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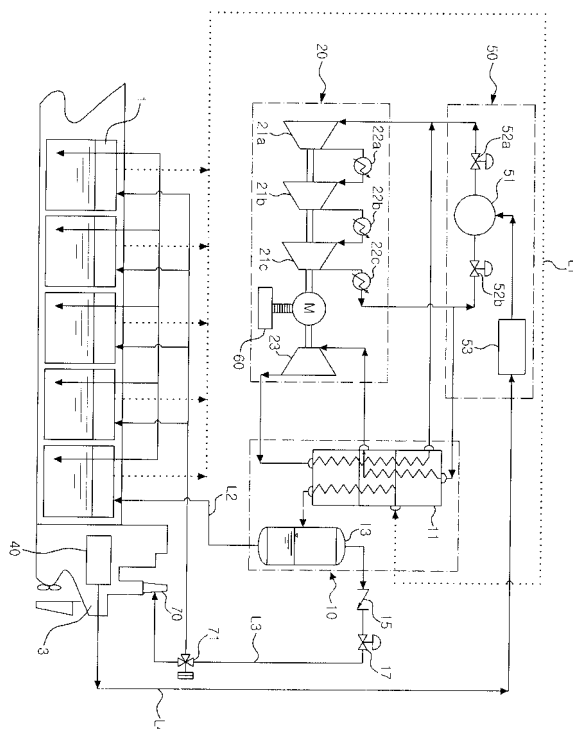
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(54) **Apparatus and method for reliquefying boil-off gas capable of operating with variable refrigeration load**

(57) The invention relates to an apparatus and a method for reliquefying boil-off gas in which the refrigeration load of a refrigeration system (20) can be changed when the reliquefaction load of the apparatus for reliquefying boil-off gas is changed. The boil-off gas reliquefaction apparatus according to the present invention, which supercools and reliquefies the boil-off gas generated in an LNG storage tank (1) by allowing the boil-off gas to pass through a cryogenic heat exchanger (11) via a boil-off gas discharge line (L1), and then to pass through a gas-liquid separator (13) installed at a rear end of the cryogenic heat exchanger (11), so as to return the boil-off gas to the LNG storage tank (1), is characterized in that the cryogenic heat exchanger (11) is connected to a refrigeration system (20) for compressing and expanding a refrigerant, in that the refrigerant system (20) comprises a multi-stage compressor (21a, 21b, 21c, 22a, 22b, 22c), an expander, (23) and a motor (M), and in that the motor is connected to an inverter (60).

Fig. 1





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Place of search Munich		Date of completion of the search 20 June 2012	Examiner Schopfer, Georg
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