

Title (en)  
TWO-SHAFT VACUUM PUMP

Title (de)  
WEIWELLENVAKUUMPUMPE

Title (fr)  
POMPE A VIDE A DEUX ARBRES

Publication  
**EP 1307657 A1 20030507 (DE)**

Application  
**EP 01960473 A 20010706**

Priority  
• DE 10039006 A 20000810  
• EP 0107739 W 20010706

Abstract (en)  
[origin: WO0212726A1] The invention relates to a vacuum pump comprising two shafts (3, 4) and two rotors (1, 2) which co-operate with each other and which are fixed to the shafts. The rotors are cantilevered by means of the shafts. The invention aims to enable the rotors to be fixed to the shafts in a manner which is devoid of backlash, even during temperature changes. In order to achieve this, the shafts (3, 4) consist of a material having an elasticity module which is as high as possible, e.g. steel, the rotors (1, 2) consist of a material having a density which is as low as possible, e.g. aluminium or a titanium alloy, and means are provided to ensure that the rotors (1, 2) are fixed to the shafts (3, 4) in a manner which is devoid of backlash at all operating temperatures.

IPC 1-7  
**F04C 18/16**; **F04C 18/08**; **F04C 29/04**

IPC 8 full level  
**F04C 18/08** (2006.01); **F04C 18/16** (2006.01); **F04C 25/02** (2006.01); **F04C 29/00** (2006.01); **F04C 29/04** (2006.01)

CPC (source: EP KR US)  
**F02B 39/00** (2013.01 - KR); **F04C 18/084** (2013.01 - EP US); **F04C 18/16** (2013.01 - EP KR US); **F04C 29/04** (2013.01 - EP US)

Citation (search report)  
See references of WO 0212726A1

Cited by  
DE102011108092A1

Designated contracting state (EPC)  
CH DE FR GB IT LI

DOCDB simple family (publication)  
**WO 0212726 A1 20020214**; AU 8196201 A 20020218; CN 1273741 C 20060906; CN 1446291 A 20031001; DE 10039006 A1 20020221; DE 50113380 D1 20080124; EP 1307657 A1 20030507; EP 1307657 B1 20071212; JP 2004506140 A 20040226; JP 4944347 B2 20120530; KR 100948988 B1 20100323; KR 20030027009 A 20030403; TW 538199 B 20030621; US 2004091380 A1 20040513; US 6863511 B2 20050308

DOCDB simple family (application)  
**EP 0107739 W 20010706**; AU 8196201 A 20010706; CN 01813970 A 20010706; DE 10039006 A 20000810; DE 50113380 T 20010706; EP 01960473 A 20010706; JP 2002517982 A 20010706; KR 20037001780 A 20010706; TW 90119355 A 20010808; US 34395803 A 20030205