

# IRON SHIPS.

See 10/1/17

No. 1763 Survey held at Stockton Date 8<sup>th</sup> September 1857  
 on the Steam Tug "Graham Hall" Master John Finlay  
 Tonnage Gross 583 Engine Room 121 Register 462 Built at Stockton  
 When Built 1857 By whom built Messrs M Pearson & Co Owners M Pearson & Co  
 Port belonging to West Hartlepool Destined Voyage London  
 If Surveyed Afloat or in Dry Dock While building and afloat in River Tees

Length aloft	Feet. Inches.	Extreme Breadth	Feet. Inches.	Depth from Beam to top of Floor	Feet. Inches.	Power of Engines	Horse No.
Distance between Floors amidships	1 6		1 5				
" " forward and aft	1 "		1 "				
" " Ribs amidships	1 "		1 "				
" " forward and aft	1 "		1 "				
Floors, Size of Angle Iron, and No. one at bottom of Floor Plate	3 3/4 2 3/4		7 1/2 3 3/4	2 3/4 7 1/2			
" depth & thickness of Plate at mid line	16		16	7 1/2			
" " " at turn of bilge	17		6 2 3/4 2 3/4	6 1/2			
Size of Reversed Angle Iron, and No. one at top of Floor Plate	2 3/4 2 3/4		7 1/2 3 3/4 2 3/4	7 1/2			
Ribs, Size of Angle Iron, single or double	3 3/4 2 3/4		7 1/2 3 3/4 2 3/4	7 1/2			
Reversed Iron, to every frame	2 3/4 2 3/4		6 2 3/4 2 3/4	6 1/2			
Beams, Deck (N°. 63) double or single	2 1/2 2		5 1/2 2 1/2	2 1/2	4 1/2		
Angle Iron out to edge	2 1/2 2		5 1/2 2 1/2	2 1/2	4 1/2		
" depth & thickness of plate amidships	6 1/2		7 1/2	6 3/4	7 1/2		
Double or single Angle Iron							
Bull " lower edge							
" average space between	36		36				
" if wood (N°. ) sided & moulded							
Hold, (N°. 142) double or single							
Angle Iron out to edge							
" depth & thickness of plate amidships	6 1/2		7 1/2	6 3/4	7 1/2		
Double or single Angle Iron							
Bull " 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	4 1/4 3 1/2		7 1/2 4 1/4	3 1/4 7 1/2			
Side or Bilge	4 1/4 3 1/2		7 1/2 4 1/4	3 1/4 7 1/2			
Number	Three						

Transoms, material

or, if none, in what manner compensated for. By ribs and stanchions

Knight-heads

are they free from defects? Yes

Hawse Timbers

Bulkheads, N°. 142 Thickness of 1/4 Angle iron 2 3/4 x 1/2 placed vertically about 2 ft 6 ins apart

The Ribs extend in one length from Keel to Garvauler riveted through plates with (3/4 in.) rivets, about (6) apart.

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

" " " on the ribs " " " from bilge to deck Because knee plate and from the Garvauler Stringer to the lower edge of deck beam clamp plate alternately Single irons shifted and Batt straps

Keelson, if wood, length of searpn if iron, how are the various lengths connected? Single irons shifted and Batt straps

Plates, Garboard, double or single riveted to keel, with rivets (1 in.) diameter averaging (3 in.) from centre to centre of rivet.

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

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

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

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

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

Planksheer, how secured to the plating of the sides Explain by sketch, Bolts driven through outside plating and clinched also

Waterway " " planksheer and to the Beams if necessary. Screw bolts driven from above and set up with nuts on Garvauler Stringer plate

Side trussing breadth and thickness of plates how secured

Deck trussing for pair of 8 ft bow plates fitted diagonally on each side of Main Hatchway extending from the Hatchway Stringer to Garvauler Stringer

Deck Beams, how secured to the side

Hold " " Brackets knees riveted

Saddle " " crutches how are pointers compensated? Terminations of keelions and stringer plates

No. of breasthooks few crutches what description of iron is used for the angle iron and bar iron in the vessel?

Gudgeon and two Whitham Tones

Builder's Signature M Pearson & Co

IRON433-0044

1465 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 fay close together throughout their length without requiring any making good of deficiencies? *No*

Do the fillings between the ribs and plates fill in all solid with sliver pieces, or are they in short lengths? *Yes*

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? *Several in the Butts*

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°.		Fathoms.	Inches.	N°.	Weight Cwt
	Fore Sails,	Chain .....	240	15	Bower, .....
	Fore Top Sails,	Hemp Stream Cable .....	90	18	118
	Fore Topmast Stay Sails,	Hawser .....	75	8	Stream, .....
	Main Sails,	Towlines .....	75	6	1 6 2
	Main Top Sails,	Warp .....	75	4½	Kedge, .....
and		All of <i>good</i> quality.			2 3

Her Standing and Running Rigging *is 36 lbs Hemp* sufficient in size and *New* in quality.

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

The present state of the Windlass is *good* Capstan *iron* and Rudder *good* Pumps *46 in & Donkey*

**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 } Special Survey N° 59

The Bulkheads of this vessel are fitted between double frame Angle iron having broad liners extending in one piece from the foreside of the frame along the bulkhead frames to the aftside of the frame abaft the bulkhead frames except the after one, which is fitted to a single frame with bracket knees. The main keelson is secured with double angle iron on the top of floor plate and at the gunwale there is a  $8\frac{1}{2} \times 6$  plate extending round inside of the starboard fitted on the top of gunwale strainer extending above the top of the starboard so as to form strap for connecting the bulwark plating. The rivet holes at the inside surface of the plate also all the rivet holes of the angle iron on the gunwale strainer are countersunk so as to form a fair surface for the faying of the waterway.

On account of the reversed Angle iron on the alternate frames stopping short at the lower part of the deck beam knee plates. Reversed Angle iron has been fitted to the other frames extending from the gunwale strainer to the lower part of the deck beam clamp plate leaving certificates of chain cables produced

In what manner are the surfaces preserved from oxidation? *With Patent Sorby iron paint*

We are

of opinion this Vessel should be classed *g A 1*

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

*Sep 11* Special ..... £ *29* : *3* : *0*

Certificate (if required) ..... £ *0* : *0* : *0*

*Wm Davidson*

*S J Gladstone*

We concur in  
the above recommenda-  
tion

Committee's Minute *11 September 1857*

Character assigned *A 1 for 9 Years*

Built by *J. W. C.*

