

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rec 1/2/78

Description *Compound Inverted Direct Acting*
 Made by *James W. Wingate & Sons*
 When *1872* At *Glasgow*
 Diameter of cylinder *35 1/2"* Length of stroke *39"*
 No. of revolutions per minute *45*
 Point of cut off *Variable*
 Diameter of screw shaft *12"*
 Diameter of crank shaft journals *12"*
 Diameter of screw, or of paddle wheel *16 1/2"*
 Pitch of screw *not ascertained*
 No. of blades, *four* Total surface
 No. of bilge pumps *two* and sizes *4 1/2" dia. 19" stroke*
 Do they pump from each compartment *from Engine Room & stokehold only*

Are all the bilge suction pipes fitted with roses *Yes*
 No. of feed pumps *two* and sizes *4 1/2" dia. 19" stroke*
 What gauges are there attached to the engines and boilers *four steam, one compound, one vacuum*
 Description and size of Donkey Pumps *Horizontal double acting 4 1/2" x 9" stroke*
 Where do they pump from *from sea bilge and hot well*
 No. of bilge injections *two* and sizes *one 3 1/2" to circulating*
 Are they connected to air, or circulating pumps *one cock 2" to air pump*
 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 *three* Description *Round Horizontal*
 Made by *J. W. Wingate & Sons*
 When *1872* At *Glasgow*
 Working pressure *40 lbs*
 Tested by hydraulic pressure to *not ascertained*, Date *when new*
 Description of super-heating apparatus *No Superheater*
 Can each boiler be worked separately *Yes*

Can the super-heater be shut off and the boilers worked separately *Coch's Patent*
 Description and area of safety valves on each boiler *two direct spring each 9-6" area (3 1/2" dia)*
 No. of square feet of fire-grate surface in each boiler *40 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 *Lat sided Horizontal*
 Where fixed *In stokehold, keelson at middle line*
 Working pressure *40 lbs*

Tested by hydraulic pressure to *40 lbs*, Date *Jan 15th 1878*
 Description and area of safety valves *direct spring two each 9-6" area*
 No. of square feet of fire grate *16 ft*

PIPES, COCKS, AND CONNECTIONS.

Are all connections with the sea direct on the skin of the ship *The blow off cocks are now fitted on gun metal stands.*
 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 *All fitted on turn of bilge*
 Are the discharge pipes above or below the deep water line *Near to load line*
 Are they each fitted with a discharge valve on the plating of the vessel *Yes*

What pipes are carried through the bunkers *None*
 How are they protected
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *January 17th 1878*
 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 Louisiana"* owned by *The State Steam Ship Coy. Limited* of the Port of *Glasgow* *1612* Tons Register, and *220* Registered Horse Power, and that they have been carefully inspected and examined by me at *Glasgow* and found to be at this date, viz., *January 25th 1878* in good order and safe working condition.

Amount of Fee for Survey *£2 : 2 : -* Paid *James Mollien*
 (Travelling Expenses, if any, £ *1 : 1 : 0*) *Dait Glasgow*
Account

Engineer Surveyor to Lloyd's Register of Shipping.