[Claims]

[Claim 1]

An intermediate fluid type vaporizer, comprising:

an intermediate medium evaporation unit including a heat transfer tube through which seawater flows, and configured to evaporate at least a part of an intermediate medium in the form of a liquid on the outside of the heat transfer tube by heat exchange between the seawater in the heat transfer tube and the intermediate medium; and

a liquefied gas vaporization unit including a heat transfer tube through which cryogenic liquefied gas flows, and configured to vaporize the cryogenic liquefied gas flowing through the heat transfer tube by condensing the intermediate medium evaporated in the intermediate medium evaporation unit, wherein:

the heat transfer tube of the intermediate medium evaporation unit is made of titanium or a titanium alloy, and an outer circumferential surface of the heat transfer tube is formed with grooves having cavities communicating with the outside via gaps formed on an outer surface of the heat transfer tube;

the width of the cavity of the groove on a deep side of the groove is larger than the width of the gap of the groove on the outer surface side;

the intermediate medium evaporation unit is adjacent to a seawater entrance chamber configured to introduce seawater into the heat transfer tube, the seawater entrance chamber being connected to an introduction tube being configured to introduce the seawater into the seawater entrance chamber without subjecting the seawater to heat exchange with gas vaporized in the heat transfer tube: and

the heat transfer tube of the liquefied gas vaporization unit is constituted by a finned tube made of stainless steel, the intermediate fluid type vaporizer further comprising

another heat transfer tube of the liquefied gas vaporization unit constituted by a finned tube made of stainless steel, the heat transfer tube and the another heat transfer tube being axially

aligned, wherein:

the liquefied gas vaporization unit includes an exit chamber into which the gas vaporized in the heat transfer tube flows; and

the exit chamber is connected to a delivery tube for supplying gas flowing out of the exit chamber to a user, without heating the gas.

[Claim 2]

The intermediate fluid type vaporizer according to claim 1, wherein

the cryogenic liquefied gas is heated to a temperature of 0 °C or higher in the liquefied gas vaporization unit.