

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rev. 22/11/77

Description *2 cyl. Compound Inverted S.C.*
 Made by *Messrs J. Richardson & Son*
 When *1874* At *Hartlepool*
 Diameter of cylinder *25 1/4"* Length of stroke *30"*
 No. of revolutions per minute *64*
 Point of cut off *1/2 stroke*
 Diameter of screw shaft *8"*
 Diameter of crank shaft journals *8"*
 Diameter of screw, ~~or of paddle wheel~~ *10 feet*
 Pitch of screw *not ascertained*
 No. of blades, *(4)* Total surface *45 sq. feet*
 No. of bilge pumps *(1)* and sizes *3 1/4 dia 15 stroke*
 Do they pump from each compartment *Eng. Room only.*

Are all the bilge suction pipes fitted with roses *Yes*
 No. of feed pumps *(1)* and sizes *3 1/4 dia 15 stroke*
 What gauges are there attached to the engines and boilers ...
1 Steam gauge Eng. Room
1 Vacuum
1 Ballast 5 1/2 dia 4 stroke S.A.
 Description and size of Donkey Pumps ...
1 Boiler 4 dia 7 stroke D.A.
 Where do they pump from ...
"Ballast" from Tanks of fore hold
"Boiler" from Eng. room, Sea & Hot well
 No. of bilge injections *(1)* and sizes *4 1/2"*
 Are they connected to air, or circulating pumps *circulating*
 Is there a hand pump in the engine room *No; Boiler donkey*
 Can it be worked by the main engines *can be used*
 Is there a deck hose of sufficient length to reach to any part of the vessel *Yes.*

MAIN BOILERS.

Number *(1)* Description *Cylindrical Tubular*
 Made by *J. Richardson & Sons*
 When *1874* At *Hartlepool*
 Working pressure *69 lbs*
 Tested by hydraulic pressure to *not ascertained*, Date *—*
 Description of super-heating apparatus *None*
 Can each boiler be worked separately *one Boiler*

Can the super-heater be shut off and the boilers worked separately *None*
 Description and area of safety valves on each boiler ...
(2) dead weight each 4 1/4 dia
14.1 sq. in. = 28.2 sq. in.
 No. of square feet of fire-grate surface in each boiler *49 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 rose in fore hold.*

DONKEY BOILER.

Description *Vertical Cylindrical 2 cross tubes*
 Where fixed *upper deck*
 Working pressure *36 lbs per sq. inch*

Tested by hydraulic pressure to *not ascertained*, Date *—*
 Description and area of safety valves *1 dead weight 2 1/2 dia = 5.8 sq. in.*
 No. of square feet of fire grate *11 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 ... *1 Stop Valve rest common*
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... *Below stokehold plates & Eng. room floors*
 Are the discharge pipes above or below the deep water line *Below 4 expt ballast discharge well above*
 Are they each fitted with a discharge valve on the plating of the vessel *Yes 4 expt ballast discharge*

What pipes are carried through the bunkers *Ballast pump discharge*
 How are they protected *close under deck (copper pipes)*
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *Stern tube & screw shaft 1875 Propeller & all connections Nov-77*
 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 *Sluice door tunnel not water tight. open at aft part to hold.*

Manufacturer.

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

"*Yaggle*"

owned by *Messrs Cory Laidin & Co.*

of the Port of *W. Hartlepool*

of *555*

Tons Register, and

90

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.,

Nov 24th

1877

in good order and safe working condition.

Amount of Fee for Survey ... £

(Travelling Expenses, if any, £)

George W. Mammel

Engineer Surveyor to Lloyd's Register of Shipping.

North Shields