



17457

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER'S CERTIFICATE.

Rev 30/11/76

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.

Two Cylinders. Grasshopper-disconnecting by clutches on main shaft

ENGINES, maker of *Marshall. South Shields*
 „ age of *25 years*
 „ last time taken out *Nov 1876*
 „ present condition *In thorough repair*
 Diameter of Cylinder *Rebored 30 3/4"*
 Length of stroke *3 ft 8"*
 No. per minute of Engines *38*
 „ of ~~Screw~~
 Estimated power *60 horse*
 Effective power *180 horse*
 Diameter of ~~Screw~~ (or Paddle Wheels) *13 ft 4" outer rings*
 Pitch of ~~Screw~~
 No. of ~~Blades~~ (or Floats) *9 on each wheel*
 Description of ~~Screw~~ (or Floats) *Feathering*
 Holding down Bolts, size *1 1/4" dia*
 „ present condition *New*

Bilge Pumps, No. (*1*) and size *5 1/4" dia both chaupaths*
 Feed „ No. (*1*) and size *5 1/4" " from feed to bilge*
 Spare gear, if usual quantity on } *for wheels*
 board Vessel }
 Fuel, where stowed *Wing Bunkers*
 „ space between Coal Bunkers } *15"*
 and Boilers }
 „ for what quantity is space provided *15 Tons*
 Donkey Engine and ~~Boiler~~ *yes*
 „ if fitted in Engine Room } *Engine Room*
 on Deck }
 „ can pump be worked by hand *No*
 „ size of pump (*3 3/8*) and stroke *7 1/2"*
 „ is hose of sufficient length to }
 reach every part of the Vessel }
 No. (*1*) and continuation of hand } *dia 3 3/4 x 10" stroke*
 pumps, if fitted in Engine Room } *double acting worked from deck*

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 at end of Boiler, &c.

*dry bottomed - Wagon Shaped - Multitubular - No of Tubes 150
dia 3 1/2" - No of furnaces 4 fired from forward
No superheating apparatus*

BOILER, maker of *Samuel Perry. Dumbrie*
 „ age of *11 years*
 „ when last taken out *1876*
 „ present condition *(very good) through overhaul*
 „ working pressure *2 1/2 pounds per sq inch*
 No. of surface Blow off Cocks to } *One*
 each Boiler }

Can each Boiler be used separately *One Boiler*
 What clear space between top of } *10" to decks*
 Boiler and woodwork }
 What clear space between Funnel } *Iron casing*
 and woodwork }
 Are Engine and Boiler Keelsons } *all New. Built on*
 well connected fore and aft } *dup flooring plate 1/2"*
 height } *thick and connected by angle iron*

Screw Shaft length diameter Funnel thickness of plating
 width if water-tight door on Engine Bulkhead. *No - sluice Cocks*

Port of Dumbrie this 22nd day of August 1876

I hereby certify, that the whole of the above Machinery and Boilers of the Iron
 (or Wood) ~~Screw~~ (or Paddle) Steam Vessel *Lionel's* belonging to
Melbourn whereof *James Nolan* is Master, *26 1/2* Tons
 Register, and *60* H.P. have been carefully inspected and examined by *us* at
Dumbrie and *we* found the same, at this date, in good order and
 safe working condition.

A. M. Probie
Alexander G. Cairns
 Marine Engineers. *Suprs of Machinery*