces	12 frame spaces	
KEELSONS Centre line, single or double plate, box, or Intercoastal, Plates ...	5-1 x 8	5-1 x 8	
Rider Plate ...	one	one	
Bulb Plate to Intercoastal Keelson ...			
Angle Irons ...	5	5 1/2	9
Double Angle Iron Side Keelson ...			
Side Intercoastal Plate ...			
do. Angle Irons ...			
Attached to outside plating with angle iron ...			
ILGE Angle Irons ...	See section		
do. Bulb Iron ...			
do. Intercoastal plates riveted to plating for length ...			
ILGE STRINGER Angle Irons ...			
Intercoastal plates riveted to plating for length ...			
DE STRINGER Angle Irons ...	5	5 1/2	9

Transoms, material.	Knight-heads.	Hawse Timbers.	iron
Findlass	Iron patent	Pall Bitt	

Flat Keel Plates, breadth and thickness ...			
PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied ...	33 1/2	11	34
fm up. part of Bilge to Ir. edge of Sh'rstrake Main Sheerstrake, breadth and thickness of d'bling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake.	98 10	98 10	11 at side of plank
Up. or Spar Dk Sh'rstrake, brdth & thickness	36 1/2	14	36
Butt Straps to outside plating, breadth & thickness	19 1/2	10 5/16	19 1/2
Lengths of Plating ...	161		115
Shifts of Plating, and Stringers ...	46		46
Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness ...	36	10	35
Angle Iron on ditto ...	5 x 3 1/2 x 9	5 x 3 1/2 x 9	
Tie Plates fore and aft, outside Hatchways ...	iron deck	iron deck	6
Diagonal Tie Plates on Beams No. of Pairs, ...	6		
Planksheer material and scantling ...	none		
Waterways do. do. ...	none		
Flat of Upper Deck do. do. ...	none		
How fastened to Beams ...			
Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness ...			
Is the Stringer Plate attached to the outside plating?	yes		
Angle Irons on ditto, No. ...			
Tie Plates, outside Hatchways ...			
Diagonal Tie Plates on Beams, No. of pairs ...			
Waterways materials and scantlings ...			
Flat of Middle Deck do. do. ...			
How fastened to Beams ...			
Stringer Plates on ends of Lower Deck, Hold, or Orlop Beams ...	31	9 5/8	31
Is the Stringer Plate attached to the outside plating?	yes		
Angle Irons on ditto, No. ...	4 x 4 x 5	4 x 4 x 5	
Stringer or Tie Plates, outside Hatchways ...			
Flat of Lower Deck ...			
Ceiling betwixt Decks, thickness and material ...	2 1/2		
in hold do. do. ...	2 1/2		
Main piece of Rudder, diameter at head ...	5 3/4		5 3/4
do. at heel ...	3		3
Can the Rudder be unshipped afloat? yes			
Bulkheads No. 4 Thickness of		6 1/2	6 1/2
Height up upper deck, affix one to fore beam			
How secured to sides of ship	between double angles		
Size of Vertical Angle Irons 4 x 3 x 7 and distance apart	30 ins.		
Are the outside Plates doubled two spaces of Frames in length?	yes		

FRAMES extend in one length from middle line to side of plank to gunwale Riveted through plates with 7/8 in. Rivets, about 7" apart.

REVERSED ANGLE IRONS on floors and frames extend from middle line to hold beam and to upper stringer 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 1/8 in. diameter, averaging 4 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 1/4 ins. from centre to centre.

Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 7/8 in. diameter averaging 3 1/4 ins. from centre to centre.

Butts of all Strakes at Bilge for 3/5 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 7/8 in. diameter, averaging 3 1/4 ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 7/8 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. at lower edge.

Butts of Main Sheerstrake, treble riveted for length amidships. Butts of Upper or Spar Sheerstrake, treble riveted 3/5 length amidships.

Butts of Main Stringer Plate, treble riveted for length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for 3/5 length amidships.

Breadth of laps of plating in double riveting 5 1/2 Breadth of laps of plating in single riveting 3

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

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

Beams of the various Decks, how secured to the sides? turned knees welded No. of Breasthooks, 4 Crutches, 2

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &amp;c.? good

Manufacturer's name or trade mark, Angles Messrs. plates &amp; beams

The above is a correct description.

