

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rev. 20/11/76

Description *Compound Diagonal Inverted*
 Made by *J. & W. Dudgeon*
 When *1871* At *London*
 Diameter of cylinders $\frac{33}{55}$ x $\frac{33}{55}$ Length of stroke *22 1/2*
 No. of revolutions per minute *80 to 85*
 Point of cut off *3/4 of stroke in high pres. cyl.*
 Diameter of screw shaft *8 1/2*
 Diameter of crank shaft journals *8 1/2*
 Diameter of screw, or of paddle wheel *10 feet*
 Pitch of screw *15 1/2, 6"*
 No. of blades, *3* Total surface
 No. of bilge pumps *2* and sizes *5" dia x 11" 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" dia x 11" stroke*
 What gauges are there attached to the engines and boilers ... *2 pressure gauges in stoke hold*
2 " " Engine room
1 vacuum " " "
 Description and size of Donkey Pumps ... *3 1/4 dia x 5" stroke*
 Where do they pump from ... *Bilge, sea & Condenser*
 No. of bilge injections *one* and sizes *4" diameter*
 Are they connected to air, or circulating pumps = *with air pump*
 Is there a hand pump in the engine room *no*
 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 *lgt. Tubular, fired fore & aft.*
 Made by *J. & W. Dudgeon*
 When *1871* At *London*
 Working pressure *45 lbs per square inch*
 Tested by hydraulic pressure to *see original* Date *certificate*
 Description of super-heating apparatus *two horizontal tubes 4 1/2" dia and 4 1/2" long, with a central flue 10 1/2" dia*
 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 ... *Common dead weight*
18" square area
 No. of square feet of fire-grate surface in each boiler *42 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 *Circ. Vert. with internal fire box & 2 cross water tubes*
 Where fixed *Main deck*
 Working pressure *30 lbs per square inch*

Tested by hydraulic pressure to *see original* Date *certificate*
 Description and area of safety valves *Common lever*
2" 1/4 area
 No. of square feet of fire grate *9 1/2 square feet*

PIPES, COCKS, AND CONNECTIONS.

Are all connections with the sea direct on the skin of the ship *Some are and the others on cast iron sockets*
 Are they Kingston valves or common cocks ... *Both*
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... *Yes in Engine room*
no " stoke hold
 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 *Donkey discharge*
 How are they protected = *Wrapp. Iron casing*
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *Now*
 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 *L. Italia* late *Stato Italiano* owned by *R. Piaggio e Figli*
 of the Port of *Genoa* of *1155* Tons Register, and *280* Registered Horse Power,
 and that they have been carefully inspected and examined by me at *Genoa*
 and found to be at this date, viz., *14th Nov 76* 18 *76* in good order and safe working condition.

Francis W. ...
 Engineer Surveyor to Lloyd's Register of Shipping.