

Title (en)  
Solenoid pump

Title (de)  
Magnetpumpe

Title (fr)  
Pompe solénoïde

Publication  
**EP 1985857 A3 20081119 (EN)**

Application  
**EP 08251536 A 20080428**

Priority  
CN 200710100946 A 20070428

Abstract (en)  
[origin: EP1985857A2] A method of reducing or eliminating vibration in a linear reciprocating solenoid pump 10, the method comprising the steps of providing a solenoid pump 10 having a linear reciprocating plunger 14 and providing an electric circuit 48 to energize electro-motion means 16 of the solenoid pump 10, the electric circuit 48 energizing the electro-motion means 16 with an increased frequency of n times the frequency of normal mains electricity.

IPC 8 full level  
**F04B 35/04** (2006.01); **F04B 39/00** (2006.01); **F04B 49/06** (2006.01)

CPC (source: EP US)  
**F04B 35/045** (2013.01 - EP US); **F04B 39/0027** (2013.01 - EP US); **F04B 49/06** (2013.01 - EP US); **F04B 49/20** (2013.01 - EP US); **F04B 2203/0404** (2013.01 - EP US); **F04B 2203/0406** (2013.01 - EP US)

Citation (search report)  
• [XY] US 3461806 A 19690819 - BARTHALON MAURICE  
• [XY] DE 102004010846 A1 20050922 - BSH BOSCH SIEMENS HAUSGERAETE [DE]  
• [Y] FR 2465903 A1 19810327 - ULKA SRL [IT]  
• [Y] WO 02077453 A1 20021003 - LG ELECTRONICS INC [KR], et al

Cited by  
RU2716912C2; AU2016289397B2; EP3037662A1; ITGE20120097A1; EP2711548A3; US9534591B2; US10959566B2; WO2017005618A1; WO2013029133A1; US10781802B2; DE102014215110A1; WO2016016031A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA MK RS

DOCDB simple family (publication)  
**EP 1985857 A2 20081029; EP 1985857 A3 20081119**; CN 101294556 A 20081029; US 2008267798 A1 20081030

DOCDB simple family (application)  
**EP 08251536 A 20080428**; CN 200710100946 A 20070428; US 11089308 A 20080428