

## 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 48 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*  
 Description and size of Donkey Pumps ... *Inverted 7 1/2 x 14*  
 Where do they pump from ... *Large one from bilges and tanks*  
 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 *23<sup>rd</sup> 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 *27 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 26<sup>th</sup>* 18 *76* in good order and safe working condition.

*Fee £4.40.0*

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