

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.

5 1/2 Eng

*Direct acting inverted cylinders
Compound Engines - 2 Cylinders*

ENGINES, maker of *Herald & Co*
 age of *new*
 last time taken out
 present condition *Perfect*
 diameter of Cylinder *36" x 18"*
 length of stroke *27 1/2"*
 revolutions per minute of Engines *66*
 diameter of Screw *6 1/2*
 estimated power *80*
 effective power *280*
 diameter of Screw (~~or Paddle Wheel~~) *8 1/4"*
 pitch of Screw *14 1/2"*
 number of Blades (~~or Floats~~) *4*
 description of Screw (~~or Floats~~) *Hawthorn improved*
 diameter of down Bolts, size *1 1/2"*
 present condition *new*

Bilge Pumps, No. (*2*) and size *3" dia*
 Feed " No. (*2*) and size *3"*
 Spare gear, if usual quantity on board Vessel } *Yes*
 Fuel, where stowed *In Engine Room*
 " space between Coal Bunkers and Boilers } *1 1/2"*
 " for what quantity is space provided *Air Space only*
 Donkey Engine and Boiler *Yes*
 " if fitted in Engine Room or on Deck } *Deck*
 " can pump be worked by hand *Yes*
 " size of pump (*4 1/2*) and stroke *8"*
 " is hose of sufficient length to reach every part of the Vessel } *Yes*
 No. (*1*) and continuation of hand pumps, if fitted in Engine Room } *1 1/2" dia - 6" stroke*

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.

*Cylindrical multitubular return tube. 1 boiler, 3 Furnaces
Fired from aft end.*

BOILER, maker of *Messrs Blair & Gray*
 age of *new*
 when last taken out
 present condition *perfect*
 working pressure *65 lbs*
 number of surface Blow off Cocks to each Boiler *1*

Can each Boiler be used separately *One Boiler only*
 What clear space between top of Boiler and woodwork } *2-0*
 What clear space between Funnel and woodwork } *1-6*
 Are Engine and Boiler Keelsons well connected fore and aft } *Yes*

SHAFT length *74-0"* diameter *4 3/4"* Tunnel, thickness of plating *3/16 x 1/2* height *4-6*
 width *4-0* if water-tight door on Engine Bulkhead. *Yes*

Port *Sunderland* day of *3rd* Feb: 18*73*

We hereby certify, that the whole of the above Machinery and Boilers of the Iron (or Wood) (or Paddle) Steam Vessel *"Kamagna"* belonging to *Union Steam Ship Coy* of *Thompson* is Master, *352.25* Tons Register, and *70* H.P. have been fully inspected and examined by *us* at *Pallion, Sunderland* and we found the at this date, in good order and safe working condition.

W. R. ...
 Marine Engineers.

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