

Report No 3379

13650 Lm

## 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 Engine with direct acting inverted  
cylinders One High and One Low pressure

ENGINES, maker of Blair & Co Ltd  
 „ age of new  
 „ last time taken out \_\_\_\_\_  
 „ present condition \_\_\_\_\_  
 Diameter of Cylinder 32" x 60"  
 Length of stroke 39"  
 No. per minute of Engines about 65  
 „ of Screw \_\_\_\_\_  
 Estimated power 140 HP  
 Effective power about 560 HP  
 Diameter of Screw (or Paddle Wheels) 14" 6"  
 Pitch of Screw about 16 ft  
 No. of Blades (or Floats) 4  
 Description of Screw (or Floats) \_\_\_\_\_  
 Holding down Bolts, size 2 1/4" diam  
 „ present condition new

Bilge Pumps, No. ( 2 ) and size 4 1/4" diam  
 Feed „ No. ( 2 ) and size 4 1/4" diam  
 Spare gear, if usual quantity on }  
 board Vessel } yes  
 Fuel, where stowed In Bunkers  
 „ space between Coal Bunkers } 12"  
 and Boilers }  
 „ for what quantity is space provided \_\_\_\_\_  
 Donkey Engine and Boiler Engine below  
 „ if fitted in Engine Room or } Boiler on deck  
 on Deck }  
 „ can pump be worked by hand yes  
 „ size of pump ( 7 1/2" ) and stroke 9" double acting  
 There is hose of sufficient length to } deck  
 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.Two Tubular Boilers each with three  
furnaces fired from forward

BOILER, maker of Blair & Co Ltd  
 „ age of new  
 „ when last taken out \_\_\_\_\_  
 „ present condition \_\_\_\_\_  
 „ working pressure 70 lbs  
 No. of surface Blow off Cocks to } 1 Surface & 1 Bottom  
 each Boiler } blow off cock  
 SCREW SHAFT length 21 ft diameter 10 3/4" Tunnel thickness of plating \_\_\_\_\_ height \_\_\_\_\_  
 width \_\_\_\_\_ if water-tight door on Engine Bulkhead.

Can each Boiler be used separately yes  
 What clear space between top of } 1' 3"  
 Boiler and woodwork }  
 What clear space between Funnel } 4' 9"  
 and woodwork }  
 Are Engine and Boiler Keelsons } yes  
 well connected fore and aft }

Port Stockton 20<sup>th</sup> day of November 1874

We hereby certify, that the whole of the above Machinery and Boilers of the Iron (or Wood)  
 Screw (or Paddle) Steam Vessel "Minerva" belonging to Thos. W. B. Minerva  
 whereof Daniel Minerva is Master, Tons Register, and 140 H.P. have been  
 carefully inspected and examined by us at Stockton on Tees and we found the  
 same, at this date, in good order and safe working condition.

for Blair & Co Ltd  
 G. W. Blair  
 Marine Engineers.

Lloyd's Register  
Foundation

IRON459-0320