

REPORT ON MACHINERY.

No. 3000

Received at London Office 9 NOV 1883

No. in Survey held at *Belfast*

Date, first Survey *21st March* Last Survey *4th Nov* 1883

Reg. Book.

(Number of Visits *15*)

on the *S.S. Jane Clark.*

Tons *532.4*

Master *Christolm* Built at *Belfast* By whom built *McKean, Clark & Co.* When built *1883*

Engines made at *Belfast* By whom made *Nick-Cotes & Co. Jun^r* when made *1883*

Boilers made at *Belfast* By whom made *"* when made *1883*

Registered Horse Power *96* Owners *Clark and Service* Port belonging to *Glasgow*

ENGINES, &c.—

Description of Engines *Compound, Surface Condensing*

Diameter of Cylinders *24 & 14.8* Length of Stroke *36* No. of Rev. per minute *65 to 70* Point of Cut off, High Pressure *1/2 T.* Low Pressure *1/2 T.*

Diameter of Screw shaft *9"* Diam. of Tunnel shaft *8 1/4"* Diam. of Crank shaft journals *9"* Diam. of Crank pin *9"* size of Crank webs *11 1/2 x 7*

Diameter of screw *12-0* Pitch of screw *16-0* No. of blades *4* state whether moveable *yes* total surface *42 sq*

No. of Feed pumps *Two* diameter of ditto *3"* Stroke *18"* Can one be overhauled while the other is at work *yes*

No. of Bilge pumps *Two* diameter of ditto *3"* Stroke *18"* Can one be overhauled while the other is at work *yes*

Where do they pump from *engine room, afterwell and fore hold*

No. of Donkey Engines *Two* *Darling* Size of Pumps *Feed, 3 1/2 in x 9 stroke* *Ballast, 7 1/2 in x 9* Where do they pump from *Small pump from sea,*

hot-well, engine room, afterwell & fore hold, large pump from ballast tank & engine room.

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 *One* and sizes *4 1/2 dia* Are they connected to condenser, or to circulating pump *to circulating pump*

How are the pumps worked *by levers from piston rod crossheads of both engines.*

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

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 before launching*

Is the screw shaft tunnel watertight *yes* and fitted with a sluice door *yes* worked from *top platform.*

BOILERS, &c.—

Number of Boilers *One* Description *Cylindrical, Multi-tubular* Whether Steel or Iron *Steel*

Working Pressure *80 lbs* Tested by hydraulic pressure to *160 lbs* Date of test *9th/10/83.*

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 superheater.*

No. of square feet of fire grate surface in each boiler *57* Description of safety valves *Spring* No. to each boiler *Two*

Area of each valve *14.19 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 *9"* Diameter of boilers *14-0*

Length of boilers *10-3* description of riveting of shell long. seams *DRB Staps, DRB Riv^t* circum. seams *lap, DR Riv^t* Thickness of shell plates *13/16*

Diameter of rivet holes *1/16* whether punched or drilled *drilled* pitch of rivets *4 1/4* Lap of plating *Butt Staps 15 1/2 wide*

Per centage of strength of longitudinal joint *75* working pressure of shell by rules *94.3 lb* size of manholes in shell *17 x 13*

Size of compensating rings *8 x 13/16* No. of Furnaces in each boiler *Two*

Outside diameter *4-6* length, top *6-0* bottom *6-0* thickness of plates *1/2* description of joint *Corrugated* if rings are fitted *"*

Greatest length between rings *"* working pressure of furnace by the rules *111 lb* combustion chamber plating, thickness, sides *1/2* back *1/2* top *9/16*

Pitch of stays to ditto, sides *9 x 8 1/2* back *9 x 8 1/2* top *9 x 7 3/4* If stays are fitted with nuts or riveted heads *nuts* working pressure of plating by

rules *95 lb* Diameter of stays at smallest part *1.38 (56.6)* working pressure of ditto by rules *144 lb* end plates in steam space, thickness *1/16*

Pitch of stays to ditto *15 x 15* how stays are secured *Dual lock-and-Riv^t washers* working pressure by rules *86 lb* diameter of stays at

smallest part *3 1/2* working pressure by rules *131 lb* Front plates at bottom, thickness *3/4* Back plates, thickness *3/4*

Greatest pitch of stays *about 13* working pressure by rules *114 lb* Diameter of tubes *3 3/4* pitch of tubes *5 x 5* thickness of tube

plates, front *7/8* back *3/4* how stayed *Stay tube* pitch of stays *10 x 10* width of water spaces *1 1/4*

Diameter of Superheater or Steam chest *none* 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 *"*

DONKEY BOILER— Description *Cylindrical Vertical, with Filler.*
Made at *Belfast* by whom made *Victor Coates & Co. Limited* when made *23/11/83* where fixed *Stoke Newington*
Working pressure *80 lb* tested by hydraulic pressure to *160 lb* No. of Certificate *55-* fire grate area *12.56 sq ft* desc
valves *Spring* No. of safety valves *One* area of each *11 sq in* if fitted with easing gear *yes* if steam from
enter the donkey boiler *no* diameter of donkey boiler *5-0* length *12-0* description of riveting *long seams, 6 to 8 in*
Thickness of shell plates *7/16* diameter of rivet holes *3/16* whether punched or drilled *drilled* pitch of rivets *2 3/16* lap of plating *4*
per centage of strength of joint *65.9* thickness of crown plates *9/16* stayed by *8 stays, each 2" effective dia.*
Diameter of furnace, top *46* bottom *53.8* length of furnace *5-0* thickness of plates *7/32* description of joint *lap, single rivet*
Thickness of furnace crown plates *9/16* stayed *as shell crown* working pressure of shell by rules *96 lb*
Working pressure of furnace by rules *85 lb* diameter of uptake *mean 13* thickness of plates *1/2* thickness of water tubes *3/8*

SPARE GEAR. State the articles supplied:—*Two connecting rods top and bottom and bolts and nuts, two main bearing bolts, one set-screwing bolt, one set-screw & billy pump valves, a quantity of assorted bolts and nuts, pins of various sizes, two spare blades for propeller, spare cut-off valves for air pump, heads for air pump, covers & pistons for valves & pistons.*

The foregoing is a correct description,

Manufacturer.

Victor Coates

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

*Material and workmanship good and satisfactory.
The Machinery and Boilers of this vessel are in good order and
safe working condition and, in my opinion, eligible to have the
certification.* *Registered 11-83* *Recorded in the Register Book.*

*It is submitted that
this vessel is eligible to
have the certification &c.
Recorded*
19/11/83

The amount of Entry Fee .. £ 1 : : : received by me,
Special .. £ 1/4 : : :
Donkey Boiler Fee .. £ : : :
Certificate (if required) .. *Gratis* : *14.11.1883*
To be sent as per margin.
(Travelling Expenses, if any, £ 8-8-0)

Committee's Minute TUESDAY 27 NOV 1883

Duncan Ritchie
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

