

# IRON SHIP.

No. 14048 Survey held at *Newcastle* Date, First Survey *12<sup>th</sup> March* Last Survey *5<sup>th</sup> Aug* 1878

On the *S. S. "Danish Monarch"* Master *Walton*

TONNAGE under Tonnage Deck *1116.45* ONE, OR TWO DECKED, THREE DECKED VESSEL.  
 Ditto of Third, Spar, or Awning Deck *159.54* SPAR, OR AWNING DECKED VESSEL.  
 Ditto of Poop, or Raised Qr. Dk. *25.22* HALF BREADTH (moulded) *16.4*  
 Ditto of Houses on Deck *26.88* DEPTH from upper part of Keel to top of Upper Deck Beams *20.75*  
 Ditto of Forecastle Hatch *1338.27* GIRTH of Half Midship Frame (as per Rule) *33.25*  
 Gross Tonnage *43.44* 1st NUMBER *70.40*  
 Less Crew Space *1294.83* 1st NUMBER, if a THREE DECKED VESSEL *70.40*  
 Less Engine Room *428.25* LENGTH *248.5*  
 Register Tonnage *866.58* 2nd NUMBER *17494*  
 as cut on Beam *866.58* PROPORTIONS—Breadths to Length *7.5*  
 Depths to Length—Upper Deck to Keel *11.97*  
 Main Deck ditto *11.97*

Built at *Newcastle*  
 When built *1878* Launched *15<sup>th</sup> June*  
 By whom built *J. W. Richardson & Co.*  
 Owners *J. Patton Jun<sup>r</sup> & Co.*  
 Port belonging to *London*  
 Destined Voyage *and*  
 Surveyed while Building, Afloat, or in Dry Dock.

LENGTH in deck as per Rule *248* Feet. *6* Inches. BREADTH Moulded *32* Feet. *10* Inches. DEPTH top of Floors to Upper Deck Beams *18* Feet. *10* Inches. Do. do. Main Deck Beams *18* Feet. *10* Inches. Power of Engines *150* Horse. No. of Decks with flat laid *One* No. of Tiers of Beams *Two*

Dimensions of Ship per Register, length, *250.8* breadth, *33.2* depth, *18.55*

	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.	Inches in Ship.	Inches per Rule.
KEEL, depth and thickness	<i>9 x 2 1/2</i>	<i>9 x 2 1/2</i>				
STEM, moulding and thickness	<i>8 1/2 x 2 1/2</i>	<i>8 1/2 x 2 1/2</i>				
STERN-POST for Rudder do. do.	<i>8 1/2 x 5</i>	<i>8 1/2 x 5</i>				
for Propeller	<i>24</i>	<i>24</i>				
Distance of Frames from moulding edge to moulding edge, all fore and aft	<i>24</i>	<i>24</i>				
FRAMES, Angle Iron, for 1/2 length amidships	<i>4 1/2 x 3</i>	<i>4 1/2 x 3</i>				
Do. for 1/2 at each end	<i>4 1/2 x 3</i>	<i>4 1/2 x 3</i>				
REVERSED FRAMES, Angle Iron	<i>3 x 3</i>	<i>3 x 3</i>				
FLOORS, depth and thickness of Floor Plate at mid line for half length amidships	<i>2 1/2 x 9</i>	<i>2 1/2 x 9</i>				
thickness at the ends of vessel	<i>8 x 7</i>	<i>8 x 7</i>				
depth at 3/4 the half-bdth. as per Rule	<i>10 3/4</i>	<i>10 3/4</i>				
height extended at the Bilges	<i>4 x 3</i>	<i>4 x 3</i>				
BEAMS, Upper, Spar, or Awning Deck Single or double Angle Iron, Plate or Tee Bulb Iron	<i>5 1/2 x 3</i>	<i>5 1/2 x 3</i>				
Single or double Angle Iron on Upper edge	<i>24</i>	<i>24</i>				
Average space	<i>24</i>	<i>24</i>				
BEAMS, Main, or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron	<i>9 x 9</i>	<i>9 x 9</i>				
Single or double Angle Iron on Upper edge	<i>4 x 3 1/2</i>	<i>4 x 3 1/2</i>				
Average space	<i>8 1/2</i>	<i>8 1/2</i>				
ELSONS Centre line, single or double plate, box, or intercostal, Plates	<i>17</i>	<i>17</i>				
Rider Plate	<i>12</i>	<i>12</i>				
Bulb Plate to Intercostal Keelson	<i>5 x 4</i>	<i>5 x 4</i>				
Angle Irons	<i>5 x 4</i>	<i>5 x 4</i>				
Double Angle Iron Side Keelson	<i>8</i>	<i>8</i>				
Side Intercostal Plate	<i>5 x 4</i>	<i>5 x 4</i>				
do. Angle Irons	<i>5 x 4</i>	<i>5 x 4</i>				
Attached to outside plating with angle iron	<i>3 x 3</i>	<i>3 x 3</i>				
BILGE Angle Irons	<i>5 x 4</i>	<i>5 x 4</i>				
do. Bulb Iron	<i>8</i>	<i>8</i>				
do. Intercostal plates riveted to plating for length	<i>5 x 4</i>	<i>5 x 4</i>				
BILGE STRINGER Angle Irons	<i>5 x 4</i>	<i>5 x 4</i>				
Intercostal plates riveted to plating for length	<i>5 x 4</i>	<i>5 x 4</i>				
IDE STRINGER Angle Irons	<i>5 x 4</i>	<i>5 x 4</i>				

ransoms, material. Knight-heads. Hawse Timbers. *Iron*  
 indlass *Iron patent* Pall Bitt *Iron*

