

15871 *2m*

# 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.

*A pair of Compound Direct acting Inverted cylinders surface condensing Engines with one high pressure and one low pressure cylinder*

|   |                              |   |                         |
|---|------------------------------|---|-------------------------|
| ENGINES, maker of                                 | <i>Hall Russell &amp; Co</i> | Bilge Pumps, No. ( <i>One</i> ) and size                                    | <i>4" x 2" x 6"</i>     |
| „ age of  | <i>new</i>                   | Feed „ No. ( <i>One</i> ) and size  | <i>3 1/2" x 2" x 6"</i> |
| „ last time taken out                             | <i>—</i>                     | Spare gear, if usual quantity on board Vessel                               | <i>Yes</i>              |
| „ present condition                               | <i>Good</i>                  | Fuel, where stowed  | <i>In Bunkers</i>       |
| Diameter of Cylinders                             | <i>24 1/2 + 45 inches</i>    | „ space between Coal Bunkers and Boilers                                    | <i>Ample</i>            |
| Length of stroke                                  | <i>2 feet 6 in</i>           | „ for what quantity is space provided                                       | <i>about 100 tons</i>   |
| No. per minute of Engines                         | <i>70 to 75</i>              | Donkey Engine and Boiler  | <i>Yes</i>              |
| „ of Screw  | <i>70 to 75</i>              | „ if fitted in Engine Room or on Deck                                       | <i>Engine Room</i>      |
| Estimated power                                   | <i>90 H.P.</i>               | „ can pump be worked by hand  | <i>Yes</i>              |
| Effective power                                   | <i>—</i>                     | „ size of pump ( <i>4 1/2</i> ) and stroke                                  | <i>10 in</i>            |
| Diameter of Screw ( <del>or Paddle Wheels</del> ) | <i>12 feet</i>               | „ is hose of sufficient length to reach every part of the Vessel            | <i>Yes</i>              |
| Pitch of Screw                                    | <i>14 feet 6 in</i>          | No. ( <i>One</i> ) and continuation of hand pumps, if fitted in Engine Room | <i>Yes</i>              |
| No. of Blades ( <del>or Floats</del> )            | <i>Four</i>                  |   |                         |
| Description of Screw ( <del>or Floats</del> )     | <i>Common</i>                |   |                         |
| Holding down Bolts, size                          | <i>Ample</i>                 |   |                         |
| „ present condition                               | <i>Good</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 force, or after end of Boiler, &c.

*One cylindrical tubular boiler with 3 furnaces and large steam dome - fired from after end of boiler*

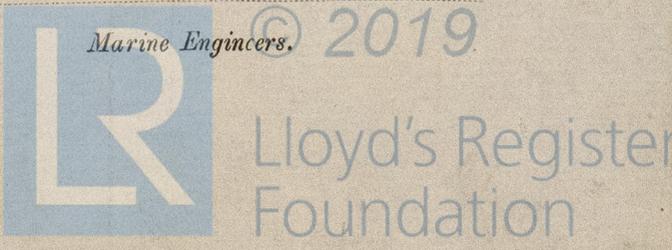
|  |                              |  |                          |
|--|------------------------------|--|--------------------------|
| BOILER, maker of                             | <i>Hall Russell &amp; Co</i> | Can each Boiler be used separately                         | <i>only one boiler</i>   |
| „ age of                                     | <i>new</i>                   | What clear space between top of Boiler and woodwork        | <i>No wood work over</i> |
| „ when last taken out                        | <i>—</i>                     | What clear space between Funnel and woodwork               | <i>Ample</i>             |
| „ present condition                          | <i>Good</i>                  | Are Engine and Boiler Keelsons well connected fore and aft | <i>Yes</i>               |
| „ working pressure                           | <i>70 lbs</i>                |  |                          |
| No. of surface Blow off Cocks to each Boiler | <i>one</i>                   |  |                          |

SCREW SHAFT length *about 60 feet* diameter *8 3/8* ~~Caseing~~ thickness of plating *1/4 to 3/8* height *—*  
width *—* if water-tight door on Engine Bulkhead. *Stuffing box on Engine Room B Head*

Port of *Aberdeen* <sup>the</sup> *6* day of *March* 18 *76*

*We* hereby certify, that the whole of the above Machinery and Boilers of the Iron (~~or Wood~~) Screw (~~or Paddle~~) Steam Vessel "*Ballater*" belonging to *Messrs J. A. Davidson* whereof *Chas Davidson* is Master, *470.65* Tons Register, and *90* H.P. have been carefully inspected and examined by us at *Aberdeen* and we found the same, at this date, in good order and safe working condition.

*Hall Russell & Co*



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