

REPORT ON MACHINERY.

Port of *Glasgow*

Received at London Office

19

No. in Survey held at *Glasgow*
Reg. Book.Date, first Survey *20 Sept '01*Last Survey *9 April*19 *02*.(Number of Visits *18*)89 *Lap* on the *Donkey Boiler for the Steamer "Mazagan"*Tons { Gross
NetMaster Built at *Langenmoult* By whom built *Langenmoult & Co. Ltd.* When built *1902*Engines made at *Dundee* By whom made *Cooper & Greig* when made *1902*Boilers made at *Glasgow* By whom made *Lindsay Burnet & Co. (No. 880)* when made *1902*Registered Horse Power Owners *Forwood Bros* Port belonging to *London*

Nom. Horse Power as per Section 28

Is Refrigerating Machinery fitted

Is Electric Light fitted

ENGINES, &c.—Description of Engines

No. of Cylinders

No. of Cranks

Dia. of Cylinders Length of Stroke Revs. per minute Dia. of Screw shaft as per rule as fitted Lgth. of stern bush
 Dia. of Tunnel shaft as per rule as fitted Dia. of Crank shaft journals as per rule as fitted Dia. of Crank pin Size of Crank webs Dia. of thrust shaft under collars
 Dia. 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
 No. of Donkey Engines Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room In Holds, &c.

No. of bilge injections sizes Connected to condenser, or to circulating pump Is a separate donkey suction fitted in Engine room & size

Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible

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 and all boiler mountings accessible at all times

Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication 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

Is it fitted with a watertight door

Donkey Boiler
worked from

BOILERS, &c.—

(Letter for record (S))

Total Heating Surface of Boilers *512*

Is forced draft fitted

No. and Description of Boilers *One Single Ended Mult- Working Pressure 80 lbs* Tested by hydraulic pressure to *160 lbs*Date of test *9/4/02* Can each boiler be worked separately Area of fire grate in each boiler No. and Description of safety valves to each boiler

Area of each valve Pressure to which they are adjusted Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers *8' 3"* Length *8' 3"* Material of shell plates *slit*Thickness *3/8"* Range of tensile strength *28/32* Are they welded or flanged *No* Descrip. of riveting: cir. seams *S. R. Lap* long. seams *S. R. Lap*Diameter of rivet holes in long. seams *15/16"* Pitch of rivets *3 1/8"* Lap of plates or width of butt straps *4 1/2"*Per centages of strength of longitudinal joint rivets *75* Working pressure of shell by rules *85 lbs* Size of manhole in shell *16" x 12"*Size of compensating ring *6" x 9 1/16"* No. and Description of Furnaces in each boiler *2 plain* Material *slit* Outside diameter *2' 6"*Length of plain part top *58"* Thickness of plates crown *13/32"* Description of longitudinal joint *welded* No. of strengthening rings *none*Working pressure of furnace by the rules *102 lbs* Combustion chamber plates: Material *slit* Thickness: Sides *15/32"* Back *15/32"* Top *15/32"* Bottom *15/32"*Pitch of stays to ditto: Sides *8" x 9"* Back *9" x 9"* Top *8" x 10"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *83 lbs*Material of stays *slit* Diameter at smallest part *.96* Area supported by each stay *81"* Working pressure by rules *95 lbs* End plates in steam space:Material *slit* Thickness *1/16"* Pitch of stays *15"* How are stays secured *Double Nuts* Working pressure by rules *90 lbs* Material of stays *slit*Diameter at smallest part *2.02* Area supported by each stay *350"* Working pressure by rules *80 lbs* Material of Front plates at bottom *slit*Thickness *1/16"* Material of Lower back plate *slit* Thickness *1/16"* Greatest pitch of stays *9"* Working pressure of plate by rules *200 lbs*Diameter of tubes *3"* Pitch of tubes *4"* Material of tube plates *slit* Thickness: Front *1/16"* Back *1/16"* Mean pitch of stays *10"*Pitch across wide water spaces *13"* Working pressures by rules *117 lbs* Girders to Chamber tops: Material *slit* Depth andthickness of girder at centre *(6" x 1/2") 2* Length as per rule *24"* Distance apart *10"* Number and pitch of Stays in each *2 - 8"*Working pressure by rules *93 lbs* Superheater or Steam chest; how connected to boiler *None* Can the superheater be shut off and the boiler worked

separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

DONKEY BOILER— No. _____ 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 _____ Pressure to which they are adjusted _____ If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____

Dia. of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____ Range of tensile strength _____

Descrip. of riveting long. seams _____ Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____

Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Thickness of shell crown plates _____ Radius of do. _____ No. of Stays to do. _____

Dia. of stays _____ Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace 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 uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied :— _____

The foregoing is a correct description,

 Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1901:- Sep. 20. 25. Oct. 2. 11. 24. Nov. 6. 20. 25. Dec. 10. 1902: Jan. 10. 24. 30. Feb. 19. Mar. 10. 19. 27. Apr. 1. 9.

Total No. of visits 18.

Is the approved plan of main boiler forwarded herewith _____
 " " " donkey " " " No

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

Material of screw shaft _____ Is the screw shaft fitted with a continuous liner the whole length of the stern tube _____

Is the after end of the liner made water tight in the propeller boss _____ If the liner is in more than one length are the joints burned _____

If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive _____

If two liners are fitted, is the shaft lapped or protected between the liners _____

This Donkey Boiler has been constructed under Special Survey & is of good materials & workmanship. It has been sent to Demolice.

Certificate (if required) to be sent to _____
 (The Surveyor are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee. . . £ : : When applied for, 7/51 1902

Special £ : : When received, 4.6.9 1902

Donkey Boiler Fee £ 2 : 2

Travelling Expenses (if any) £ : :

H Gardner Smith
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute
 Assigned

FRI. 13 JUN 1902