

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" x 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 and Boilers 12"
for what quantity is space provided
Donkey Engine and Boiler Engine below
if fitted in Engine Room or on Deck Boiler on deck
can pump be worked by hand yes
size of pump (7 1/2") and stroke 9" double acting
is hose of sufficient length to reach every part of the Vessel deck
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 each Boiler 1 Surface & 1 Bottom Blow off cock
SCREW SHAFT length 21 ft diameter 10 3/4" Tunnel thickness of plating
width if water-tight door on Engine Bulkhead.

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

Port Stockton 20 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 Messrs W. B. Wainman whereof Daniel MacMann 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.

Jno Blair & Co Lina
G W Blair
Marine Engineers.



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