

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.

Direct Acting, Inverted Cylinders, Compound Engines with two cylinders

ENGINES, maker of *John Elder & Co*
 „ age of *New*
 „ last time taken out *New*
 „ present condition *New*
 Diameter of Cylinder *H.P. 34 in. L.P. 62 in.*
 Length of stroke *3 feet*
 No. per minute of Engines *70 Revolutions*
 „ of Screw *70 — do*
 Estimated power *175 H.P.*
 Effective power *900 Indicated H.P.*
 Diameter of Screw (or Paddle Wheels) *12 feet*
 Pitch of Screw *19 feet*
 No. of Blades (or Floats) *Four*
 Description of Screw (or Floats) *Common*
 Holding down Bolts, size *1 1/2 inch*
 „ present condition *New*

Bilge Pumps, No. (2) and size *4" dia X 2 1/2" stroke*
 Feed „ No. (2) and size *4" dia X 2 1/2" do*
 Spare gear, if usual quantity on board Vessel *Yes*
 Fuel, where stowed *Alongside of Boilers*
 „ space between Coal Bunkers and Boilers *Minimum 12 ins.*
 „ for what quantity is space provided *130 tons*
 Donkey Engine and Boiler *Yes*
 „ if fitted in Engine Room or on Deck *Boiler in Fore-Scot hole Engine in Engine Room*
 „ can pump be worked by hand *Fitted with Hand Pump additional*
 „ size of pump *4 1/2" dia and stroke 8 in. double acting*
 „ is hose of sufficient length to reach every part of the Vessel *—*
 No. () and continuation of hand 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 force, or after end of Boiler, &c.

One Cylindrical Tubular Boiler, with six furnaces, fired at each end, fore and aft —

BOILER, maker of *John Elder & Co*
 „ age of *New*
 „ when last taken out *New*
 „ present condition *New*
 „ working pressure *60 lbs.*
 No. of surface Blow off Cocks to each Boiler *one*

Can each Boiler be used separately *—*
 What clear space between top of Boiler and woodwork *18 ins.*
 What clear space between Funnel and woodwork *2 ft. 6 ins*
 Are Engine and Boiler Keelsons well connected fore and aft *Yes*

SCREW SHAFT length *79 ft.* diameter *9 3/4"* Tunnel thickness of plating *1/4"* height *6 ft. 6 in.*
 width *4 ft.* if water-tight door on Engine Bulkhead *Yes*

Port *Glasgow* 9th day of *March* 18 *75*

We hereby certify, that the whole of the above Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel "*Rajanattianukar*" belonging to *Heith* whereof *Capt Hopkins* is Master, *130 1/4* Tons Register, and *175* H.P. have been carefully inspected and examined by *us* at *Glasgow* and *we* found the same, at this date, in good order and safe working condition.

John Elder & Co
 Marine Engineers.



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