

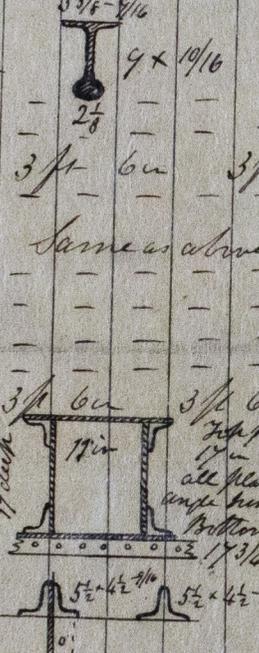
# IRON SHIPS. 1200 Tons Scale.

Rec 3/12/60

No. 1909 Survey held at Liverpool Date May 5 to Nov 28 1864  
 on the Ship Vernon Master J. Thornhill  
 Tonnage Gross 1319 <sup>24</sup>/<sub>100</sub> Engine Room 14 <sup>24</sup>/<sub>100</sub> Register 1248 <sup>22</sup>/<sub>100</sub> Built at Liverpool  
 When Built 1864 By whom built Thos. Vernon & Son. Owners Alexander & Young  
 Launched Oct 15/64  
 Port belonging to Liverpool Destined Voyage Australia  
 Surveyed Afloat or in Dry Dock Whilst building under Special Survey.

Length aloft ..... 210 Feet. Inches. Extreme Breadth.... 36 Feet. Inches. Depth from top of Upper Deck } Feet. Inches. Beam to top of Floor..... } 23 2 1/2 Power of Engines..... Horse No.

Distance of Frames or Ribs from moulding } edge to moulding edge, all fore and aft }	Inches in Ship.		Inches required per Rule.		Stem, if bar iron, moulding and thickness ....	Inches in Ship.		Inches required per Rule.	
	In Ship.	In Ship.	Inches.	Inches.		Inches.	Inches.	Inches.	Inches.
Floors, Size of Angle Iron, and No. / at bottom of Floor Plate.....	5	3 1/2	5	3 1/2	9	3	9	3	
„ depth and thickness of Floor Plate at mid line .....	25 1/2	11/16	25 1/2	11/16	9	3	9	3	
„ depth and thickness of Floor Plate at Bilge Keelson .....	16	-	-	-	9	3	9	3	
„ Size of Reversed Angle Iron, and No. / at top of Floor Plate..	3 1/2	3	3 1/2	3					
Frames, Size of Angle Iron, single or double. Reversed Iron, & to every frame above hold beams & every alternate frame above.	5	3 1/2	5	3 1/2					
Beams, Deck (N <sup>o</sup> . 59) double Angle Iron or Bulb Iron with double angle iron on top.	3 1/2	3	3 1/2	3					
„ depth & thickness of plate on sides	9	10/16							
„ double or single angle iron on lower edge .....	2 1/2	-	-	-					
„ average space between .....	3 ft	6 in	3 ft	6 in					
„ if wood (N <sup>o</sup> . 1) sided & rounded									
Hold, or Lower Deck (N <sup>o</sup> . 57) double Angle Iron or Bulb Iron with double angle iron on top.									
„ depth & thickness of plate on sides									
„ double or single angle iron on lower edge .....									
„ average space between .....	3 ft	6 in	3 ft	6 in					
„ if wood (N <sup>o</sup> . 1) sided & rounded									
Keelson, wood, iron & moulded iron, size of plate, if Box, give sketch & dimensions									
„ Side or Bilge									
„ Number .....									



