

REPORT ON MACHINERY.

9177

SAT 20 APRIL 1889

Port of Glasgow

Received at London Office

To. 9124

No. in Survey held at Dumbarton

Date, first Survey 30th July 1888 Last Survey April 1889

Reg. Book.

(Number of Visits 23)

3667

on the Screw Steamer "Peju"

Tons 2391

Master Taylor Built at Dumbarton By whom built Mr Denny & Co. When built 1889

Engines made at Dumbarton By whom made Denny & Co. when made 1889

Boilers made at " By whom made " when made 1889

Registered Horse Power 354 Owners British & Burmese Coy Port belonging to Glasgow

ENGINES, &c.—

Description of Engines Quadruple Expansion

Diameter of Cylinders $\frac{25\frac{3}{4}}{38\frac{1}{2}}$ $\frac{31\frac{1}{2}}{45}$ Length of Stroke 57" No. of Rev. per minute about 63 Point of Cut off, High Pressure variable Pressure "

Diameter of Screw shaft 14 $\frac{3}{4}$ " Diam. of Tunnel shaft 13 $\frac{3}{4}$ " Diam. of Crank shaft journals 14 $\frac{3}{4}$ " Diam. of Crank pin 14 $\frac{3}{4}$ " size of Crank webs 11" x 20" x 26 $\frac{3}{4}$ "

Diameter of screw 18 $\frac{1}{2}$ " Pitch of screw 23 $\frac{1}{2}$ " No. of blades 4 state whether moveable Yes total surface 83 $\frac{1}{2}$ "

No. of Feed pumps Two diameter of ditto 4 $\frac{1}{2}$ " Stroke 30" Can one be overhauled while the other is at work Yes

No. of Bilge pumps Two diameter of ditto 4 $\frac{1}{2}$ " Stroke 30" Can one be overhauled while the other is at work Yes

Where do they pump from All compartments

No. of Donkey Engines Two Size of Pumps 8" x 6" x 24" 10" x 8" x 24" Where do they pump from Sea Trilges Astwell & Ballast Tanks

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 15" Are they connected to condenser, or to circulating pump To Circulating

How are the pumps worked By Levers

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 Are the blow off cocks fitted with a spigot and brass covering plate Yes

What pipes are carried through the bunkers Bilge ~~water~~ pipes to holds How are they protected By wood casing

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 On ship before launching

Is the screw shaft tunnel watertight Yes and fitted with a sluice door Yes worked from Upper platform

BOILERS, &c.—

Number of Boilers Two Description Round Horizontal Whether Steel or Iron Steel

Working Pressure 180 lbs Tested by hydraulic pressure to 3360 lbs Date of test 28th December 1888

Description of ~~superheating apparatus~~ steam chest Round longitudinal

Can each boiler be worked separately Yes Can the superheater be shut off and the boiler worked separately "

No. of square feet of fire grate surface in each boiler 105 Description of safety valves Direct Spring No. to each boiler Three

Area of each valve 9.62" 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 or woodwork about 20" Diameter of boilers 13'-6 $\frac{1}{2}$ "

Length of boilers 14'-4 $\frac{1}{8}$ " description of riveting of shell long. seams double riveted circum. seams double riveted Thickness of shell plates 1 $\frac{3}{8}$ "

Diameter of rivet holes 1 $\frac{3}{8}$ " whether punched or drilled Drilled pitch of rivets 8 $\frac{1}{2}$ " Lap of plating strap 20" x 11 $\frac{1}{2}$ "

Percentage of strength of longitudinal joint 83.8% working pressure of shell by rules 184 lbs size of manholes in shell 14" x 13"

Size of compensating rings Doubling plates fitted No. of Furnaces in each boiler Six

Outside diameter 3'-3" length, top 6'-4" bottom through thickness of plates 9 $\frac{1}{16}$ " description of joint Corrugated if rings are fitted "

Greatest length between rings " working pressure of furnace by the rules 180 lbs combustion chamber plating, thickness, sides 9 $\frac{1}{16}$ " back " top 9 $\frac{1}{16}$ "

