

Title (en)  
VACUUM PUMP

Title (de)  
VAKUUMPUMPE

Title (fr)  
POMPE A VIDE

Publication  
**EP 1476661 B1 20120111 (DE)**

Application  
**EP 03702650 A 20030218**

Priority  
• DE 10207929 A 20020223  
• EP 0301598 W 20030218

Abstract (en)  
[origin: WO03071134A1] The vacuum pump (10) comprises at least one rotor shaft (12) having a rotor section (14) with a rotor (16), a bearing section (18) with a bearing (20), and a shaft sealing system (22) that is axially situated between the rotor section (14) and the bearing section (18). The shaft sealing system (22) axially comprises, on the side of the rotor, a gas seal (32) and, on the side of the bearing, an oil seal (34). The shaft sealing system (22) additionally comprises, between the gas seal (32) and the oil seal (34), a separating chamber, which surrounds the rotor shaft (12) and is ventilated by at least one separating chamber ventilation duct (60, 62). This enables the pressure differential that decreases via the gas seal and the pressure differential that decreases via the oil seal to be adjusted. An appropriate adjustment can prevent oil on the bearing side from passing through the oil seal toward the separating chamber.

IPC 8 full level  
**F04C 25/02** (2006.01); **F04C 27/00** (2006.01); **F16J 15/18** (2006.01); **F16J 15/447** (2006.01)

CPC (source: EP US)  
**F04C 27/009** (2013.01 - EP US); **F04C 2220/40** (2013.01 - EP US)

Cited by  
EP2431613A3

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

DOCDB simple family (publication)  
**WO 03071134 A1 20030828**; AU 2003205775 A1 20030909; DE 10207929 A1 20030904; EP 1476661 A1 20041117; EP 1476661 B1 20120111; JP 2005517866 A 20050616; JP 2009270581 A 20091119; JP 5135301 B2 20130206; US 2005147517 A1 20050707; US 7153093 B2 20061226

DOCDB simple family (application)  
**EP 0301598 W 20030218**; AU 2003205775 A 20030218; DE 10207929 A 20020223; EP 03702650 A 20030218; JP 2003570008 A 20030218; JP 2009190920 A 20090820; US 50560805 A 20050211