

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

18613 Iron

ENGINEER SURVEYOR'S REPORT ON MACHINERY. ENGINES.

Rec 11/6/17

Description *Compound Inverted Direct Acting*
 Made by *Messrs The London & Glasgow Engineering Co. Ltd*
 When *1873* At *Glasgow*
 Diameter of cylinder *14 1/2" x 82"* Length of stroke *45"*
 No. of revolutions per minute *51*
 Point of cut off *Variable*
 Diameter of screw shaft *1 1/2"*
 Diameter of crank shaft journals *1 3/4"*
 Diameter of screw, *or of paddle wheel* *1 1/2"*
 Pitch of screw *not ascertained*
 No. of blades, *four* Total surface _____
 No. of bilge pumps *two* and sizes *4 3/4" x 12" stroke*
 Do they pump from each compartment *Yes*

Are all the bilge suction pipes fitted with roses *Yes*
 No. of feed pumps *two* and sizes *4" dia x 14" stroke*
 What gauges are there attached to the engines and boilers... *Three Steam, one Vacuum & one Compound.*
 Description and size of Donkey Pumps... *Double acting 5" x 10" stroke*
 Where do they pump from... *From the sea and bridge.*
 No. of bilge injections *one* and sizes *6"*
 Are they connected to air, or circulating pumps *& circulating*
 Is there a hand pump in the engine room *Yes*
 Can it be worked by the main engines *Yes*
 Is there a deck hose of sufficient length to reach to any part of the vessel *Yes*

MAIN BOILERS.

Number *two* Description *Round Horizontal fired from both ends.*
 Made by *The London & Glasgow Co. Ltd*
 When *1877* At *Glasgow*
 Working pressure *40 lbs*
 Tested by hydraulic pressure to _____, Date _____
 Description of super-heating apparatus *Round longitudinal enclosed in jacket, (one to each boiler)*
 Can each boiler be worked separately *Yes*

Can the super-heater be shut off and the boilers worked separately *no*
 Description and area of safety valves on each boiler... *two Direct Weight each 30.67" area.*
 No. of square feet of fire-grate surface in each boiler *110 ft*
 Are there separate blow off and brine cocks on each boiler, independent of those on the vessel's skin *Yes*
 Are all pipes, cocks, roses, and pumps in connection with the machinery accessible at all times... *Yes*

DONKEY BOILER.

Description *Round Vertical*
 Where fixed *In stoke hold at middle line*
 Working pressure *42 lbs*

Tested by hydraulic pressure to *not ascertained* Date _____
 Description and area of safety valves *one Direct Weight 11.04" area*
 No. of square feet of fire grate *19.6 ft*

PIPES, COCKS, AND CONNECTIONS.

Are all connections with the sea direct on the skin of the ship *All except Donkey Suction which is fitted on deck*
 Are they Kingston valves or common cocks... *Screw down valves & cocks*
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates... *Yes. the blow off cocks are fitted under wing casings*
 Are the discharge pipes above or below the deep water line *Yes*
 Are they each fitted with a discharge valve on the plating of the vessel *Yes*

What pipes are carried through the bunkers *Bilge pipes to fore & aft*
 How are they protected *By strong wood casing*
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *May 26th 1879*
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge *Yes*
 Is the screw shaft-tunnel water tight and fitted with a sluice door on bulkhead *Yes*

Manufacturer.

I hereby certify that the whole of the above are correct particulars of the Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel *"State of Virginia"* owned by *The State Steam Ship Coy. (Limited)* of the Port of *Glasgow* of *1594* Tons Register, and *400* Registered Horse Power, and that they have been carefully inspected and examined by me at *Glasgow* and found to be at this date, viz., *May 29th 1879* in good order and safe working condition.

Amount of Fee for Survey ... £ : :
 (Travelling Expenses, if any, £)

James Morrison
 Engineer Surveyor to Lloyd's Register of Shipping.

(1000/31/7/76.)



IRON472-0271

The Surveyors are requested not to write on or below the space for Comm. 's Minute. (Condition of Engines and Boilers, and subsequent Repairs and Examinations, to be clearly stated.)

Report (if any) on Hull of Vessel. Port *Glasgow* No. *4465*

R
L
Ou
-
i
Le.
Pre
Non
Po