

# IRON SHIP. 16809

No. 12290 Survey held at *Newcastle* Date, First Survey *1<sup>st</sup> March* Last Survey *27<sup>th</sup> Aug 1876*

On the *S.S. "Stelling"* Master *J. D. Hew* Rec 7/8/76

TONNAGE under Tonnage Deck *772.60*  
 Ditto of Third, Spar, or Awning Deck. *23.72*  
 Ditto of Boop, or Raised Qr. Dk. *64.72*  
 Ditto of Houses *27.86*  
 Ditto of Forecastle *880.90*  
 Gross Tonnage *39.10*  
 Less Crew Space *849.80*  
 Less Engine Room *204.47*  
 Register Tonnage as cut on Beam *565.41*

ONE, OR TWO DECKED, THREE DECKED VESSEL.  
 SPAR, OR AWNING DECKED VESSEL.  
 HALF BREADTH (moulded) *15.00*  
 DEPTH from upper part of Keel to top of Upper Deck Beams *16.95*  
 GIRTH of Half Midship Frame (as per Rule) *28.80*  
 1st NUMBER *60.75*  
 1st NUMBER, of a THREE DECKED VESSEL *[do not 7 feet]*  
 LENGTH *213.83*  
 2nd NUMBER *129.90*  
 PROPORTIONS—Breadths to Length *under 7 1/2*  
 Depths to Length—Upper Deck to Keel *under 13*  
 Main Deck ditto *under 13*

Built at *Newcastle*  
 When built *1876* Launched *6<sup>th</sup> July*  
 By whom built *Palmer & Co*  
 Owners *J. Fenwick & Sons*  
 Port belonging to *London*  
 Destined Voyage *London*  
 Surveyed while Building, Afloat, or in Dry Dock. *and and*

LENGTH on deck as per Rule *213 10* Feet. Inches. BREADTH—Moulded... *30 0* Feet. Inches. DEPTH top of Floors to Upper Deck Beams *15.4* Feet. Inches. Power of Engines *100* Horse. No. of Decks with flat laid *two* No. of Tiers of Beams *two*

Dimensions of Ship per Register, length, *215.5* breadth, *30.2* depth, *15.4*

KEEL, depth and thickness *8 x 2 3/4*  
 STEM, moulding and thickness *7 1/2 x 2 3/4*  
 STERN-POST for Rudder do. do. *7 x 4*  
 for Propeller *7 x 4 3/4*  
 Distance of Frames from moulding edge to moulding edge, all fore and aft *22*  
 FRAMES, Angle Iron, for 1/2 length amidships *3 1/2 x 3 7/8*  
 Do. for 1/2 at each end *3 1/2 x 3 7/8*  
 REVERSED FRAMES, Angle Iron *3 1/2 x 3 7/8*  
 FLOORS, depth and thickness of Floor Plate at mid line for half length amidships *1 1/2 x 8*  
 thickness at the ends of vessel *7*  
 depth at 1/2 the half bath as per Rule *see plans*  
 height extended at the Bilges *see plans*  
 BEAMS, Upper, Spar, or Awning Deck Single or double Angle Iron, Plate or Tee Bulb Iron *7 x 7 3/4*  
 Single or double Angle Iron on Upper edge *3 3/4 x 6*  
 Average space *on alternate frames*  
 BEAMS, Main, or Middle Deck Single or double Angle Iron, Plate or Tee Bulb Iron *7 x 7 3/4*  
 Single or double Angle Iron on Upper Edge *3 3/4 x 6*  
 Average space *on alternate frames*  
 BEAMS, Lower Deck, Hold, or Orlop Single or double Angle Iron, Plate or Tee Bulb Iron *8 1/2 x 8*  
 Single or double Angle Iron on Upper Edge *4 x 3 7/8*  
 Average space *only both frames*  
 KEELSONS Centre line, single or double plate, *37 x 7*  
 and box, or Intercoastal, Plates *13 x 10*  
 " Rider Plate *7*  
 " Bulb Plate to Intercoastal Keelson *7 x 7 3/4*  
 " Angle Irons *4 1/2 x 3 1/2*  
 " Double Angle Iron Side Keelson *4 1/2 x 3 1/2*  
 " Side Intercoastal Plate *4 1/2 x 3 1/2*  
 " do. Angle Irons *4 1/2 x 3 1/2*  
 " Attached to outside plating with angle iron *4 1/2 x 3 1/2*  
 BILGE Angle Irons *4 1/2 x 3 1/2*  
 " do. Bulb Iron *4 1/2 x 3 1/2*  
 " do. Intercoastal plates riveted to plating for length *4 1/2 x 3 1/2*  
 BILGE STRINGER Angle Irons *4 1/2 x 3 1/2*  
 Intercoastal plates riveted to plating for length *4 1/2 x 3 1/2*  
 SIDE STRINGER Angle Irons *4 1/2 x 3 1/2*