Pitch of stays to ditto, sides 4 $\frac{1}{4}$ " x 4 $\frac{1}{2}$ " back " top 4 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ " stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 184 lbs diameter of stays at smallest part 1 $\frac{3}{8}$ " working pressure of ditto by rules 199 lbs and plates in steam space, thickness 1 $\frac{1}{16}$ "

Pitch of stays to ditto 10 $\frac{1}{4}$ " x 12" x 15" how stays are secured By nuts & doubling pieces working pressure by rules 190 lbs diameter of stays at smallest part 2 $\frac{3}{8}$ " x 2 $\frac{3}{8}$ " working pressure by rules 200 lbs Front plates at bottom, thickness 1 $\frac{1}{16}$ " Back plates, thickness "

Greatest pitch of stays " working pressure by rules " Diameter of tubes 3 $\frac{1}{2}$ " pitch of tubes 4 $\frac{3}{4}$ " x 4 $\frac{3}{4}$ " thickness of tube plates, front 1 $\frac{1}{16}$ " back 1 $\frac{1}{16}$ " how stayed By tubes pitch of stays 9 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ " width of water spaces 6"

Diameter of ~~superheating apparatus~~ Steam chest 3'-1 $\frac{3}{4}$ " length 6 $\frac{1}{2}$ " thickness of plates 9 $\frac{1}{16}$ " description of longitudinal joint double riveted diam. of rivet holes 7 $\frac{1}{8}$ "

Pitch of rivets 3" x 1 $\frac{1}{2}$ " 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 ~~superheating apparatus~~ steam chest; thickness 1 $\frac{1}{16}$ " how stayed Dished

~~superheating apparatus~~ steam chest; how connected to boiler By neck piece 16" dia x 16" diam

9127 Jls

DONKEY BOILER—

Description Round Multitubular

Made at Dumbarton by whom made Jemmy & Co when made 1889 where fixed On Upper
Working pressure 180 lbs tested by hydraulic pressure to 300 lbs No. of Certificate 2181 fire grate area 19 ft
valves Direct Spring No. of safety valves Two area of each 3 1/4 if fitted with easing gear Yes if steam from main
enter the donkey boiler 2 1/2 diameter of donkey boiler 8' 9" length 8' 5 1/2" description of riveting Suble riveted
Thickness of shell plates 15/16" diameter of rivet holes 1" whether punched or drilled Drilled pitch of rivets 5 1/2" lap of pl
per centage of strength of joint 81 7/8" thickness of plates 16/16" stayed by Bar Stays 2 1/2" dia 14"
Diameter of furnace 3' 10" bottom length of furnace 6 ft thickness of plates 21/32" description of joint Corrug
Thickness of furnace chamber plates 9/16" stayed by Screw Stays working pressure of shell
Working pressure of furnace by rules 185 lbs diameter of uptake thickness of plates thickness of water t

SPARE GEAR.

State the articles supplied:— 1 Half Crank Shaft. 1 Propeller Shaft with
10 Coupling bolts, 2 main bearing bolts, 2 bolts for top & bottom ends connecting rod
bushes, 1 Quadrant bush, 1 Air pump spindle & set metallic valves 1
Spindle with set of india rubber valves feed & bilge pump valves. assortment of bolts nuts
The foregoing is a correct description, a considerable quantity of other gear.

Jemmy & Co. Manufacturer.

General Remarks

(State quality of workmanship, opinions as to class, &c. These Engines & Boilers
of good workmanship and materials and are in
order and safe working condition and eligible to
be noted in the Register Book Lloyds M.C.

Large blue handwritten signature or initials, possibly 'J. W. J.', written diagonally across the lower half of the page.

It is submitted that
is eligible to have + L
recorded. W. A.
20-4-0

The amount of Entry Fee .. £ 3 : - : - received by me,
Special .. £ 34 : 14 : -
Donkey Boiler Fee .. £ - : - : -
Certificate (if required) .. £ - : - : - 10/4 1889
To be sent as per margin.

(Travelling Expenses, if any, £)
Committee's Minute FRIDAY 26 APRIL 1889

+ Emb 4/89

James Morrison
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
Clyde District
Foundation