

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rec 11/10/77

Description *Inverted diagonal.*
 Made by *C. & W. Earle*
 When *1856* At *Hull*
 Diameter of cylinder *37 1/4"* Length of stroke *30"*
 No. of revolutions per minute *68*
 Point of cut off *1/2 of stroke.*
 Diameter of screw shaft *7 1/2"*
 Diameter of crank shaft journals *9"*
 Diameter of screw, ~~on of paddle wheel~~ *10" 0"*
 Pitch of screw *19" 0"*
 No. of blades, *4* Total surface *—*
 No. of bilge pumps *2* and sizes *4" dia. 1 1/2" stroke.*
 Do they pump from each compartment *Yes*

Are all the bilge suction pipes fitted with roses *Yes*
 No. of feed pumps *2* and sizes *4" dia. 1 1/2" stroke.*
 What gauges are there attached to the engines and boilers ... *One Steam gauge } Engine Room*
One Vacuum gauge } Boiler Room
 Description and size of Donkey Pumps ... *2 Steam gauges in Boiler Room.*
Vertical, 7" dia, 8" stroke.
 Where do they pump from ... *From Bilge and from Sea.*
 No. of bilge injections *2* and sizes *2 1/4" valves*
 Are they connected to air, or circulating pumps *air pump.*
 Is there a hand pump in the engine room *Yes*
 Can it be worked by the main engines *No, from deck.*
 Is there a deck hose of sufficient length to reach to any part of the vessel *Yes*

MAIN BOILERS.

Number *2* Description *Circular tubular*
 Made by *Earle & Co*
 When *1873* At *Hull*
 Working pressure *25 lb p. sq. inch, reduced from 30 lb.*
 Tested by hydraulic pressure to *60 lb p. sq. inch* Date *When new.*
 Description of super-heating apparatus *Circular horizontal chest*
 Can each boiler be worked separately *Yes*

Can the super-heater be shut off and the boilers worked separately *No*
 Description and area of safety valves on each boiler *2 Lever valves*
22" 2"
 No. of square feet of fire-grate surface in each boiler *42 1/2*
 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 *Vertical cylindrical*
 Where fixed *On deck.*
 Working pressure *50 lb p. sq. inch.*

Tested by hydraulic pressure to *100 lb p. sq. inch* Date *When new.*
 Description and area of safety valves *One direct loaded, 3, 9 1/2"*
 No. of square feet of fire grate *9, 5 1/2*

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 ... *Common cocks with guards*
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates *No*
 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 *Scum pipes leading into the discharge pipes of landlaver*
 How are they protected *By an iron casing.*
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *25th & 30th May 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 *No*

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 *Albert* owned by *J. Lawson*
 of the Port of *Hull* of *287* Tons Register, and *90* Registered Horse Power,
 and that they have been carefully inspected and examined by me at *Hull*
 and found to be at this date, viz., *October 9th* 1877 in good order and safe working condition.

Amount of Fee for Survey ... £ : :

(Travelling Expenses, if any, £.)

(1000/31/7/76.)

Engineer Surveyor to Lloyd's Register of Shipping.

A. W. Heydell

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