

10663 Elizabeth Martin

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.

*Direct acting Inverted Compound Expansion Engines
with one high pressure & one low pressure Cylinder.*

ENGINES, maker of *R. Napier & Sons*
 „ age of *New 1872*
 „ last time taken out *—*
 „ present condition *Good*
 Diameter of Cylinder *30 ins & 54 ins.*
 Length of stroke *3 feet.*
 No. per minute of Engines *—*
 „ of Screw *—*
 Estimated power *130 H.P. Nominal*
 Effective power *—*
 Diameter of Screw (or Paddle Wheels) *14 feet*
 Pitch of Screw *12 feet*
 No. of Blades (or Floats) *Four*
 Description of Screw (or Floats) *Griffiths*
 Holding down Bolts, size *1 1/2" dia.*
 „ present condition *Good*

Bilge Pumps, No. (*2*) and size *3" dia. x 14 1/2" Stroke*
 Feed „ No. (*2*) and size *3" x 14 1/2"*
 Spare gear, if usual quantity on board Vessel *Yes*
 Fuel, where stowed *On starboard side fore end of Engines and Boilers*
 „ space between Coal Bunkers and Boilers *none*
 „ for what quantity is space provided *110 Tons at 45 Cub. ft. per ton.*
 Donkey Engine and Boiler *Yes*
 „ if fitted in Engine Room or on Deck *Monkey in Engine Room Boiler on Deck*
 „ can pump be worked by hand *No.*
 „ size of pump (*4"*) and stroke *8"*
 „ is hose of sufficient length to reach every part of the Vessel *Yes*
 No. (*One*) and continuation of hand pumps, if fitted in Engine Room *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 fore, or after end of Boiler, &c.

*Circular Boilers - Two in no. - Tubular - 6 furnaces in all - One Superheater.
Boilers fired from fore end of Stokerhole.*

BOILER, maker of *R. Napier & Sons*
 „ age of *New 1872*
 „ when last taken out *—*
 „ present condition *Good*
 „ working pressure *60 lbs.*
 No. of surface Blow off Cocks to each Boiler *One to each Boiler*

Can each Boiler be used separately *Yes*
 What clear space between top of Boiler and woodwork *1 ft. 8 ins.*
 What clear space between Funnel and woodwork *3 ft. 2 ins.*
 Are Engine and Boiler Keelsons well connected fore and aft *Yes*
 SCREW SHAFT length *55 ft. 6 ins. diameter 10" Propeller shaft 10" Tunnel, thickness of plating 20 p sides 1/4" height 5 ft. 6 ins.*
 width *4 ft. 3 ins. if water-tight door on Engine Bulkhead. Yes.*

Port *Glasgow* 7 day of *August* 1872

We hereby certify, that the whole of the above Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel *Elizabeth Martin* belonging to *R. Currie & Co* whereof *R. Duncan* is Master, *1246* Tons Register, and *130* H.P. have been carefully inspected and examined by *us* at *Glasgow* and we found the same, at this date, in good order and safe working condition.

R. Napier & Sons
J. D. Bell
 Marine Engineers.