

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rec 4/1/77

Description *Inverted Compound Surface Condensing*
 Made by *Messrs J. Richardson & Sons*
 When *Decr 1876* At *Hartlepool*
 Diameter of cylinders *28 & 53* Length of stroke *33*
 No. of revolutions per minute *about 65*
 Point of cut off *1/2 stroke*
 Diameter of screw shaft *9"*
 Diameter of crank shaft journals *9"*
 Diameter of screw, or of paddle wheel *13' 0"*
 Pitch of screw *15' 6"*
 No. of blades, *4* Total surface *55 sq. feet*
 No. of bilge pumps *2* and sizes *2 1/2" dia. x 3 1/2" stroke*
 Do they pump from each compartment *from Engine room & Aft well*

Are all the bilge suction pipes fitted with roses *yes*
 No. of feed pumps *2* and sizes *3 1/2" x 23 1/2" stroke*
 What gauges are there attached to the engines and boilers ... *1 steam in the stokehold & 1 in the engine room. 1 vacuum gauge.*
 Description and size of Donkey Pumps ... *2 double acting inverted 7 1/2" dia x 9" stroke & 3 1/2" x 8" stroke.*
 Where do they pump from ... *Large one from the sea tanks, & bilges of engine room. The small one from the sea, hold, & bilges of engine room & aft well.*
 No. of bilge injections *one* and sizes *4 1/2" diameter*
 Are they connected to air, or circulating pumps *to circulating pumps*
 Is there a hand pump in the engine room *yes*
 Can it be worked by the main engines *no*
 Is there a deck hose of sufficient length to reach to any part of the vessel *yes*

MAIN BOILERS.

Number *one* Description *Cylindrical Multitubular*
 Made by *Messrs J. Richardson & Sons*
 When *Decr 1876* At *Hartlepool*
 Working pressure *65 lbs per sq. inch*
 Tested by hydraulic pressure to *130 lbs*, Date *Nov 7/76*
I was present M.A.
 Description of super-heating apparatus *none*
 Can each boiler be worked separately *only 1 boiler*

Can the super-heater be shut off and the boilers worked separately
 Description and area of safety valves on each boiler *2 spring safety valves 4 3/8" dia = 30 sq. ins area*
 No. of square feet of fire-grate surface in each boiler *60*
 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 *yes*

DONKEY BOILER.

Description *Upright Cylindrical with 2 Cross tubes*
 Where fixed *in the stokehold*
 Working pressure *53 lbs per sq. inch*

Tested by hydraulic pressure to *130 lbs*, Date *Oct 18/76*
 Description and area of safety valves *2 sliding door 2 1/2" dia & 2 1/2" weight 2 1/2" dia = 8.3 sq. ins*
 No. of square feet of fire grate *10*

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 ... *stop valves & 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 *at the deep lead line*
 Are they each fitted with a discharge valve & the plating of the vessel *yes*

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 *new*
 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 fitted tunnel open to the gutter way of ballast tank*

J. Richardson & Sons
M. Chas Smith

Manufacturer *Except of the Donkey boiler*

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 *"Kaieteur"* owned by *Steel, Young & Co.*
 of the Port of *London* of *803.48* Tons Register, and *110* Registered Horse Power,
 and that they have been carefully inspected and examined by me at *Hartlepool*
 and found to be at this date, viz., *Decr 13th* 1876 in good order and safe working condition.

Amount of Fee for Survey ... £ 5:10:

(Travelling Expenses, if any, £ 2.5

£5.15 Received at Hartlepool

William Allison

Engineer Surveyor to Lloyd's Register of Shipping.