

# IRON SHIPS.

No. 7532 Survey held at Sunderland Date July 23<sup>d</sup> & September 17<sup>th</sup> 1862  
 on the Steamer "Aries" Master \_\_\_\_\_

Tonnage Gross 611 Engine Room 132 Register 479 Built at Sunderland

When Built 1862 By whom built James King Owners now J. P. Obegne

Port belonging to Sunderland Destined Voyage Havana

If Surveyed Afloat or in Dry Dock during Building

Length aloft		Extreme Breadth		Depth from top of Upper Deck		Power of Engines		Horse No.
Feet.	Inches.	Feet.	Inches.	Feet.	Inches.	Feet.	Inches.	
198	"	27	8	15	11	120		120

  

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.		
	Inches.	Inches.	16ths.	Inches.	Inches.	16ths.		Inches.	Inches.	16ths.	Inches.	Inches.	16ths.
Floors, Size of Angle Iron, and No. 1 at bottom of Floor Plate	4	3	7	4	3	7	Stem, if plate iron, breadth and thickness	6 1/2	2 3/4	7	2 3/4		
" depth and thickness of Floor Plate at mid line	16		8	16		8	Stern-post, if bar iron, moulding and thickness	8 1/2	4	7	5 1/2		
" depth and thickness of Floor Plate at Bilge Keelson	5		8	4		8	" " if plate iron, breadth and thickness	6 1/2	2 3/4	7	2 3/4		
" Size of Reversed Angle Iron, and No. 1 at top of Floor Plate	3	2 3/4	6	3	2 3/4	6	Keel, if bar iron, depth and thickness	6 1/2	2 3/4	7	2 3/4		
Frames, Size of Angle Iron, single or double	4	3	7	4	3	7	" " if plate iron, breadth and thickness	16		16			
Reversed Iron, 1/2 to every frame	3	2 3/4	6	3	2 3/4	6	Garboard Plates, thickness..	10		10			
Beams, Deck (No. 49) double Angle Iron	3	2 1/2	5	3	2 1/2	5	From Garboard to upper part of Bilge	9		9			
Bulb Iron with double Angle Iron on top	3	2 1/2	5	3	2 1/2	5	From upper part of Bilge to Sheerstrakes	8		8			
" depth & thickness of plate amidships	7		7	7		7	Sheerstrakes	9		9			
" double or single Angle Iron, on lower edge	3	2 1/2	6	3	2 1/2	6	Breadth & thickness of Butt Straps to outside plating	8 1/2	10-28	7 1/2	10-28		
" average space between	3 feet		3 feet				Planksheers						
" Hold, or Lower Deck (No. 31) double Angle Iron or Bulb Iron with double Angle Iron on top	3	2 1/2	6	3	2 1/2	5	Gunwale Plate or Stringer on ends of Up. Dk Beams	2 1/2	9	21	8		
" depth & thickness of plate amidships	7		7	7		7	Angle Iron on ditto	4 1/2	3 1/2	7	4 1/2	3 1/2	
" double or single Angle Iron, on lower edge	3	2 1/2	6	3	2 1/2	5	Waterway	8		8			
" average space between	3 ft & 6 ft		3 ft & 6 ft				Deck	3 1/2		3 1/2			
" Planksheers, wood sided and moulded on iron, size of Plate	7		7	7		7	Ceiling in Hold to turn of bilge	2 1/2		2 1/2			
Keelson, wood, sided & moulded, iron, size of	26		8	22		8	Ceiling betwixt Decks	2 1/2		2 1/2			
Side or Bilge, double Angle Iron	4 1/2	3 1/2	7	4 1/2	3 1/2	7	Deck Beams						
Number of Beams on each side, & extra	18		18			18	" " " "						
Transoms, material	on iron		on iron			on iron	Stringers in Hold	4 1/2	3 1/2	7	4 1/2	3 1/2	7
Knight-heads	none		none			none	Deck Irons						
Hawse Timbers	do		do			do							

  

Deck, Upper, how fastened to Beams with screw Bolts & Nuts

The after frames are connected by floor plates, and the stringers

Bulkheads, No. Four Thickness of 6/16

how secured to the sides of the ship between two framed uprights

size of vertical angle iron and their distance apart 3 x 3 1/2 in. 18 in. apart

The Frames or Ribs extend in one length from Keel to gunwale rivetted through plates with ( 3/4 in.) rivets, about ( 5 1/2 ) apart.

