

# LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

19960 Iron

## ENGINEER SURVEYOR'S REPORT ON MACHINERY.

### ENGINES.

Rec 14/1/78

Description *Inverted, Compound, Surface Condensing*  
 Made by *Mr. John Dickinson*  
 When *Jan'y 18 78* At *Sunderland,*  
 Diameter of cylinders *27 1/2 x 52* Length of stroke *33*  
 No. of revolutions per minute *65*  
 Point of cut off *1/2 stroke*  
 Diameter of screw shaft *9"*  
 Diameter of crank shaft journals *9"*  
 Diameter of screw, or of paddle wheel *12.0*  
 Pitch of screw *17.6*  
 No. of blades, *4* Total surface *40 sq. feet.*  
 No. of bilge pumps *2* and sizes *3 1/2 x 16 1/2 stroke.*  
 Do they pump from each compartment *from Engine Room, fore hold & aft well.*

Are all the bilge suction pipes fitted with roses *yes.*  
 No. of feed pumps *2* and sizes *3 1/2 x 16 1/2 stroke.*  
 What gauges are there attached to the engines and boilers ... *1 steam on each boiler and 1 Common to both boilers. 1 Vacuum.*  
 Description and size of Donkey Pumps ... *Patent One inverted double acting 8" x 10" stroke. feed one, " single " 4 1/2 x 6". The large one from sea, tanks, Condenser & bilges of engine room, aft well & fore hold. Small one from sea & fore well.*  
 Where do they pump from .....  
 No. of bilge injections *one* and sizes *4" diameter*  
 Are they connected to air, or circulating pumps *to 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 *Two.* Description *Cylindrical & Multitubular*  
 Made by *Mr. John Dickinson.*  
 When *Jan'y 18 78* At *Sunderland.*  
 Working pressure *70 lbs*  
 Tested by hydraulic pressure to *140 lbs*, Date *Oct 5<sup>th</sup> 77*  
 Description of super-heating apparatus *none.*  
 Can each boiler be worked separately *yes.*

Can the super-heater be shut off and the boilers worked separately  
 Description and area of safety valves on each boiler ..... *Mr. Dickinson's patent. 3 dia = 14 sq. ins Area.*  
 No. of square feet of fire-grate surface in each boiler *27.*  
 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, except bilge rose in fore hold.*

### DONKEY BOILER.

Description *Upright Cyl, with 2 cross tubes.*  
 Where fixed *in the stokehole.*  
 Working pressure *60 lbs*

Tested by hydraulic pressure to *120 lbs (reported)*, Date *Nov 23<sup>rd</sup> 77*  
 Description and area of safety valves *loaded direct 2" 6.2*  
 No. of square feet of fire grate *10.*

### 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 ... *stop 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.*

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 *new.*  
 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 *sluice fitted & apparently tight.*

*John Dickinson* Manufacturer. *Except of the Donkey Boiler* I was present when steam was raised engines worked, and safety valves adjusted to 70 lbs. & tested. Accumulation 2 lbs shut again at 67 lbs. Jan'y 5<sup>th</sup> 78 p. a.

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 *Lucretia* owned by *Bell & Symonds*  
 of the Port of *Newcastle* of *515.95* Tons Register, and *99* Registered Horse Power,  
 and that they have been carefully inspected and examined by me at *Sunderland*  
 and found to be at this date, viz., *11<sup>th</sup> January* 18 *78* in good order and safe working condition.

Amount of Fee for Survey £ *4.19.0*  
 (Travelling Expenses, if any, £ *0.5.4*)

Received *12/1/78. HW*

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