

REPORT ON MACHINERY.

No. 6323

No. in Survey held at
Reg. Book.

Dumbarton

Date, first Survey 15th May 83 Last Survey 14th Nov 18

on the

Screw Steamer "John Power"

(Number of Visits)

1437

Master

J. Cain

Built at

Newcastle

By whom built

Palmer & Co.

When built

1852

Engines made at

Dumbarton

By whom made

Messrs. M. Paul & Co.

when made

1883

Boilers made at

do

By whom made

do

when made

1883

Registered Horse Power

60

Owners

B. G. Barnett

Port belonging to

London

ENGINES, &c.—

Description of Engines Compound Inverted surface Condensing

Diameter of Cylinders 16" & 36" Length of Stroke 26" No. of Rev. per minute 90 Point of Cut off, High Pressure 1/2 Low Pressure 1/2

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

Diameter of screw 11" 0" Pitch of screw 12" 0" No. of blades 4 state whether moveable No total surface 38' 5" sq ft

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

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

Where do they pump from Engine Room Bilges & Holds

No. of Donkey Engines Two Size of Pumps 5" x 9" & 3" x 6" Where do they pump from Sea Engine Room Bilges, Hold, Hotwell & through Condenser

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" dia Are they connected to condenser, or to circulating pump Both

How are the pumps worked By Levers Attached to Crosshead of after Engine

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 Oct 5th 1883

Is the screw shaft tunnel watertight No & fitted with a sluice door worked from

BOILERS, &c.—

Number of Boilers One Description Cylindrical & Multitubular Whether Steel or Iron (Steel)

Working Pressure 110 lbs Tested by hydraulic pressure to 220 lbs Date of test Sept 10th 1883

Description of superheating apparatus or steam chest None

Can each boiler be worked separately No Can the superheater be shut off and the boiler worked separately

No. of square feet of fire grate surface in each boiler 28 sq ft Description of safety valves Direct Spring No. to each boiler Two

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

Are they fitted with easing gear No Smallest distance between boilers and bunkers or woodwork 10 inches Diameter of boilers 10' 6"

Length of boilers 9' 0" description of riveting of shell long. seams High Riv Lap circum. seams Double Riv Lap Thickness of shell plates 25/32

Diameter of rivet holes 1 1/16" whether punched or drilled drilled pitch of rivets 4' 9" Lap of plating 7 3/4"

Per centage of strength of longitudinal joint 74% working pressure of shell by rules 110 lbs size of manholes in shell 15' x 12"

Size of compensating rings Flat Ring 6' x 3/4" No. of Furnaces in each boiler Two

Outside diameter 24" length, top 6' 9" bottom 8' 3" thickness of plates 9/16" description of joint Double Butt angle iron on if rings are fitted bottom

Greatest length between rings working pressure of furnace by the rules 143 combustion chamber plating, thickness, sides 1/2" back 1/2" top 1/2"

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

rules 113 1/2 Diameter of stays at smallest part 1 1/4" working pressure of ditto by rules 148 end plates in steam space, thickness 13/16"

Pitch of stays to ditto 15' x 15 1/2" how stays are secured Nuts & Washers working pressure by rules 112 lbs diameter of stays at

smallest part 2 1/4" working pressure by rules 132 lbs Front plates at bottom, thickness 13/16" Back plates, thickness 13/16"

Greatest pitch of stays 13 1/2" working pressure by rules 111 lbs Diameter of tubes 3" pitch of tubes 4 1/4" x 4 1/4" thickness of tube

plates, front 13/16" back 5/8" how stayed Cubes pitch of stays 13 1/4" x 12 1/4" width of water spaces 6"

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

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,
Matthew Paul & Co Manufacturer.

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

Material and workmanship of good description
survived during construction. The Main Boiler is
of steel. Constructed in conformity with the Rules. And
to approve having attached.

This Item not being classed in the Society's Register
book. I herewith beg to enclose copy of a report which
we intend handing to them if approved by the Committee.
I may add that the form proposed was
sanctioned by the Committee in the case of the
S.S. 'Gladiator'. — Glasgow Report No. 5556.

Dr. to Lib.
19/11/83

This is submitted that the
Committee be satisfied
Jm 19/11/83

The amount of Entry Fee .. £ 0 : 0 : 0 received by me,
Special £ 8 : 0 : 0
Donkey Boiler Fee £ 0 : 0 : 0
Certificate (if required) .. £ 0 : 0 : 0 14/11/1883
To be sent as per margin.

(Travelling Expenses, if any, £ _____)

Committee's Minute

Jm McGregor
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
Glyde District