

REPORT ON MACHINERY.

FRI. MAY 29 1896

Port of Greenock

Received at London Office

No. in Survey held at Port Glasgow Date, first Survey 14th April Last Survey 20th April 1896
 Reg. Book. 11/32 on the Twin screw Steamer Castles (Number of Vistas 1)
 Master 21 Built at Port Glasgow By whom built Rodgers & Co. When built 1896
 Engines made at Glasgow By whom made Hall Brown, Buttery & Co. when made 1896
 Boilers made at Glasgow By whom made Hall Brown, Buttery & Co. when made 1896
 Registered Horse Power 87 Owners Amazon S.N. Co. (Lim^d) Port belonging to Para
 Nom. Horse Power as per Section 28

ENGINES, &c.— Description of Engines No. of Cylinders
 Diameter of Cylinders Length of Stroke Revolutions per minute Diameter of Screw shaft as per rule
 Diameter of Tunnel shaft as per rule Diameter of Crank shaft journals Diameter of Crank pin Size of Crank webs
 Diameter of screw Pitch of screw No. of blades 3 State whether moveable yes Total surface
 No. of Feed pumps Diameter of ditto Stroke Can one be overhauled while the other is at work
 No. of Bilge pumps Diameter of ditto Stroke Can one be overhauled while the other is at work
 No. of Donkey Engines Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room In Holds, &c.

No. of bilge injections sizes Connected to condenser, or to circulating pump Is a separate donkey suction fitted in Engine room & size
 Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible
 Are all connections with the sea direct on the skin of the ship yes except 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 How are they protected
 Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times
 Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea, and the bilges
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock on slip before launching Is the screw shaft tunnel watertight no tunnels
 Is it fitted with a watertight door worked from How casings fitted over shaft

BOILERS, &c.— (Letter for record) Total Heating Surface of Boilers
 No. and Description of Boilers Working Pressure Tested by hydraulic pressure to
 Date of test Can each boiler be worked separately Area of fire grate in each boiler No. and Description of safety valves to
 each boiler Area of each valve Pressure to which they are adjusted Are they fitted
 with easing gear Smallest distance between boilers or uptakes and bunkers or woodwork Mean diameter of boilers
 Length Material of shell plates Thickness Description of riveting: circum. seams long. seams
 Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
 Per centages of strength of longitudinal joint rivets plate Working pressure of shell by rules Size of manhole in shell
 Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter
 Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings
 bottom Thickness of plates bottom Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
 Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules
 Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space:
 Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays
 Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom
 Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
 Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
 Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
 thickness of girder at centre Length as per rule Distance apart Number and pitch of Stays in each
 Working pressure by rules Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked
 separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet
 holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
 If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed
 Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

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 _____ Pressure to which they are adjusted _____ If fitted with easing gear _____ If steam from main boilers can
 enter the donkey boiler _____ Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____
 Description of riveting long. seams _____ Diameter of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____
 Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Thickness of shell crown plates _____ Radius of do. _____ No. of Stays to do. _____
 Dia. of stays _____ Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace 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 uptake 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.)

*Examined Stern brackets fitted on vessel. Stern boss plates
 bored & tubes fitted in place. Screw shafts shipped & coupled and
 propellers securely fastened on tail ends. and sea connections fitted
 on vessel's sides.*

*The above mentioned parts of Machinery are now in good &
 efficient condition. and the vessel has been towed to Glasgow
 to get Engines & Boilers fitted on board.*

The Shareholders are requested not to write on or below the space for Committee's Minute.)

Certificate (if required) to be sent to			
The amount of Entry Fee..	£	:	When applied for,
Special	£	:18.....
Donkey Boiler Fee	£	:	When received,
Travelling Expenses (if any) £	:	:18.....

A. B. Heron
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
 Greenock, District.

Committee's Minute **TUES. JUN 2 1896**
 Assigned _____