

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

## ENGINEER SURVEYOR'S REPORT ON MACHINERY.

## ENGINES.

Recd 19/2/77

Description *Inverted Compound surface Cond.*  
 Made by *Messrs Kemp & Hume.*  
 When *Jan'y* 1877 At *Glasgow.*  
 Diameter of cylinder *20" x 34"* Length of stroke *24"*  
 No. of revolutions per minute *about 80.*  
 Point of cut off *about 9/16*  
 Diameter of screw shaft *6 1/8"*  
 Diameter of crank shaft journals *6 1/4"*  
 Diameter of screw, ~~or of paddle wheel~~ *10" x 0"*  
 Pitch of screw *14'-0"*  
 No. of blades, *Four* Total surface *26.25 sq feet*  
 No. of bilge pumps *one* and sizes *2 3/4" Diam 14" Stroke*  
 Do they pump from each compartment *Engine room bilge and fore hold*

Are all the bilge suction pipes fitted with roses *Yes*  
 No. of feed pumps *one* and sizes *2 3/4" Diam 14" Stroke*  
 What gauges are there attached to the engines and boilers ... *one Glass water + one Pressure in Stoke hold. one each Glass water. Pressure + Vacuum in Engine Room*  
 Description and size of Donkey Pumps ... *Vertical D.A. 6" x 6" Stroke 3" Diam D.A. Pump*  
 Where do they pump from ... *From Sea. Bilge fore hold and Ballast Tank - to Boiler through Ship side and on Deck*  
 No. of bilge injections *one* and sizes *2" 13 one*  
 Are they connected to air, or circulating pumps *Circulating*  
 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*

## MAIN BOILERS.

Number *One* Description *Circular Tubular*  
 Made by *Messrs Black & Noble*  
 When *Jan'y* 1877 At *Montrose.*  
 Working pressure *70 lbs*  
 Tested by hydraulic pressure to *140 lbs*, Date *8 Nov. 1876*  
 Description of super-heating apparatus *Vertical Domb*  
 Can each boiler be worked separately *— — — —*

Can the super-heater be shut off and the boilers worked separately *— — — —*  
 Description and area of safety valves on each boiler ... *Two direct Load 3" diam total area 14. inches*  
 No. of square feet of fire-grate surface in each boiler *27 sq 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 *Round Vertical 3.9" Dia 7.6" High*  
 Where fixed *Stoke hold.*  
 Working pressure *50 lbs*

Tested by hydraulic pressure to *100 lbs*, Date *8 Nov. 1876*  
 Description and area of safety valves *Levers Weight 3.14 Area*  
 No. of square feet of fire grate *7. sq feet*

## 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 ... *Valves & Cocks*  
 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*  
*Kemp & Hume* Manufacturer.

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 *Before Launching*  
 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 Tunnel Engines placed aft*

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 *City of Gloucester* owned by *The Gloucester Steam Coy, Lim.* of the Port of *Gloucester* of *235.21 / 134.16* Tons Register, and *55* Registered Horse Power, and that they have been carefully inspected and examined by me at *Montrose,* and found to be at this date, viz., *25<sup>th</sup> January* 1877 in good order and safe working condition.

Fees — — — *2" 15" 0*  
 Railway Fares — — — *1" 13" 0*  
 Substances Allowed *2" 5" 0*  
*£ 6 " 13 " 0*

*John Sturrock*  
 Engineer Surveyor to Lloyd's Register of Shipping.