

# 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 surface condenser, one high & one low pressure cylinder.

ENGINES, maker of *Palmer's Shipbuilding & Iron Co. Ltd.*  
 „ age of *new*  
 „ last time taken out *—*  
 „ present condition *—*  
 Diameter of Cylinder *40 & 30.*  
 Length of stroke *42.*  
 No. per minute of Engines *66 revs*  
 „ of Screw *66*  
 Estimated power *290 HP nom*  
 Effective power *1400 - indic*  
 Diameter of Screw ( *—* ) *18.0*  
 Pitch of Screw *17.0 to 21.0.*  
 No. of Blades ( *—* ) *4*  
 Description of Screw ( *—* ) *movable*  
 Holding down Bolts, size *1 1/2 diam*  
 „ present condition *new.*

Bilge Pumps, No. ( *2* ) and size *6 diam, 2.3 stroke*  
 Feed „ No. ( *2* ) and size *6 2.3*  
 Spare gear, if usual quantity on board Vessel *yes*  
 Fuel, where stowed *In side bunker along engine room and in two chas*  
 „ space between Coal Bunkers and Boilers *bunkers fore & aft of boiler*  
 „ for what quantity is space provided *8.*  
 Donkey Engine and Boiler *are both provided* *a ballast*  
 „ if fitted in Engine Room or on Deck *Donkey in engine room* *donkey is also provided*  
 „ can pump be worked by hand *Boiler in fore* *and placed in engine room.*  
 „ 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 Flange; No. of Furnaces; if fitted with superheating apparatus; if fitted athwartships, or from fore, or after end of Boiler, &c.

*2 cylindrical tubular double ended boilers with 12 circular furnaces dry uptakes with two annular superheaters on top inclined towards base of funnel, which is above the centre of the boiler. The boilers are fired fore and aft.*

BOILER, maker of *Palmer's Shipbuilding & Iron Co. Ltd.* Can each Boiler be used separately *yes*  
 „ age of *new*  
 „ when last taken out *—*  
 „ present condition *—*  
 „ working pressure *75 lbs per square in*  
 No. of surface Blow off Cocks to each Boiler *one.*  
 What clear space between top of Boiler and woodwork *3.3*  
 What clear space between Funnel and woodwork *1.7*  
 Are Engine and Boiler Keelsons well connected fore and aft *yes*  
 SCREW SHAFT length *93.2* diameter *1 1/2 & 1 3/4* The tunnel is double plating *5.0 & 7.2*  
 width *4.3* if water-tight door on Engine Bulkhead *yes; the tunnel is water tight also*

Port *Newcastle on Tyne* 3<sup>rd</sup> day of *October* 1873

We hereby certify, that the whole of the above Machinery and Boilers of the Iron (*—*) Screw (*—*) Steam Vessel *"Neder Land"* belonging to *Antwerp* whereof *N. W. Janssen* is Master, *1019.33* Tons Register, and *290* 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.

*Palmer's Shipbuilding & Iron Co. Ltd.*

*Thos. Leitch*  
 Marine Engineer.



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