

Title (en)

ARRANGEMENT AND METHOD FOR REMOVING HEAT FROM A COMPONENT WHICH IS TO BE COOLED

Title (de)

ANORDNUNG UND VERFAHREN ZUR WERMEABFUHR VON EINEM ZU K HLENDEN BAUTEIL

Title (fr)

DISPOSITIF ET PROCEDE DE DISSIPATION DE LA CHALEUR D'UN COMPOSANT A REFROIDIR

Publication

EP 1543244 A1 20050622 (DE)

Application

EP 03750641 A 20030926

Priority

- DE 10245382 A 20020928
- EP 0310729 W 20030926

Abstract (en)

[origin: WO2004031588A1] The invention relates to an arrangement for removing heat from a component which is to be cooled. Said arrangement comprises a pump for pumping a coolant. The pump comprises a pump rotor, a ventilator which comprises a ventilation rotor which is associated with an electric motor for the drive thereof. The pump rotor and the ventilation rotor are separated from each other in a liquid tight manner and are connected together in a drive-wise manner by means of a magnetic coupling. The invention also relates to a method for removing heat from a component which is to be cooled, using a ventilator which comprises a ventilation rotor and a drive motor, and a pump which comprises a pump rotor and a coolant which can be pumped through the pump. Said method comprises the following steps: A) The ventilation motor is rotationally displaced by the drive motor; B) the pump rotor is rotationally displaced by the rotational movement of the ventilation motor via the magnetic coupling; C) the coolant flows as a result of the rotation of the pump rotor.

IPC 1-7

F04D 25/16; F04D 13/12; F04D 13/02

IPC 8 full level

F04D 13/02 (2006.01); **F04D 13/12** (2006.01); **F04D 25/16** (2006.01); **F28D 15/00** (2006.01); **F28F 1/12** (2006.01)

CPC (source: EP US)

F04D 13/024 (2013.01 - EP US); **F04D 13/12** (2013.01 - EP US); **F04D 25/0613** (2013.01 - EP US); **F04D 25/16** (2013.01 - EP US); **F28D 15/00** (2013.01 - EP US); **F28F 1/128** (2013.01 - EP US); **F28D 2021/0029** (2013.01 - EP US); **F28D 2021/0031** (2013.01 - EP US)

Citation (search report)

See references of WO 2004031588A1

Citation (examination)

- DE 3630921 A1 19880324 - VDO SCHINDLING [DE]
- US 4927337 A 19900522 - LUSTWERK FERDINAND [US]

Designated contracting state (EPC)

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

DOCDB simple family (publication)

WO 2004031588 A1 20040415; AU 2003270279 A1 20040423; DE 10344699 A1 20040408; DE 10344699 B4 20160609;
EP 1543244 A1 20050622; US 2006032625 A1 20060216; US 7509999 B2 20090331

DOCDB simple family (application)

EP 0310729 W 20030926; AU 2003270279 A 20030926; DE 10344699 A 20030926; EP 03750641 A 20030926; US 52747105 A 20050311