

# IRON SHIP. 16809

No. 12290 Survey held at Newcastle Date, First Survey 1<sup>st</sup> March Last Survey 27<sup>th</sup> August 18 76  
On the S.S. "Stelling" Master J. Dew Rec 7/8/76

**TONNAGE** under Tonnage Deck 772.60 **ONE, OR TWO DECKED, THREE DECKED VESSEL.**  
 Ditto of Third, Spar, or Awning Deck 23.72 **SPAR, OR AWNING DECKED VESSEL.**  
 Ditto of Boop, or Raised Qr. Dk. 64.72 **HALF BREADTH** (moulded) .. .. . 15.00  
 Ditto of Houses 64.72 **DEPTH** from upper part of Keel to top of Upper Deck Beams 16.95  
 Ditto of Forecastle 27.86 **GIRTH** of Half Midship Frame (as per Rule) .. .. . 28.80  
 Gross Tonnage 880.90 **1st NUMBER** .. .. . 60.75  
 Less Crew Space 39.10 **1st NUMBER, of a THREE DECKED VESSEL** [deduct 7 feet] .. .. .  
 Less Engine Room 204.47 **LENGTH** .. .. . 213.83  
 Register Tonnage (as out on Beam) 565.41 **2nd NUMBER** .. .. . 129.90  
**PROPORTIONS**—Breathths to Length under .. .. . 1/12  
 Depths to Length—Upper Deck to Keel under .. .. . 1/13  
 Main Deck ditto .. .. .

Built at Newcastle  
 When built 1876 Launched 9<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.

Official Number 43700

**LENGTH** on deck as per Rule 213 10 **BREADTH**—Moulded... 30 0 **DEPTH** top of Floors to Upper Deck Beams 16.95 **Power of Engines** ... 100 **Horse.** 100 **Nº. of Decks with flat laid** two  
 Do. do. Main Deck Beams..... 15.4 **Nº. of Tiers of Beams** two

