

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Description *Compound Inverted*
 Made by *Victoria Dock & Eng Works London*
 When *18 76* At *London*
 Diameter of cylinder *25 1/4 x 8 1/4* Length of stroke *30*
 No. of revolutions per minute *about 68*
 Point of cut off *not ascertained*
 Diameter of screw shaft *7 7/8 inches*
 Diameter of crank shaft journals *7 1/4 inches*
 Diameter of screw, or of paddle wheel *not ascertained*
 Pitch of screw *32*
 No. of blades, *4* Total surface *—*
 No. of bilge pumps *2* and sizes *3 1/2 x 15*
 Do they pump from each compartment *from engine room space only*

Are all the bilge suction pipes fitted with roses *yes*
 No. of feed pumps *2* and sizes *3 1/2 x 15*
 What gauges are there attached to the engines and boilers ... } *one steam to each boiler*
 } *one vacuum*
 Description and size of Donkey Pumps ... } *Inverted 7 1/2 x 14*
 } *and 3 1/2 x 9*
 } *Large one from bilges and tanks*
 } *small one from sea tanks*
 } *bilges*
 Where do they pump from ... }
 No. of bilge injections *none* and sizes *—*
 Are they connected to air, or circulating pumps
 Is there a hand pump in the engine room *no*
 Can it be worked by the main engines *—*
 Is there a deck hose of sufficient length to reach to any part of the vessel } *yes*

MAIN BOILERS.

Number *Two* Description *Cylindrical*
 Made by *Victoria Dock & Eng Works Co*
 When *18 76* At *London*
 Working pressure *75 lbs per sq inch*
 Tested by hydraulic pressure to *150 lbs*, Date *23rd Feb*
 Description of super-heating apparatus } *Annular*
 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 } *Adams patent*
 No. of square feet of fire-grate surface in each boiler } *2 1/2 square feet*
 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 *none*
 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 } *No. short cast iron neck is between skin and Circ. inlet valve*
 Are they Kingston valves or common cocks ... } *blow off is Kingston, others common cocks & valves*
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates } *yes*
 Are the discharge pipes above or below the deep water line } *below*
 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 } *At this time*
 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 } *no*

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 *Orwell* owned by *Cory and Co* of the Port of *London* of *486* Tons Register, and *80* Registered Horse Power, and that they have been carefully inspected and examined by me at *London* and found to be at this date, viz., *May 26th* 18 *76* in good order and safe working condition.

Fees £4.400

James Millow
 Engineer Surveyor to Lloyd's Register of Shipping.
 London

Recd 26. 3. 6. 76
J. H. L. O.