liquefied fuel gas to a liquefied-fuel-gas propulsion ship on the sea.

Another embodiment of the present invention is directed to a ship for bunkering liquefied fuel gas, which includes a facility capable of treating boil-off gas (BOG) produced while supplying liquefied fuel gas.

SUMMARY OF THE INVENTION

According to an aspect of the present invention, there is provided a ship for bunkering liquefied fuel gas to a liquefied-fuel-gas propulsion ship in need of refuelling at sea, the ship comprising: a liquefied-fuel-gas storage tank installed in the ship; a fuel supply pipe connected to the liquefied-fuel-gas storage tank and supplying fuel to the liquefied-fuel-gas propulsion ship; and a boil-off gas (BOG) collection pipe collecting BOG produced in a liquefied fuel gas tank of the liquefied-fuel-gas propulsion ship during refuelling, wherein the BOG collected through the BOG collection pipe is treated by a BOG treatment unit, wherein the BOG treatment unit comprises a storage tank which stores the BOG collected through the BOG collection pipe and compressed at a high pressure by a compressor, wherein the BOG treatment unit further comprises a propulsion engine, a boiler, a gas turbine, or a generator of the ship, to which the BOG is supplied and consumed, wherein the BOG stored in the storage tank is consumed in a said propulsion engine, a said boiler, a said gas turbine, or a said generator of the ship.

ADVANTAGEOUS EFFECTS

According to the embodiment of the present invention, fuel may be bunkered to the liquefied-fuel-gas propulsion ship on the sea by the ship for bunkering liquefied fuel gas. Therefore, a time and effort required for refueling the liquefied-fuel-gas propulsion ship may be considerably reduced, and a cost required for bunkering liquefied fuel gas may be reduced. Furthermore, since the ship for bunkering liquefied fuel gas includes the BOG treatment facility, the liquefied-fuel-gas propulsion ship does not need to include a facility for treating a large amount of BOG produced during the liquefied fuel gas supply process. Therefore, it is possible to save a cost of the liquefied-fuel-gas propulsion ship.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a diagram explaining a case in which a ship for bunkering liquefied fuel gas according to an embodiment of the present invention supplies fuel to a liquefied-fuel-gas propulsion ship on the sea.

FIG. 2 is a flow chart showing a method for supplying fuel to the liquefied-fuel-gas propulsion ship from the ship for bunkering liquefied fuel gas according to the embodiment of the present invention.

FIG. 3 is a diagram explaining a method for treating the BOG produced when the ship for bunkering liquefied fuel gas according to the embodiment of the present invention supplies liquefied fuel gas.

<DESCRIPTION OF THE SYMBOLS IN MAIN PORTIONS OF THE DRAWINGS>

10: LNG supply ship

11: LNG storage tank