

See Report annexed.

IRON SHIPS.

Rev 8/1/64

No. 2014 Survey held at Plymouth Date June 1884
on the Steamer Orwell Master _____
Tonnage Gross 149 Engine Room 34-4 Register _____ Built at Blackwall
When Built 1884 By whom built _____ Owners R J Brown & Co
Port belonging to London Destined Voyage _____
If Surveyed Afloat or in Dry Dock on a Rail Ship

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.
.....	<u>140</u>	<u>3</u>	.....	<u>22</u>	<u>1</u>	.....	<u>9</u>	<u>4</u>	.....	<u>9</u>	<u>4</u>	.....	<u>20</u>
Distance of Frames or Ribs from moulding edge to moulding edge, all fore and aft	Inches in Ship.	Inches required per Rule.	Inches in Ship.	Inches required per Rule.	16ths required per Rule.	Stem, if bar iron, moulding and thickness	Inches in Ship.	16ths required per Rule.	Inches in Ship.	16ths required per Rule.	Stem, if plate iron, breadth and thickness	Inches in Ship.	16ths required per Rule.
Floors, Size of Angle Iron, and No. at bottom of Floor Plate	<u>2 1/2</u>	<u>6</u>	.....	.....	.....	Stern-post, if bar iron, moulding and thickness	.....	.....	.....	.....	Stern-post, if plate iron, breadth and thickness	.....	.....
„ depth and thickness of Floor Plate at mid line	<u>9</u>	<u>4</u>	.....	.....	.....	Keel, if bar iron, depth and thickness	.....	.....	.....	.....	Keel, if plate iron, breadth and thickness	.....	.....
„ depth and thickness of Floor Plate at Bilge Keelson	.....	.....	.....	.....	.....	Garboard Plates, thickness..	.....	.....	.....	.....	From Garboard to upper part of Bilge	.....	.....
„ Size of Reversed Angle Iron, and No. at top of Floor Plate	<u>2 1/2</u>	.....	.....	.....	.....	From upper part of Bilge to Sheerstrakes	.....	.....	.....	.....	Sheerstrakes	.....	.....
Frames, Size of Angle Iron, single or double	<u>2 1/2</u>	.....	.....	.....	.....	Breadth & thickness of Butt Straps to outside plating	.....	.....	.....	.....	Planksheers	.....	.....
„ Reversed Iron, if to every frame or every frame	.....	.....	.....	.....	.....	Gunwale Plate or Stringer on ends of Up. Dk Beams	.....	.....	.....	.....	Angle Iron on ditto	.....	.....
Beams, Deck (N°) double Angle Iron or Bulb Iron with double Angle Iron on top	<u>8 1/2</u>	<u>6</u>	.....	.....	.....	Waterway	.....	.....	.....	.....	Deck	.....	.....
„ depth & thickness of plate amidships	.....	.....	.....	.....	.....	Ceiling in Hold	.....	.....	.....	.....	Ceiling betwixt Decks	.....	.....
„ double or single Angle Iron, on lower edge	.....	.....	.....	.....	.....	Beam Clamps	.....	.....	.....	.....	„ Shelf	.....	.....
„ average space between	.....	.....	.....	.....	.....	„ Stringer Plates on ends of Hold or Lower Dk Beams	.....	.....	.....	.....	Ceiling between Decks	.....	.....
„ if wood (N°) sided & moulded	.....	.....	.....	.....	.....	Stringer or Tie Plates outside Hatchways	.....	.....	.....	.....	Deck Beam Clamps	.....	.....
Hold, or Lower Deck (N°) double Angle Iron or Bulb Iron with double Angle Iron on top	.....	.....	.....	.....	.....	„ Shelf	.....	.....	.....	.....	Stringers in Hold	.....	.....
„ depth & thickness of plate amidships	.....	.....	.....	.....	.....	Deck, Lower	.....	.....	.....	.....	Deck, Upper, how fastened to Beams	.....	.....
„ double or single Angle Iron, on lower edge	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
„ average space between	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
„ if wood (N°) sided & moulded	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Paddle, wood, sided and moulded or if Iron, size of Plate	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
„ Engine	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Keelson, wood, sided & moulded, iron, size of plate, if Box, give sketch & dimensions	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
„ Side or Bilge	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
„ Number	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Transoms, material _____ or, if none, in what manner compensated for.
Bulkheads, N° 2 Thickness of _____
Knight-heads „ _____ are they free from defects? „ how secured to the sides of the ship _____
Hawse Timbers „ _____ „ size of vertical angle iron and their distance apart _____
The Frames or Ribs extend in one length from _____ to _____ rivetted through plates with (_____ in.) rivets, about (_____) apart.
The reverse angle irons on the floors extend in one length across the middle line from _____ to _____
„ „ „ on the frames „ „ „ from _____ to _____
Keelson, how are the various lengths of plates or angle irons connected? _____
Plates, Garboard, double or single rivetted to keel & at upper edge, with rivets (_____ ins.) diameter averaging (_____ 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 rivetted; rivets (_____ in.) diameter, averaging (_____ 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 (_____ 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 rivetted; rivets (_____ in.) diameter, averaging (_____ in.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? _____
„ Butts from bilge to planksheers, worked carvel with a lining piece (_____) thick, or clencher, double or single rivetted; rivets (_____ in.) diameter averaging (_____ ins.) from centre to centre of rivets. Breadth of laps in double rivetting (_____) Breadth of laps in single rivetting (_____)
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 „ „ „ „ ? _____
Deck Beams, how secured to the side? On a Wood Shelf
Hold or Lower Deck „ _____
Paddle „ „ _____
No. of breasthooks _____ crutches _____ how are pointers compensated? _____
What description of iron is used for the angle iron and plate iron in the vessel? _____

