

IRON SHIPS.

No. 1705 Survey held at Belfast

Date 16th December

1861

on the Iron Screw Steamer "Dalmatian" Master

Tonnage Gross 1989 Engine Room 296 Register 1692 Built at Belfast & Launched 19th Nov.

When Built 1861 By whom built E. J. Harland

Owners John Bibby Sons & Co

Port belonging to Liverpool

Destined Voyage

Surveyed Afloat or in Dry Dock Specially Surveyed while Building

Length aloft	Feet.	Inches.	Extreme Breadth	Feet.	Inches.	Depth from top of Upper Deck	Feet.	Inches.	Beam to top of Floor	Feet.	Inches.	Power of Engines	Horse No.
.....	33	5	.....	3	4	.....	2	.....	24	11	1/2	.....	.....
Distance of Frames or Ribs from moulding edge to moulding edge, all fore and aft	Inches in Ship.	18	Inches required per Rule.	18	Inches in Ship.	18	Inches required per Rule.	18	Inches in Ship.	18	Inches required per Rule.	Inches in Ship.	16ths required per Rule.
Floors, Size of Angle Iron, and No. 7 at bottom of Floor Plate	5	3 1/2	10 1/8	5 1/2	3 1/2	14 7/8	.....	.....	.....	.....	.....	.....	.....
depth and thickness of Floor Plate at mid line	25	1 1/8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
depth and thickness of Floor Plate at Bilge Keelson	9 1/2	4 1/8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Size of Reversed Angle Iron, and No. 2 at top of Floor Plate	3 1/2	3	8 1/8	4	3 1/2	9 7/8	.....	.....	.....	.....	.....	.....	.....
Frames, Size of Angle Iron, single or double	5	3 1/2	10 1/8	5 1/2	3 1/2	10 1/8	.....	.....	.....	.....	.....	.....	.....
Reversed Iron, to every frame or every frame	3 1/2	3	8 1/8	4	3 1/2	9 7/8	.....	.....	.....	.....	.....	.....	.....
Beams, Deck (No.) double Angle Iron or Bulb Iron with double Angle Iron on top	3 1/4	3	4 1/8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
depth & thickness of plate amidships	6	1 1/8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
double or single Angle Iron,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bulb Iron on lower edge	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
average space between	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
if wood (No.) sided & moulded	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hold, or Lower Deck (No.)	3 1/4	3	4 1/8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
double Angle Iron or Bulb Iron with double Angle Iron on top	6	1 1/8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
depth & thickness of plate amidships	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
double or single Angle Iron,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bulb Iron on lower edge	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
average space between	35	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
if wood (No.) sided & moulded	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Paddle, wood, sided and moulded or if Iron, size of Plate	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Engine Iron, Box 30 x 1 1/2 x 1/8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Keelson, wood, sided & moulded, iron, size of plate, if Box, give sketch & dimensions	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Side or Bilge	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Number	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Stem, if bar iron, moulding and thickness	Inches in Ship.	16ths required per Rule.	Inches in Ship.	16ths required per Rule.
if plate iron, breadth and thickness	.....	.....	.....	.....
Stern-post, if bar iron, moulding and thickness	18	6	10	3
if plate iron, breadth and thickness	10	6	.....	.....
Keel, if bar iron, depth and thickness	9	3	10	3
if plate iron, breadth and thickness	.....	.....	.....	.....
Garboard Plates, thickness	1 1/8	.....	1 1/8	.....
From Garboard to upper part of Bilge	1 1/8	.....	1 1/8	.....
From upper part of Bilge to Sheerstrakes	1 1/8	.....	1 1/8	.....
Sheerstrakes	1 1/8	.....	1 1/8	.....
Breadth & thickness of Butt Straps to outside plating	9 x 10	12 1/8	12 1/8	16
Planksheers	.....	.....	.....	.....
Gunwale Plate or Stringer on ends of Up. Dk Beams	25 1/2	12 1/8	25	.....
Angle Iron on ditto	5 1/2	4 1/2	.....	.....
Waterway	.....	.....	.....	.....
Deck	.....	.....	.....	.....
Ceiling in Hold	2 1/2	.....	.....	.....
Ceiling betwixt Decks	2 1/4	.....	.....	.....
Beam Clamps	.....	.....	.....	.....
Shelf	.....	.....	.....	.....
Stringer Plates on ends of Hold or Lower Dk Beams	25 1/2	12 1/8	.....	.....
Ceiling between Decks	2 1/4	.....	.....	.....
Stringer or Tie Plates outside Hatchways	12 1/2	12 1/8	.....	.....
Deck Beam Clamps	.....	.....	.....	.....
Shelf	.....	.....	.....	.....
Stringers in Hold	5 1/2	4 1/2	.....	.....
Deck, Lower	.....	.....	.....	.....
Deck, Upper, how fastened to Beams	.....	.....	.....	.....

Transoms, material Iron or, if none, in what manner compensated for.

Knight-heads 10 are they free from defects?

Bulkheads, No. 6 to main deck Thickness of 8

Hawse Timbers 10 how secured to the sides of the ship Rivetted between two frames

The Frames or Ribs extend in one length from Keel to Gunwale rivettted through plates with (1 in.) rivets, about (6 in.) apart.

The reverse angle irons on the floors extend in one length across the middle line from 3 1/2 to 4 feet on to each side alternately, to hold beam stringers

on the frames from to

Keelson, how are the various lengths of plates or angle irons connected? With butt straps

Plates, Garboard, double or single rivettted to keel & at upper edge, with rivets (1 1/4 in.) diameter averaging (3 1/2 in.) from centre to centre of rivet.