Description of Iron.	Inches in Ship.		Inches required per Rule.	
	Inches.	16ths.	Inches.	16ths.
Stem, if bar iron, moulding and thickness ....	9	3	9	3
„ if plate iron, breadth and thickness .....	-	-	-	-
Stern-post, if bar iron, moulding and thickness	9	3	9	3
„ if plate iron, breadth and thickness .....	-	-	-	-
Keel, if bar iron, depth and thickness .....	9	3	9	3
„ if plate iron, breadth and thickness .....	-	-	-	-
Garboard Plates, thickness..	14/16	-	14/16	-
From Garboard to upper part of Bilge.....	13/16	-	13/16	-
From upper part of Bilge to Sheerstrakes.....	12/16	each	12/16	each
Sheerstrakes .....	11/16	each	11/16	each
Breadth & thickness of Butt Straps to outside plating	13/16	11/16	13/16	11/16
Planksheers .....	24	12	11	14/16
Gunwale Plate or Stringer on ends of Up. Dk Beams	36	11/16	30	11/16
Angle Iron on ditto.....	5 1/2	4 1/2	5 1/2	4 1/2
Waterway .....				
Deck .....	4	-	4	-
Ceiling in Hold .....	2 1/2	-	-	-
Ceiling betwixt Decks .....	-	-	-	-
Beam Clamps .....	-	-	-	-
„ Shelf .....	-	-	-	-
Stringer Plates on ends of Hold or Lower Dk Beams	23	11/16	22 1/2	11/16
Ceiling between Decks .....	-	-	-	-
Stringer or Tie Plates outside Hatchways .....	14	11/16	14	11/16
Deck Beam Clamps .....				
„ Shelf .....				
Stringers in Hold .....				
Deck, Lower .....	3	-	-	-

Transoms, material ✓ or, if none, in what manner compensated for. applicable  
 Knight-heads „ ✓ Bulkheads, N<sup>o</sup>. 1 forward to Thickness of 1/16  
 Hawse Timbers „ ✓ are they free from defects? „ how secured to the sides of the ship Single Rib & Knee Plate  
 „ size of vertical angle iron and their distance apart 3 x 3 - 5/16 - 2 1/2 in apart  
 The Frames or Ribs extend in one length from Keel to Gunwale rivetted through plates with (7/8 in.) rivets, about (5 to 8) apart.  
 The reverse angle irons on the floors extend in one length across the middle line from Bilge to Bilge on alternate floors & middle line to above bilge  
 „ „ „ on the frames „ „ from bilge to above to hold beams on alternate ribs, & from bilge to gunwale  
 Keelson, how are the various lengths of plates or angle irons connected? Butt Straps  
 Plates, Garboard, double or single rivetted to keel & at upper edge, with rivets (18/16 ins.) diameter averaging (3 1/2 ins.) from centre to centre of rivet.  
 „ Edges from Garboards to upper part of bilge, worked carvel with a lining piece ( 1/2 ) thick, or clencher, double or single rivetted; rivets (7/8 in.) diameter, averaging (3 1/2 ins.) from centre to centre of rivets.  
 „ Butts from Keel to turn of bilge, worked carvel with a lining piece ( ) thick, double or single rivetted; rivets (16/16 in.) diameter, averaging (3 1/2 ins.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? Yes in alternate strakes  
 „ Edges from bilge to planksheer, worked carvel with a lining piece ( 1/2 ) thick, double or single rivetted; rivets (7/8 in.) diameter, averaging (3 1/2 ins.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? Yes in alternate strakes  
 „ Butts from bilge to planksheers, worked carvel with a lining piece ( ) thick, or clencher, double or single rivetted; rivets (7/8 in.) diameter averaging (3 1/2 ins.) from centre to centre of rivets. Breadth of laps in double rivetting (5 1/2) breadth of laps in single rivetting ( )  
 Planksheer, how secured to the plating of the sides } Explain by sketch, } See sketch on the other side  
 Waterway „ „ planksheer and to the Beams } if necessary. }  
 Side trussing „ „ breadth and thickness of plates „ how secured? None  
 Deck trussing 14 „ „ „ „ „ „ ? 6 Pairs of diagonal plates on both sides, or 3 on each.  
 Deck Beams, how secured to the side? Rivetted to Frames & Stringer plate  
 Hold or Lower Deck „ „ „ „ „ „ Rivetted to Frames & Stringer plate  
 Ribs „ „ „ „ „ „  
 No. of breasthooks ✓ crutches ✓ how are pointers compensated? Strung up angle iron keelson & ribs connected  
 What description of iron is used for the angle iron and plate iron in the vessel? Biddulph Best Builder's Signature  
Thomas Vernon & Son

IRON 438-0027

orkmanship. Are the lands or laps of the clenchwork in all cases in breadth at least five times the diameter of the rivets in

edges and butts, and at least three times the diameter of the rivets where single riveting 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? Well fitted

Do the fillings between the ribs and plates fill in solid with single pieces, or are they in short lengths of various thicknesses? Solid piece

Do the holes for riveting plate to frames, lining pieces, or plate to plate, &c., conform well to each other? Generally 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? Upper butts only

Her Masts, Yards, &c., are in Good condition, and sufficient in size and length.

