

REPORT ON MACHINERY.

No. 3774

Received at London Office **MONDAY 13 MAY 1887**

No. in Survey held at Aberdeen Date, first Survey 21 March Last Survey 30th April 1887
 Reg. Book. (Number of Visits 5)
 on the S. S. Paradox Tons 226
 Master Pirie Built at Glasgow By whom built Simons & Co. When built 1857
 Engines made at Hull By whom made Filbert & Cooper when made 1871
 Boilers made at Hull By whom made Filbert & Cooper when made 1877
 Registered Horse Power 65 Owners A. H. Taylor Port belonging to Aberdeen

ENGINES, &c.

Description of Engines
 Diameter of Cylinders Length of Stroke No. of Rev. per minute Point of Cut off, High Pressure Low Pressure
 Diameter of Screw shaft Diam. of Tunnel shaft Diam. of Crank shaft journals Diam. of Crank pin size of Crank webs
 Diameter of screw Pitch of screw No. of blades state whether moveable 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
 Where do they pump from
 No. of Donkey Engines Size of Pumps Where do they pump from
 Are all the bilge suction pipes fitted with roses Are the roses always accessible Are the sluices on Engine room bulkheads always accessible
 No. of bilge injections and sizes Are they connected to condenser, or to circulating pump
 How are the pumps worked
 Are all connections with the sea direct on the skin of the ship Are they Valves or Cocks
 Are 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
 Are they each fitted with a discharge valve always accessible on the platform of the vessel Are the blow off cocks fitted with a spigot and brass covering plate
 What pipes are carried through the bunkers How are they protected
 Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock
 Is the screw shaft tunnel watertight and fitted with a sluice door worked from

BOILERS, &c.—

Number of Boilers Description Whether Steel or Iron
 Working Pressure Tested by hydraulic pressure to Date of test
 Description of superheating apparatus or steam chest
 Can each boiler be worked separately Can the superheater be shut off and the boiler worked separately
 No. of square feet of fire grate surface in each boiler Description of safety valves No. to each boiler
 Area of each valve Are they fitted with easing gear No. of safety valves to superheater area of each valve
 Are they fitted with easing gear Smallest distance between boilers and bunkers or woodwork Diameter of boilers
 Length of boilers Description of riveting of shell long. seams circum. seams Thickness of shell plates
 Diameter of rivet holes whether punched or drilled pitch of rivets Lap of plating
 Percentage of strength of longitudinal joint working pressure of shell by rules size of manholes in shell
 Size of compensating rings No. of Furnaces in each boiler
 Outside diameter length, top bottom thickness of plates description of joint if rings are fitted
 Greatest length between rings working pressure of furnace by the rules combustion chamber plating, thickness, sides back top
 Pitch of stays to ditto, sides back top If stays are fitted with nuts or riveted heads working pressure of plating by rules
 Diameter of stays at smallest part working pressure of ditto by rules end plates in steam space, thickness
 Pitch of stays to ditto how stays are secured working pressure by rules diameter of stays at smallest part
 working pressure by rules Front plates at bottom, thickness Back plates, thickness
 Greatest pitch of stay working pressure by rules Diameter of tubes pitch of tubes thickness of tube plates, front back how stayed pitch of stays width of water spaces
 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

B-1
SSW-83

State of Report is

3755. Abn.

DONKEY BOILER— Description *Vertical x Tube*
 Made at *Aberdeen* by whom made *Hall Russell & Co* when made *14-4-87* where fixed *Main Deck*
 Working pressure *70* tested by hydraulic pressure to *140* No. of Certificate *20* fire grate area *11 sq ft* description of safety valves *Spring*
 No. of safety valves *One* area of each *7 sq* if fitted with easing gear *Yes* if steam from main boilers can enter the donkey boiler *No*
 diameter of donkey boiler *4-8* length *10-0* description of riveting *d lap long seams*
 Thickness of shell plates *7/16* diameter of rivet holes *13/16* whether punched or drilled *punched + annealed* pitch of rivets *3* lap of plating *1 1/4*
 per centage of strength of joint *67-3* thickness of crown plates *5/8 + 7/16* stayed by *five stays + slightly dished*
 Diameter of furnace, top *3-8* bottom *4-2* length of furnace *5-6* thickness of plates *15/32* description of joint *single lap*
 Thickness of furnace crown plates *1/2* stayed by *dished + as above* working pressure of shell by rules *112*
 Working pressure of furnace by rules *76* diameter of uptake *13* thickness of plates *1/2* thickness of water tubes *5/16*

SPARE GEAR. State the articles supplied:— *The donkey boiler has been made under Special Survey. the material & workmanship is good*

The foregoing is a correct description,

Manufacturer.

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

To complete S.S. No 1. See Abn Report 3755.

The Main Safety Valves tested under steam - loaded to both.

A new Donkey boiler has been fitted & the Donkey Safety Valve tested under steam & set to both.

*This submitted that this vessel is eligible to remain as classed.
 H.P.
 16/5/87*

The Machinery of this vessel as far as seen is in good order & eligible in my opinion to remain as classed.

The amount of Entry Fee .. £ : : received by me,
 Special .. £ : :
 Donkey Boiler Fee .. £ 2 : 2 : 0
 Certificate (if required) .. £ : : 28/6/1887

John H. Heck.
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

(The amount of Entry Fee .. £ : : received by me,
 Committee's Minute

FRIDAY 20 MAY 1887

B & M S 2, 87

S.S. No 1-87