

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 surface condensing
engines with two cylinders*

ENGINES, maker of *Denny & Co*

„ age of *new*

„ last time taken out

„ present condition

Diameter of Cylinder *47" & 82"*

Length of stroke *48"*

No. per minute of Engines

„ of Screw

H. A. P. Estimated power *400*

H. A. P. Effective power *2000*

Diameter of Screw (or Paddle Wheels) *16" & 5"*

Pitch of Screw *22" & 0"*

No. of Blades (or Paddles) *Four*

Description of Screw (or Paddle) *Four cast iron shaped blades*

Holding down Bolts, size *1 1/2"*

„ present condition

Bilge Pumps, No. (*2*) and size *1 3/4" diam. 24" stroke*

Feed „ No. (*2*) and size *1" diam. 24" stroke*

Spare gear, if usual quantity on board Vessel *Yes*

Fuel, where stowed *at side of engine room between engine & boiler rooms - forward of boiler room*

„ space between Coal Bunkers and Boilers *6"*

„ for what quantity is space provided *576 tons*

Donkey Engine and Boiler

„ if fitted in Engine Room or on Deck *Engine in engine room - boiler on deck*

„ can pump be worked by hand *No*

„ size of pump (*5"*) and stroke *10"*

„ 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 *Yes*

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.

Four cylindrical tubular boilers with three furnaces in each - fired athwartship, fitted with a superheater

BOILER, maker of *Denny & Co*

„ age of *new*

„ when last taken out

„ present condition

„ working pressure *65 lbs.*

No. of surface Blow off Cocks to each Boiler *One*

Can each Boiler be used separately *Yes*

What clear space between top of Boiler and woodwork *5" & 0"*

What clear space between Funnel and woodwork *2" & 6"*

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

SCREW SHAFT length *26' & 0"* diameter *14"* Tunnel thickness of plating *3/8"* height *6' & 0"*
width *4' & 8"* if water-tight door on Engine Bulkhead *Yes*

Port *Dumbarton* *6th* day of *August* 18 *75*

We hereby certify, that the whole of the above Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel "*Merka*" belonging to *Mr Mackinnon & Co* whereof *James Ballantyne* is Master, *1950* Tons Register, and *400 H.P.* have been carefully inspected and examined by us at *Dumbarton* and *we* found the same, at this date, in good order and safe working condition.

Denny & Co.

Marine Engineers.



Lloyd's Register
Foundation

IRON 462-0407