

IRON SHIPS.

No. 11815 Survey held at St. Shields
On the S.S. "Earl of Innesdale"

Date, First Survey 10th March 72 Last Survey 7th March 72 1872

Master J. R. Wright

Tonnage under Tonnage Deck 1515.03
Ditto of Third Spar or Running Deck }
Ditto of Poop, or Raised Quarter Deck }
Ditto of Houses on Deck 28.03
Ditto of Forecastle
Gross Tonnage 1543.06
Crew Space, as per Rule 59.99
Engine Room 493.78
Reefer Tonnage, as a Steamer, cut on Beam 909.29

ONE, OR TWO DECKED, SPAR, OR AWNING-DECKED VESSELS.

Half moulded breadth 16.8
Depth from upper part of Keel to top of Upper Deck Beams 18.6
Girth of Half Midship Frame (as per Rule) 31.2
1st Number 66.4
Length 24.9

THREE DECKED VESSELS.

Half Moulded Breadth 16.8
Total Depth if three or more Decks 25.6
Total Girth of Half Midship Frame 38.2
3rd Number 80.4
Length 24.9

Built at North Shields
When built 1871 Launched 3rd August 71
By whom built J. & W. Smith
Owners Messrs. Elliott, Lowrey & Co.
Port belonging to Newcastle
Destined Voyage India
If Surveyed while Building, Afloat, or in Dry Dock. While building

PLANS CASE

Length on deck as per Rule 24.9 Feet. 0 Inches. Moulded Breadth 33 Feet. 4 Inches. Depths from top of Floors to Upper and Main Deck Beams, as per Rule 16 Feet. 6 Inches. Horse. 140 No. of Decks with flat laid two No. of Tiers of Beams three