Builder's Signature, Harland &amp; Wolff

Surveyor's Signature, J. W. Bullard

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



Workmanship. Are the butts of plating planed or otherwise fitted? hammered  
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 24/83 \$m  
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? no

Masts, Bowsprit, Yards, &c., are iron & wood in good condition, and sufficient in size and length. If of Iron or Steel give  
Scanlings 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 Two iron pole masts as auxiliary to the steam power  
plates 7/16, edges double riveted, butt straps inside, 7/16 thicker than plates and treble  
riveted. Length from deck toounds Foremast 39 feet - Diameter 13 inches  
Se Main Mast 40 - " - " - " 13 - " - "

NUMBER for EQUIPMENT 1853			Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.	N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate.	Weight req'd per Rule.	Test req'd per Rule.
SAILS.			60 ft	19/16	43.18.00	270-19/16	43 2/3	Bowers	3	23.2.16	23.18.3.0	23 1/2 cwt	23 1/2 cwt
CABLES, &c.			75 ft							23.1.10	23.8.0.14	23 1/2	
Chain			270 ft							20.2.8	20.5.3.21	20	
Fore Sails,													
Fore Top Sails,													
Fore Topmast Stay Sails													
Main Sails,													
Main Top Sails,													
Hawser ...			75	12 tons		75-1	10	Stream	...	8.1.1	10 tons	8 cwt	10 3/4 cwt
Towlines ...			90	12 tons		90-10 1/2	8	Kedges	...	3.3.5	6.5.1.7	4 "	6 7/8 "
Warp ...			90	12 tons		90-9 1/2	6			2.0.14	4.10.0.0	2 "	4 1/2 "
quality good			120	12 tons		90-6	6						

Standing and Running Rigging Wire & hemp sufficient in size and good in quality. She has two Long Boat and two others

The Windlass is good Capstan good and Rudder good Pumps good

Engine Room Skylights. How constructed? Leak very strong How secured in ordinary weather? always shipped

What arrangements for deadlights in bad weather? bulls eyes

Coal Bunker Openings. How constructed? iron square scuttle How are lids secured? lugs Height above deck? 15"

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? 6 scuppers and opening ports on each

Cargo Hatchways. How formed? Plate & angles

State size Main Hatch 20.6 x 12.2; 18.6 x 12.0 Fore Hatch 11 x 10; 14.9 x 10.0 Quarter Hatch

If of extraordinary size, state how framed and secured? ✓

What arrangement for shifting beams? deep shifting web beam and oak fore & afters

Hatches, If strong and efficient? solid very strong.

Order for Special Survey No. 90	1st. On the several parts of the frame, when in place, and before the plating was wrought	18.24. Aug 5, 7, 14, 19, 23, 27, 30 Feb 3, 6, 9, 19, March
Date 26 Nov 1879	2nd. On the plating during the process of riveting	1.9. 11.17.21, April 9, 15, 22, 29, 30; May 3, 5, 6, 10, 13, 21, 25, 31 June
Order for Ordinary Survey No. 91	3rd. When the beams were in and fastened, and before the decks were laid...	2, 7, 11, 16, 21, 24, 26, 28, July 1, 5, 8, 10 - 1880.
Date 1879	4th. When the ship was complete, and before the plating was finally coated or cemented...	
No. 135 in builder's yard.	5th. After the ship was launched and equipped.	

General Remarks (State quality of workmanship, &c.) This raised quarter deck vessel has been built in accordance with the Indship Section submitted and approved see Secretary's letter of the 20<sup>th</sup> Nov 1879 and in other respects to the Rules for the 100 ft grade. Workmanship & materials very good.

She is built on the longitudinal system in wake of double bottom which extends all fore & aft with the exception of a well in engine room seven frame spaces in length, the top plating is continued over this well but is not watertight.

She has a forecattle 33 feet in length on which the windlass is fitted.

Bridge deck 71 feet in length, engine room skylight, chest house and cook house fitted on it and the four boats stowed above the deck.

The watertight compartments have been tested with a head of water equal in height to the load line and found satisfactory. She has an iron deck, no wood deck laid over it; at the break of raised quarter deck the stringer and the plate adjacent are carried above the break. The shell plating is treble riveted at the butts for 35 lengths amidships. The Indship Section and profile are attached hereto.

State if one, two, or three, decked vessel, or if spar, or iron decked; and the lengths of poop, forecattle, or raised quarter deck, and the length of double, or part double bottom

How are the surfaces preserved from oxidation? Inside Cement and paint Outside Paint

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, July 1880

Special ... £ 54 : 16 : 6 12 July 1879

Certificate ... Grades

(Travelling Expenses, if any, £ 27 - 16 - 0)

Committee's Minute Friday, July, 16th 1880

Character assigned 100 A.I.

Lloyds MC Lloyd's A & C Lion Deck Cellular double bottom

24/83 \$m

Lloyd's Register

Foundation