

12487A

# 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.

*Vertical Steeple Engines, direct acting, with  
2 Cylinders.*

ENGINES, maker of *A. Napier Sons*  
 „ age of *new*  
 „ last time taken out \_\_\_\_\_  
 „ present condition *new*  
 Diameter of Cylinder *44 ins & 7/4 ins.*  
 Length of stroke *5 feet*  
 No. per minute of Engines *about 35*  
 „ of Screw *paddles* *35*  
 Estimated power *200 Nominal*  
 Effective power *950 indicated*  
 Diameter of Screw (or Paddle Wheels) *18.3" over floats*  
 Pitch of Screw \_\_\_\_\_  
 No. of Blades (or Floats) *11 in each wheel*  
 Description of Screw (or Floats) *feathering*  
 Holding down Bolts, size *1 7/8" diam*  
 „ present condition *new*

Bilge Pumps, No. ( *2* ) and size *4' dia 30' stroke*  
 Feed „ No. ( *2* ) and size *4' x 30'*  
 Spare gear, if usual quantity on board Vessel *yes.*  
 Fuel, where stowed *aboard Boilers*  
 „ space between Coal Bunkers and Boilers *5 ins*  
 „ for what quantity is space provided *abt 120 tons*  
 Donkey Engine and Boiler *1 Boiler & 1 Donkey Engine*  
 „ if fitted in Engine Room or on Deck *both in Engine room*  
 „ can pump be worked by hand *no*  
 „ size of pump ( *4'* ) and stroke *8 ins*  
 „ 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 *fitted in Engine room to pump to Boilers, on deck and overboard.*

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 cylindrical tubular Boilers, 3 furnaces in each. fired fore & aft — one Boiler from forward end & one from aft end  
Two vertical flue Superheaters.*

BOILER, maker of *A. Napier Sons*  
 „ age of *new*  
 „ when last taken out \_\_\_\_\_  
 „ present condition *new*  
 „ working pressure *60 lbs & 9/2 ins.*  
 No. of surface Blow off Cocks to each Boiler *1*

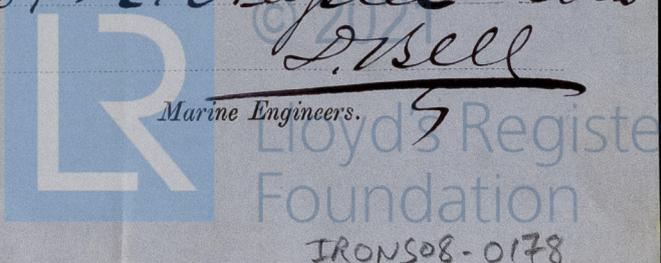
Can each Boiler be used separately *yes.*  
 What clear space between top of Boiler and woodwork *12 ins*  
 What clear space between Funnel and woodwork *35 ins*  
 Are Engine and Boiler Keelsons well connected fore and aft *yes.*

Screw Shaft length \_\_\_\_\_ diameter \_\_\_\_\_ Tunnel thickness of plating \_\_\_\_\_ height \_\_\_\_\_  
 width \_\_\_\_\_ if water tight door on Engine Bulkhead.

Port *Glasgow*, *25<sup>th</sup>* day of *March*, 18 *74*

*We* hereby certify, that the whole of the above Machinery and Boilers of the Iron (or Wood) ~~Screw~~ (Paddle) Steam Vessel "*Pharos*" belonging to *the Commissioners of Northern Lighthouses* whereof *Dugald Graham* is Master, *241 1/100* Tons Register, and *200* 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.

*J. Pro. A. Napier Sons  
D. Bell*  
Marine Engineers.



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