	Inches in Ship	Inches per Rule		Inches in Ship	Inches per Rule
<b>KEEL</b> , depth and thickness .. .. .	8 x 2 7/8	8 x 2 7/8	<b>PLATES</b> in Garboard Strakes, breadth and thickness from Garboard to upper part of Bilge of doubling at Bilge, or increased thickness, and length applied 1/2 length	32 9	32 9
<b>STEM</b> , moulding and thickness... .. .	7 1/2 x 2 3/8	7 x 2 3/8	fm up. part of Bilge to l. edge of Sh'rstrake	8	8
<b>STERN-POST</b> for Rudder do. do. .. .. .	7 x 4	7 x 4	Main Sheerstrake, breadth and thickness of doubling at Sh'rstrake, & length applied from Mn. to Up. or Spar Dk. Sh'rstrake.	9	9
for Propeller .. .. .	7 x 4 3/4	7 x 4 3/4	Up. or Spar Dk. Sh'rstrake, breadth & thickness	36 12	36 12
Distance of Frames from moulding edge to moulding edge, all fore and aft .. .. .	22	22	Butt Straps to outside plating, breadth & thickness	9 7/4	9 7/4
<b>FRAMES</b> , Angle Iron, for 1/3 length all round	3 1/2 x 3 7/8	3 1/2 x 3 7/8	Lengths of Plating .. .. .	6 spaces	
Do. for 1/2 at each end .. .. .	3 1/2 x 3 7/8	3 1/2 x 3 7/8	Shifts of Plating, and Stringers... .. .	2 do	
<b>REVERSED FRAMES</b> , Angle Iron .. .. .	3 x 2 1/2	3 x 2 1/2	Gunwale Plate on ends of Awning, Spar, or Upper Deck Beams, breadth and thickness... .. .	30 1/2 9	30 1/2 9
<b>FLOORS</b> , depth and thickness of Floor Plate at mid line for half length amidships .. .. .	1 1/2 x 8	1 1/2 x 8	Angle Iron on ditto .. .. .	4 1/2 x 3 1/2	4 1/2 x 3 1/2
thickness at the ends of vessel .. .. .	-	-	Tie Plates fore and aft, outside Hatchways .. .. .		
depth at 1/2 the half bath as per Rule .. .. .	see plans		Diagonal Tie Plates on Beams No. of Pairs, Planksheer material and scantling .. .. .		
height extended at the Bilges... .. .	see plans		Waterways do. do. .. .. .		
<b>BEAMS</b> , Upper, Spar, or Awning Deck } Single or double Angle Iron, Plate or Tee Bulb Iron } Single or double Angle Iron on Upper edge .. .. .	7 x 7	7 x 7	Flat of Upper Deck do. do. .. .. .	7	7
Average space... .. .	on alternate frames		How fastened to Beams .. .. .	riveted	
<b>BEAMS</b> , Main, or Middle Deck } Single or double Angle Iron, Plate or Tee Bulb Iron } Single, or double Angle Iron, on Upper Edge .. .. .	7 x 7	7 x 7	Stringer Plate on ends of Main or Middle Deck Beams, breadth and thickness .. .. .		
Average space... .. .	on alternate frames		Is the Stringer Plate attached to the outside plating?		
<b>BEAMS</b> , Lower Decks, Hold, or Orlop } Single or double Angle Iron, Plate or Tee Bulb Iron } Single or double Angle Iron on Upper Edge .. .. .	8 1/2 x 8	8 1/2 x 8	Angle Irons on ditto, No. .. .. .	2	
Average space... .. .	on alternate frames		Tie Plates, outside Hatchways .. .. .		
<b>KEELSONS</b> Centre line, single or double plate, and box, or Intercostal, Plates .. .. .	37 x 7	13 x 10	Diagonal Tie Plates on Beams, No. of pairs .. .. .		
" Rider Plate .. .. .	-	-	Waterways materials and scantlings .. .. .		
" Bulb Plate to Intercostal Keelson .. .. .	7 x 7	7 x 7	Flat of Middle Deck do. do. .. .. .		
" Angle Irons .. .. .	4 1/2 x 3 1/2	4 1/2 x 3 1/2	How fastened to Beams .. .. .		
" Double Angle Iron Side Keelson .. .. .	4 1/2 x 3 1/2	4 1/2 x 3 1/2	Stringer Plates on ends of Lower Decks, Hold or Orlop Beams .. .. .	27 7	27 7
" Side Intercostal Plate .. .. .			Is the Stringer Plate attached to the outside plating?	yes	
" do. Angle Irons .. .. .			Angle Irons on ditto, No. .. .. .	2	
" Attached to outside plating with angle iron .. .. .			Stringer or Tie Plates, outside Hatchways .. .. .		
<b>BILGE</b> Angle Irons .. .. .	4 1/2 x 3 1/2	4 1/2 x 3 1/2	Flat of Lower Deck .. .. .		
" do. Bulb Iron .. .. .			Ceiling betwixt Decks, thickness and material in hold do. do. .. .. .	2 1/2 fir	
" do. Intercostal plates riveted to plating for length .. .. .			Main piece of Rudder, diameter at head do. at heel .. .. .	5 - 3	5 - 3
<b>BILGE STRINGER</b> Angle Irons .. .. .			Can the Rudder be unshipped afloat? .. .. .	yes	
Intercostal plates riveted to plating for length .. .. .			Bulkheads No. <u>4</u> Thickness of <u>5/16</u>		
<b>SIDE STRINGER</b> Angle Irons .. .. .	4 1/2 x 3 1/2	4 1/2 x 3 1/2	Height up <u>upper deck</u>		
Transoms, material. Knight-heads. Hawse Timbers. <u>Iron</u>			How secured to sides of ship <u>double frames</u>		
Windlass <u>Iron patent</u> Pall Bitt <u>Iron</u>			Size of Vertical Angle Irons <u>3 x 2 1/2 x 9/16</u> and distance apart <u>30 ins.</u>		
The <b>FRAMES</b> extend in one length from <u>Keel</u> to <u>gunwale</u> Riveted through plates with <u>3/4</u> in. Rivets, about <u>6</u> apart.			Are the outside Plates doubled two spaces of Frames in length? <u>yes</u>		
The <b>REVERSED ANGLE IRONS</b> on floors and frames extend <u>across</u> middle line to <u>upper and lower deck</u> and to <u>alternately</u>					
<b>KEELSONS</b> . Are the various lengths of Plates and Angle Irons properly connected? <u>yes</u> And butts properly shifted? <u>yes</u> .					
<b>PLATING</b> . Garboard, double riveted to Keel, with rivets <u>1</u> in. diameter, averaging <u>5</u> ins. from centre to centre.					
Edges of Garboards and to upper part of Bilge, worked clencher, double riveted; with rivets <u>3/4</u> in. diameter, averaging <u>3 3/8</u> ins. from centre to centre.					
Butts from Keel to turn of Bilge, worked carvel, double riveted; with rivets <u>3/4</u> in. diameter averaging <u>3 1/4</u> ins. from centre to centre.					
Butts of <u>2</u> Strakes at Bilge for <u>1/2</u> length, treble riveted with Butt Straps <u>1/6</u> thicker than the plates they connect.					
Edges from bilge to Main Sheerstrake, worked clencher, double or single riveted; with rivets <u>3/4</u> in. diameter, averaging <u>3 1/4</u> ins. from cr. to cr.					
Butts from Bilge to Main Sheerstrake, worked carvel, double riveted; with rivets <u>3/4</u> in. diameter, averaging <u>3 1/4</u> ins. from cr. to cr.					
Edges of Main Sheerstrake, double or single riveted. <u>Upper Sheerstrake, double or single riveted.</u>					
Butts of Main Sheerstrake, treble riveted for <u>1/2</u> length amidships. Butts of Upper or Spar Sheerstrake, treble riveted <u>length amidships.</u>					
Butts of Main Stringer Plate, treble riveted for <u>1/2</u> length amidships. Butts of Upper or Spar Stringer Plate, treble riveted for <u>length</u>					
Breadth of laps of plating in double riveting <u>4 1/2</u> Breadth of laps of plating in single riveting <u>2 3/4</u>					
Butt Straps of Keelsons, Stringer and Tie Plates, treble, double or single Riveted? <u>double and treble riveted</u>					
Waterway, how secured to Beams .. .. .					
Beams of the various Decks, how secured to the sides? <u>welded keels riveted</u> No. of Breasthooks, <u>4</u> Crutches, <u>3</u>					
What description of Iron is used for Frames, Beams, Keelsons, Tie, and Stringer Plates, Outside Plating, &c.? <u>all the iron of good quality from Messrs Palmer &amp; Co's du Mans, France.</u>					
Manufacturer's name or trade mark, <u>quality from Messrs Palmer &amp; Co's du Mans, France.</u>					

