Claims

[Claim 1]

A ship comprising:

a hull having a pair of broadsides;

a tank that is provided in the hull and is capable of storing liquefied carbon dioxide; and

a loading pipe that loads liquefied carbon dioxide that is supplied from an outside of the ship into the tank,

wherein the loading pipe includes

a transport pipe having a connection part for connection with the outside of the ship,

an upper loading pipe that branches off and extends from the transport pipe and is open in the tank and at a height equal to or higher than a height of a liquid level of the liquefied carbon dioxide corresponding to 90% of a volume of the tank in an up-down direction,

a lower loading pipe that branches off and extends from the transport pipe and is open in the tank and at a height equal to or lower than a height of the liquid level of the liquefied carbon dioxide corresponding to 10% of the volume of the tank in the up-down direction,

a first on-off valve provided in the upper loading pipe, and

a second on-off valve provided in the lower loading pipe.

[Claim 2]

The ship according to claim 1, further comprising:

a control device that controls opening/closing operations of the first on-off valve and the second on-off valve, based on a liquid level of the liquefied carbon dioxide in the tank, when the liquefied carbon dioxide is loaded into the tank.

[Claim 3]

The ship according to claim 2, further comprising:

a liquid level detection unit that detects the liquid level of the liquefied carbon dioxide that is stored in the tank,

wherein the control device opens the first on-off valve to load the liquefied carbon dioxide into the tank through the upper loading pipe, and the control device closes the first on-off valve and opens the second on-off valve to load the liquefied carbon dioxide into the tank through the lower loading pipe in a case where the liquid level of the liquefied carbon dioxide that is detected by the liquid level detection unit reaches a switching level Ls set to be higher than an opening of the lower loading pipe.

[Claim 4]

The ship according to claim 2 or 3, further comprising:

a pressure detection unit that detects a pressure of the liquefied carbon dioxide in the loading pipe,

wherein the control device closes the second on-off valve and opens the first on-off valve in a case where the pressure of the liquefied carbon dioxide that is detected by the pressure detection unit becomes equal to or lower than a reference pressure determined in advance, in a state where the second on-off valve is opened.

[Claim 5]

A method of loading liquefied carbon dioxide into the ship according to any one of claims 1 to 4, the method comprising:

a step of opening the first on-off valve to load the liquefied carbon dioxide into the tank through the upper loading pipe; and

a step of closing the first on-off valve and opening the second on-off valve to load the liquefied carbon dioxide into the tank through the lower loading pipe, after a liquid level of the liquefied carbon dioxide in the tank has reached a switching level Ls set to be higher than an opening of the lower loading pipe.