

# REPORT ON MACHINERY.

Port of Greenock

Received at London Office

THURS 2

1890

10060

Survey held at Port Glasgow

Date, first Survey 24<sup>th</sup> February 1890 Last Survey 29<sup>th</sup> September 1890

Description of safe Book.

(Number of Visits 72)

Tons 1412.14

main boilers on the Twin S.S. "Satellite"

ter S. & Egg Built at Port Glasgow By whom built Blackwood & Gordon When built 1890

nes made at Port Glasgow By whom made Blackwood & Gordon when made 1890

ers made at S. By whom made S. when made 1890

Registered Horse Power 200 Owners Companhia Estradas de Ferro Port belonging to Rio de Janeiro

INES, &c.—

Description of Engines

eter of Cylinders Length of Stroke No. of Rev. per minute Point of Cut off, High Pressure Low Pressure

eter of Screw shaft Diam. of Tunnel shaft Diam. of Crank shaft journals Diam. of Crank pin size of Crank webs

eter of screw Pitch of screw No. of blades state whether moveable total surface

of Feed pumps diameter of ditto Stroke Can one be overhauled while the other is at work

of Bilge pumps diameter of ditto Stroke Can one be overhauled while the other is at work

re do they pump from

of Donkey Engines Size of Pumps Where do they pump from

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

of bilge injections and sizes Are they connected to condenser, or to circulating pump

are the pumps worked

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

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

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

pipes are carried through the bunkers How are they protected

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

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

were stern tube, propeller, screw shaft, and all connections examined in dry dock

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

ERS, &c.—

Donkey Boiler

ber of Boilers one Description Round Horizontal Multitubular Whether Steel or Iron Steel

ing Pressure 80 lbs Tested by hydraulic pressure to 160 lbs per sq. in. Date of test 19<sup>th</sup> August 1890

ption of superheating apparatus or steam chest none fitted

ack boiler be worked separately Can the superheater be shut off and the boiler worked separately

for main square feet of fire grate surface in each boiler 12 1/2 Description of safety valves Direct Spring No. to each boiler one

of each valve 7 square inches Are they fitted with easing gear yes No. of safety valves to superheater — area of each valve —

they fitted with easing gear — Smallest distance between boilers and bunkers or woodwork not near bunkers or woodwork Diameter of boilers 7 1/2

h of boilers 7 1/2 description of riveting of shell long. seams Lap double circum. seams Lap single Thickness of shell plates 3/16

eter of rivet holes 13/16 whether punched or drilled drilled pitch of rivets 2 3/4 long Lap of plating 4 5/8

ntage of strength of longitudinal joint 70 working pressure of shell by rules 80 lbs size of manholes in shell 14 x 11

of compensating rings 4 3/4 x 3 1/4 No. of Furnaces in each boiler one plain

te diameter 36 length, top 5 1/2 bottom 6 1/2 thickness of plates 13/32 description of joint D.B. straps if rings are fitted yes

est length between rings — working pressure of furnace by the rules 80 lbs combustion chamber plating, thickness, sides 7/16 back 7/16 top 7/16

of stays to ditto, sides 8 square back 8 x 8 top 8 square If stays are fitted with nuts or riveted heads nuts working pressure of plating by

les 84 lbs Diameter of stays at smallest part 1 1/2 x 1 1/4 working pressure of ditto by rules 80 lbs end plates in steam space, thickness 5/8

of stays to ditto 13 x 10 how stays are secured double nuts working pressure by rules 82 lbs diameter of stays at

allest part 1 5/16 working pressure by rules 83 lbs Front plates at bottom, thickness 9/16 Back plates, thickness 1/2

est pitch of stays 8 working pressure by rules 120 lbs Diameter of tubes 3 pitch of tubes 4 1/2 x 4 1/4 thickness of tube

ates, front 9/16 back 5/8 how stayed Stay tubes pitch of stays 8 1/2 x 12 3/4 width of water spaces 6

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

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

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

Superheater or steam chest; how connected to boiler

GRK315-0184



REPORT ON MACHINERY

**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,  
*Blackwood & Sons* Manufacturer.

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

The amount of Entry Fee .. £ 2 : : received by me,

Special .. £ 28 : 10 :

Donkey Boiler Fee .. £ 7 : 7 :

Certificate (if required) .. £ gratis : 29/9/1890.

To be sent as per margin.

(Travelling Expenses, if any, £ *nil* )

Committee's Minute \_\_\_\_\_

*A. C. Heron*  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

*Greenock District,*

FRI 3 OCT 1890