

19517 Iron

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rev 29/10/77

Description *2 cyl^r Compound Inverted S.C.*
Made by *Messrs J. Readhead & Coy*
When *Oct* 18*77* At *South Shields*
Diameter of cylinder *24 1/2" 58"* Length of stroke *36"*
No. of revolutions per minute *67*
Point of cut off *12" to 24" H.P. 20" L.P.*
Diameter of screw shaft *9 1/4"*
Diameter of crank shaft journals *9 1/2"*
Diameter of screw, or of paddle wheel *14 feet*
Pitch of screw *15 to 14 feet*
No. of blades, *(4)* Total surface *48 sq. feet*
No. of bilge pumps *(2)* and sizes *3 1/2" dia 20" stroke*
Do they pump from each compartment *Eng. Room aft & Well*
& Fore Peak

Are all the bilge suction pipes fitted with roses *Yes*
No. of feed pumps *(2)* and sizes *3 1/2" dia 20" stroke*
What gauges are there attached to the engines and boilers ... *1 Steam each Boiler, 1 Steam each Engine, 1 Vacuum, 1 compound*
Description and size of Donkey Pumps ... *"Ballant" 6" dia 10" stroke D.A.*
"Boiler" 4" dia 9" stroke D.A.
Where do they pump from ... *"Ballant" from Tanks, Sea, aft Mill, Eng. room & fore peak*
"Boiler" as above & Hot well
No. of bilge injections *(1)* and sizes *3 1/2" dia*
Are they connected to air, or circulating pumps *circulating*
Is there a hand pump in the engine room *No*
Can it be worked by the main engines *—*
Is there a deck hose of sufficient length to reach to any part of the vessel *Yes*

MAIN BOILERS.

Number *(2)* Description *Cylindrical Tubular*
Made by *J. Readhead & Coy*
When *Oct* 18*77* At *South Shields*
Working pressure *70 lbs per sq. inch*
Tested by hydraulic pressure to *140 lbs*, Date *Sept 4-77*
Description of super-heating apparatus *None*
Can each boiler be worked separately *Yes*

Can the super-heater be shut off and the boilers worked separately *None*
Description and area of safety valves on each boiler ... *(2) Spring safety valves 3 1/4" dia = 16.4 sq. in. by Adams*
No. of square feet of fire-grate surface in each boiler *33 sq. feet*
Are there separate blow off and brine cocks on each boiler, independent of those on the vessel's skin *Yes*
Are all pipes, cocks, roses, and pumps in connection with the machinery accessible at all times. *all 4 expt roses in fore Peak*

DONKEY BOILER.

Description *Cylindrical Vertical 3 cross tubes*
Where fixed *Stokehold*
Working pressure *50 lbs per sq. inch*

Tested by hydraulic pressure to *100 lbs*, Date *24/8/77*
Description and area of safety valves *(1) dead weight 3" dia = 10"*
No. of square feet of fire grate *13.6 sq. feet*

PIPES, COCKS, AND CONNECTIONS.

Are all connections with the sea direct on the skin of the ship *Yes*
Are they Kingston valves or common cocks ... *(2) Stop Valves rest are common Cocks*
Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... *Yes*
Are the discharge pipes above or below the deep water line *above*
Are they each fitted with a discharge valve on the plating of the vessel *Yes*
J. Readhead & Coy Manufacturer.

What pipes are carried through the bunkers *None*
How are they protected *—*
When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *July 1877*
Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge *Yes*
Is the screw shaft-tunnel water tight and fitted with a sluice door on bulkhead *Yes*
Safety valves eased 70 lbs
closed 68 lbs
accumulated 70 lbs

I hereby certify that the whole of the above are correct particulars of the Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel *"Petrarch"* owned by *Messrs J. Readhead & Coy* of the Port of *London* of *1296.80* Tons Register, and *140* Registered Horse Power, and that they have been carefully inspected and examined by me at *South Shields* and found to be at this date, viz., *11th October* 18*77* in good order and safe working condition.

Amount of Fee for Survey ... £ *70:0:0* *George W. Marnell & James Milton*
(Travelling Expenses, if any, £ *0:10:0*) *Engineer Surveyors to Lloyd's Register of Shipping.*
North Shields.
27/10/77.
IRON474-0329