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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.

The engines are inverted direct acting compound, with one high & one low pressure cylinder and surface condenser.

ENGINES, maker of Palmers Shipbuilding & Iron Co. Ltd.
age of new
last time taken out
present condition new
diameter of Cylinder 30 & 60
length of stroke 33
No. per minute of Engines 70
Pitch of Screw 70
Estimated power 140 H.P. nominal
Effective power 700 H.P. indic
diameter of Screw (on Paddle Wheels) 15.0
Pitch of Screw 13.0 increasing to 15.0
No. of Blades (on Floats) 4
Description of Screw (on Floats) movable blades
Holding down Bolts, size 2 1/2 diam
present condition new

Bilge Pumps, No. (2) and size 4" diam 16" stroke
Feed ,, No. (2) and size 4 " " 16 "
Spare gear, if usual quantity on board Vessel yes
Fuel, where stowed In side bunkers and cross bunker forward of boiler
space between Coal Bunkers and Boilers 12
for what quantity is space provided 259 Tons
Donkey Engine and Boiler yes
if fitted in Engine Room or on Deck Boiler in engine room boiler in stoke hole.
can pump be worked by hand yes
size of pump (4 ") and stroke 8.
is hose of sufficient length to reach every part of the Vessel yes
No. () and continuation of hand pumps, if fitted in Engine Room none

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.

2 cylindrical tubular single ended boilers with 4 circular furnaces dry uptake with a vertical annular super heater on top. The boilers are fired from their forward ends.

BOILER, maker of Palmers Shipbuilding & Iron Co. Ltd.
age of new
when last taken out
present condition new
working pressure 75 lbs
No. of surface Blow off Cocks to each Boiler one
New SHAFT length 109.8 diameter 9 1/2 & 9. Tunnel thickness of plating 3/8 height 4.13 & 5.3
width 3.7 if water-tight door on Engine Bulkhead. no, the tunnel is water tight

Can each Boiler be used separately yes
What clear space between top of Boiler and woodwork 10.2
What clear space between Funnel and woodwork 2.3
Are Engine and Boiler Keelsons well connected fore and aft yes

Port Newcastle on Tyne 27 day of April 1874.

we hereby certify, that the whole of the above Machinery and Boilers of the Iron (or Wood) (or Paddle) Steam Vessel "Elphinstone" belonging to Newcastle is Master, 1140.77 Tons Register, and 140 H.P. have been fully inspected and examined by us at Farrow on Tyne and we found the same, at this date, in good order and safe working condition.

Palmers Shipbuilding & Iron Co. Ltd.
M. J. Smith
Marine Engineers.

