

# IRON SHIPS.

9. 8143 Survey held at Sunderland Date 1<sup>st</sup> May 1864  
the Screw Steamer "Kaffraria" Master B. Parks  
<sup>Deck 643 28</sup>  
<sup>Port 654 28</sup>  
tonnage Gross 770.00 Engine Room 155.00 Register 623.02 Built at Sunderland  
When Built 1864 Launched 21<sup>st</sup> April By whom built J. E. Paine  
<sup>Diamond Steam</sup>  
<sup>Navigation Company</sup> Owners Port belonging to London Destined Voyage Cape of Good Hope  
Surveyed Afloat or in Dry Dock in Painsanig and Afloat

	Fect.	Inches.		Fect.	Inches.		Fect.	Inches.		Horse.
Length aloft .....	200	$\frac{2}{3}$	Extreme Breadth....	20	$\frac{1}{2}$	Depth from top of Upper Deck } Beam to top of Floor..... }	16	$\frac{25}{100}$	Power of Engines....	120

	Inches in Ships.	Inches required per Rule.	Inches in Ships.	Inches required per Rule.	Inches in Ships.	Inches required per Rule.
Distance of Frames or Ribs from moulding edge to moulding edge, all fore and aft }	21	21				
Floors, Size of Angle Iron, and No. at bottom of Floor Plate and double with 4 feet lengths at the bow for upward }	4	3	4	3	4	3
" depth and thickness of Floor Plate at mid line }	-	17	4	16	4	16
" depth and thickness of Floor Plate at Bilge Keelson }	-	7	7	4	7	4
" Size of Reversed Angle Iron, and No. at top of Floor Plate.. Double in way of Keelson & Stringer in the Hold - }	3	3	6	3	2 1/2	6
Frames, Size of Angle Iron, single or double.. }	4	3	4	3	4	3
" " Reversed Iron, # to every frame } & top of bilge and every alternate frame to the Gunwale }	3	3	6	3	2 1/2	6
Beams, Deck (N <sup>o</sup> . 4 & ) double Angle Iron, Plate, or Bulb Iron..... }	-	7	4	7	7	4
" " double or single Angle Iron, on upper edge..... }	2 1/2	2 1/2	5	2 1/2	2 1/2	5
" " average space between .....	3 feet 6 in	-	3 feet 6 in	-	-	-
" " if wood (N <sup>o</sup> . ) sided & moulded }	-	7	7	7	7	7
" Hold, or Lower Deck (N <sup>o</sup> . 29 ) double Angle Iron, Plate, or Bulb Iron }	-	7	7	7	7	7
" " double or single Angle Iron, on upper edge..... }	2 1/2	2 1/2	5	2 1/2	2 1/2	5
" " average space between .....	3/6 and 7 ft	1 3/8 x 7 feet	-	-	-	-
" " if wood (N <sup>o</sup> . ) sided & moulded }	-	7	7	7	7	7
" Paddle, wood, sided and moulded, or if Iron, size of Plate .....	-	7	7	7	7	7
" Engine " " " " .....	-	7	7	7	7	7
Keelson, single plate, box, or intercostal .... }	31	0	20 1/2	7	-	-
" Size of Plates .....	10 inch	Eastern Province	-	-	-	-
" Size of Angle Irons .....	5	3	4 1/2	3 1/2	7	7
Ditto Bilge (No. see sketch, foundation plate under keel, 12 in x 7/8 ) .....	5	3	4 1/2	3 1/2	7	7
Transoms, material or, if none, in what manner compensated for Stern frames around, and connection with floor and stringer plates - }	-	-	-	-	-	-
Knight-heads, and Hawse Timbers .....	-	-	-	-	-	-

The Frames or Ribs extend in one length from Keel to Cumwale rivetted through plates with ( $\frac{3}{8}$  in.) rivets, about ( $6''$ ) apart.

The reverse angle irons on the floors extend ~~in one length~~ across the middle line from \_\_\_\_\_ to The top of the Bridges on every

“ “ “ ~~on the frames~~ “ “ “ ~~from~~ and to The Gunwale on alternate frames

Keelson, how are the various lengths of plates or angle irons connected? *With double angle irons at top and bottom properly fitted, and with butt straps.*

Plates, Garboard, double ~~or single~~ rivetted to keel & at upper edge, with rivets ( $\sqrt{\frac{1}{4}}$  ins.) diameter averaging ( $\sqrt{\frac{1}{8}}$  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 ( $\frac{1}{2}$  in.)

diameter, averaging (  $\phi$  ins.) from centre to centre of rivets.

