

REPORT ON MACHINERY.

No. 6559

No. in Survey held at Dumbarton

Date, first Survey Oct. 1st 1883

Received at London Rec'd 12th JUNE, 1884

Reg. Book.

Last Survey June 10th 1884

on the Screw Steamer "Australia"

(Number of Visits 23)

459
Tons 260

Master Mr. Farlane Built at Dumbarton By whom built Burrell & Son

When built 1884

Engines made at Dumbarton By whom made M. Paul & Coy

when made 1884

Boilers made at " By whom made "

when made 1884

Registered Horse Power 44 Owners Captain Mr. Farlane

Port belonging to Glasgow

ENGINES, &c.—

Description of Engines Compound Inverted Direct acting

Diameter of Cylinders 16" x 30" each set Length of Stroke 22" No. of Rev. per minute 130 Point of Cut off, High Pressure .5 Low Pressure .45

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 1/4" size of Crank webs 7 1/4" x 14"

Diameter of screw 7 1/2" Pitch of screw 9" x 9" No. of blades four state whether moveable solid total surface 9.5 sq ft projected

No. of Feed pumps One diameter of ditto 3" Stroke 10" Can one be overhauled while the other is at work Yes

No. of Bilge pumps One diameter of ditto 3" Stroke 10" Can one be overhauled while the other is at work Yes

Where do they pump from All compartments

No. of Donkey Engines One Size of Pumps 8" x 4" x 8" stroke Where do they pump from Sea Bridge & Atwell

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 to each set of engines and sizes 2 1/2" Are they connected to condenser, or to circulating pump To circulating

How are the pumps worked By 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 bilge pipes & hold How are they protected board casing

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 ship before launching

Is the screw shaft tunnel watertight Yes and fitted with a sluice door Yes worked from Upper platform

BOILERS, &c.—

Number of Boilers One Description Round Horizontal Whether Steel or Iron Steel

Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs Date of test 4 April 1884

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 50 sq ft Description of safety valves Direct Spring No. to each boiler Two

Area of each valve 12.0 Are they fitted with easing gear Yes No. of safety valves to superheater 4 area of each valve —

Are they fitted with easing gear Yes Smallest distance between boilers and bunkers or woodwork 10" Diameter of boilers 13" x 6"

Length of boilers 9" x 9" description of riveting of shell long. seams Double riveted circum. seams Double riveted Thickness of shell plates 3/16"

Diameter of rivet holes 15/16" whether punched or drilled Drilled pitch of rivets 4.49" Lap of plating Butt straps 1 1/4" x 9/16"

Per centage of strength of longitudinal joint 80% working pressure of shell by rules 80 lbs size of manholes in shell 16" x 12"

Size of compensating rings 8" x 1 1/16" No. of Furnaces in each boiler Three

Outside diameter 3' x 5" length, top 6' x 2 1/2" bottom 9 ft thickness of plates 9/16" description of joint Double butt straps rings are fitted filled

Greatest length between rings — working pressure of furnace by the rules 9 lbs combustion chamber plating, thickness, sides 9/16" back 9/16" top 9/16"

Pitch of stays to ditto, sides 8 1/4" x 9" back 8 1/4" x 9" top 8 1/2" x 9" If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 80 lbs

Diameter of stays at smallest part 1 1/4" working pressure of ditto by rules 80 lbs end plates in steam space, thickness 1 3/16"

Pitch of stays to ditto 14" x 14" how stays are secured By double nut working pressure by rules 80 lbs diameter of stays at smallest part 2 1/4"

Greatest pitch of stays 1 1/4" x 8 1/4" working pressure by rules — Diameter of tubes 3 1/4" pitch of tubes 4 1/2" thickness of tube plates, front 1 3/16" back 1 9/16"

Diameter of Superheater or Steam chest — 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 —

Form No. 5

Lloyd's Register Foundation

GLS149-0202

6559 g/s

DONKEY BOILER— Description *Round Vertical*
 Made at *Dumbarton* by whom made *M. Paul & Co* when made *1884* where fixed *In Stechhold*
 Working pressure *50 lbs* tested by hydraulic pressure to *100 lbs* No. of Certificate *1363* fire grate area *4 ft* 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 *3' 9"* length *8 ft* description of riveting *Single*
 Thickness of shell plates *3/16"* diameter of rivet holes *13/16"* whether punched or drilled *punched* pitch of rivets *2 3/4"* lap of plating *2 1/2"*
 per centage of strength of joint *61.5%* thickness of crown plates *3/16"* stayed by *Uptake*
 Diameter of furnace, top *2' 8"* bottom *3' 3"* length of furnace *5' 3"* thickness of plates *3/16"* description of joint *lap*
 Thickness of furnace crown plates *3/16"* stayed by *Dished to 2' 8" radius* working pressure of shell by rules *48 lbs*
 Working pressure of furnace by rules *46 lbs* diameter of uptake *9"* thickness of plates *3/16" Steel* thickness of water tubes *3/16" x 5 1/2"*

SPARE GEAR. State the articles supplied:— *Two Connecting rod bolts (top & bottom) 1 set coupling bolts, 2 main bearing bolts, 1 set piston Springs, 1 set Air & Oil pumps valves, 1 Lead & 1 Bilge valve with seat, 2 Propellers, right & left hand, assortment of iron & bolts*

The foregoing is a correct description,
Matthew Paul & Co Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *These Engines & Boilers are of good workmanship & materials and are now in good order & safe working condition and eligible in my opinion to be noted in the Register Book* Lloyd's M.C. 6.84
Tracing of Boilers and reports on steel tests, appended

It is submitted that this vessel is eligible to have the notification & entry in Lloyd's M.C. 6.84 recorded.

The amount of Entry Fee £ *1 : 0 : 0* received by me.
 Special £ *11 : 11 : 0*
 Donkey Boiler Fee £ *0 : 0 : 0*
 Certificate (if required) £ *0 : 0 : 0* *11/6/1884*
 To be sent as per margin.

(Travelling Expenses, if any, £ - *8/-*)
 Committee's Minute

FRIDAY 13 JUNE 1884

James Morrison
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
 Clyde District

M. Paul & Co

