

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.

*Inverted direct acting compound Engine
Two Cylinders*

ENGINES, maker of *John Radhead & Co*
 „ age of *New*
 „ last time taken out *—*
 „ present condition *Good*
 Diameter of Cylinder *29" and 33"*
 Length of stroke *36"*
 Rev. per minute of Engines *40*
 „ of Screw *40*
 Estimated power *120*
 Effective power *500*
 Diameter of Screw (or Paddle Wheels) *13 1/2 ft*
 Pitch of Screw *19 ft*
 No. of Blades (or Floats) *four*
 Description of Screw (or Floats) *ordinary*
 Holding down Bolts, size *1 1/2"*
 „ present condition *Good*

Bilge Pumps, No. (*Two*) and size *3 1/2" dia x 20" stroke*
 Feed „ No. (*Two*) and size *3 1/2" dia 20" do*
 Spare gear, if usual quantity on board Vessel *yes*
 Fuel, where stowed *alongside of Engines & Boilers*
 „ space between Coal Bunkers and Boilers *9" inches*
 „ for what quantity is space provided *200 Tons*
 Donkey Engine and Boiler *yes*
 „ if fitted in Engine Room or on Deck *in Engine Room*
 „ can pump be worked by hand *yes*
 „ size of pump (*8 1/2*) and stroke *12"*
 „ is hose of sufficient length to reach every part of the Vessel *yes*
 No. (*One*) 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 Multitubular Boilers with 2 furnaces each and
superheating and forced from fore end*

BOILER, maker of *John Radhead & Co*
 „ age of *New*
 „ when last taken out *—*
 „ present condition *Good*
 „ working pressure *65 lbs*
 No. of surface Blow off Cocks to each Boiler *Two*

Can each Boiler be used separately *yes*
 What clear space between top of Boiler and woodwork *6 feet*
 What clear space between Funnel and woodwork *3 feet*
 Are Engine and Boiler Keelsons well connected fore and aft *yes*

CREW SHAFT length *9 ft* diameter *9"* Tunnel, thickness of plating *5/16* height *4 feet*
 width *32 ft* if water-tight door on Engine Bulkhead *yes*

Port *South Shields 29th* day of *January* 18*73*

We hereby certify, that the whole of the above Machinery and Boilers of the Iron (~~or Wood~~) Screw (~~or Paddle~~) Steam Vessel "*Matthew Bay*" belonging to *South Shields* whereof *Bradley* is Master, *869.5* Tons Register, and *120* H.P. have been carefully inspected and examined by us at *South Shields* and we found the same, at this date, in good order and safe working condition.

John Radhead & Co
South Shields
 Marine Engineers.