

REPORT ON MACHINERY.

No. 6154

No. in Survey held at
Reg. Book.

Paisley

Date, first Survey Jan 18th

(Received at London Office 22nd JUNY, 1883)
Last Survey June 19th 1883

on the screw Steamer "ΣΦΗΞ"

(Number of Visits 14) 50.59
Tons 8.64

Master Paravia

Built at Paisley

When built 1883

Engines made at Paisley

By whom made Hannah Donald Wilson when made 1883

Boilers made at Do

By whom made Do when made 1883

Registered Horse Power 40

Owners A. O. Stathatos

Port belonging to IOAKHE.

ENGINES, &c.—

Description of Engines Inverted Direct Acting - Compound Surface Condensing

Diameter of Cylinders 16 x 30" Length of Stroke 21" No. of Rev. per minute 110 Point of Cut off, High Pressure 1/2 Low Pressure 1/2

Diameter of Screw shaft 5 1/4" Diameter of Tunnel shaft 5 1/4" Diameter of Crank shaft journals 5 1/4" Diameter of Crank pin 5 1/4" size of Crank webs 4 x 6 1/4"

Diameter of screw 6-6" Pitch of screw 9-6" No. of blades 3 state whether moveable Total surface 1529 ft.

No. of Feed pumps One diameter of ditto 2" Stroke 9" Can one be overhauled while the other is at work —

No. of Bilge pumps One diameter of ditto 2" Stroke 9" Can one be overhauled while the other is at work —

Where do they pump from From Bilges

No. of Donkey Engines One Size of Pumps 2 dia

Where do they pump from Sea, Holdwell & Bilges

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 2 dia

Are they connected to condenser, or to circulating pump To Air pump

How are the pumps worked By levers from crosshead of L. Engine

Are all connections with the sea direct on the skin of the ship yes

Are they Valves or Cocks Both

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 except small donkey pump.

What pipes are carried through the bunkers None Are the blow off cocks fitted with a scot and brass covering plate yes

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 Before launching.

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

BOILERS, &c.—

Number of Boilers One Description Cylindrical - Multitubular

Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs Date of test April 25th 1883.

Description of ~~superheating apparatus on~~ steam chest Vertical dome.

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 2529 ft Description of safety valves Direct springs

No. to each boiler Two area of each valve 12.75 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 —

Smallest distance between boilers and bunkers 6"

Diameter of boilers 9-0" Length of boilers 9-1" description of riveting of shell long. seams Lap 4 ribble circum. seams Single Lap

Thickness of shell plates 2 1/2" diameter of rivet holes 15/16" whether punched or drilled Punched pitch of rivets 3 7/8"

Lap of plating 6 1/2" per centage of strength of longitudinal joint 75 working pressure of shell by rules 80 lbs

Size of manholes in shell 15 x 11 1/2" size of compensating rings 4 1/2 x 5/8"

No. of Furnaces in each boiler Two outside diameter 2-8 3/8" length, top 6-6" bottom 8-3"

Thickness of plates 7/16" description of joint Lap if rings are fitted Not required greatest length between rings —

Working pressure of furnace by the rules 80 lbs.

Combustion chamber plating, thickness, sides 1/2" back 7/16" top 7/16"

Pitch of stays to ditto, sides 7 3/4" back 7 3/4" top 7 3/4"

If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 90 lbs.

Diameter of stays at smallest part 1 1/8" screw working pressure of ditto by rules 80 lbs

End plates in steam space, thickness 1/16" pitch of stays to ditto 16 x 13" how stays are secured Nuts

Working pressure by rules 80 lbs diameter of stays at smallest part 2 1/2" screw working pressure by rules 110 lbs

Front plates at bottom, thickness 5/8" Back plates, thickness 9/16" greatest pitch of stays 7 3/4" working pressure by rules 160 lbs

61548-0095

60154 GL

Diameter of tubes $3\frac{1}{4}$ " pitch of tubes $4\frac{1}{2}$ " thickness of tube plates front $\frac{11}{16}$ " back $\frac{11}{16}$ "
How stayed *Lay tubes* pitch of stays width of water spaces 5"
Diameter of Superheater or Steam chest 2'-6" length 2'-6"
Thickness of plates $\frac{7}{16}$ " description of longitudinal joint *Single* diameter of rivet holes $\frac{15}{16}$ " pitch of rivets $2\frac{1}{2}$ "
Working pressure of shell by rules *130 lb* 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 $\frac{9}{16}$ " How stayed *Dished also two stays to shell $1\frac{1}{4}$ " dia*
~~Superheater on steam chest; how connected to boiler~~ *Riveted to shell plate*
DONKEY BOILER— Description *No Donkey Boiler*
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

The foregoing is a correct description,
Hanna Donald Wilson Manufacturer.

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

These Engines & Boilers have been constructed under Special Survey - They are of good material and workmanship - They have been well fitted on board & satisfactorily tested under steam - I am therefore of opinion that they are eligible to be classed "LLOYD'S M.C." 6-82 in the Register Book.

It is submitted that this vessel is eligible to have the notification of M.C. recorded Jm 22/6/83

The amount of Entry Fee £ 1: 0: 0 received by me,
Special £ 8: 0: 0
Certificate (if required) .. £ *Gratis* 21/6/1883
To be sent as per margin.
(Travelling Expenses, if any, £)

Committee's Minute FRIDAY 22 JUNE 1883 18
+ Jm

Walter E. Robinson
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
Glasgow
Lloyd's Register Foundation