Flat Keel Plates, breadth and thickness *32 9*  
 PLATES in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilges of doubling at Bilge, or increased thickness, and length applied *9*  
 fm up. part of Bilge to l. edge of Sh'rstrake *36 12*  
 Main Sheerstrake, breadth and thickness of doubling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake. *36 12*  
 Up. or Spar Dk. Sh'rstrake, breadth & thickness *9 3/4 x 7 1/2*  
 Butt Straps to outside plating, breadth & thickness *16 3/4 x 7 1/2*  
 Lengths of Plating *6 spaces*  
 Shifts of Plating, and Stringers *2 do*  
 Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness *30 1/2 9*  
 Angle Iron on ditto *4 1/2 x 3 1/2*  
 Tie Plates fore and aft, outside Hatchways *4 1/2 x 3 1/2*  
 Diagonal Tie Plates on Beams No. of Pairs *7*  
 Planksheer material and scantling *7*  
 Waterways do. do. *7*  
 Flat of Upper Deck do. do. *7*  
 How fastened to Beams *riveted*  
 Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness *7*  
 Is the Stringer Plate attached to the outside plating? *yes*  
 Angle Irons on ditto, No. *2*  
 Tie Plates, side Hatchways *3 1/2 x 3 1/2*  
 Diagonal Tie Plates on Beams, No. of pairs *3 1/2 x 3 1/2*  
 Waterways materials and scantlings *3 1/2 x 3 1/2*  
 Flat of Middle Deck do. do. *3 1/2 x 3 1/2*  
 How fastened to Beams *3 1/2 x 3 1/2*  
 Stringer Plates on ends of Lower Deck, Hold or Orlop Beams *27 7*  
 Is the Stringer Plate attached to the outside plating? *yes*  
 Angle Irons on ditto, No. *2*  
 Stringer or Tie Plates, outside Hatchways *3 1/2 x 3 1/2*  
 Flat of Lower Deck *27 7*  
 Ceiling betwixt Decks, thickness and material *2 1/2 fir*  
 in hold do. do. *5*  
 Main piece of Rudder, diameter at head *5*  
 do. at heel *3*  
 Can the Rudder be unshipped afloat? *yes*  
 Bulkheads No. *4* Thickness of *5/16*  
 Height up *upper deck*  
 How secured to sides of ship *double frames*  
 Size of Vertical Angle Irons *3 x 2 1/2 x 9/16* and distance apart *30 ins.*  
 Are the outside Plates doubled two spaces of Frames in length? *yes*

Transoms, material. Knight-heads. Hawse Timbers. *Iron*  
 Windlass *Iron Patent* Pall Bitt *Iron*

The FRAMES extend in one length from *Keel* to *gunwale* Riveted through plates with *3/4* in. Rivets, about *6* apart.

The REVERSED ANGLE IRONS on floors and frames extend *across* middle line to *upper and lower deck* and to *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* 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 3/4* ins. from centre to centre.

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

Butts of *2* Strakes at Bilge for *1/2* length, treble riveted with Butt Straps *1/6* 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 1/4* ins. from cr. to cr.

Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets *3/4* 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.

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 *4 1/2* Breadth of laps of plating in single riveting *2 3/4*

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

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

Beams of the various Decks, how secured to the sides? *welded and riveted* No. of Breasthooks, *4* Crutches, *3*

What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? *all the iron of good quality from Messrs Palmer & Co's London Works.*

Manufacturer's name or trade mark, *quality from Messrs Palmer & Co's London Works.*

The above is a correct description.

Builder's Signature *Palmer's Shipbuilding & Iron Co. Ltd* Surveyor's Signature, *H. Mead*

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

16809-0434



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? *fairly so*  
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* 16809 Iron

Masts, Bowsprit, Yards, &c., are *iron* 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. *a*

State also Length and Diameter of Lower Masts and Bowsprit. Foremast: length 67 feet; diam 21. Mainmast: do 61 do 20.

Two plate masts  $\frac{5}{16}$  &  $\frac{5}{16}$  thick; seams double riveted; hatts double, and treble, riveted at port and bow. Plating double at port and bow. The iron from Palmer & Co. - Iron.

