

12576 Lm

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.

The engines are inverted direct acting compound, with one high & one low pressure cylinder, surface condenser, starting engine &c.

ENGINES, maker of *Palmers Shipbuilding*
 „ age of *new & Iron Co. Ltd*
 „ last time taken out *—*
 „ present condition *new*
 Diameter of Cylinder *52 & 98*
 Length of stroke *52*
 No. per minute of Engines *50 Revs.*
 „ of Screw *50*
 Estimated power *400 H.P. nom.*
 Effective power *2000 H.P. indic.*
 Diameter of Screw (or Paddle Wheels) *18.0*
 Pitch of Screw *20.0 increasing to 26.0*
 No. of Blades (or Fins) *4*
 Description of Screw (or Fins) *movable blades*
 Holding down Bolts, size *1 1/2" diam.*
 „ present condition *new*

Bilge Pumps, No. (*2*) and size *9 1/2" diam 12" stroke*
 Feed „ No. (*2*) and size *6 1/2" " 30"*
 Spare gear, if usual quantity on board Vessel *yes*
 Fuel, where stowed *side bunkers in Engine & Boiler room & cross bunkers fore & aft*
 „ space between Coal Bunkers and Boilers *9 1/2"*
 „ for what quantity is space provided *554 tons*
 Donkey Engine and Boiler *yes*
 „ if fitted in Engine Room or on Deck *Donkey in Engine room boiler in fore hold.*
 „ can pump be worked by hand *yes*
 „ size of pump (*6"*) 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 *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.

The boilers are two in number cylindrical, tubular, double ended, with 12 circular furnaces, dry uptakes with 2 three flue superheaters on top. The boilers are fired from forward and aft ends.—

BOILER, maker of *Palmers Shipbuilding*
 „ age of *new & Iron Co. Ltd*
 „ when last taken out *—*
 „ present condition *new*
 „ working pressure *75 lbs.*

Can each Boiler be used separately *yes*
 What clear space between top of Boiler and woodwork *5.3*
 What clear space between Funnel and woodwork *2.3*
 Are Engine and Boiler Keelsons well connected fore and aft *yes*

No. of surface Blow off Cocks to each Boiler *one*
 SCREW SHAFT length *148.7* diameter *15 & 16* Tunnel thickness of plating *5/16* height *11.8 1/2 to 12.7 3/4*
 width *4.6* if water-tight door on Engine Bulkhead *yes*

Port *Newcastle on Tyne.* day of *December* 1873

We hereby certify, that the whole of the above Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel "*Whampoa*" belonging to *London* whereof *Mr. B. J. Jones* is Master, *2487.29* Tons Register, and *400* H.P. have been carefully inspected and examined by us at *Larrow on Tyne.* and we found the same, at this date, in good order and safe working condition.

Palmers Shipbuilding & Iron Co. Ltd
Thos. L. Smith
 Marine Engineers.