

# 1045 IRON SHIPS.

Dec 20/5/56

No. 2025 Survey held at Bristol Date 19th May 1856  
 on the Screw Steamer "Pioneer" Master William Gies  
 Tonnage Gross 370 Engine Room 121 Register 257 Built at Bristol 1856  
 When Built March By whom built J. M. Hyde & Co. Owners John Edwards  
 Port belonging to Bristol Destined Voyage coaster  
 Surveyed Afloat or in Dry Dock During the Building.

Length aloft	Feet. Inches.	Extreme Breadth	Feet. Inches.	Depth from Beam to top of Floor	Feet. Inches.	Power of Engines	Horse No.
Length aloft	75	Extreme Breadth	23 4	Depth from Beam to top of Floor	13 6	Power of Engines	100
Distance between Floors amidships	1 4						
" " forward and aft	1 4						
" " Ribs amidships	1 4 4						
" " forward and aft	1 4						
Floors, Size of Angle Iron, and No. at bottom of Floor Plate	4 3 4/8						
" depth & thickness of Plate at mid line	14 - 7/16						
" " " at turn of bilge	9 - 7/16						
" Size of Reversed Angle Iron, and No. at top of Floor Plate	3 2 1/2 3/8						
Ribs, Size of Angle Iron, single or double	4 3 4/8						
" " Reversed Iron, if to every frame or every other frame	4 3 4/8						
Beams, Deck (N <sup>o</sup> . 58) double or single Angle Iron	6 3 4/8						
Quarter Deck " " " "	7 2 6 1/2						
" " depth & thickness of plate amidships	7 2 1/2						
" " double or single Angle Iron, on lower edge	3 3						
" " average space between	2 feet 8 inches						
" " if wood (N <sup>o</sup> . ) sided & moulded							
" Hold, (N <sup>o</sup> . 10) double or single Angle Iron	6 3 4/8						
" " depth & thickness of plate amidships							
" " double or single Angle Iron, on lower edge							
" " average space between	every 12th frame						
" " if wood (N <sup>o</sup> . ) 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	3 Keelsons same as Keel						
" Side or Bilge	1 Oak side						
" Number	3						

Stem, if bar iron, moulding and thickness	Inches.	8ths.	Sketch, when necessary.
Stem, if bar iron, moulding and thickness			
" if plate iron, breadth and thickness			
Stern-post, if bar iron, moulding and thickness			
" if plate iron, breadth and thickness			
Keel, if bar iron, depth and thickness			
" if plate iron, breadth and thickness			
Garboard Plates, thickness	1/2		
" to bilge	1/2		
Bilge			
" to Wales	7/16		
Wales	7/16		
Topsides	3/8		
Sheerstrakes	1/2		
Planksheers	6 by 1 1/4 inches		
Gunwale Plate or Stringer	18 4/8		
Waterway	6		
Deck	3 1/2		
Ceiling in flat	2 1/2		
Bilge Planks inside	2 1/2		
Ceiling from Bilge to Clamps			
Hold Beam Clamps			
" Shelf			
" Stringers	Angle Iron		
Ceiling between Decks			
Stringers			
Deck Beam Clamps			
" Shelf			
Stringers in Hold	Angle Iron		
Deck, Lower			

Transoms, material none or, if none, in what manner compensated for.

Knight-heads Eng Oak } are they free from defects? yes

Hawse Timbers do }

The Ribs extend in one length from Keel to Gunwale rivetted through plates with ( ) rivets, about ( ) apart.

The reverse angle irons on the floors extend in one length across the middle line from bilge to bilge

" " " on the ribs " " " from Gunwale to turn of the bilges

Keelson, if wood, length of scarp if iron, how are the various lengths connected? with saddle pieces

Plates, Garboard, double or single rivetted to keel, with rivets ( 3/4 ins.) diameter averaging ( 2 1/4 in.) from centre to centre of rivet.

" edges from Garboards to turn of bilge, worked carvel with a lining piece ( ) thick, or clencher, double or single rivetted; rivets ( 3/4 in.) diameter, averaging ( 2 1/4 ins.) from centre to centre of rivets.