The FRAMES extend in one length from *Keel* to *Gunwale* Riveted through plates with *7/8* in. Rivets, about *7* in.  
 The REVERSED ANGLE IRONS on floors and frames extend from middle line to *Upper Dk & R<sup>d</sup> 2<sup>d</sup> Dk* and to *above hold & stringer*  
 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 *1/8* in. diameter, averaging *5 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 7/8* ins. from centre to centre.  
 Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets *7/8* in. diameter averaging *3 7/8* ins. from centre to centre.  
 Butts of *3* Strakes at Bilge for *1/2* length, treble riveted with Butt Straps *1/16* 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 7/8* ins. from cr. to cr.  
 Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets *7/8* in. diameter, averaging *3 7/8* 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 *6 times* Breadth of laps of plating in single riveting *3 1/2 times*

Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? *Treble & Double*  
 Waterway, how secured to Beams *✓* (Explain by Sketch, if necessary.)  
 Beams of the various Decks, how secured to the sides? *Plates riveted to frames* No. of Breasthooks, *4* Crutches, *2419*  
 What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *Plates from Consell & Co.*  
 Manufacturer's name or trade mark, *Angles &c from Dorman, Long & Co.*

The above is a correct description  
 Builder's Signature, *William Richardson* Surveyor's Signature, *T. Moverby*  
 Surveyor to Lloyd's Register of British and Foreign Shipping.

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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* *21199*

Do any rivets break into or through the seams or butts of the plating? *a few*

Masts, Bowsprit, Yards, &c., are *all* 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 *Schooner 121. Lower Masts of iron, fore mast length 75 ft x 20" dia; Main Mast 65 ft long by 20" dia; Masts formed with two plates in the round 6/16" thick, double riveted edges, double and treble riveted butts. Consett Iron.*

NUMBER for EQUIPMENT 19243		Fathoms.	Inches.	Test per Certificate.	Length & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS.	N <sup>o</sup> .	Weight. Ex. Stock.	Test per Certificate.	Wght req'd per Rule.	Test req'd per Rule.
N <sup>o</sup> .	SAILS.	CABLES, &c.	Chain									
one	Fore Sails,						Bowers	1	25.3.14	25.10.17	25.2.0	25.1/2
full	Fore Top Sails,							1	25.3.7	25.10.17	25.2.0	
but	Fore Topmast Stay Sails							1	21.1.7	21.17.0.4	21.2.20	22.2
	Main Sails,											
and	Main Top Sails,											

Standing and Running Rigging *Wire & hemp* sufficient in size and *good* in quality. She has *one* Life Boat and *three* others

The Windlass is *Good* Capstan *Good* and Rudder *Good* Pumps *Good*

Engine Room Skylights.—How constructed? *Iron coamings 3 ft deep on 12" x 2" deck. How secured in ordinary weather? by bars*

What arrangements for deadlights in bad weather? *Solid shutters & bulls eyes*

Coal Bunker Openings.—How constructed? *of Iron* How are lids secured? *by bars* Height above deck? *9 ins*

Scuppers, &c.—What arrangements for clearing upper deck of water, in case of shipping a sea? *Ports and Scuppers cut in the bulwarks*

Cargo Hatchways.—How formed? *of Iron*

State size Main Hatch *24.0 x 12.0* Forehatch *14 ft x 9 ft* Quarterhatch *18.0 x 11.0*

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

What arrangement for shifting beams? *deep web plates & shifting beams*

Hatches, If strong and efficient? *Yes*

Order for Special Survey No. <i>230</i>	1st. On the several parts of the frame, when in place, and before the plating was wrought	<i>1078 March 13. 22. 26. 28. April 5. 9. 13. 16. 25.</i>
Date <i>15th May 1878</i>	2nd. On the plating during the process of riveting	<i>May 7. 9. 15. 28. June 4. 5. 14. 20. 21. July 2.</i>
Order for Ordinary Survey No. <i>—</i>	3rd. When the beams were in and fastened, and before the decks were laid,...	<i>8. 17. 23. 26. 29.</i>
Date <i>—</i>	4th. When the ship was complete, and before the plating was finally coated or cemented..	
No. <i>109</i> in builder's yard.	5th. After the ship was launched and equipped	

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

*This vessel has been built in accordance with the appended approved tracings of midship section, longitudinal elevation, and deck plans, and four letters of 12<sup>th</sup> & 19<sup>th</sup> Feb<sup>r</sup> 1878, and in other respects in conformity with the rules for the contemplated class. She has a Raised 2<sup>d</sup> deck 124 feet long, and a top gall<sup>ts</sup> Forecastle 30 ft long. Water ballast tanks are fitted as shown on the plan, the one in the after hold is 52 ft long, and the tank amidships 24 ft long. these tanks were satisfactorily tested to the*

*Double Bottom 52 ft correct -*

State if one, two, or three, decked vessel, or a spar, or warning beam, and the length of the same.

How are the surfaces preserved from oxidation? Inside *Cement & paint* Outside *paint*

I am of opinion this vessel should be Classed *100 A. 1*

The amount of the Entry Fee ... £ *5* : : is received by me, *T. Young*

Special ... £ *5* : : 7 : 6 9 Aug 1878

Certificate ... (Travelling Expenses, if any, £ *—*).

Committee's Minute *13th August, 1878.*

Character assigned *100 A. 1*

*This vessel appears eligible to be classed 100 A. 1. recommended.*

*100 A. 1. B. Lloyd's Register*

Foundation