

IRON SHIP.

No. 2412 Survey held at Belfast Date, First Survey 7th April 80 Last Survey 8th October 1880
Iron screw steamer "Ethel" Master J. Thompson

GE under age Deck Bird, Spar, wing Deck, Poop, or Or. Dk. Louises Deck Forecastle mnage to Space Room mnage am	ONE, OR TWO DECKED, THREE DECKED VESSEL. SPAR, OR AWNING-DECKED VESSEL. HALF BREADTH (moulded)... .. 10.75 DEPTH from upper part of Keel to top of Upper Deck Beams 11.91 GIRTH of Half Midship Frames (as per Rule) ... 20.15 1st NUMBER ... 42.81 1st NUMBER, if a THREE DECKED VESSEL ... LENGTH ... 92 2nd NUMBER ... 75 PROPORTIONS —Breadths to Length ... 6.8 Depths to Length—Upper Deck to Keel ... 12.0 Main Deck ditto ...	Built at <u>Belfast</u> When built <u>1880</u> Launched By whom built <u>Workman, Clark & Co. Ltd.</u> Port belonging to <u>Belfast</u> Destined Voyage <u>Coasting</u> If Surveyed while Building, Afloat, or in Dry Dock
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PLANS CASE

Inches. 10 1/2 BREADTH—Moulded... Feet. 21 6 DEPTH top of Floors to Upper Deck Beams... Feet. 10 10 3/4 Power of Engines ... Horse. 60 N° of Decks with flat laid one N° of Tiers of Beams one

Ship per Register, length, 150.1 breadth, 21.7 depth, 10.75

	Inches in Ship.	Inches per Rule.
Depth and thickness ...	4 x 1 3/4	4 x 1 3/8
Moulding and thickness ...	7 x 1 3/4	6 1/4 x 1 3/8
OST for Rudder do. do.	6 1/4 x 3 3/8	6 1/4 x 3 1/4
for Propeller ...	6 1/4 x 3 3/8	6 1/4 x 3 1/4
of Frames from moulding edge to	21	21
ing edge, all fore and aft ...	21	(Class 90 A)
Angle Iron, for 1/2 length amidships ...	3 2 1/2 5	3 2 1/2 5
at each end ...	3 2 1/2 5	3 2 1/2 5
SD FRAMES, Angle Iron ...	2 1/2 2 1/2 4	2 1/2 2 1/2 4
depth and thickness of Floor Plate	12 x 6	12 x 6
line for half length amidships ...	Eng. Iron	Eng. Iron
ckness at the ends of vessel ...	6	6
depth at 1/2 the half-bdth. as per Rule ...	24	24
height extended at the Bilges ...	5 1/2 3	5 1/2 3
Upper, Spar, or Awning Deck	5 1/2 3	5 1/2 3
Angle Ang. Iron, Plate or Tee Bulb Iron	42	42
Angle Ang. Iron on Upper edge	42	42
average space ...	42	42
BEAMS, Main, or Middle Deck ...	3	3
ngle or d'ble Ang. Iron, Plate or Tee Bulb Iron	3	3
ngle, or double Angle Iron, on Upper Edge ...	3	3
Average space ...	3	3
BEAMS, Lower Deck, Hold, or Orlop	3	3
Single or d'ble Ang. Iron, Plate or Tee Bulb Iron	3	3
Single or double Angle Iron on Upper Edge ...	3	3
Average space ...	3	3
KEELSONS Centre line, single or double plate,	10 x 8	10 x 8
box, or Intercoastal, Plates ...	7 x 8	6 1/2 x 8
Rider Plate ...	3	3
Bulb Plate to Intercoastal Keelson ...	3	3
Angle Irons ...	3	3
Double Angle Iron Side Keelson for 1/2 ...	3	3
Side Intercoastal Plate ...	3	3
do. Angle Irons ...	3	3
Attached to outside plating with angle iron	3	3
BILGE Angle Irons ...	3	3
do. Bulb Iron ...	3	3
do. Intercoastal plates riveted to	3	3
plating for length	3	3
BILGE STRINGER Angle Irons ...	3	3
Intercoastal plates riveted to plating for	3	3
length.	3	3
SIDE STRINGER Angle Irons ...	3	3
Transoms, material. Knight-heads. Hawse Timbers.	Iron	Iron
Windlass <u>Iron patent</u> Pall Bitt	Iron	Iron