Builder's Signature

IRON437A-0106

3677 Iron

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? _____
Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? _____
Do the fillings between the ribs and plates fill in solid with single pieces, or are they in short lengths of various thicknesses? _____
Do the holes for rivetting plate to frames, lining pieces, or plate to plate, &c., conform well to each other? _____ and are the rivet holes well and sufficiently countersunk in the outer plate? _____
Are there any rivets which either break into or have been put through the seams or butts of the plating? _____

Her Masts, Yards, &c., are in poor 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	200	1 1/2	Bower,	1	6.0
✓	Fore Top Sails,	Hempen Stream Cable	60	3/4	" <i>to be put on board</i>	1	6.0
✓	Fore Topmast Stay Sails,	Hawser <i>Chain 45 ft</i>	45	5/8	Stream,	1	4.0
✓	Main Sails,	Towlines	130	4			
✓	Main Top Sails,	Warp	80	3 1/2	Kedge,	2	3.0
and		All of <u>poor</u> quality.					

Her Standing and Running Rigging is sufficient in size and poor in quality.

She has One Long Boat and

The present state of the Windlass is lean Capstan and Rudder 9 Pumps 2

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

This vessel put into Plymouth leaky, owing as it appeared on survey to the defective state of the Plating from the light water-mark up, and which was generally of so extensive a character as to necessitate its entire removal. The Bottom and other parts however, although passable, were not thought worth the outlay such a repair would incur and wood sheathing was therefore resorted to as the only means to save her from being condemned. This has been effected by introducing 1 1/2 in. Amⁿ plank vertically between all the frames from just above the turn of Bilge to the deck, which serve as timbers and to which the sheathing, 2nd Red Pine, is secured by screw bolts and nuts. The whole being Caulked and made water-tight and sheathed with Gine, an additional deck shelf extending 175 ft amidships has also been put in. The Bottom appears to have been extensively repaired at different times and is in passable condition. The remainder being covered with sheathing as described is perfectly efficient, and no doubt has given a much greater longitudinal strength than the original construction. She is now in my opinion fit to carry dry and perishable cargoes, and worthy to be classified.

In what manner are the surfaces preserved from oxidation?

I am of opinion this Vessel should be classed A, 1

The amount of the Fee£ 2 : 0 : 0 is received by me,

Special£ 4 : 4 : 0

Certificate (if required)£ : 2 : 6

Committee's Minute 12th July 1884

Character assigned A, 1

Wood
Iron - Black and Blasted
The other Bower Anchor to be put on board
before the Certificate is issued

Lloyd's Register Foundation