Dimensions of Ship per Register, length 24.9 breadth 33.6 depth 23.25

	Inches in Ship.	Inches required per Rule.		Inches in Ship.	Inches required per Rule.
Keel, if bar iron, depth and thickness	9 x 2 1/2	9 x 2 1/2	Plates in Garboard Strakes, breadth and thickness	30	10 1/6 30 10 1/6
Do. if centre through plate, depth and thickness	8 1/2 x 2 1/2	8 1/2 x 2 1/2	Do. from Garboard to upper part of Bilges	9	9
Stem, if bar iron, moulding and thickness	8 1/2 x 2 1/2	8 1/2 x 2 1/2	Do. of doubling at Bilge, or increased thickness, and length applied	12 1/2	12 1/2
Stern-post for Rudder do. do.	9 x 4 3/4	8 1/2 x 5	Do. from up. part of Bilge to l. edge of Sh'rstrake	9	9
Stern-post for Propeller	23	(Class 90-A)	Do. Main Sheerstrake, breadth and thickness	30	22 30 12
Distance of Frames from moulding edge to moulding edge, all fore and aft	23		Do. of doubling at Sh'rstrake, & length applied	7	7
Frames, size of Angle Iron, for 1/2 length amidships	4 3 7	4 3 7	Do. from Mn. to Up. or Spar Dk. Sh'rstrake	4 5 9	27 9 7 6 13
Do. for 1/2 at each end	4 3 6	4 3 6	Do. Up. or Spar Dk Sh'rstrake, brdth & thickness	10 6 17	4 6 13 9 3 4 2 16 9 4 5 7 6 13
Reversed Frames, size of Angle Iron	3 3 7	5 3 7	Butt Straps to outside plating, breadth & thickness	9 12	11 5
Floors, depth and thickness of Floor Plate at mid line for half the length amidships	24	10 24 10	Lengths of Plating	3 1/2 10	4 6
Do. at the ends	24	8 24 8	Shifts of Plating, and Stringers	5 1	5 0 7
Do. do. do. at Bilge Keelson	Double bottom		Gunwale Plate on ends of Awning Spar, or Upper Deck Beams, breadth and thickness	4 1/2 x 3 x 7	4 1/2 x 3 x 7
Do. height extended at the Bilges	Double bottom		Angle Iron on ditto	16 1/2	8 16 1/2 8
Beams, Upper, Spar, or Awning Deck (No. 63)	6 1/2	6 1/2	Tie Plates (fore and aft), outside Hatchways	12 x 6	8 12 x 6 8
Single or double Angle Iron, Plate or Tee Bulb Iron	2 1/2	2 1/2 5 2 1/2 5	Diagonal Tie Plates on Beams (No. of Pairs)	12 x 6	3 1/2 3 1/2
Single or double Angle Iron on Upper edge	4 6	4 6	Waterways materials and scantlings	3 1/2	3 1/2
Average space	8	8 8 8	Flat of Upper Deck do. do.	24	10 24 10
Beams, Main or Middle Deck (No. 62)	3	3 6 3 6	How fastened to Beams	24	10 24 10
Single or double Angle Iron, Plate or Tee Bulb Iron	4 6	4 6	Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness	24	10 24 10
Single or double Angle Iron, on Upper Edge	5 1/2	5 1/2 9 5 1/2 9	(Is the Stringer Plate attached to the outside plating?)	Yes	
Average space	23	23 4 23 4	Angle Irons on ditto (No. 2)	4 x 4	9 4 x 4 9
Beams, Lower Deck, Hold or Orlop (No. 61)	5	5 3 1/2 9 5 3 1/2 9	Tie Plates, outside Hatchways	16 1/2	9 16 1/2 9
Single or double Angle Iron, Plate or Tee Bulb Iron	5	5 3 1/2 9 5 3 1/2 9	Diagonal Tie Plates on Beams (No. of pairs)	12 x 6	3 1/2 3 1/2
Single or double Angle Iron on Upper Edge	5	5 3 1/2 9 5 3 1/2 9	Waterways materials and scantlings	3 1/2	3 1/2
Average space	5	5 3 1/2 9 5 3 1/2 9	Flat of Middle Deck do. do.	24	10 24 10
Keelson Centre line, single or double plate, and box, or intercostal, size of Plates	5 1/2	5 1/2 9 5 1/2 9	How fastened to Beams	24	10 24 10
Do. Bulb Plate to Intercostal Keelson	5 1/2	5 1/2 9 5 1/2 9	Stringer Plates on ends of Lower Deck, Hold or Orlop Beams	24	10 24 10
Do. Size of Angle Irons	5 1/2	5 1/2 9 5 1/2 9	(Is the Stringer Plate attached to the outside plating?)	Yes	
Do. Side Intercostal Keelson, size of Plates	5 1/2	5 1/2 9 5 1/2 9	Angle Irons on ditto (No. 2)	4 x 4	9 4 x 4 9
Do. Angle Irons on tops of Floors	5 1/2	5 1/2 9 5 1/2 9	Stringer or Tie Plates, outside Hatchways	12 x 6	3 1/2 3 1/2
Do. Bilge Keelson, Bulb Iron	5 1/2	5 1/2 9 5 1/2 9	Flat of Lower Deck	24	10 24 10
Do. do. Intercostal plates riveted to plating for length	5 1/2	5 1/2 9 5 1/2 9	Ceiling betwixt Decks, thickness and material	2	2 1/2 3 1/2 5 3 1/2
Do. do. Angle Irons	5 1/2	5 1/2 9 5 1/2 9	Do. in hold do. do.	3 1/2	3 1/2 5 3 1/2
Side Stringers (No. 60) size of Angle Irons	5 1/2	5 1/2 9 5 1/2 9	Main piece of Rudder, diameter at head	3 1/4	3
Do. Intercostal plates riveted to plating for length	5 1/2	5 1/2 9 5 1/2 9	Do. do. at heel	3 1/4	3

Transoms, material iron or, if none, in what manner compensated for.
Knight-heads iron Hawse Timbers iron
Windlass Iron Patent Pall Bitt iron
The Frames extend in one length from Keel to Gunwale
The Reverse Angle Irons on the floors and frames extend across the middle line to Main Deck Beams and to Gunwale alternately
Keelsons. Are the various lengths of Plates and Angle Irons properly connected? Yes And are their butts properly shifted? Yes
Plates, Garboard, double or Riveted to Keel, double or at upper edge, with Rivets (1/4 in.) diameter, averaging (5 1/2 ins.) from centre to centre.
Do. Edges from Garboards to upper part of Bilge, worked Clencher, double or single Riveted; with Rivets (7/8 in.) diameter, averaging (3 1/4 ins.) from centre to centre.
Do. Butts from Keel to turn of Bilge, worked carvel with butt straps to strakes (9 1/16) thick, double or single Riveted; with Rivets (1 1/4 in.) diameter averaging (3 1/4 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 3 Strakes at Bilge for 1/2 length, treble riveted with Butt Straps 1/16 thicker than their plates.
Do. Edges from bilge to Main Sheerstrake, worked carvel with a lining piece () thick, or clencher, double or single riveted; with rivets (3/4 in.) diameter, averaging (3 1/4 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 (9/16) thick, double or single Riveted; with Rivets (3/4 in) diameter, averaging (3 1/4 ins) from centre to centre.
Do. Butts of Main Sheerstrake, double or treble Riveted. Butts of Upper or Spar Sheerstrake, and Upper Deck Stringer Plate, double or treble Riveted for 1/2 length amidships. 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 as per Rule
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? Brackets & crutches No. of Breasthooks, 5 Crutches, 3
What description of Iron is used for the Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? Frames & angles from Forth, Wilson & Co.
Manufacturer's name or trade mark, and all the Plating from Palmer's, Juno.

