

REPORT ON MACHINERY.

Glasgow 6323

No. **6323** Received at London Office **9 NOV 1883**
 No. in Survey held at **Dumbarton** Date, first Survey **15th May 83** Last Survey **14th Nov 18**
 Reg. Book. on the **Screw Steamer "John Power"** (Number of Visits **143**) Tons **270**
 Master **J. Cain** Built at **Newcastle** By whom built **Palmer Mac Coy.** When built **1852**
 Engines made at **Dumbarton** By whom made **Messrs. M. Paul & Coy.** 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**
 No. of Bilge pumps **one** diameter of ditto **3"** Stroke **18"** Can one be overhauled while the other is at work **no**
 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 **None**
 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** and fitted with a sluice door **no** worked from **no**

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**
 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 **no** area of each valve **no**
 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 3/16"** whether punched or drilled **drilled** pitch of rivets **4' 9"** Lap of plating **4 3/4"**
 Per centage of strength of longitudinal joint **44%** working pressure of shell by rules **110 lb** 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** if rings are fitted **bottom**
 Greatest length between rings **no** 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' 8 1/4"** top **8' 2' 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 3/4" Steel** 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 & Riv Washers** working pressure by rules **112 lb** diameter of stays at smallest part **2 1/4" Steel** working pressure by rules **132 lb** Front plates at bottom, thickness **13/16"** Back plates, thickness **13/16"**
 Greatest pitch of stays **13 1/2"** working pressure by rules **111 lb** 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 **12 3/4" x 12 1/4"** width of water spaces **6"**
 Diameter of Superheater or Steam chest **None** length **no** thickness of plates **no** description of longitudinal joint **no** diam. of rivet holes **no**
 Pitch of rivets **no** working pressure of shell by rules **no** diameter of flue **no** thickness of plates **no** If stiffened with rings **no**
 Distance between rings **no** working pressure by rules **no** end plates of superheater, or steam chest; thickness **no** how stayed **no**
 Superheater or steam chest; how connected to boiler **no**

Form No. 8— Report is also sent on the Hull of the Ship

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 Paine & Co Manufacturer.

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

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

This Item not being classed in the Society Register Book. I herewith beg to enclose copy of a report which we intend handing to Owners 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.

encl. 2
 19/11/83

This is submitted that the
 considered to be satisfactory
 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

(Travelling Expenses, if any, £ _____)

Committee's Minute

J. M. Gregor
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
 Clyde District.