

Title (en)

Refrigeration cycle apparatus

Title (de)

Vorrichtung mit einem Kühlkreislauf

Title (fr)

Appareil à cycle de réfrigération

Publication

**EP 1717528 A3 20110803 (EN)**

Application

**EP 06008291 A 20060421**

Priority

JP 2005126995 A 20050425

Abstract (en)

[origin: EP1717528A2] In a refrigeration cycle apparatus in which carbon dioxide is used as refrigerant and refractory oil is used as lubricating oil in a compressor, it is an object of the present invention to reduce influence of adhesion of lubricating oil to the internal heat exchanger, and to enhance the heat exchanging efficiency of the internal heat exchanger. A refrigeration cycle apparatus in which a compressor 11, a radiator 12, an expansion valve 13 and an evaporator 14 are connected to one another through tubes, said refrigeration cycle apparatus comprises an internal heat exchanger 30 for exchanging heat between a high pressure refrigerant which flows out from said radiator 12 and low pressure refrigerant which flows out from said evaporator 14, wherein carbon dioxide is used as the refrigerant, refractory oil is used as lubricating oil in said compressor 11, said internal heat exchanger 30 comprises a first heat exchanger tube 31 through which the high pressure refrigerant in a supercritical region flows and a second heat exchanger tube 32 through which the low pressure refrigerant flows, said first heat exchanger tube 31 is disposed in said second heat exchanger tube 32.

IPC 8 full level

**F25B 9/00** (2006.01); **F25B 40/00** (2006.01)

CPC (source: EP US)

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**F25B 2309/061** (2013.01 - EP US); **F25B 2500/01** (2013.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

**EP 1717528 A2 20061102**; **EP 1717528 A3 20110803**; CN 1854647 A 20061101; CN 1854647 B 20120919; JP 2006300488 A 20061102;  
JP 4387974 B2 20091224; US 2006260354 A1 20061123

DOCDB simple family (application)

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