

160162

## LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

## ENGINEER SURVEYOR'S CERTIFICATE &amp; REPORT.

## ENGINES.

Rev 6/3/76

Description *Inverted Compound Surface Condensing.*  
 Made by *Mr. John Dickinson, Sunderland.*  
 In the year *1873.*  
 Present condition *good.*  
 Diameter of cylinder *S. one HP. 27, & one LP 51.*  
 Length of stroke *33 inches.*  
 No. of revolutions per minute *60.*  
 Point of cut off *1/2 stroke.*  
 Paddle, or Screw *Screw.*  
 Nominal Horse Power *99.*  
 Diameter of screw, or of paddle wheel *12.9.*  
 Pitch of screw *15.9.*  
 No. of blades, *4,* total surface *50 sq. ft.*  
 No. of bilge pumps *2,* and size *3 1/2 dia. x 16 1/2 stroke.*  
 Do they pump from each compartment *yes.*  
 Is there provision made for pumping from the wings of the stoke hold *yes.*

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 gauge in engine room, 1 do on each boiler in stokehold.*  
 No. of feed pumps *2,* and sizes *3 1/2 dia. x 16 1/2 stroke.*  
 Description and size of Donkey Engine *Inverted Cyl: 8 dia. x 6 stroke, Pump 4 1/2 " x 6 "*  
 Will it feed the boilers, pump from the bilges, and pump on deck *Yes (except from bilges) Ballast donkey Pumps from the bilges.*  
 Can it be driven by steam from a separate boiler *yes.*  
 No. of bilge injections *one* and sizes *3 1/2 dia.*  
 Are they fitted with non return valves *yes.*  
 Is there a hand pump in the engine room *yes.*  
 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 & Cocks.*  
 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 *below.*  
 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 *Jan'y 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 suctions non-return valves fitted or not *not fitted.*

## BOILERS.

Number *Two.*  
 Description *Cylindrical & Multitubular.*  
 Made by *Mr. J. Dickinson.*  
 In the year *1873*  
 Present condition *good.*  
 When last extensively repaired *no extensive repairs required.*  
 Working pressure *67 lbs per sq. inch*  
 When tested by hydraulic pressure *July 1873.*  
 To what pressure tested *130 lbs per sq. inch.*  
 Any super-heating apparatus *none.*  
 Describe it *—*  
 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. of safety valves on each boiler *one.*  
 Description and area of each safety valve *Lever & weight. 5 dia. = 19.6 sq. in.*  
 No. of square feet of fire-grate surface in each boiler *29 1/2.*  
 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 *Tunnel not watertight, Sluice door fitted.*  
 Are all pipes, cocks, and roses in connection with these boilers accessible to the engineer at all times *yes.*

*John Dickinson* Manufacturer.

I hereby certify that the whole of the above Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel *"Vindomora"* owned by *Bell, Symonds & Co.* of the Port of *London* of *692* Tons Register, and *99* Nominal Horse Power, have been carefully inspected and examined by *me* at *Sunderland* and found to be at this date, viz., *Feb. 7<sup>th</sup> 1876.* in good order and safe working condition.

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