

16009 Lm

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S CERTIFICATE & REPORT.

ENGINES.

Description *Inverted, Compound, Surface Condensing,*
 Made by *Compounded by The Victoria Dock & E.R. Coy*
 In the year *1873.*
 Present condition *good.*
 Diameter of cylinder *one H.P. 26" & one L.P. 51.*
 Length of stroke *30".*
 No. of revolutions per minute *64.*
 Point of cut off *$\frac{5}{8}$ of stroke.*
 Paddle, or Screw *Screw.*
 Nominal Horse Power *99*
 Diameter of screw, or of paddle wheel *11' 0".*
 Pitch of screw *15 ft.*
 No. of blades, *4* total surface *40 sq. feet.*
 No. of bilge pumps *2* and size *$4\frac{3}{8}$ dia x 15" stroke.*
 Do they pump from each compartment *Engine room and aft.*
 Is there provision made for pumping from the wings of the stoke hold *no.*

Are all the bilge suction pipes fitted with roses *yes*
 What vacuum and steam gauges are there attached to the engines and boilers..... *1 vacuum gauge on Condenser
1 Steam on each boiler in engine room
1 Steam in Stokehole.*
 No. of feed pumps *2* and sizes *$4\frac{3}{8} \times 15$*
 Description and size of Donkey Engine... *Inverted Cyl. 8" dia x 6" stroke
Pump 5" x 6" - single acting.*
 Will it feed the boilers, pump from the bilges, and pump on deck *yes.*
 Can it be driven by steam from a separate boiler *no.*
 No. of bilge injections *none* and sizes _____
 Are they fitted with non return valves _____
 Is there a hand pump in the engine room *no (Donkey Can be used as such)*
 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.*

CONNECTIONS ON HULL.

Are all connections with the sea direct on the skin of the ship *yes.*
 Are they Kingston valves or common cocks *stop valves. Kingston & Co's*
 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 *above.*
 Are they each fitted with a discharge valve on the plating of the vessel *yes.*

Are any pipes carried through the bunkers *none.*
 If so state how protected _____
 When was the stern tube, propeller, screw shaft, and all connections examined in dry dock *July 1876.*
 How are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge *non return valves*
 Have the bilge suction non-return valves fitted or not *not fitted.*

BOILERS.

Number *2.*
 Description *Cylindrical & Multitubular.*
 Made by *The Victoria Dock engine works Coy. limited*
 In the year *1873.*
 Present condition *good.*
 When last extensively repaired *no repair required*
 Working pressure *75 lbs per sq. inch.*
 When tested by hydraulic pressure *Dec 1872*
 To what pressure tested *120 lbs*
 Any super-heating apparatus *yes*
 Describe it *annular.*
 Can each boiler be worked separately *yes.*
 Is each boiler fitted with a separate steam gauge *yes.*

Can the super-heater be shut off and the boilers worked separately *no.*
 No. of safety valves on each boiler *2.*
 Description and area of each safety valve *area & weight $3\frac{1}{2}$ dia = 9.6 area*
 No. of square feet of fire-grate surface in each boiler *30.*
 Is there a separate blow off and brine cock on each boiler, independent of those on the vessel's skin *yes.*
 Is the screw shaft tunnel water tight and fitted with a sluice door on bulkhead *no tunnel. the engines are in the aft end of ship.*
 Are all pipes, cocks, and roses in connection with these boilers accessible to the engineer at all times *yes.*

for Victoria Dock Engine Works Co. Ltd.
E. Fenwick
Manager.

I hereby certify that the whole of the above Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel *"Thevethick"* owned by *J. Fenwick & Son.* of the Port of *Newcastle* of *599* Tons Register, and *99* Nominal Horse Power, have been carefully inspected and examined by *me* at *Janow on Tyne* and found to be at this date, viz., *July 7th* 18 *76.* in good order and safe working condition.

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