

Title (en)

VACUUM PUMP AND METHOD OF STARTING THE SAME

Title (de)

VAKUUMPUMPE UND VERFAHREN ZU IHREM STARTEN

Title (fr)

POMPE A VIDE ET PROCEDE DE DEMARRAGE DE CETTE POMPE

Publication

EP 1540185 B1 20130213 (EN)

Application

EP 03792666 A 20030811

Priority

- JP 0310207 W 20030811
- JP 2002239728 A 20020820

Abstract (en)

[origin: WO2004018879A1] The present invention relates to a vacuum pump and a method of starting a vacuum pump. The vacuum pump includes a pump rotor (1) rotatably disposed in a casing (2), and a pump-rotor controller (15) for controlling rotation of the pump rotor (1) in a forward direction or a reverse direction in accordance with a predetermined pattern at the time of starting the vacuum pump.

IPC 8 full level

F04C 29/00 (2006.01); **F04C 13/00** (2006.01); **F04C 28/06** (2006.01); **F04C 28/28** (2006.01); **F04D 19/04** (2006.01); **F04D 27/02** (2006.01); **F04C 18/12** (2006.01); **F04C 18/16** (2006.01)

CPC (source: EP KR US)

F04C 13/00 (2013.01 - KR); **F04C 13/005** (2013.01 - EP US); **F04C 28/00** (2013.01 - KR); **F04C 28/06** (2013.01 - EP US); **F04C 28/28** (2013.01 - EP US); **F04D 19/04** (2013.01 - EP US); **F04D 27/0292** (2013.01 - EP US); **F04C 18/126** (2013.01 - EP US); **F04C 18/16** (2013.01 - EP US); **F04C 2220/12** (2013.01 - EP US); **F04C 2270/03** (2013.01 - EP US); **F04C 2270/17** (2013.01 - EP US); **F04C 2270/701** (2013.01 - EP US); **F04C 2270/80** (2013.01 - EP US); **F05D 2260/607** (2013.01 - EP)

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

WO 2004018879 A1 20040304; CN 1675469 A 20050928; EP 1540185 A1 20050615; EP 1540185 B1 20130213; KR 20050059076 A 20050617; TW 200404124 A 20040316; TW I318665 B 20091221; US 2006198735 A1 20060907

DOCDB simple family (application)

JP 0310207 W 20030811; CN 03819546 A 20030811; EP 03792666 A 20030811; KR 20057002801 A 20050218; TW 92122710 A 20030819; US 52468803 A 20030811