

20653 Iron

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rec 29/3/98

Description *Compound S. Condensing*
 Made by *North-eastern Comp^y*
 When *1873* At *Sunderland*
 Diameter of cylinder *27" - 50"* Length of stroke *33"*
 No. of revolutions per minute *62*
 Point of cut off *5/8*
 Diameter of screw shaft *8 3/4*
 Diameter of crank shaft journals *8 3/4*
 Diameter of screw, or of paddle wheel *15 ft.*
 Pitch of screw *14 ft.*
 No. of blades, *4* Total surface *43 sq ft*
 No. of bilge pumps *2* and sizes *3" + 33"*
 Do they pump from each compartment *Yes*

Are all the bilge suction pipes fitted with roses *Yes*
 No. of feed pumps *2* and sizes *3" + 33"*
 What gauges are there attached to the engines and boilers ... } *1 Vacuum 2 Steam*
 Description and size of } *Double acting*
 Donkey Pumps ... } *6" + 10" 3 1/2" + 6"*
 Where do they pump from } *Engine room after well*
 } *Ballast tanks & sea*
 No. of bilge injections *1* and sizes *3 1/2"*
 Are they connected to air, or circulating pumps *Circulating*
 Is there a hand pump in the engine room
 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 *Multitubular*
 Made by *North Eastern Comp^y*
 When *1873* At *Sunderland*
 Working pressure *65*
 Tested by hydraulic pressure to *130*, Date *1873*
 Description of super-heating apparatus *Yes*
 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 } *Dead weight 19.63 area*
 No. of square feet of fire-grate surface in each boiler } *33 ft.*
 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 *Vertical 2 Gallon cylinders*
 Where fixed *Stoke hole*
 Working pressure *40 lb*

Tested by hydraulic pressure to *80*, Date *1873*
 Description and area of safety valves *Dead weight 10.21*
 No. of square feet of fire grate *11 ft.*

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 ... } *Donkey & main injection are valves the rest - 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 } *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 *Yes*
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock } *This date*
 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 } *Yes*

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 *Lunis* owned by *James Nelson & Co* of the Port of *London* of *897* Tons Register, and *110* Registered Horse Power, and that they have been carefully inspected and examined by me at *Cardiff* and found to be at this date, viz., *March 28th* 18*78* in good order and safe working condition.

Amount of Fee for Survey £ 4 : 19 : 0

(Travelling Expenses, if any, £.....)

(1000/31/7/76.)

[Signature]

Charles M. Jacobs
 Engineer Surveyor to Lloyd's Register of Shipping.