The reverse angle irons on the floors extend in one length across the middle line from to upper part of bilge on every frame

Keelson, how are the various lengths of plates or angle irons connected? with double angle irons at top & bottom 4 1/2 x 3 1/2 x 1/16

Plates, Garboard, double or single rivetted to keel & at upper edge, with rivets ( 7/8 ins.) diameter averaging ( 3 1/2 in.) from centre to centre of rivet.

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

Butts from Keel to turn of bilge, worked carvel with a lining piece ( 9/16 ) thick, double or single rivetted; 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 strake below? no

Edges from bilge to planksheers, worked carvel with a lining piece ( 1 in.) thick, double or single rivetted; rivets ( 3/4 in.) diameter, averaging ( 2 1/2 in.) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below? no

Butts from bilge to planksheers, worked carvel with a lining piece ( 9/16 ) thick, or clencher, double or single rivetted; rivets ( 3/4 in.) diameter averaging ( 2 1/2 ins.) from centre to centre of rivets. Breadth of laps in double rivetting ( 4 ) Breadth of laps in single rivetting ( 2 1/2 )

Planksheers, how secured to the plating of the sides { Explain by sketch, }

Waterway " planksheers and to the Beams { if necessary. }

Side trussing breadth and thickness of plates how secured? Bolted down to stringer plate

Deck trussing " " " " Five pair diagonal 4 in 1/2 rivetted to beam & stringer plates

Deck Beams, how secured to the side? with three plates as per table & rivetted to the frames & beams

Hold or Lower Deck " do

Reels " " " " do

No. of breasthooks five how are pointers compensated? all stringers carried round the bows

What description of iron is used for the angle iron and plate iron in the vessel? Angle Iron Josh Wilson & Bell

Plates J. B. Richardson & Co & Bolckow & Vaughan

Builder's Signature James King

IRON 436-0040



2911 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? 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 fillings between the ribs and plates fill in solid with single pieces, or are they in short lengths of various thicknesses? solid with single pieces

Do the holes for rivetting plate to frames, lining pieces, or plate to plate, &c., conform 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? only a few

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> .	Weight.
✓	Fore Sails,	Chain <u>certificates produced</u>	240 1 5/16	Bower, .....	3 21.2.0
✓	Fore Top Sails,	Admiralty test.			17.2.14
✓	Fore Topmast Stay Sails,	Hempen Stream Cable .....	80 8 1/2	Stream, .....	1 6.3.24
✓	Main Sails,	Hawser .....	60 7/8		
✓	Main Top Sails,	Towlines .....	70 6	Kedge, .....	2 3.1.10
	and <u>others as usual</u>	Warp .....	70 5 1/2		1.1.26
		All of <u>good</u> quality.			

Her Standing and Running Rigging is of Kina hemp sufficient in size and good in quality.

She has Long Boat and

The present state of the Windlass is good Capstan good and Rudder good Pumps one in each compartment

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

DATES of Surveys { 1st. On the several parts of the frame, when in place, and before the plating was wrought January 30th  
held while building, { 2nd. On the plating during the progress of rivetting March 3d  
as per Section 17. { 3rd. When the beams were in and fastened, and before the decks were laid April 17th  
{ 4th. When the ship was complete, and before the plating was finally coated May 5th  
{ 5th. After the ship was launched July

*This ship exceeds the dimensions allow'd by rule the compensation for which are shewn in the accompanying sketch marked in red, there is also an iron bottom fitted to the Engine room, she is also built with a full poop 44 feet long, no top gall't fore-castle*

In what manner are the surfaces preserved from oxidation? with red lead & Peacock's patent and with Portland cement in the bottom to turn of bilges

I am of opinion this Vessel should be classed G.A.S.

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

Special .....£ " : " : "

Certificate (if required) .....£ " : 5 : "

Committee's Minute 20 September 18 62

Character assigned GA

Robt. B. Simey

*We are of opinion that the floor plates should have been carried further up on the bilges and cutting them down to level line on the upper edges should not be deemed to be a precedent. Mr Simey has written to state the number of boats that Viper has - in other respects we are of opinion that she is eligible for the Class above recommended*

*29 September 1862  
To have fee 1/6  
See Mr Simey's do 27/9/62*