„ Butts from Keel to turn of bilge, worked carvel with a lining piece ( $\frac{9}{16}$ ) thick, double ~~or single~~ rivetted; rivets ( $\frac{3}{4}$  in.) diameter.

averaging (  $\frac{3}{4}$  ins ) from centre to centre of rivets. Do the lining pieces lap over and rivet through the lands of the strake below : 1122

Do the lining pieces lap over and rivet through the lands of the strake below?

Fig. 6 shows the riveting details of the bottom plates.

Edge of Sheerstrake, double or single rivetted: Double rivetted

averaging (  $\frac{1}{4}$  in.) from centre to centre of rivets. Breadth of laps in double rivetting (  $\surd$  ) Breadth of laps in single rivetting (  $\surd \frac{1}{2}$  )

Both Straps of Karkara. Straps and Tie Plates, double or single rivetted? *Double rivetted.*

Plankbeer, how secured to the plating of the sides ( Explain by sketch ) *With corner bolts.*

Waterway " " planksheer and to the Beams if necessary.

Deck Beams how secured to the side? *With knee braces as per Table C.*

Hold or Lower Deck *The same as above* ✓

Paddle

No. of breasthooks 2 crutches 1 how are pointers compensated? See Johnsons

What description of iron is used for the angle iron and plate iron in the vessel? \_\_\_\_\_ Builder's Signature \_\_\_\_\_

The steel iron made by Losh, Wilson & Bell, and the plates by Bolckow & Vaughan - James Hall

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1RON437A-0052





3624 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? They are  
Do the edges of the carvel work and of the butts lay close together throughout their length without requiring any making good of deficiencies? They do  
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? They are  
Are there any rivets which either break into or have been put through the seams or butts of the plating? very few

are of good  
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> .		Testing load, weight, produced Steam applied 40 <sup>lb</sup> tons	Fathoms.	Inches.	Testing load, weight, produced	N <sup>o</sup> .	Weight.
	Fore Sails,	Chain .....	240	1 1/2	Bowers, <u>Titanium</u> Patent .....	3	23-0-10
	Fore Top Sails,	Hempen Stream Cable .....	00	0	Tested to 2 1/2, 2 1/2, and 20 tons -		20-2-0
	Fore Topmast Stay Sails,	Hawser .... <u>Ames</u> .....	90	7/8	Stream, .....	1	20-1-0
	Main Sails,	Towlines .....	90	6 1/2	Tested to 10 1/2 tons.		02-0-2
	Main Top Sails,	Warp .....	90	5 1/2	Kedge, .....	2	4-1-0
and		All of <u>good</u> quality.	90	5	Tested to 6 1/2 & 8 1/2 tons -		1-8-7

Her Standing and Running Rigging is of Iron and Hemp sufficient in size and Good in quality.

She has Two Life Long Boat and three others

The present state of the Windlass is new Capstan 2 trinchers and Rudder and Pumps new and good

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 20<sup>th</sup> Sept 1863  
2nd. On the plating during the progress of rivetting 20<sup>th</sup> Oct 63  
3rd. When the beams were in and fastened, and before the decks were laid 14 Jan<sup>y</sup> 1864  
4th. When the ship was complete, and before the plating was finally coated 17<sup>th</sup> April  
5th. After the ship was launched 6<sup>th</sup> May

I beg respectfully to inform the Committee that this vessel is similar in every respect to the screw steamer "Eastern Province" Report No 1046 and that both were in course of building at the same time - The sketch sent up with that Report, will show the dispositions of the keelmark to which I beg to refer you, and the remarks made on the back of the aforementioned Report, apply in every way to this vessel.

In what manner are the surfaces preserved from oxidation? With Portland Cement to the Bilges inside, and all other surfaces with Paint.

I am of opinion this Vessel should be classed G. & S. 1.

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

John H. G. Special .....£ " : " : "

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

Committee's Minute 10<sup>th</sup> June 18 64

Character assigned 1 for 11 years

Thomas Lawrence

I concur in the above recommendation

John H. G. 10 June 1864



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