

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 Aird & Co.*
 „ age of *New*
 „ last time taken out *"*
 „ present condition *"*
 Diameter of Cylinder *H.P. 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 board Vessel *Yes*
 Fuel, where stowed *in Side Bunkers*
 „ space between Coal Bunkers and Boilers *about 12 inches*
 „ for what quantity is space provided *about 700 tons*
 Donkey Engine and Boiler *Yes*
 „ if fitted in Engine Room or on Deck *Boiler on deck Engine under*
 „ can pump be worked by hand *Yes*
 „ size of pump (*4*) and stroke *9" double acting*
 „ is hose of sufficient length to reach every part of the Vessel *Yes*
 No. (*1*) and continuation of hand pumps, if fitted in Engine Room *Yes*

• **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. Boilers Circular with horizontal tubes.*

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

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

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 we have found the

safe working condition.

James Aird & Co
 Lloyd's Register
 Marine Engineers.

IRON 503-0166