

REPORT ON MACHINERY.

Continuation of Report No. 5784

FRIDAY 10 AUG 1894

Port of *Bristol*

Received at London Office

No. in Survey held at *Bristol* Date, first Survey *2nd May* Last Survey *16th July 1894*
 Reg. Book. *622* on the *J. S. Brighten* (Number of Visits *52*)
 Master *Read* Built at *Glasgow* By whom built *J. Elder & Co.* Tons { Gross *574* Net *229*
 Engines made at *Glasgow* By whom made *J. Elder & Co.* when made *1878*
 Boilers made at *London* By whom made *Low, Brighten & Co.* when made *1891*
 Registered Horse Power *200* Owners *Petroleum Co. Ltd. & The Mercantile & Export Bank of India Ltd.* Port belonging to *Swansea*
 Nom. Horse Power as per Section 28

ENGINES, &c.— Description of Engines *Original Engines fitted in vessel* No. of Cylinders
 Diameter of Cylinders Length of Stroke Revolutions per minute Diameter of Screw shaft as per rule as fitted
 Diameter of Tunnel shaft as per rule as fitted Diameter of Crank shaft journals Diameter 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
 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 worked from

BOILERS, &c.— (Letter for record *(O)*) Total Heating Surface of Boilers *1135 sq feet*
 No. and Description of Boilers *Four Multi-Tubular* Working Pressure *85 lbs* Tested by hydraulic pressure to *128 lbs*
 Date of test *26/6/94* Can each boiler be worked separately *yes* Area of fire grate in each boiler *48.75 sq ft* No. and Description of safety valves to each boiler *Two Spring Loaded* Area of each valve *12.5 sq in* Pressure to which they are adjusted *85 lbs* Are they fitted with easing gear *yes* Smallest distance between boilers or uptakes and bunkers or woodwork *about 12 in* Mean diameter of boilers *11-10 in*
 Length *8-0* Material of shell plates *Steel* Thickness *3/4* Description of riveting: circum. seams *Doubled Top* long. seams *Doubled Top*
 Diameter of rivet holes in long. seams *2 1/2* Pitch of rivets *2 1/2* Lap of plates or width of butt straps *1 1/2*
 Per centages of strength of longitudinal joint rivets *78.2* plate *77.7* Working pressure of shell by rules *109 lbs* Size of manhole in shell *End 16 x 12*
 Size of compensating ring *4 x 78* No. and Description of Furnaces in each boiler *2 1/2 in cond* Material *S* Outside diameter *3-11*
 Length of plain part top *6* bottom *6* Thickness of plates crown *7/16* bottom *7/16* Description of longitudinal joint No. of strengthening rings *Bottom Ring 4 x 3 x 1/2*
 Working pressure of furnace by the rules *106 lbs* Combustion chamber plates: Material *S* Thickness: Sides *7/16* Back *7/16* Top *7/16* Bottom *7/16*
 Pitch of stays to ditto: Sides *9 x 8* Back *8 x 8* Top *8 x 7 1/2* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *75-62*
 Material of stays *S* Diameter at smallest part *1 1/8* Area supported by each stay *72 1/2* Working pressure by rules *98 lbs* End plates in steam space:
 Material *S* Thickness *3/4* Pitch of stays *15 x 15* How are stays secured *9/4 Nuts* Working pressure by rules *112 lbs* Material of stays *Iron*
 Diameter at smallest part *2 1/4* Area supported by each stay *225 1/2* Working pressure by rules *131 lbs* Material of Front plates at bottom *S*
 Thickness *9/16* Material of Lower back plate *S* Thickness *1/2* Greatest pitch of stays *14 x 9* Working pressure of plate by rules *95 lbs*
 Diameter of tubes *2 3/4* Pitch of tubes *3 1/4 x 3 5/8* Material of tube plates *S* Thickness: Front *5/8* Back *5/8* Mean pitch of stays *8 1/4*
 Pitch across wide water spaces *14* Working pressures by rules *77 lbs* Girders to Chamber tops: Material *Iron* Depth and thickness of girder at centre *5 x 1* Length as per rule *22 1/2* Distance apart *7 1/2* Number and pitch of Stays in each *2 x 8 P*
 Working pressure by rules *91-86* 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—

Description

None

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

Diameter of donkey boiler

Length

Material of shell plates

Thickness

Description of riveting long seams

Diameter 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.

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

Please attach to Bristol Report Number 5784 a
 P.S. "Brislington"
 The additional particulars herein given are forwarded
 for the information of the Committee.

Certificate (if required) to be sent to

The amount of Entry Fee..	£	:	:	When applied for,
Special	£	:	:	18
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any) £	:	:	:	18

Committee's Minute

TUES. 14 SEP 1894

TUES. 4 SEP 1894

Assigned

D. Ritchie

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



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Foundation