

REPORT ON MACHINERY.

No. 20455

No. in Survey held at
Reg. Book.

Gateshead

Date, first Survey 2nd April Last Survey 9th July 1887

Received at London Office

(Number of Visits 8)

Tons 53

on the

twin screw New Amsterdam

Master J. Stadden Built at Newcastle By whom built C. S. Brown & Hunter When built 1887

Engines made at Gateshead By whom made Black Hawthorn & Co when made 1887

Boilers made at " By whom made do when made 1887

Registered Horse Power 25 Owners Sproston, Son & Co Port belonging to London

ENGINES, &c.—

Description of Engines *Compound inverted twin screw*
Diameter of Cylinders *8 + 16 (2 each)* Length of Stroke *14* No. of Rev. per minute *220* Point of Cut off, High Pressure *.5* Low Pressure *.5*
Diameter of Screw shaft *3 1/2* Diam. of Tunnel shaft *3 1/2* Diam. of Crank shaft journals *3 1/2* Diam. of Crank pin *3 1/2* size of Crank webs *2 1/2 x 4 1/2*
Diameter of screw *4.2* Pitch of screw *4.6* No. of blades *3* state whether moveable *no* total surface *4.75 each*
No. of Feed pumps *2* diameter of ditto *2* Stroke *6* Can one be overhauled while the other is at work *no*
No. of Bilge pumps *2* diameter of ditto *2* Stroke *6* Can one be overhauled while the other is at work *no*
Where do they pump from *Starboard bilge (centre) port pump bilge after hold, fore hold & peak*
No. of Donkey Engines *one* Size of Pumps *3" double acting* Where do they pump from *as port pump from*

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 *yes*
No. of bilge injections *yes* and sizes *yes* Are they connected to condenser, or to circulating pump *yes*
How are the pumps worked *by cranks at end of shaft & rocking levers*
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 *yes* How are they protected *yes*
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 *new*
Is the screw shaft tunnel watertight *none* and fitted with a sluice door *yes* worked from *yes*

BOILERS, &c.—

Number of Boilers *one* Description *single ended* Whether Steel or Iron *steel*
Working Pressure *100 lbs* Tested by hydraulic pressure to *200 lbs* Date of test *June 14th 1887* No. 2281
Description of superheating apparatus or steam chest *none*
Can each boiler be worked separately *yes* Can the superheater be shut off and the boiler worked separately *yes*
No. of square feet of fire grate surface in each boiler *28 sq* Description of safety valves *sprung* No. to each boiler *two*
Area of each valve *7.07 sq* Are they fitted with easing gear *yes* No. of safety valves to superheater *yes* area of each valve *yes*
Are they fitted with easing gear *yes* Smallest distance between boilers and bunkers or woodwork *15* Diameter of boilers *8.6*
Length of boilers *8.3* description of riveting of shell long. seams *d butt tubular circum. seams* Lap of the *2"* Thickness of shell plates *9/16*
Diameter of rivet holes *13/16* whether punched or drilled *drilled* pitch of rivets *5 3/8* Lap of plating *12*
Percentage of strength of longitudinal joint *84.8* working pressure of shell by rules *107* size of manholes in shell *12 x 16*
Size of compensating rings *6 x 9/16* No. of Furnaces in each boiler *two*
Outside diameter *2.11* length, top *5.0* bottom *5.0* thickness of plates *3/2* description of joint *welded* if rings are fitted *yes*
Greatest length between rings *5.0* working pressure of furnace by the rules *102* combustion chamber plating, thickness, sides *3/16* back *3/16* top *3/16*
Pitch of stays to ditto, sides *1 7/8* back *1 7/8* top *2 1/2* If stays are fitted with nuts or riveted heads *none* working pressure of plating by rules *92* Diameter of stays at smallest part *1* working pressure of ditto by rules *108* end plates in steam space, thickness *13/16*
Pitch of stays to ditto *14* how stays are secured *drawn* working pressure by rules *120* diameter of stays at smallest part *1 3/4* working pressure by rules *110* Front plates at bottom, thickness *3/2* Back plates, thickness *3/2*
Greatest pitch of stays *13* working pressure by rules *79* Diameter of tubes *3 1/2* pitch of tubes *4 1/2* thickness of tube plates, front *13/16* back *13/16* how stayed *tubes* pitch of stays *9* width of water spaces *6*
Diameter of Superheater or Steam chest *yes* length *yes* thickness of plates *yes* description of longitudinal joint *yes* diam. of rivet holes *yes*
Pitch of rivets *yes* working pressure of shell by rules *yes* diameter of flue *yes* thickness of plates *yes* If stiffened with rings *yes*
Distance between rings *yes* working pressure by rules *yes* end plates of superheater, or steam chest; thickness *yes* how stayed *yes*
Superheater or steam chest; how connected to boiler *yes*

Boiler Staying & Steel Tests not forwarded

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:— 6 Coupling bolts, two main bearing bolts, 2 feed pump valves, 2 bilge pump valves, 2 connecting rod bolts, set of springs for 2 glands, 1 safety valve spring, bolts & nuts, Condenser tubes and usual engine room outfit.

The foregoing is a correct description,

for Black Hawthorn the Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been constructed under Special Survey, the materials and workman are sound and good and eligible, in my opinion to be classed L.M.C. 7. & 7 in the Register Book.

Please deliver Certificates to Owners in London

This is submitted that this vessel is eligible to have the notification + done 7.87
 12/7/87

The amount of Entry Fee .. £ / : - : - received by me,

Special £ 8 : - : -

Donkey Boiler Fee £ - : - : -

*Certificate (if required) .. £ gratis : - 11th July 1887

(Travelling Expenses, if any, £)

Committee's Minute Tuesday, 12th July, 1887.

+ LMB

John H. Waller
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.