" butts from Garboards to turn of bilge, worked carvel with a lining piece ( 1/2 ) thick, double or single rivetted; rivets ( 3/4 in.) diameter, averaging ( 2 1/4 ins.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? yes

" edges from bilge to wales, worked carvel with a lining piece ( ) thick, or clencher, double or single rivetted; rivets ( 3/4 in.) diameter, averaging ( 2 1/4 ins.) from centre to centre of rivets.

" butts from bilge to wales, worked carvel with a lining piece ( 1/2 ) thick, double or single rivetted; rivets ( 3/4 in.) diameter, averaging ( 2 1/4 in.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? yes

" edges of wales and to planksheers, worked carvel with a lining piece ( ) thick, or clencher, double or single rivetted; rivets ( 3/4 in.) diameter averaging ( 2 1/4 ins.) from centre to centre of rivets.

Planksheer, how secured to the plating of the sides { Explain by sketch, } see the accompanying sketch of mid ship section

Waterway " " planksheer and to the Beams { if necessary. } 4 x 1 1/2

Side trussing breadth and thickness of plates how secured

Deck trussing

Deck Beams, how secured to the side with knee plates 18 x 10 + 1/2

Hold " "

Paddle " "

No. of breasthooks, crutches how are pointers compensated? short bulkheads

What description of iron is used for the angle iron and bar iron in the vessel? Staffordshire

Builder's Signature: J. M. Hyde & Co.

1045 Iron

**Workmanship.** Are the lands or laps of the clenchwork in all cases sufficiently wide to take the rivets and support the strain on them? *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? *yes*  
 Do the filings between the ribs and plates fill in all solid with sliver pieces, or are they in short lengths? *filled*  
 Do the holes for rivetting plate to lining piece, or plate to plate, &c., answer well to each other? *yes* 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? *none*  
 Was the plating caulked internally in the wake of the frames or ribs? *no*

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

She has SAILS.		CABLES, &c.		ANCHORS, and their weights.	
N <sup>o</sup> .		Fathoms.		Inches.	N <sup>o</sup> .
		60	<i>Mooring chain</i>	1 3/16	
/	Fore Sails,	200	Chain .....	1 1/4	2
/	Fore Top Sails,	90	Hempen Stream Cable .....	8	1
/	Fore Topmast Stay Sails,	90	Hawser .....	6 1/2	1
/	Main Sails,	100	Towlines .....	3	
/	Main Top Sails,	70	Warp .....	3 1/2	
	and <i>fits all good</i>		All of <i>best</i> quality.		

*Bower, 13 Cwt,  
 Bloomers patent 12 Cwt  
 Stream, 6 - -  
 Kedge, 2. 3 - 0*

Her Standing and Running Rigging *Wire & Hemp* sufficient in size and *good* in quality.

She has *two* Long Boat and *one* and *olly* Boat

The present state of the Windlass is *patent* Capstan *bricks* and Rudder *good* Pumps *2 metal*

**GENERAL REMARKS.**

*Statement and date of repairs; extent of corrosion (if any) both internally and externally; and condition of rivets.*  
 Specially surveyed during the Building. Is of large dimensions and the workmanship of the best description.  
 There appears no error in the compass and therefore does not require any correcting magnet - This is a very important arrangement in Iron ships - The Beams are supported by Iron Pillars  
 The chain cables have sustained a tension of thirty tons each

In what manner are the surfaces preserved from oxidation? *Painted several times during the Building*

I am of opinion this Vessel should be classed *12 A1*

The amount of the Fee ..... £ 4 : - : is received by me  
*Mark* Special ..... £ 18 : 10 :  
 Certificate (if required) ..... £ : :

*James Hood*

Committee's Minute *23<sup>rd</sup> May 1856*

Character assigned *1 for 12 Years*  
*James Hood*  
*at [Signature]*

*I concur with the above recommendation*  
 © *JPH*  
 20 May 1856

