

19401 Lun

# LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

## ENGINEER SURVEYOR'S REPORT ON MACHINERY.

### ENGINES.

Dec 29/11/74

Description *2 cyl. compound inverted S.C.*  
 Made by *Mason Paterson & Co. Limited*  
 When *March 1874* At *Lanark on Tynes*  
 Diameter of cylinder *30" & 60"* Length of stroke *33"*  
 No. of revolutions per minute *56*  
 Point of cut off *1/2 stroke*  
 Diameter of screw shaft *9 1/2"*  
 Diameter of crank shaft journals *9 1/2"*  
 Diameter of screw, ~~and~~ *paddle wheel* *15 ft.*  
 Pitch of screw *13 ft to 15 ft 6"*  
 No. of blades, *(4)* Total surface *62 sq feet*  
 No. of bilge pumps *(2)* and sizes *4" dia 16 1/2" stroke*  
 Do they pump from each compartment *Eng. room, aft hold & fore hold*

Are all the bilge suction pipes fitted with roses *Yes*  
 No. of feed pumps *(2)* and sizes *4" dia, 16 1/2" stroke*  
 What gauges are there attached to the engines and boilers ... *1 Steam each Boiler, 1 for both, 1 Vacuum, 1 compound Ballast Side, 12 stroke D.A.*  
 Description and size of Donkey Pumps ... *Boiler 4" 8" D.A.*  
 Where do they pump from ... *"Ballast" from Tanks, Sea, Engine room Bilge, Boiler from Sea, Hold well, fore hold,*  
 No. of bilge injections *(1)* and sizes *4" dia*  
 Are they connected to air, or circulating pumps *circulating*  
 Is there a hand pump in the engine room *No, small donkey*  
 Can be worked by the main engines *can be used*  
 Is there a deck hose of sufficient length to reach to any part of the vessel *Yes.*

Engine Room Bilge Tank Hold

### MAIN BOILERS.

Number *Two* Description *Cylindrical Tubular*  
 Made by *Peterson & Co. Limited*  
 When *March 1874* At *Lanark on Tynes*  
 Working pressure *70 lbs per sq inch*  
 Tested by hydraulic pressure to *not ascertained* Date *—*  
 Description of super-heating apparatus *Annular*  
 Can each boiler be worked separately *Yes, through Superheaters*

Can the super-heater be shut off and the boilers worked separately *No*  
 Description and area of safety valves on each boiler ... *Two opening valves 3 7/8" dia = 19.9 sq. inches*  
 No. of square feet of fire-grate surface in each boiler *45 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 ... *all except rose in fore hold*

### DONKEY BOILER.

Description *Vertical Cylindrical 2 cross tubes*  
 Where fixed *Stokehold*  
 Working pressure *32 lbs per sq. inch*

Tested by hydraulic pressure to *not ascertained*, Date *—*  
 Description and area of safety valves *1 dia 11/16" May 11" = 8.80"*  
 No. of square feet of fire grate *18 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 ... *2 Stop Valves rest one common 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 *at load line*  
 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 *Oct - 7/7*  
 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 *Water tight but without sluice door*

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 *8 1/2 hp tons* owned by *Mason Hutchinson & Co. Ltd* of the Port of *Newcastle* of *1146* Tons Register, and *140* Registered Horse Power, and that they have been carefully inspected and examined by me at *Lanark on Tynes* and found to be at this date, viz., *12th Nov 1874* in good order and safe working condition.

Amount of Fee for Survey ... £ *—*  
 (Travelling Expenses, if any, £ *—*)

*George W. Mansel* 2019  
 Engineer Surveyor to Lloyd's Register of Shipping.

