

12499

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.

one pair of 12" cylinders
Inverted, Vertical, Direct-acting Surface Condensing

ENGINES, maker of *Broden Brothers*
 „ age of *New*
 „ last time taken out *New*
 „ present condition *New*
 Diameter of Cylinder *12"*
 Length of stroke *14"*
 No. per minute of Engines *80*
 „ of Screw *80*
 Estimated power *15 H.P.*
 Effective power *40 H.P.*
 Diameter of Screw (or Paddle Wheel) *6 ft.*
 Pitch of Screw *8 ft.*
 No. of Blades (or Paddles) *three*
 Description of Screw (or Paddle) *Three*
 Holding down Bolts, size *1 1/4"*
 „ present condition *New*

Bilge Pumps, No. (*1*) and size *4"*
 Feed „ No. (*1*) and size *4"*
 Spare gear, if usual quantity on board Vessel *none*
 Fuel, where stowed *bunkers each side of boilers*
 „ space between Coal Bunkers and Boilers *6 inches*
 „ for what quantity is space provided *12 tons*
 Donkey Engine and Boiler
 „ if fitted in Engine Room or on Deck *donkey in engine room no donkey boiler*
 „ can pump be worked by hand *yes*
 „ size of pump () and stroke
 „ is hose of sufficient length to 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.

Multitubular - one furnace - fired from aft.

BOILER, maker of *Wm. Abbot & Co. Limited*
 „ age of *New*
 „ when last taken out *New*
 „ present condition *New*
 „ working pressure *40 lbs.*

No. of surface Blow off Cocks to each Boiler

Can each Boiler be used separately

What clear space between top of Boiler and woodwork *3 ft.*

What clear space between Funnel and woodwork *1' 6"*

Are Engine and Boiler Keelsons well connected fore and aft *yes*

SCREW SHAFT length *12 ft.* diameter *4 1/4"* Tunnel thickness of plating *1/4* height *5 ft.*
 width *side to side* if water-tight door on Engine Bulkhead.

Port *Newcastle* *14th* day of *March* 18*94*.

We hereby certify, that the whole of the above Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel *"Welfare"* belonging to *TP Hall & Co* whereof *Capt. Angley* is Master, *53.54* Tons Register, and *15* H.P. have been carefully inspected and examined by *us* at *Newcastle* and *we* found the same, at this date, in good order and safe working condition.

Broden Brothers
Newcastle
 Marine Engineers.



Lloyd's Register
 Foundation

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