Edges from Garboards to upper part of bilge, worked carvel with a lining piece (in.) thick, or clencher, double or single rivettted; rivets (1 in.) diameter, averaging (3 ins.) from centre to centre of rivets.

Butts from Keel to turn of bilge, worked carvel with a lining piece (1 1/8 in.) thick, double or single rivettted; rivets (1 in.) diameter, averaging (ins.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below?

Edges from bilge to planksheer, worked carvel with a lining piece () thick, double or single rivettted; rivets (7/8 in.) diameter, averaging (3 in.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? alternately

Butts from bilge to planksheers, worked carvel with a lining piece (1 1/8 in.) thick, or clencher, double or single rivettted; rivets (7/8 in.) diameter averaging (3 ins.) from centre to centre of rivets. Breadth of laps in double rivetting (4 1/2) Breadth of laps in single rivetting (- 2 1/2)

Planksheer, how secured to the plating of the sides { Explain by sketch, }

Waterway planksheer and to the Beams { if necessary. }

Side trussing breadth and thickness of plates how secured?

Deck trussing in hold beams ?

Deck Beams, how secured to the side? Beams ends turned knee plates & Rivettted to frames

Hold or Lower Deck The same as above, & diagonal trussing to main hatchways & to

Paddle how are pointers compensated? By plate iron rivettted to frames

No. of breasthooks 5 crutches 4 how are pointers compensated? By plate iron rivettted to frames

What description of iron is used for the angle iron and plate iron in the vessel? Scotch bar & Staffordshire plates Builder's Signature E. J. Harland

IRON 435-0249

Workmanship. Are the lands or laps of the clenchwork in all cases in breadth at least five times the diameter of the rivets in double rivetted edges and butts, and at least three 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, lining pieces, 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, Yards, &c., are in _____ condition, and sufficient in size and length.

She has SAILS.		CABLES, &c.		ANCHORS, and their weights.	
N ^o .			Fathoms. Inches.	N ^o .	Weight.
	Fore Sails,	Chain	500 1 7/8	Bower, <u>Ironmans Patent</u>	1 35.1.2
	Fore Top Sails,	Hamper Stream Cable <u>Iron</u>	90 1		1 35.1.6
	Fore Topmast Stay Sails,	Hawser	90 9	Stream, <u>Patent</u>	1 48.1.2
	Main Sails,	Towlines	90 7 1/2		1 9.0
	Main Top Sails,	Warp	90 6	Kedge,.....	1 15.0.25
and		All of <u>Good</u> quality.	90 6		1 3.1.2

Her Standing and Running Rigging _____ sufficient in size and _____ in quality.

She has Two life ~~Long~~ Boat and Four others

The present state of the Windlass is Good Capstan Good and Rudder Good Pumps Good

General Remarks, Statement and Date of Repairs, extent of corrosion (if any) both internally and externally, and condition of rivets.

DATES of Surveys held while building, as per Section 17.	1st. On the several parts of the frame, when in place, and before the plating was wrought	
	2nd. On the plating during the progress of rivetting	
	3rd. When the beams were in and fastened, and before the decks were laid	<u>Specially Surveyed</u>
	4th. When the ship was complete, and before the plating was finally coated	<u>while building</u>
	5th. After the ship was launched	

This is a sister ship to the Egyptian, with the exception of her deck house, which is a little larger. She has an extra inside strake, on each side abreast of sheerstrake 228 feet 12 in. Two plates 9 feet long each, tapering at ends to 4 1/2 x 1 1/2 in. One on each side abreast of third strake from the gunwale 147 feet 12 in. One on each side opposite the ends of orlop beams 202 feet 12 in. One on each side at bilge 202 feet 12 in. And one at middle line over keel 227 feet 14 in. Middle line keelson 25 in 12 in amidships tapering to 9 in at ends, an additional plate rivetted on top of keelson 254 feet 12 x 8 in. Amidships. An intercostal keelson about midway between the middle line keelson, and the bilge keelson, plates 1/2 in to top of floors, with bulb iron on top 205 feet 9 x 8 in amidships, with two angle irons 5 1/2 x 4 1/2 x 1 1/2 in rivetted back to back, all fore and aft. Bilge keelsons 158 feet, bulb iron amidships, rivetted to angle irons as above. Orlop beam stringer of bulb iron 8 x 1 1/2 in rivetted between two angle irons 5 1/2 x 4 1/2 x 1 1/2 in 135 feet on each side amidships, and single from thence to the ends. Upper deck is formed of iron plates chequered, about 12 feet long and 17 inches wide, weighing about 18 lb per square foot. Carvel plated, butts double and triple rivetted, and abreast of hatch ways quadruple rivetted, with lining pieces 3/8 thick, and 9 x 18 inches wide, fore and aft seams single rivetted, with long pieces 4 1/4 inches wide, rivets 5/8 and 2 1/4 in. Center The recesses on top surface 2 in square and 1/4 deep, are filled in with a mixture of Portland Cement and sand, prior to which all the seams are caulked.

The skin plating at each end of this vessel is the same as on the former 3 iron ships built here. The iron and workmanship are excellent.

In what manner are the surfaces preserved from oxidation? The flat of bottom to round the turn of bilge is Portland Cement, above this together with the entire outside of hull is coated thrice, with a mixture of Red and White lead paint.

I am of opinion this Vessel should be classed 12 A

The amount of the Fee£ 5 : : is received by me, Alex. Gordon

Special£ 99 : 9 :

Certificate (if required)£ : : : £104 " 9 " 0

Committee's Minute 31 December 1861

Character assigned B = for 12 Years

I see no objection to this Vessel being classed as above recommended say 12 A Lloyd's Register 30 Dec 1861