

# REPORT ON MACHINERY.

No. 6303

No. in Survey held at  
Reg. Book.

Date, first Survey

MONDAY 11th JULY 1887.  
Received at London Office

Last Survey 8th July 1887

(Number of Visits 21)

on the *Iron Screw Steam Ship Python*

Master *[Signature]* Built at *Hull* By whom built *Head & Riley*

Tons 37.32

Engines made at *Hull* By whom made *Edward Wales*

When built 1884

Boilers made at *Hull* By whom made *Edward Wales*

when made 1884

Registered Horse Power 20 Owners *Watkins & Co*

when made 1884

Port belonging to *London*

## ENGINES, &c.—

Description of Engines *Compound Inverted Direct Acting*

Diameter of Cylinders 11" & 22" Length of Stroke 15" No. of Rev. per minute Point of Cut off, High Pressure 8" Low Pressure 4 1/2"

Diameter of Screw shaft 4 1/4" Diam. of Tunnel shaft 4 1/4" Diam. of Crank shaft journals 4 1/4" Diam. of Crank pin 4 1/4" size of Crank webs 5 1/4" x 2 1/4"

Diameter of screw 5.2" Pitch of screw 8.0" No. of blades 3 state whether moveable *h* total surface 8 sq ft

No. of Feed pumps *one* diameter of ditto 2" Stroke 10" Can one be overhauled while the other is at work *✓*

No. of Bilge pumps *one* diameter of ditto 2" Stroke 10" Can one be overhauled while the other is at work *✓*

Where do they pump from *Engine room Bilge (Main compartment)*

No. of Donkey Engines *one* Size of Pumps 2 1/2" x 5" gals Where do they pump from *Engine room Bilge*

*Hotwell Sea Discharges Boiler Condenser Deck and Overboard*

Are all the bilge suction pipes fitted with roses *yes* Are the roses always accessible *yes* Are the sluices on Engine room bulkheads always accessible *✓*

No. of bilge injections *one* and sizes 2 1/2" Are they connected to condenser, or to circulating pump *Circulating Pump*

How are the pumps worked *by rocking lever from piston rod crosshead of After Engine*

Are all connections with the sea direct on the skin of the ship *yes* Are they Valves or Cocks *both*

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *yes* Are the discharge pipes above or below the deep water line *above*

Are they each fitted with a discharge valve always accessible on the plating of the vessel *yes* Are the blow off cocks fitted with a spigot and brass covering plate *yes*

What pipes are carried through the bunkers *none* How are they protected *✓*

Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times *yes*

Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges *yes*

When were stern tube, propeller, screw shaft, and all connections examined in dry dock *how new Launched 11th May 1884*

the screw shaft tunnel watertight *✓* and fitted with a sluice door *worked from*

*worked from*

*worked from*

## BOILERS, &c.—

Number of Boilers *one* Description *Cylindrical by combustion* Whether Steel or Iron *Steel*

Working Pressure 100 lbs Tested by hydraulic pressure to 200 lbs Date of test 11th May 1887

Description of superheating apparatus or steam chest *none fitted*

Can each boiler be worked separately *✓* Can the superheater be shut off and the boiler worked separately *✓*

No. of square feet of fire grate surface in each boiler 16 sq ft Description of safety valves *Spring loaded* No. to each boiler *two*

Area of each valve 3.14 sq" Are they fitted with easing gear *yes* No. of safety valves to superheater *✓* area of each valve *✓*

Are they fitted with easing gear *✓* Smallest distance between boilers and bunkers or woodwork 8" Diameter of boilers 7.6"

Length of boilers 7.0" description of riveting of shell long. seams *quad riv lap* circum. seams *all riv lap* Thickness of shell plates 9/16"

Diameter of rivet holes 3/16" whether punched or drilled *drilled* pitch of rivets 3 7/8" Lap of plating 4 1/4"

Percentage of strength of longitudinal joint 77.6 working pressure of shell by rules 100 lbs size of manholes in shell 16 x 12

No. of compensating rings 24 x 32 x 9/16" No. of Furnaces in each boiler *one*

Outside diameter 40" length, top 6.6" bottom 6.6" thickness of plates 9/16" description of joint *Welded* if rings are fitted *✓*

