

REPORT ON MACHINERY. 48012*

TUESDAY 31 JAN 1888

Port of London

Received at London Office

No.

No. in Survey held at Bowley by Bow Date, first Survey 10th Nov 87 Last Survey 31 Jan 1888
 Reg. Book. 483 on the S. S. Dunkeld. (Number of Visits 6)

Master Broadfoot Built at Glasgow By whom built R. Napier & Co. When built 1878
 Engines made at R. Napier By whom made Glasgow when made 1878
 Boilers made at _____ By whom made _____ when made 1878

Registered Horse Power _____ Owners _____ Port belonging to _____

ENGINES, &c.—

Description of Engines New Donkey Boiler
 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 plating 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 _____

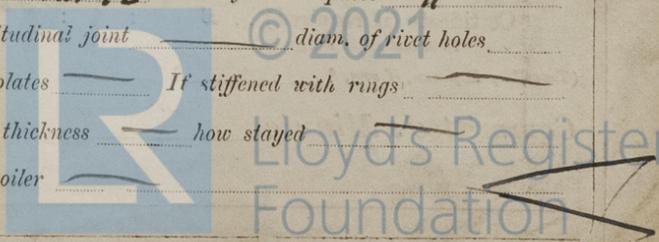
BOILERS, &c.— (Donkey Boiler)

Number of Boilers one Description Cylindrical return tubular Whether Steel or Iron Steel except stays
 Working Pressure 40 lb. Tested by hydraulic pressure to 80 lb. Date of test 29th Dec 88.
 Description of superheating apparatus or steam chest none

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 6
 Length of boilers 5' 0 1/2 description of riveting of shell long. seams single R. lap. circum. seams single R. lap. Thickness of shell plates 3/8
 Diameter of rivet holes 3/4 whether punched or drilled drilled pitch of rivets 2 Lap of plating 2 1/4
 Per centage of strength of longitudinal joint 75 working pressure of shell by rules 80 lb. size of manholes in shell 12 x 16.
 Size of compensating rings angle iron 2 1/2 x 2 1/2 x 3/8 No. of Furnaces in each boiler one
 Outside diameter 31" length, top 4' bottom 5 1/3' thickness of plates 3/8 description of joint double butt. S. if rings are fitted no
 Greatest length between rings _____ working pressure of furnace by the rules 76 combustion chamber plating, thickness, sides 3/8 back 3/8 top 3/8
 Pitch of stays to ditto, sides 9" x 7" back 9" x 7" top 10" If stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 49
 Diameter of stays at smallest part 1 1/2" iron working pressure of ditto by rules 57 end plates in steam space, thickness 1/2
 Pitch of stays to ditto 13" how stays are secured double nuts & washers working pressure by rules 56 diameter of stays at smallest part 1 1/4" Iron working pressure by rules 44 Front plates at bottom, thickness 1/2 Back plates, thickness 1/2
 Greatest pitch of stays _____ working pressure by rules angle diameter of tubes 3" pitch of tubes 4" thickness of tube plates, front 1/2" back 1/2" how stayed stay tubes pitch of stays about 12" width of water spaces 11"
 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 _____

[State if Report is also sent on the Hull of the Ship]

[Form No. 8-2000-178/16-T.&S.—Transfer Ink.]



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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,

Manufacturer.

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

sent out to the Cape of Good Hope.

The material and workmanship of this boiler are good and in my opinion this vessel is eligible to remain as classed when the above boiler has been fitted.

It is submitted that this vessel is eligible to remain as classed provided this donkey boiler be satisfactorily fitted on board.

Handwritten signature
1.2.88

The amount of Entry Fee .. £ : : received by me, *dn 22/3/89*

Special .. £ 2 : 2 : — *27/6/89*

Donkey Boiler Fee .. £ : : *307 11 18 89*

Certificate (if required) .. £ : : *307 11 18 89*

To be sent as per margin.

(Travelling Expenses, if any, £)

Handwritten signature
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