NUMBER for EQUIPMENT		Fathoms.	Inches.	Test per Certificate	Length & Size req'd pr Rule.	Test req'd per Rule.	ANCHORS.	No.	Weight. Ex. Stock.	Test per Certificate	Weight req'd per Rule.	Test req'd per Rule.
SAILS.							Bowers	3	18.2.2	19.10.3.21	18.0.0	19.0.0.0
No.	CABLES, &c.						(State Machine where Tested, Date, & name of Superintendent.)					
	Chain	240	17/16	3748 lbs	240-17/16	37 3/20	L. P. L. W. R. Danell Sept 1876					
	Fore Sails,											
	Fore Top Sails,											
	Fore Topmast Stay Sails	90	15/16		90-15/16							
	Hmpn Strm Cbl	90	10		90-9							
	Hawser ...	90	5		90-5 1/2							
	Main Sails,	150	4 1/2				Stream ...	1	8.2.23		8.0.0	
	Towlines ...	120	4				Kedges ...	2	4.0.14		4.0.0	
	Warp ...	90	3 1/2								2.0.0	
	quality	good										

Standing and Running Rigging *hemp* sufficient in size and *good* in quality. She has *1* Life Long Boat and *3* others. The Windlass is *good* *Capstan* *good* and Rudder *good* Pumps *good* and *sufficient*

Engine Room Skylights. How constructed? *solid shutters & bulheads* How secured in ordinary weather? *hatted down*

What arrangements for deadlights in bad weather? *solid shutters*

Coal Bunker Openings. How constructed? *framed of iron* How are lids secured? *iron latches* Height above deck? *24"*

Scuppers, &c. What arrangements for clearing upper deck of water, in case of shipping a sea? *six ports and several morning-pipes on each side*

Cargo Hatchways. How formed? *iron comings and headboards riveted together.*

State size Main Hatch *36.9 x 18.0* Forehatch *14.9 x 15.0* Quarterhatch *44.0 x 18.0*

If of extraordinary size, state how framed and secured? *by extra thick iron comings, plates, deep web plates, and cross beams.*

What arrangement for shifting beams? *none required.*

Hatches, If strong and efficient? *yes: solid hatches.*

Order for Special Survey No. *1118* 1st. On the several parts of the frame, when in place, and before the plating was wrought } Built under Special Survey.

Date *14.2.1076* 2nd. On the plating during the process of riveting } 18.7.6 March 1.6.9.14.16.21.22.27.29. April

Order for Ordinary Survey No. *1118* 3rd. When the beams were in and fastened, and before the decks were laid... } 7.4.7.11.12.20.24.25.27.29.1.3.9.15.17.23.

Date *14.2.1076* 4th. When the ship was complete, and before the plating was finally coated or cemented... } 29.30. June 2.7.12.14.19.21.22. July 3.6.10.14.

No. *1118* in builder's yard. 5th. After the ship was launched and equipped } 17.19.20.24.26.27. Aug 3.

General Remarks (State quality of workmanship, &c.) *This is a two-decked, schooner-rigged vessel built in accordance with the plans attached (3 in no), and in other respects in accordance with the Rules. She has a raised quarter deck 22 feet long, and a topside deck 27 feet long. The longitudinal plan on tracing-paper correctly show the disposition of the beams in hatchways as recently approved. She is fitted with water ballast tanks extending continuously over a length of 163' 2", and one set of transverse web plates has been fitted in each hold as desired to compensate for the somewhat wide spacing of the longitudinal girders; the top plating of the tanks is  $\frac{5}{16}$  and the side plates  $\frac{1}{16}$  thick, and all have been tested to the deepload line and found tight and satisfactory. She is also fitted with wing-boards similarly to the 'Berrington' recently altered here; and the hatchways are fitted with 2 feet and 6 inch iron supporters in each division, thus affording good support to the deep web plates, and dividing the hatches into three breadths. The workmanship is good throughout.*

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

How are the surfaces preserved from oxidation? Inside *by cement and paint* Outside *by paint & composition.*

I am of opinion this Vessel should be Classed *90 A.T.*

The amount of the Entry Fee ... £ 5: 0: 0 is received by me, *A. Young.*

Special ... £ 42: 10: 0 *16 Aug 1876.*

Certificate ...

(Travelling Expenses, if any, £ ...)

Committee's Minute *18th August 1876*

Character assigned *GOOD*

*Lloyd's Register*