

REPORT ON MACHINERY.

No. *5349*

No. in Survey held at
Reg. Book.

Stull

Date, first Survey *2nd Nov^r '82*

Last Survey *23rd July 1883*

MONDAY 6 JUNE 1887

(Number of Visits *25*)

99-63

on the *iron Steam Ship Prince Alfred*

Tons *42-12*

Master

Built at *Stull*

By whom built *Vulcan Iron Works Co.*

When built *1883*

Engines made at *Stull*

By whom made *Vulcan Iron Works Co.*

when made *1883*

Boilers made at *Do*

By whom made *Do*

when made *1883*

Registered Horse Power *45*

Owners *Yorkshire Fawling Co. Lim^d*

Port belonging to *Scarborough*

ENGINES, &c.—

Description of Engines *Vertical inverted compound surface condensing*
Diameter of Cylinders *2 1/2" & 3 1/4"* Length of Stroke *24* No. of Rev. per minute _____ Point of Cut off, High Pressure _____ Low Pressure _____
Diameter of Screw shaft *5 1/4"* Diam. of Tunnel shaft *6* Diam. of Crank shaft journals *6 1/2* Diam. of Crank pin *6 1/2* size of Crank webs *7 1/4 x 4 5/8*
Diameter of screw *8-0* Pitch of screw *12-0* No. of blades *3* state whether moveable *Do* total surface _____
No. of Feed pumps *one* diameter of ditto *2 1/2* Stroke _____ Can one be overhauled while the other is at work ☒
No. of Bilge pumps *one* diameter of ditto *3 1/4* Stroke _____ Can one be overhauled while the other is at work ☒
Where do they pump from _____
No. of Donkey Engines *one* Size of Pumps *2 3/4 x 6* Where do they pump from _____

Are all the bilge suction pipes fitted with roses _____ Are the roses always accessible _____ Are the sluices on Engine room bulkheads always accessible _____
No. of bilge injections *one* and sizes _____ Are they connected to condenser, or to circulating pump *to circulating pump*
How are the pumps worked *by rocking levers from piston rod crosshead*
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 _____ Are the discharge pipes above or below the deep water line _____
Are they each fitted with a discharge valve always accessible on the plating of the vessel _____ Are the blow off cocks fitted with a spigot and brass covering plate *Yes*
What pipes are carried through the bunkers _____ How are they protected _____
Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times _____
Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges _____
When were stern tube, propeller, screw shaft, and all connections examined in dry dock *25th June '83*
Is the screw shaft tunnel watertight *to tunnel* and fitted with a sluice door _____ worked from _____

BOILERS, &c.—

Number of Boilers *one* Description *Circular multitubular* Whether Steel or Iron *iron*
Working Pressure *80 lbs* Tested by hydraulic pressure to *160 lbs* Date of test *1st June '83*
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 *28* Description of safety valves *Spring loaded* No. to each boiler *2*
Area of each valve *7 sq ins* Are they fitted with easing gear _____ No. of safety valves to superheater ☒ area of each valve ☒
Are they fitted with easing gear ☒ Smallest distance between boilers and bunkers or woodwork *3"* Diameter of boilers *9'-9"*
Length of boilers *9'-0"* description of riveting of shell long. seams *triple riv^d lap* circum. seams *double riv^d lap* Thickness of shell plates *3/8*
Diameter of rivet holes *1 1/2 to 1 3/8* whether punched or drilled *drilled* pitch of rivets *3 5/8 ins* Lap of plating *6 3/4 to 7*
Per centage of strength of longitudinal joint *66* working pressure of shell by rules *87 lbs* size of manholes in shell *16" x 12"*
Size of compensating rings *4" x 3/4* No. of Furnaces in each boiler *2*
Outside diameter *34* length, top *6.6* bottom *8.3* thickness of plates *1/2* description of joint *welded* if rings are fitted *arc at base*
Greatest length between rings _____ working pressure of furnace by the rules *80 lbs* combustion chamber plating, thickness, sides *9/16"* back *1/2"* top *1/2"*
Pitch of stays to ditto, sides *9 3/4* back *8 5/8* top *9* If stays are fitted with nuts or riveted heads *nuts* working pressure of plating by rules *80* Diameter of stays at smallest part *1 5/16* working pressure of ditto by rules *85 lbs* end plates in steam space, thickness *1/8*
Pitch of stays to ditto *14 1/2 to 13* how stays are secured *double nuts & washers* working pressure by rules *80 lbs* diameter of stays at smallest part *1 7/8* working pressure by rules *80 lbs* Front plates at bottom, thickness *5/8* Back plates, thickness *5/8*
Greatest pitch of stays *11"* working pressure by rules *98 lbs* Diameter of tubes *3"* pitch of tubes *4 1/4* thickness of tube plates, front *5/8* back *5/8* how stayed *stay tubes* pitch of stays *13" in riv^d* width of water spaces *7/4*
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 *none fitted*

HU396-0067

DONKEY BOILER— Description

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: _____

The foregoing is a correct description,

Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *Workmanship sufficiently good*)
The machinery and Boiler of this vessel are, in my opinion, so far as seen, in safe working condition, and on completion - in compliance with the requirements of the Rules, will be eligible for the notification L.M.C. 6-83 in the Register Book.
(See copies of Correspondence forwarded.)

The amount of Entry Fee .. £ / : - : received by me,
 Special £ 8 : - :
 Donkey Boiler Fee £ : :
 Certificate (if required) .. £ : : 29/6 1886
 To be sent as per margin.

(Travelling Expenses, if any, £ - - -)

Committee's Minute

October 28/84
+ L.M.C.

(sgd) John B. Stevens
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.