

REPORT ON MACHINERY.

No. 6864

Received at London Office MARCH 5 1885

No. in Survey held at Glasgow & Paisley

Date, first Survey 3rd October 1884 Last Survey 19th Feb 1885

Reg. Book.

(Number of Visits 18)

on the S. S. Primrose.

Tons 262.48

Master R. D. Roberts Built at Paisley

By whom built H. McIntyre & Co

When built 1884-5

Engines made at Glasgow

By whom made Hutson & Corbett

when made 1884-5

Boilers made at do.

By whom made do

when made do.

Registered Horse Power 44.

Owners R. Hughes & Co

Port belonging to Liverpool

ENGINES, &c.—

Description of Engines Compound Inverted Direct Acting.

Diameter of Cylinders 17" x 32" Length of Stroke 22" No. of Rev. per minute 100 Point of Cut off, High Pressure 3/4" Low Pressure 5/8"

Diameter of Screw shaft 5 1/2" Diam. of Tunnel shaft 5 1/2" Diam. of Crank shaft journals 5 3/4" Diam. of Crank pin 5 3/4" size of Crank webs 7" x 3 3/4"

Diameter of screw 7-3" Pitch of screw 11 to 14 ft. No. of blades 4 state whether moveable Sol. total surface 19.5 sq ft

No. of Feed pumps One diameter of ditto 2" Stroke 22" Can one be overhauled while the other is at work —

No. of Bilge pumps One diameter of ditto 2" Stroke 22" Can one be overhauled while the other is at work —

Where do they pump from All Compartments

No. of Donkey Engines One Size of Pumps 7" Cyl. 8" stroke 3 3/4" dia Where do they pump from Hotwell, sea, bilges and tank.

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 3" Are they connected to condenser, or to circulating pump Circulating pump.

How are the pumps worked direct from low pressure engine 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 yes — Are the discharge pipes above or below the deep water line about

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 on Stocks before launching

Is the screw shaft tunnel watertight none and fitted with a sluice door — worked from —

BOILERS, &c.—

Number of Boilers One Description Multitubular Whether Steel or Iron Steel.

Working Pressure 80 lbs. Tested by hydraulic pressure to 160 lbs. Date of test 22nd December 1884.

Description of superheating apparatus or steam chest Horizontal dome

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 27. Description of safety valves direct spring No. to each boiler two

Area of each valve 7" 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 12" Diameter of boilers 10'-0"

Length of boilers 9'-6" description of riveting of shell long. seams treble riv. circum. seams double riv. Thickness of shell plates 3 3/4"

Diameter of rivet holes 5 1/16" whether punched or drilled drilled pitch of rivets 3 3/4" Lap of plating 7 3/4"

Per centage of strength of longitudinal joint 75. working pressure of shell by rules 83 lbs. size of manholes in shell 12" x 15."

Size of compensating rings 3 1/4" ring 6 1/2" broad No. of Furnaces in each boiler two

Outside diameter 38" length, top 6'-6" bottom 9'-0" thickness of plates 1/2" description of joint double butt if rings are fitted L Iron

Greatest length between rings 6'-6" working pressure of furnace by the rules 90 lbs. combustion chamber plating, thickness, sides 1/2" back 1/2" top 1/2"

Pitch of stays to ditto, sides 9" x 9" back 9" x 9" top 9" x 10" If stays are fitted with nuts or riveted heads nuts inside working pressure of plating by

rules 95 lbs. Diameter of stays at smallest part 1.2" working pressure of ditto by rules 118 lbs. end plates in steam space, thickness 1 1/16"

Pitch of stays to ditto 14 1/2" x 14 1/2" how stays are secured d. nuts working pressure by rules 80 lbs. diameter of stays at

smallest part 2 1/8" bar working pressure by rules 126 lbs. Front plates at bottom, thickness 1 1/16" Back plates, thickness 1 1/16"

Greatest pitch of stays — working pressure by rules — Diameter of tubes 3 1/2" pitch of tubes 4 3/4" thickness of tube

plates, front 1 1/16" back 1 1/16" how stayed Stubs pitch of stays 9 1/2" x 14 1/2" width of water spaces 6"

Diameter of Superheater or Steam chest 33" length 3'-6" thickness of plates 1 1/16" description of longitudinal joint lap diam. of rivet holes 7/8"

Pitch of rivets 2 1/4" 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, on steam chest; thickness 1 3/16" how stayed One stay

Through centre 2 1/4" diameter Superheater or steam chest; how connected to boiler Throat double riv.

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DONKEY BOILER—

Description

Vertical with cross tubes.

Made at Glasgow

by whom made

Hutson & Corbett

when made 1884

where fixed

Stitchfold

Working pressure 50 lbs tested by hydraulic pressure to 100 lbs. No. of Certificate 1535 fire grate area 9'-0" description of safety

valves direct spring No. of safety valves one area of each 4" if fitted with easing gear yes if steam from main boilers can enter the donkey boiler No. diameter of donkey boiler 4'-0" length 8'-0" description of riveting single lap

Thickness of shell plates 3/8" diameter of rivet holes 13/16" whether punched or drilled punch pitch of rivets 2 1/8" lap of plating 2 1/4"

per centage of strength of joint 61. thickness of crown plates 7/16" stayed by five stays 1 1/2" diameter

Diameter of furnace, top 3'-1 1/2" bottom 3'-8" length of furnace 4'-0" thickness of plates 7/16" description of joint single lap

Thickness of furnace crown plates 7/16" stayed by as above and by uptake working pressure of shell by rules 4

Working pressure of furnace by rules 94 lbs. diameter of uptake 12" thickness of plates 3/8" thickness of water tubes 3/8"

SPARE GEAR. State the articles supplied:— Top and bottom end bolts and nuts.

One set coupling bolts. Two main bearing bolts.

Feed, bridge and donkey valves. One set piston springs.

Bolts nuts & iron assorted.

The foregoing is a correct description,

Hutson & Corbett Manufacturer.

General Remarks

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

The above mentioned Engines and boilers are now completed on board in a satisfactory manner and the Machinery is now in my opinion in a good and efficient working condition and eligible to be noted in The Register Book:

*L.M.C. 2. 85.

The shafting has been inspected by me while being rough turned and finished and is as far as can be seen sound & good.

The amount of Entry Fee .. £ 1: .. received by me,

Special £ 8: ..

Donkey Boiler Fee £ ..: ..

Certificate (if required) .. £ ..: .. 3/3/ 1885

To be sent as per margin.

(Travelling Expenses, if any, £ ..)

Committee's Minute

FRIDAY 6 MARCH 1885

+ L.M.C.

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

Glasgow.