Claims

1. A gas turbine system, comprising:

an ammonia tank configured to store ammonia in a liquid state;

a combustor connected to the ammonia tank, and to which the ammonia is supplied in a liquid state;

an exhaust flow passage connected to the combustor;

a boiler provided in the exhaust flow passage;

a steam turbine connected to the boiler;

a condenser connected to the steam turbine;

a heat-medium flow passage passing through the condenser; and

a heat exchanger, which is arranged on an upstream side of the condenser in the heat-medium flow passage, on a downstream side of the condenser in the heat-medium flow passage, or in a flow passage that connects the steam turbine, the condenser, and the boiler, the heat exchanger through which an ammonia flow passage that connects the ammonia tank and the combustor to each other passes,

wherein the ammonia is heated in the heat exchanger to such a degree that the ammonia is not vaporized.

2. The gas turbine system according to claim 1,

wherein the heat exchanger comprises:

a first heat exchanger arranged on an upstream side of the condenser in the heat-medium flow passage; and

a second heat exchanger arranged on a downstream side of the condenser in the heat-medium flow passage, and

wherein the ammonia flow passage is provided with a switching mechanism configured to switch a path for the ammonia between a plurality of paths in which the ammonia passes through a different one or ones of the heat exchangers.

3. The gas turbine system according to claim 2, wherein the switching mechanism switches the path for the ammonia based on at least one of a state of the ammonia in the ammonia flow passage or a state of a heat medium in the heat-medium flow passage.