She has SAILS.

*Double Sails*

Fore Sails,

Fore Top Sails,

Fore Topmast Stay Sails,

Main Sails,

Main Top Sails,

and

Her Standing and Running Rigging Wire Stump are sufficient in size and Good in quality.

She has one Life or Long Boat and Three others.

The present state of the Windlass is Good Capstan Good and Rudder Good Pumps Iron in Main Hold & Stiver

CABLES, &c., No. 194-195		Fathoms.	Inches.
Chain	Public Works Patent Dipylon Reversing Machine Tested to 57 tons, 2 Cables	300	1 1/2
Hempen Stream Cable	No. 96	90	1 1/2
Hawser	Chosen, Tested to 22 tons, 18 Cables	80	1 1/2
Towlines		90	8
Warp		50	1 1/2
All of <u>Good</u> quality.			

ANCHORS, and their weights.		No.	Weight.
Bower,	Public Works Patent Dipylon Reversing Machine, Rodgers Patent No. 101, No. 157	3	25-2-2 25-1-10 25-0-14
Stream,	Rodgers Patent No. 101	1	13-1-26
Kedge,	Rodgers Patent No. 101, No. 153	2	16-1-26 13-3-7

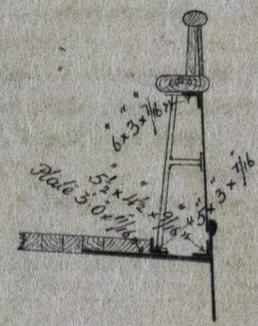
General Remarks, Statement and Date of Repairs, extent of corrosion (if any) both internally and externally, and condition of rivets.

- 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
  - 4th. When the ship was complete, and before the plating was finally coated
  - 5th. After the ship was launched
- Maintaining*

The upper deck stringer plate is 6 inches wider than required and is treble rivetted in midship body of the vessel the length of 37 beams, or 127 feet

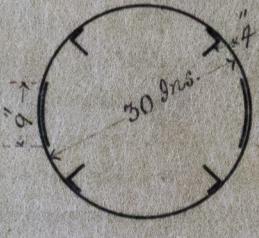
She has a Topgallant Fore Mast, a Cabin Deck House aft & a small deck house aloft the Fore Mast. Also a short Steerway Breach.

The stringer in lower hold below the beams is much in excess of Rule being formed of a plate 9 1/2 by 8 1/16 with double angle iron on both edges 5 1/2 x 4 1/2 - 9/16 on the frames, and 3 by 3 - 8/16 on the outer edge for a distance of 50 ribs in midships, and from thence to the ends of the ship of bulb iron 9 by 9/16 between double angle iron 5 1/2 x 4 1/2 - 9/16.



Section of Fore or Main Mast

The bulkhead angle iron is less than required by a mistake of the workmen going to the wrong pile of iron, so there are reversed angle iron 2 1/2 x 2 1/2 - 5/16 put on the midships only for compensation. The plates of masts are 7/16 - except at the heads which are 5/16, butts and edge double rivetted. Four angle iron 4 x 3 - 9/16 on the fore & main masts & three on the Mizzen Mast. Bowspout plate 1/2 x 3/4 with 3 angle iron 4 x 3 - 7/16, butts & edge double rivetted. Topmast steel plate 4/16 x 3/16 with 2 angle iron 2 1/2 x 2 1/2 - 5/16. Steel Linn & Spread Yard, plate 4/16 x 3/16 with 2 angle iron 2 1/2 x 2 1/2 - 5/16. Cross Jack yard with. The butts of topmast & yards are double rivetted and the edge single. The lower masts have two lining plates in each mast 9 in wide on the edge of mast plate, mast with 9 feet long.



Section of Mizen Mast

In what manner are the surfaces preserved from oxidation? Cement in Bottom.  
Red Paint.

I am of opinion this Vessel should be classed A1

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

Dec MC Special £ 65 : 10 : New Senhouse Martindale  
Certificate (if required) £ : : Grates 2/1/04

Committee's Minute Spec. 2<sup>d</sup> Decemr 1864

Character assigned A1 - Built under special survey  
(A + O.P.)

