

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Description *Compound, Inverted, Direct Acting* Are all the bilge suction pipes fitted with roses *Yes*
 Made by *Wm. Fairbairn & Co. Ltd. Glasgow* No. of feed pumps *Two* and sizes *3 1/2" dia. & 22" stroke*
 When *1877* At *Glasgow* What gauges are there attached to the engines and boilers ... *Two Steam, One Vacuum & One Compound.*
 Diameter of cylinder *31 1/2" & 34"* Length of stroke *33"*
 No. of revolutions per minute *about 60*
 Point of cut off *not ascertained*
 Diameter of screw shaft *8 1/2"*
 Diameter of crank shaft journals *9 1/4"*
 Diameter of screw, or of paddle wheel *14 ft*
 Pitch of screw *15 ft. 9"*
 No. of blades, *four* Total surface *48 ft*
 No. of bilge pumps *Two* and sizes *3 1/2" x 22" stroke*
 Do they pump from each compartment *Yes*
 Description and size of Donkey Pumps ... *Double Acting*
 Where do they pump from ... *From the Sea, Bilge & Hot well.*
 No. of bilge injections *One* and sizes *4 1/2"*
 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 *Yes*
 Is there a deck hose of sufficient length to reach to any part of the vessel *Yes*

MAIN BOILERS.

Number *Two* Description *Hot Sided Horizontal* Can the super-heater be shut off and the boilers worked separately *Yes*
 Made by *The London & Glasgow Engineering Co. Ltd.* Description and area of safety valves on each boiler ... *Two Direct Spring each 4.62" area*
 When *1877* At *Glasgow*
 Working pressure *65 lbs*
 Tested by hydraulic pressure to *130 lbs*, Date *March 9th 1877*
 Description of super-heating apparatus *None*
 Can each boiler be worked separately *Yes*
 No. of square feet of fire-grate surface in each boiler *36 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 *Round Vertical*
 Where fixed *On Upper Deck*
 Working pressure *50 lbs*
 Tested by hydraulic pressure to *100 lbs*, Date *Mar 9th 1877*
 Description and area of safety valves *One Direct weighted 4" area*
 No. of square feet of fire grate *9.6" area*

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 ... *Screw down valves & cocks.*
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... *The Blow off cocks are under plates & are fitted as high up as possible for each compartment.*
 Are the discharge pipes above or below the deep water line *Blow off circulating pumps about level the ship's above.*
 Are they each fitted with a discharge valve in the plating of the vessel *Yes*
 What pipes are carried through the bunkers *None*
 How are they protected *None*
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *On Ship previous to being launched.*
 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*

Wm. Fairbairn & Co. Ltd. Glasgow
San Francisco & Co. Ltd. Glasgow 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 *"Perim"* owned by *N. W. Cousens & Others*
 of the Port of *London* of *10/5.63* Tons Register, and *150* Registered Horse Power,
 and that they have been carefully inspected and examined by me at *Glasgow*
 and found to be at this date, viz., *May 25th 1877* in good order and safe working condition.

Geo. L. y. 10
M. J.

James Molloy
 Engineer Surveyor to Lloyd's Register of Shipping.