

Title (en)
Vacuum pump

Title (de)
Vakuumpumpe

Title (fr)
Pompe à vide

Publication
EP 1890040 B1 20120627 (DE)

Application
EP 07022290 A 20031112

Priority
• EP 03779691 A 20031112
• DE 10252769 A 20021113

Abstract (en)
[origin: WO2004044431A2] The invention concerns a vacuum pump designed in particular for motor vehicle braking power amplifiers, the pump being normally driven by an internal combustion engine of the vehicle, in a (front) rotational direction, the pump including a device for limiting damage resulting from rotations in the opposite direction.

IPC 8 full level
F04C 18/344 (2006.01); **F04C 18/46** (2006.01); **F04C 28/04** (2006.01); **F04C 28/26** (2006.01); **F04C 28/28** (2006.01); **F04C 29/00** (2006.01); **F04C 29/12** (2006.01)

CPC (source: EP)
F04C 18/3441 (2013.01); **F04C 28/04** (2013.01); **F04C 28/28** (2013.01); **F04C 2220/10** (2013.01); **F04C 2250/101** (2013.01)

Cited by
DE102016202426A1; DE102016207123A1; DE102009016048A1; DE102016207115A1; DE102016122903A1; DE102009016048B4;
WO2015101904A1; US11346343B2; US11306718B2; US8469684B2; US9017051B2

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 2004044431 A2 20040527; **WO 2004044431 A3 20040916**; AU 2003287863 A1 20040603; AU 2003287863 A8 20040603;
DE 10393279 D2 20050602; EP 1563190 A2 20050817; EP 1890040 A2 20080220; EP 1890040 A3 20080227; EP 1890040 B1 20120627

DOCDB simple family (application)
DE 0303747 W 20031112; AU 2003287863 A 20031112; DE 10393279 T 20031112; EP 03779691 A 20031112; EP 07022290 A 20031112