

9093 Gen

# 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.

*Inverted direct acting combined high and low pressure Engines with one high & one low pressure Cylinder, Surface Condensing.*

ENGINES, maker of	<i>Thompson Boyd &amp; Co</i>	Bilge Pumps, No. ( <i>2</i> ) and size	<i>2 1/2 dia.</i>	} <i>12 1/2 Strokes</i>
„ age of	<i>New</i>	Feed „ No. ( <i>2</i> ) and size	<i>2 1/2 dia.</i>	
„ last time taken out	<i>None</i>	Spare gear, if usual quantity on board Vessel	} <i>Yes</i>	
„ present condition	<i>New</i>	Fuel, where stowed	<i>In Bunkers</i>	
Diameter of Cylinder	<i>20 &amp; 35</i>	„ space between Coal Bunkers and Boilers	} <i>12</i>	
Length of stroke	<i>2' 0"</i>	„ for what quantity is space provided	<i>60 Tons</i>	
No. per minute of Engines	<i>80</i>	Donkey Engine and Boiler	<i>Boiler in Hatchway</i>	
„ of Screw	<i>80</i>	„ if fitted in Engine Room or on Deck	} <i>Donkey in Engine Room</i>	
Estimated power	<i>60 H.P.</i>	„ can pump be worked by hand	<i>Yes</i>	
Effective power	<i>270</i>	„ size of pump ( ) and stroke	<i>5 dia x 6 Stroke</i>	
Diameter of Screw (or Paddle Wheels)	<i>9' 6"</i>	„ is hose of sufficient length to reach every part of the Vessel	} <i>Yes</i>	
Pitch of Screw	<i>11' 0" to 13' 0"</i>	No. ( ) and continuation of hand pumps, if fitted in Engine Room	} <i>No Handpump</i>	
No. of Blades (or Floats)	<i>4</i>			
Description of Screw (or Floats)	<i>Ordinary</i>			
Holding down Bolts, size	<i>1 3/4 dia</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.

*One tubular Boiler with two furnaces, fired from forward end.*

BOILER, maker of	<i>Thompson Boyd &amp; Co</i>	Can each Boiler be used separately	_____
„ age of	<i>New</i>	What clear space between top of Boiler and woodwork	_____
„ when last taken out	_____	What clear space between Funnel and woodwork	_____
„ present condition	<i>New</i>	Are Engine and Boiler Keelsons well connected fore and aft	_____
„ working pressure	<i>60 lbs</i>		
No. of surface Blow off Cocks to each Boiler	<i>One surface blow off</i> <i>One Boiler blow off</i>		
SCREW SHAFT length	<i>57' 6"</i>	diameter	<i>6 1/2"</i>
width	<i>3 1/2"</i>	Tunnel, thickness of plating	<i>1/4"</i>
		height	<i>4' 6"</i>
		if water-tight door on Engine Bulkhead.	<i>Yes</i>

Port *Newcastle on Tyne* day of *June 14<sup>th</sup>* 1871.

*We* hereby certify, that the whole of the above Machinery and Boilers of the Iron (or ~~Wood~~) Screw (~~or Paddle~~) Steam Vessel *Grand Duke Alexis* belonging to *Archangel* whereof \_\_\_\_\_ is Master, \_\_\_\_\_ Tons Register, and *60* H.P. have been carefully inspected and examined by us at *Low Walker* and *We* found the same, at this date, in good order and safe working condition.

*Thompson Boyd & Co*  
Lloyd's Register  
Marine Engineers.  
Foundation

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