

16288 Iran.

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Description *Inverted Cylinders Surface Cond.*
 Made by *Messrs Gourlay Brothers*
 When *1869* At *Dundee*
 Diameter of cylinder *56"* Length of stroke *36"*
 No. of revolutions per minute *66*
 Point of cut off *Variable, generally work at $\frac{3}{8}$ stroke*
 Diameter of screw shaft *12½ inches*
 Diameter of crank shaft journals *11½ -*
 Diameter of screw, ~~or of paddle wheel~~ *13 feet*
 Pitch of screw *22 7/8 inches*
 No. of blades, *4* Total surface *—*
 No. of bilge pumps *2* and sizes *5" - 20 stroke*
 Do they pump from each compartment *Yes -*

Are all the bilge suction pipes fitted with roses *Yes*
 No. of feed pumps *2* and sizes *5" 20 stroke*
 What gauges are there attached to the engines and boilers ... *One on each Boiler one on Engines*
 Description and size of Donkey Pumps ... *Double Acting 4" dia. 10 stroke*
 Where do they pump from *from bilge and sea -*
 No. of bilge injections *one* and sizes *5 inches*
 Are they connected to air, or circulating pumps *Air pump*
 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 *2* Description *Rectangular dry bottom*
 Made by *Messrs Gourlay Brothers*
 When *1869* At *Dundee*
 Working pressure *24 lbs -*
 Tested by hydraulic pressure to *25 lbs -*, Date *March /76*
 Description of super-heating apparatus *Beardmore patent*
 Can each boiler be worked separately *Yes -*

Can the super-heater be shut off and the boilers worked separately *no*
 Description and area of safety valves on each boiler ... *Two dead weight & 2 lever valves - total area 188.6 sq in.*
 No. of square feet of fire-grate surface in each boiler *224 square 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 *Cylindrical*
 Where fixed *Stokehole*
 Working pressure *30 lbs -*

Tested by hydraulic pressure to *—*, Date *—*
 Description and area of safety valves *Two dead weight = 6.28 sq in.*
 No. of square feet of fire grate *12 -*

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 ... *Large common 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 -*

What pipes are carried through the bunkers *only bilge pipes*
 How are they protected *Strong wood casing*
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *11th March 1876*
 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 -*

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 *Libra* owned by *The General Steam Nav Co -*
 of the Port of *London* of *617* - Tons Register, and *250* Registered Horse Power,
 and that they have been carefully inspected and examined by me at *Deptford*
 and found to be at this date, viz., *14th March 1876* in good order and safe working condition.

Rid. F. C.

2.5.76.

L. 3. 3. 0.

William Parker

Engineer Surveyor to Lloyd's Register of Shipping.