{Abstract}

A boil-off gas processing system (4) includes: a boiler (15) configured to combust a boil-off gas generated in a tank (3) storing an LNG and generate steam; a re-liquefaction device (13) configured to perform a liquefaction process on the boil-off gas generated in the tank (3); a gas-liquid separator (14) configured to separate, into a gas phase and a liquid phase, a boil-off gas in a gas-liquid mixture state on which the liquefaction process has been performed by the re-liquefaction device (13); a flow channel configured to guide a gas-phase boil-off gas separated by the gas-liquid separator (14) to a propulsion machinery engine (2); a flow channel configured to guide the gas-phase boil-off gas separated by the gas-liquid separator (14) to the boiler (15); and a first valve (19a), a second valve (33a), and a third valve (36a) configured to switch whether to guide the gas-phase boil-off gas separated by the gas-liquid separator (14) to the propulsion machinery engine (2) or to the boiler (15).