The above is a correct description.  
 Builder's Signature Palmer's Shipbuilding & Iron Coy Ltd Surveyor's Signature, H. Mead  
 Surveyor to Lloyd's Register of British and Foreign Shipping.

IRON 467-0434

**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 wood* 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 6/16 & 5/16 thick; seams double riveted; hats double, and treble punched at port and bow. Plating double at port and bow. The Iron from Palmer & Co - Jamaica.*

NUMBER for EQUIPMENT	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.
						Bowers	Stream					
4289	240	17/16	3748 lbs	240-17/16	37 3/20	3	18.2.2	19.0.3.21	18.0.0.0	19.0.0.0	19.0.0.0	19.0.0.0
			55-50				18.0.2	19.2.0.21	18.0.0.0	19.0.0.0	18.14.0.0	18.14.0.0
							15.1.0	16.14.1.14	15.1.0	16.14.0.0	15.1.0	16.14.0.0
							20.3.76 and 18.5.76					
									8.2.23		8.0.0	
									4.0.14		4.0.0	
									2.0.14		2.0.0	

Standing and Running Rigging *heap* sufficient in size and *good* in quality. She has *1* Eye 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 & bulge* 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 mooring-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 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* DATES of Surveys held while building as per Section 18. *Built under Special Survey.*

Date *14.2.1076* 1st. On the several parts of the frame, when in place, and before the plating was wrought *18.7.6 March 1.6.9.14.16.21.22.27.29. April*

Order for Ordinary Survey No. *—* 2nd. On the plating during the process of riveting *2.4.7.11.12.20.24.25.27.29.9.15.17.23.*

Date *—* 3rd. When the beams were in and fastened, and before the decks were laid... *29.30. June 2.7.12.14.19.21.22. July 3.6.10.14.*

No. *330* in builder's yard. 4th. When the ship was complete, and before the plating was finally coated or cemented... *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 23 feet long, and a topsailmast forecastle 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 6" and the side plates 1/16" thick, and all have been tested to the deep load 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, forecastle, 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.1.*

The amount of the Entry Fee ... £ 5: 0: 0 is received by me, *A. Young*  
 Special Certificate ... £ 42: 10: 0 *16 Aug 1876*  
 Certificate ...

(Travelling Expenses, if any, £ *—*.)  
 Committee's Minute *18th August 1876*

Character assigned *GOOD*  
*Lloyd's Register*

11. Shows engine room in plan, and wing boards, same as the one in plan.

