Title (en)

METHOD FOR CONTROLLING THE DRIVE MOTOR OF A POSITIVE-DISPLACEMENT VACUUM PUMP

Title (de)

VERFAHREN ZUR STEUERUNG EINES ANTRIEBSMOTORS EINER VAKUUM-VERDRÄNGERPUMPE

Title (fr)

PROCEDE POUR COMMANDER UN MOTEUR D'ENTRAINEMENT D'UNE POMPE DE REFOULEMENT A VIDE

Publication

EP 1697639 A1 20060906 (DE)

Application

EP 04818757 A 20041105

Priority

- EP 2004012529 W 20041105
- DE 10354205 A 20031120

Abstract (en)

[origin: WO2005050021A1] The invention relates to a method for controlling the drive motor of a positive-displacement vacuum pump, comprising the following steps: storing a curve (32) that indicates a speed value n of the drive motor for an input pressure value p, said curve (32) comprising: an upper range (34) for input pressure values p that are greater than or equal to an upper threshold pressure p1, with which a single constant upper speed value n1 is associated, and a range of alteration (36) for input pressure values p smaller than the upper threshold pressure p1, wherein various speed values nv are associated with the input pressure values p in the range of alteration: determining the input pressure value p, determining the speed n associated with the input pressure value p in the curve (32) and operating the drive motor with the determined speed n. The inventive method which provides for a range of alteration allows operation of the positive displacement pump at a speed at which the effective displacement capacity of the displacement pump is maximal.

IPC 8 full level

F04B 49/06 (2006.01)

CPC (source: EP KR US)

F04B 37/14 (2013.01 - KR); **F04B 37/16** (2013.01 - KR); **F04B 49/06** (2013.01 - KR); **F04B 49/065** (2013.01 - EP KR US); F04B 2203/0409 (2013.01 - KR); F04B 2205/01 (2013.01 - EP KR US); F04B 2207/02 (2013.01 - KR); F05B 2210/12 (2013.01 - KR); F05B 2270/301 (2013.01 - KR); Y10S 417/00 (2013.01 - KR)

Citation (search report)

See references of WO 2005050021A1

Designated contracting state (EPC)

CH DE FR GB IT LI

DOCDB simple family (publication)

WO 2005050021 A1 20050602; CA 2546063 A1 20050602; CN 100460676 C 20090211; CN 1882782 A 20061220; DE 10354205 A1 20050623; DE 502004009187 D1 20090430; EP 1697639 A1 20060906; EP 1697639 B1 20090318; JP 2007511703 A 20070510; JP 4553262 B2 20100929; KR 20060097741 A 20060914; US 2007071610 A1 20070329

DOCDB simple family (application)

EP 2004012529 W 20041105; CA 2546063 A 20041105; CN 200480034216 A 20041105; DE 10354205 A 20031120; DE 502004009187 T 20041105; EP 04818757 A 20041105; JP 2006540230 A 20041105; KR 20067012266 A 20060620; US 58012804 A 20041105