	Inches in Ship.	16ths in Ship.	Inches per Rule.	16ths per Rule.
Flat Keel Plates, breadth and thickness ...	30	7	30	7
PLATES in Garboard Strakes, breadth and thick-	30	7	30	7
ness from Garboard to upper part of Bilges	30	7	30	7
of doubling at Bilge, or increased thick-	25	7	25	7
ness, and length applied ...	25	7	25	7
fm up part of Bilge to l. edge of Sh'rstrake.	25	7	25	7
Main Sheerstrake, breadth and thickness	30	10	30	10
of d'bling at Sh'rstrake, & length applied	30	10	30	10
from Mn. to Upr. or Spar Dk. Sh'rstrake.	30	10	30	10
Up. or Spar Dk Sh'rstrake, brdth & thickns	30	10	30	10
Butt Straps to outside plating, breadth & thickness	9 1/2	6 1/4	9 1/2	6 1/4
Lengths of Plating ...	147	105	147	105
Shifts of Plating, and Stringers ...	42	42	42	42
Gunwale Plate on ends of Awning Spar, or	34	7	34	7
Upper Deck Beams, breadth and thickness ...	34	7	34	7
Angle Iron on ditto ...	3 x 3 x 6	3 x 3 x 6	3 x 3 x 6	3 x 3 x 6
Tie Plates fore and aft, outside Hatchways	7	6	7	6
Diagonal Tie Plates on Beams No. of Pairs.	9	9	9	9
Planksheer material and scantling ...	9	9	9	9
Waterways do. do.	9	9	9	9
Flat of Upper Deck do. do.	9	9	9	9
How fastened to Beams ...	9	9	9	9
Stringer Plate on ends of Main or Middle Deck	9	9	9	9
Beams, breadth and thickness	9	9	9	9
Is the Stringer Plate attached to the outside plating?	9	9	9	9
Angle Irons on ditto, No.	9	9	9	9
Tie Plates, outside Hatchways ...	9	9	9	9
Diagonal Tie Plates on Beams, No. of pairs	9	9	9	9
Waterways materials and scantlings ...	9	9	9	9
Flat of Middle Deck do. do.	9	9	9	9
How fastened to Beams ...	9	9	9	9
Stringer Plates on ends of Lower Deck, Hold or	9	9	9	9
Orlop Beams ...	9	9	9	9
Is the Stringer Plate attached to the outside plating?	9	9	9	9
Angle Irons on ditto, No.	9	9	9	9
Stringer or Tie Plates, outside Hatchways	9	9	9	9
Flat of Lower Deck ...	9	9	9	9
Ceiling betwixt Decks, thickness and material	9	9	9	9
in hold do. do.	3	3	3	3
Main piece of Rudder, diameter at head ...	3 3/4	3 3/4	3 3/4	3 3/4
do. at heel ...	2 3/4	2 3/4	2 3/4	2 3/4
Can the Rudder be unshipped afloat? yes	4	4	4	4
Bulkheads No. 3 Thickness of	4	4	4	4
Height up <u>upper deck</u>	4	4	4	4
How secured to sides of ship <u>between double frames</u>	4	4	4	4
Size of Vertical Angle Irons <u>2 1/2 x 2 1/2 x 5</u> and distance apart <u>30 ins.</u>	4	4	4	4
Are the outside Plates doubled two spaces of Frames in length? yes	4	4	4	4

