

REFRIGERANT CYCLE PRESSURE CONTROL SYSTEM FOR RELIQUEFACTION SYSTEM FOR SHIP

【ABSTRACT】

Disclosed herein is a refrigerant cycle pressure control system for a reliquefaction system for a ship. The refrigerant cycle pressure control system includes: a heat exchanger provided to the reliquefaction system and cooling boil-off gas received from a storage tank; a refrigerant cycle including a refrigerant circulation line through which a refrigerant is circulated to cool the boil-off gas in the heat exchanger, a refrigerant compressor disposed on the refrigerant circulation line and compressing the refrigerant discharged from the heat exchanger after cooling the boil-off gas in the heat exchanger, and an expander expanding and cooling the refrigerant compressed by the refrigerant compressor and having been cooled through the heat exchanger and supplying the expanded and cooled refrigerant to the heat exchanger; an inventory tank storing the refrigerant to be charged to the refrigerant cycle; a refrigerant supply line connecting the inventory tank to an upstream side of the refrigerant compressor to replenish the refrigerant cycle with the refrigerant; a refrigerant discharge line connecting a downstream side of the refrigerant compressor to the inventory tank to discharge the refrigerant from the refrigerant cycle to the inventory tank; and a pressure regulation line branched off of the refrigerant discharge line, wherein the refrigerant cycle is depressurized by discharging the refrigerant from the refrigerant cycle through the refrigerant discharge line or the pressure regulation line.

Figure 2