

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Description *Compound Inverted*
 Made by *Black Hawthorn & Co*
 When *1872* At *Gateshead*
 Diameter of cylinder *25 1/4* Length of stroke *30*
 No. of revolutions per minute *60*
 Point of cut off *not ascertained*
 Diameter of screw shaft *8 inches*
 Diameter of crank shaft journals
 Diameter of screw, or of paddle wheel *12.6*
 Pitch of screw *About 17 ft.*
 No. of blades, *4* Total surface *not ascertained*
 No. of bilge pumps *2* and sizes *2 7/8 x*
 Do they pump from each compartment *from Eng Room only*

Are all the bilge suction pipes fitted with roses *no*
 No. of feed pumps *2* and sizes *2 7/8 x*
 What gauges are there attached to the engines and boilers ... *1 Steam on Boiler 1 on Engines 1 vacuum on Eng.*
 Description and size of Donkey Pumps ... *Hos, size not ascertained*
 Where do they pump from ... *one from tanks & bilge one from sea & bilge*
 No. of bilge injections *1* and sizes
 Are they connected to air, or circulating pumps *Circulating*
 Is there a hand pump in the engine room *no*
 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 *One* Description *Cylindrical*
 Made by *Black Hawthorn & Co*
 When *1872* At *Gateshead*
 Working pressure *65 lbs.*
 Tested by hydraulic pressure to *247 lbs.*, Date *Aug 76*
 Description of super-heating apparatus *Annular in funnel.*
 Can each boiler be worked separately *only one*

Can the super-heater be shut off and the boilers worked separately *no*
 Description and area of safety valves on each boiler *Two Lever Weight #39.26 sq inches*
 No. of square feet of fire-grate surface in each boiler *45 3/4 sq 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*
 Where fixed *On Deck*
 Working pressure *35 lbs*

Tested by hydraulic pressure to _____, Date _____
 Description and area of safety valves *one Dead weight one lever weight*
 No. of square feet of fire grate *10 square 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 ... *Com Cocks and screw down valves*
 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 *Above*
 Are they each fitted with a discharge valve on the plating of the vessel *yes*

What pipes are carried through the bunkers *one to pulsimeter*
 How are they protected *close to Deck*
 When were the ~~propeller~~ propeller, screw shaft, and all connections examined in dry dock *at this time*
 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 *Agnes & Louisa* owned by *Stephenson Clark & Co* of the Port of *London* of *436* Tons Register, and *90* Registered Horse Power, and that they have been carefully inspected and examined by me at *London* and found to be at this date, viz., *August 5th* 18 *76* in good order and safe working condition.

Lee & Co

James Melton
 Engineer Surveyor to Lloyd's Register of Shipping.
London