

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER'S CERTIFICATE.

The following is a true Account of the Particulars of the Machinery and Boilers:—

ENGINES.—Here state description of Engines, whether Direct Acting or Geared; Inverted, Horizontal, Diagonal, or Oscillating Cylinders; No. of Cylinders, &c.

*Compound Engines 2 Cylinders Inverted
Direct acting*

ENGINES, maker of *James Airden Co.*
 „ age of *New*
 „ last time taken out *"*
 „ present condition *"*
 Diameter of Cylinder *HP 34" T.P. 60"*
 Length of stroke *39 inches*
 No. per minute of Engines *62*
 „ of Screw *62*
 Estimated power *200 Nominal*
 Effective power *750 Indicated*
 Diameter of Screw (or Paddle Wheels) *15 feet*
 Pitch of Screw *Variable 16 to 18 feet*
 No. of Blades (or Floats) *4 blades*
 Description of Screw (or Floats) *Ordinary*
 Holding down Bolts, size *1 3/8"*
 „ present condition *New*

Bilge Pumps, No. (*2*) and size *4 1/2 dia*
 Feed „ No. (*2*) and size *4 1/2 "*
 Spare gear, if usual quantity on } *Yes*
 board Vessel }
 Fuel, where stowed *in Side Bunkers*
 „ space between Coal Bunkers } *about 17 inches*
 and Boilers }
 „ for what quantity is space provided *about 700 tons*
 Donkey Engine and Boiler *Yes*
 „ if fitted in Engine Room or } *Boiler on deck Engine under*
 on Deck }
 „ can pump be worked by hand *Yes*
 „ size of pump (*4*) and stroke *9" double acting*
 „ is hose of sufficient length to } *Yes*
 reach every part of the Vessel }
 No. (*1*) and continuation of hand } *Yes*
 pumps, if fitted in Engine Room }

BOILER.—Here state description of Boiler, and No.; if Tubular, or Flues; No. of Furnaces; if fitted with superheating apparatus; if Fired athwartships, or from fore, or after end of Boiler, &c.

*Two Boilers each fired fore & aft 4 furnaces in each
Boiler Boiler Circular with horizontal tubes.*

BOILER, maker of *James Airden Co.*
 „ age of *New*
 „ when last taken out *"*
 „ present condition *"*
 „ working pressure *60 lbs*
 No. of surface Blow off Cocks to } *1 Surface & 1 Bottom heads*
 each Boiler }

Can each Boiler be used separately *Yes*
 What clear space between top of } *Several feet*
 Boiler and woodwork }
 What clear space between Funnel } *15 inches at nearest part*
 and woodwork }
 Are Engine and Boiler Keelsons } *Yes*
 well connected fore and aft }

SCREW SHAFT length *about 90 feet diameter 10 1/4"* Tunnel, thickness of plating *5/16"* height *4 feet 6 inches*
 width *3 feet 9 ins* if water-tight door on Engine Bulkhead. *yes*

Port *Glasgow* *23rd* day of *December* 18 *70*

I certify, that the whole of the above Machinery and Boilers of the Iron (or Wood) *Orchis* belonging to *Messrs Glasgow & Co* is Master, *170 3/4* Tons Register, and *200* H.P. have been *us* at *Glasgow* and are found in the safe working condition.

James Airden Co
 Lloyd's Register
 Marine Engineers.

IRON 503-0166