

18033 Iron

LOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

Rec 24/4/77

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Description *Compound Inverted Direct acting*
Made by *Wm Barclay Curle & Co*
When *1877* At *Glasgow*
Diameter of cylinder *36" & 63"* Length of stroke *39"*
No. of revolutions per minute *about 75*
Point of cut off *Variable*
Diameter of screw shaft *11 3/4"*
Diameter of crank shaft journals *11 1/2"*
Diameter of screw, *or of propeller shaft* *16 1/2"*
Pitch of screw *16" & 6"*
No. of blades *four* Total surface *66 ft*
No. of bilge pumps *One* and sizes *5 1/2" dia x 22" stroke*
Do they pump from each compartment *Yes*

Are all the bilge suction pipes fitted with roses *Yes*
No. of feed pumps *One* and sizes *5 1/2" dia x 22" stroke*
What gauges are there attached to the engines and boilers ... *Two Steam, One Vacuum & One Compound.*
Description and size of Donkey Pumps ... *Double acting 4 3/4" x 10" stroke*
Where do they pump from ... *From the sea, bilge & Hotwell.*
No. of bilge injections *One* and sizes *4" G. Circulating*
Are they connected to air, or circulating pumps *To Air pump*
Is there a hand pump in the engine room *Yes*
Can it be worked by the main engines *Yes*
Is there a deck hose of sufficient length to reach to any part of the vessel *Yes*

MAIN BOILERS.

Number *One* Description *Round Horizontal fired from both ends.*
Made by *Barclay Curle & Co*
When *1877* At *Glasgow*
Working pressure *60 lbs*
Tested by hydraulic pressure to *120 lbs*, Date *Feb 1877*
Description of super-heating apparatus *Round vertical with flue*
Can each boiler be worked separately

Can the super-heater be shut off and the boilers worked separately *No*
Description and area of safety valves on each boiler ... *Two Direct Spring each 23.75" area*
No. of square feet of fire-grate surface in each boiler *about 95 ft*
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 *Flat Sided, Horizontal*
Where fixed *on Upper Deck*
Working pressure *35 lbs*

Tested by hydraulic pressure to *40 lbs*, Date *Feb 1877*
Description and area of safety valves *Direct loaded*
No. of square feet of fire grate *12 ft*

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 ... *Screw down valves & cocks*
Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... *All fitted above turn of bilge*
Are the discharge pipes above or below the deep water line *Below*
Are they each fitted with a discharge valve on the plating of the vessel *Yes*

What pipes are carried through the bunkers *Main Steam pipes through afterwatertight bulkhead*
How are they protected *fitted close up to deck*
When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *On Slip previous to being launched*
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*

Barclay Curle & Co Manufacturer.
per J.G.

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 *Laymouth Castle* owned by *S. Currie & Co*
of the Port of *London* of *1172* Tons Register, and *190* Registered Horse Power,
and that they have been carefully inspected and examined by me at *Glasgow*
and found to be at this date, viz., *April 18th* 1877 in good order and safe working condition.

Amount of Fee for Survey ... £ *9:10:-*
(Travelling Expenses, if any, £ ...)

James Morrison
Engineer Surveyor to Lloyd's Register of Shipping.