We certify that the above is a correct description of the several particulars therein given.
Builder's Signature, for Mr. W. Smith Surveyor's Signature, E. H. Wheeler
Mr. Royal

180451-0111

Workmanship. Are the butts of plating planed or otherwise fitted? planed 101462
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? solid single pieces
Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? fairly so and are the rivet holes 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 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 riveting, quality of Materials, and if stamped with Maker's name.

State also Length and Diameter of Lower Masts and Bowsprit Fore & main masts of iron, 72 and 69 feet long respectively
Diameter of foremast 21" Diameter of mainmast 21"
These are two-plate masts 9" thick, the edges double riveted, the butts are
double riveted, and the butt straps are 7/16 thick, and the masts are
doubled in way of the partners. Rules 1870

Number for equipment	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.	W'ght req'd per Rule.	Test req'd per Rule.
SAILS.											
Fore Sails,	165	19/16	44.00.00	19/16	44.00.00	Bowers	3	23.2.0	23.10.0.0	23.2.0	23.10.0.0
Fore Top Sails,	135	15/8	47.10.0.0			Stream	1	10.0.16		10.0.0	
Fore Topmast Stay Sails,						Kedges	2	5.0.0		5.0.0	
Main Sails,											
Main Top Sails,											
and											
will											

Her Standing and Running Rigging heup sufficient in size and good in quality. She has 2 life Long Boat Sand 4 others

The present state of the Windlass is good Capstan good and Rudder good Pumps good and sufficient

Engine Room Skylights. How constructed? old platters & bulwarks How secured in ordinary weather? bolted down

What arrangements are there for deadlights in such for bad weather? Tarpaulins

Coal Bunker Openings. How constructed? cast iron ribs How are lids secured? by cross-bars How high above deck? 2"

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? eight large scuppers, but the bulwarks are only 15" high

Cargo Hatchways. How formed? iron girders riveted State size Fore 15'6" x 9'8"

If of extraordinary size, state how framed and secured? ordinary size After 15'0" x 9'0"

What arrangement for shifting beams? one pound bar having double fastened ends.

Hatches, themselves, whether strong and efficient? good. Main Hatchways. State size 23'0" x 11'0"

Order for Special Survey No. 804 DATES of 1st. On the several parts of the frame, when in place, and before the plating was wrought built
Date 23 Dec 1870 Surveys held 2nd. On the plating during the progress of riveting under
Order for Ordinary Survey No. — while building 3rd. When the beams were in and fastened, and before the decks were laid special
Date — as per 4th. When the ship was complete, and before the plating was finally coated or cemented survey.
No. 51 in builder's yard. Section 18. 5th. After the ship was launched and equipped

General Remarks, This vessel has been built in accordance with the section attached
She is fitted with water ballast tanks before and abaft the engine room
the fore one being 95 feet in length, the after one being 72 feet in
length, top-plating 6" thick, and proper vertical web plates
as shown, extending through engine room. She has a monkey
forecastle 15 feet long for carrying the anchors upon, and
is a three decked vessel.

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 bottom

In what manner are the surfaces preserved from oxidation? Inside by cement & paint Outside by paint & composition

I am of opinion this Vessel should be Classed 90A.1 and marked "Part double bottom."

The amount of the Entry Fee£ 5 : : is received by me,

Special£ 62 : : 6

Certificate : : :

(Travelling Expenses)

(if any) £ —

Committee's Minute 28 May 1872

Character assigned 90A.1

part double bottom

Rules 1870

20/5/72

ITM