

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Description *Oscillating*
 Made by *J & J Thomson*
 When *18 71* At *Glasgow*
 Diameter of cylinder *34" 4"* Length of stroke *48*
 No. of revolutions per minute *32*
 Point of cut off *1/2 stroke*
 Diameter of screw shaft
 Diameter of crank shaft journals *10 1/2"*
 Diameter of ~~screw~~ or of paddle wheel *13" 8"*
 Pitch of screw
 No. of blades, Total surface
 No. of bilge pumps *2* and sizes *6 3/4" x 15"*
 Do they pump from each compartment *Eng Room only*

Are all the bilge suction pipes fitted with roses *yes*
 No. of feed pumps *2* and sizes *6 3/4" x 15"*
 What gauges are there attached to the engines and boilers ... *one to each boiler*
 Description and size of Donkey Pumps ... *one Vacuum 8" Act 3 3/8 diam 8" stroke*
 Where do they pump from *from bilge & sea*
 No. of bilge injections *one* and sizes *2 1/2*
 Are they connected to air, or circulating pumps *Condensed*
 Is there a hand pump in the engine room *no*
 Can it be worked by the main engines *no*
 Is there a deck hose of sufficient length to reach to any part of the vessel *yes*

MAIN BOILERS.

Number *Two* Description *Wet Bottom 3 fur.*
 Made by *J & J Thomson*
 When *18 71* At *Glasgow*
 Working pressure *now 25 lbs*
 Tested by hydraulic pressure to , Date
 Description of super-heating apparatus *none*
 Can each boiler be worked separately *yes*

Can the super-heater be shut off and the boilers worked separately
 Description and area of safety valves on each boiler *Seven & weight two valves, 35.44 sq in*
 No. of square feet of fire-grate surface in each boiler *not ascertained*
 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*

NO DONKEY BOILER.

Description
 Where fixed
 Working pressure

Tested by hydraulic pressure to , Date
 Description and area of safety valves
 No. of square feet of fire grate

PIPES, COCKS, AND CONNECTIONS.

Are all connections with the sea direct on the skin of the ship *yes*
 Are they Kingston valves or common cocks ... *Kingston Valves*
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates *no*
 Are the discharge pipes above or below the deep water line *above*
 Are they each fitted with a discharge valve on the plating of the vessel *no*

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 *Paddle wheels.*
 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

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 *The Lady Carnichael* owned by *Submarine Telegraph Co.* of the Port of *London* of *194* Tons Register, and *165* Registered Horse Power, and that they have been carefully inspected and examined by me at *Dover* and found to be at this date, viz., *June 19th* 18 *76* in good order and safe working condition.

William Parker
 Engineer Surveyor to Lloyd's Register of Shipping.