Greatest length between rings *✓* working pressure of furnace by the rules 100 lbs combustion chamber plating, thickness, sides *✓* back *✓* top *✓*

Pitch of stays to ditto, sides *✓* back *✓* top *✓* If stays are fitted with nuts or riveted heads *✓* working pressure of plating by rules *✓*

Diameter of stays at smallest part *✓* working pressure of ditto by rules *✓* end plates in steam space, thickness 1/16"

Pitch of stays to ditto 15" how stays are secured *Nuts & Washers* working pressure by rules 100 lbs diameter of stays at smallest part 2"

working pressure by rules 180 lbs Front plates at bottom, thickness 1/16" Back plates, thickness 1/16"

Greatest pitch of stays *✓* working pressure by rules 100 lbs Diameter of tubes 3 1/2" pitch of tubes 14 1/2" thickness of tube plates, front 1/16" back 1/16"

how stayed *Stay tubes* pitch of stays 15" width of water spaces 1"

Diameter of Superheater or Steam chest length thickness of plates description of longitudinal joint diam. of rivet holes

Pitch of rivets working pressure of shell by rules diameter of flue thickness of plates If stiffened with rings

Distance between rings working pressure by rules end plates of superheater, or steam chest; thickness how stayed

Superheater or steam chest; how connected to boiler

Hul399-0132



**DONKEY BOILER—** Description *None fitted*

Made at \_\_\_\_\_ by whom made \_\_\_\_\_ when made \_\_\_\_\_ where fixed \_\_\_\_\_  
 Working pressure \_\_\_\_\_ tested by hydraulic pressure to \_\_\_\_\_ No. of Certificate \_\_\_\_\_ fire grate area \_\_\_\_\_ description of safety  
 valves \_\_\_\_\_ No. of safety valves \_\_\_\_\_ area of each \_\_\_\_\_ if fitted with easing gear \_\_\_\_\_ if steam from main boilers can  
 enter the donkey boiler \_\_\_\_\_ diameter of donkey boiler \_\_\_\_\_ length \_\_\_\_\_ description of riveting \_\_\_\_\_  
 Thickness of shell plates \_\_\_\_\_ diameter of rivet holes \_\_\_\_\_ whether punched or drilled \_\_\_\_\_ pitch of rivets \_\_\_\_\_ lap of plating \_\_\_\_\_  
 per centage of strength of joint \_\_\_\_\_ thickness of crown plates \_\_\_\_\_ stayed by \_\_\_\_\_  
 Diameter of furnace, top \_\_\_\_\_ bottom \_\_\_\_\_ length of furnace \_\_\_\_\_ thickness of plates \_\_\_\_\_ description of joint \_\_\_\_\_  
 Thickness of furnace crown plates \_\_\_\_\_ stayed by \_\_\_\_\_ working pressure of shell by rules \_\_\_\_\_  
 Working pressure of furnace by rules \_\_\_\_\_ diameter of uptake \_\_\_\_\_ thickness of plates \_\_\_\_\_ thickness of water tubes \_\_\_\_\_

**SPARE GEAR.** State the articles supplied:— *Two Suspend & two bottom end bolts, two main bearing bolts, one set coupling bolts, one set of Seed and Bilge Pump Valve 12 Condenser tubes and Journals for same. Propeller*

The foregoing is a correct description,

*Edward Wales* Manufacturer.

**General Remarks** (State quality of workmanship, opinions as to class, &c. *Workmanship Good*)

*The Machinery and Boiler of this Vessel intended for towing purposes, have been constructed under Special Survey and placed on board in accordance with the requirements of the Society's Rules. They are now in my opinion in safe working condition. The case is respectfully submitted for the Notification L.M.C. 7.87 in the Register Book.*

The amount of Entry Fee .. £ 1 : 0 : received *at Hull* by me, *HCA*  
 Special .. £ 8 : 0 :  
 Donkey Boiler Fee .. £ : :  
 Certificate (if required) .. £ *grs.* : *11/7/1887*  
 To be sent as per margin.

(Travelling Expenses, if any, £ ..)

Committee's Minute

**FRIDAY 22 JULY 1887**

*James Jones*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.