

10724 from

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 direct-acting inverted Cylinder Engines with one high pressure & one low pressure Cylinder

ENGINES, maker of	<i>A. Napier & Sons</i>	Bilge Pumps, No. (<i>2</i>) and size	<i>3 dia x 14 1/2 stroke</i>
„ age of	<i>new</i>	Feed „ No. (<i>2</i>) and size	<i>3 " x 14 1/2 "</i>
„ last time taken out	—	Spare gear, if usual quantity on board Vessel	<i>yes</i>
„ present condition	<i>new</i>	Fuel, where stowed	<i>forward of boiler space</i>
Diameter of Cylinders	<i>30 ins & 54 ins</i>	„ space between Coal Bunkers and Boilers	<i>4 feet</i>
Length of stroke	<i>3 feet</i>	„ for what quantity is space provided	<i>100 tons</i>
No. per minute of Engines	<i>60 to 40 revolutions</i>	Donkey Engine and Boiler	<i>2 Donkey Engines & 1 Boiler</i>
„ of Screw	<i>do do</i>	„ if fitted in Engine Room or on Deck	<i>Engines in Engine room Boiler on Deck</i>
Estimated power	<i>130 Horse P.</i>	„ can pump be worked by hand	<i>no</i>
Effective power	<i>abt 600 Ind HP</i>	„ size of pump (<i>one 4 1/2 ins</i>) and stroke	<i>12 inches</i>
Diameter of Screw (or Raddle Wheel)	<i>14 feet</i>	„ is hose of sufficient length to reach every part of the Vessel	<i>yes</i>
Pitch of Screw	<i>15 "</i>	No. (<i>1</i>) and continuation of hand pumps, if fitted in Engine Room	<i>1 feed boiler & one in Deck. Pump in Engine Room</i>
No. of Blades (or Plates)	<i>4</i>		
Description of Screw (or Plate)	<i>Griffiths, fixed blades</i>		
Molding down Bolts, size	<i>1 1/2 ins</i>		
„ present condition	<i>new</i>		

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.

2 single ended horizontal tubular boilers, 3 furnaces in each fired fore and aft. from forward end of boilers. One vertical Superheater placed above boilers.

BOILER, maker of	<i>A. Napier & Sons</i>	Can each Boiler be used separately	<i>yes</i>
„ age of	<i>new</i>	What clear space between top of Boiler and woodwork	<i>21 ins</i>
„ when last taken out	—	What clear space between Funnel and woodwork	<i>38 ins</i>
„ present condition	<i>new</i>	Are Engine and Boiler Keelsons well connected fore and aft	<i>yes</i>
„ working pressure	<i>60 lbs per sq. inch</i>		
No. of surface Blow off Cocks to each Boiler	<i>one</i>		
SCREW SHAFT length	<i>20' 10 1/2" diameter</i>	Tunnel, thickness of plating	<i>3/16 "</i>
width	<i>4' 2" if water-tight door on Engine Bulkhead.</i>		<i>height 5ft 6ins</i>
			<i>yes.</i>

Port *Glasgow* 21st day of *October* 18 *77*

We hereby certify, that the whole of the above Machinery and Boilers of the Iron (~~Wood~~) Screw (~~or Raddle~~) Steam Vessel "*Courland*" belonging to *D. Currie Esq. & others* whereof *M. Newnan* is Master, *803 25/100* Tons Register, and *130* 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.

A. Napier & Sons
D. Bell
 Marine Engineers
 IRON 506-0044