

Title (en)

Oil-free fluid machine having two or more rotors

Title (de)

Ölfreie-Fluidmaschine mit zwei oder mehr Rotoren

Title (fr)

Machine fonctionnant à l'aide d'un fluide dépourvu d'huile ayant deux rotors ou plus

Publication

**EP 1927758 A1 20080604 (EN)**

Application

**EP 07022875 A 20071126**

Priority

JP 2006323961 A 20061130

Abstract (en)

An oil-free fluid machine unit is provided of which the fluid machine has two or more rotors and torque transmission between the rotors can be performed without a need of using lubrication oil thereby eliminating contamination induced by lubrication oil and without reduction of longevity of the synchronizing gears. The drive shaft 12 of the drive motor 11 is connected to the rotor shaft 14 of the fluid machine, synchronization gears 18 and 19 are attached to the rotor shafts 14 and 15 at the motor 11 side end of the rotor shafts respectively, and pulleys 16 and 17 are attached to the rotor shafts 14 and 15 at the other side ends respectively opposite to the motor 11 and a belt is looped over the pulleys so that the pulleys are rotated in counter direction to each other. At least one of the synchronization gears is made of plastic material. Thus, torque transmission between the rotors is done in two ways, via synchronization gear drive and belt drive.

IPC 8 full level

**F04C 29/00** (2006.01); **F04C 18/12** (2006.01)

CPC (source: EP US)

**F04C 29/005** (2013.01 - EP US); **F04C 18/126** (2013.01 - EP US)

Citation (applicant)

JP H06185483 A 19940705 - SHINKU KIKO KK

Citation (search report)

- [X] GB 2176848 A 19870107 - SPECTRA PHYSICS
- [A] WO 9511385 A1 19950427 - OPCON AUTOROTOR AB [SE], et al
- [DA] JP H06185483 A 19940705 - SHINKU KIKO KK

Cited by

AU2011238240B2; DE102010014218B4; WO2011124213A3; WO2020007665A1

Designated contracting state (EPC)

DE GB

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

**EP 1927758 A1 20080604**; CN 101260885 A 20080910; JP 2008138549 A 20080619; US 2008131302 A1 20080605

DOCDB simple family (application)

**EP 07022875 A 20071126**; CN 200710185727 A 20071130; JP 2006323961 A 20061130; US 94618307 A 20071128