The FRAMES extend in one length from Keel to gunwale rail after Riveted through plates with 1/16 in. Rivets, about 5 apart.
 REVERSED ANGLE IRONS on floors and frames extend across middle line to upper pt of bilges and to upper d'ble alternately
 JOINTS. Are the various lengths of Plates and Angle Irons properly connected? yes And butts properly shifted? yes
 TING. 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 1/2 ins. from centre to centre.
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets 3/4 in. diameter averaging 3 1/2 ins. from centre to centre.
 Butts of all Strakes at Bilge for whole length, double riveted with Butt Straps 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 1/2 ins. from cr. to cr.
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets 3/4 in. diameter, averaging 3 1/2 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 length amidships. Butts of Upper or Spar Sheerstrake, treble riveted 1/2 length amidships.
 Butts of Main Stringer Plate, treble riveted for length amidships. Butts of Upper or Spar Stringer Plate, double riveted for whole length.
 Breadth of laps of plating in double riveting 3 3/4 Breadth of laps of plating in single riveting 2 1/4
 laps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? Treble & double
 Way, 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, one Crutches, one
 That description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Good
 Manufacturer's name or trade mark, angles, iron, plate, Parkhead.
 This is a correct description.
 Signature, W. WORKMAN CLARK & CO. (LIMITED) Surveyor's Signature, J. W. Mullins
 Surveyor to Lloyd's Register of British and Foreign Shipping

IRON 496-0243

Workmanship. Are the butts of plating planed or otherwise fitted? *planed*
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*
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 *pitch pine* 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

28232 2m

Two portable pole masts of pitch pine.

NUMBER for EQUIPMENT		6800		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd per Rule.	Test req'd per Rule.	ANCHORS.	No.	Weight. Ex. Stock.	Test per Certificate.	W'ght req'd per Rule.	Test req'd per Rule.
No.	SAILS.	CABLES, &c.	165	15	16-8/10	165-15	15-8/10	Bowers	2	6" 3" 10	9-2-2-0	6 1/2 cwt	8 15/20	
	Fore Sails,	Chain	Lloyd's proving house	165	15	16-8/10	165-15		2	6" 2" 0	8-15-0-0	6 1/2 cwt		
	Fore Top Sails,		8. R. Little	165	15	16-8/10	165-15							
	Fore Topmast Stay Sails	Hemp Strm Cbl	45	5	4 5/8	45-10/16								
	Main Sails,	Hawser ...	90	6		75-7		Stream ...	1	2" 0-0	4-10-0-0	2 cwt	4 10/20	
	Towlines	75	7											
	Main Top Sails,	Warp ...	90	5		90-5		Kedges ...	1	1-1-6		1 cwt		
and	good	quality good	90	4										

Order for Special Survey No. *96*
Date *6th April 1880*
Order for Ordinary Survey No. *✓*
Date *1st May 1880*
No. *1* in builder's yard.
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 *April 4. 29 May 18-28. June 9. 16. 18. 22.*
2nd. On the plating during the process of riveting *July - 2. 9. 14. 31 August 4. 9. 12. 19. 30. Septm 17. 21. October 7. 8. 1880.*
3rd. When the beams were in and fastened, and before the decks were laid....
4th. When the ship was complete, and before the plating was finally coated or cemented..
5th. After the ship was launched and equipped.

General Remarks (State quality of workmanship, &c.)

This one decked vessel has been built in accordance with the midship section submitted and approved See Secretary's letter of the 20th March 1880 and in other respects to the Rules for the 90 # grade.

She has a turtle back forecastle 26 feet in length not enclosed and a bridge deck 28 feet long upon which the engine room skylight and boats are fitted.

Workmanship and materials good.

State if one, two, or three decked vessel, or if spar, or iron decked; and the lengths of poop, forecastle, 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 *+ 90 #. 1.*

The amount of the Entry Fee ... £ 3 : 0 : 0 is received by me, *J.W.S.*

Special ... £ 13 : 5 : 0 *15/10 1880*
Certificate ... *gratuit*

(Travelling Expenses, if any, £ *✓*).

Committee's Minute

Tuesday, October, 19th 1880.

Character assigned

Deferred

14/11/80

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

This vessel appears eligible to be classed

Lloyd's Register Foundation