

Title (en)

A positive-displacement rotary pump with helical rotors

Title (de)

Drehkolben-Verdrängungspumpe mit Schraubenrotoren

Title (fr)

Pompe rotative à déplacement positif avec de rotors hélicoïdaux

Publication

EP 1132618 A3 20020710 (EN)

Application

EP 01105738 A 20010308

Priority

IT BO20000119 A 20000308

Abstract (en)

[origin: EP1132618A2] A positive-displacement rotary pump comprises a pair of meshing rotors or gears (10, 11), that is, a driving rotor or gear and a driven rotor or gear, respectively, enclosed in a casing with a delivery opening and an intake opening for a fluid. The gears (10, 11) comprise a plurality of teeth (16a, 16b) meshing without encapsulation and at the same time defining sets of helical teeth with a face overlap substantially equal to or close to unity. The combination of a profile of the teeth which prevents encapsulation and of the helical arrangement of the teeth reduces ripple and the noise resulting therefrom when the pump is in operation. <IMAGE>

IPC 1-7

F04C 2/16

IPC 8 full level

F04C 2/08 (2006.01); **F04C 2/16** (2006.01); **F04C 15/00** (2006.01)

CPC (source: EP)

F04C 2/084 (2013.01); **F04C 2/088** (2013.01); **F04C 2/16** (2013.01); **F04C 15/0042** (2013.01)

Citation (search report)

- [XY] US 3164099 A 19650105 - HITOSI IYOI
- [X] US 1742597 A 19300107 - EBEN HOKE WILLIAM
- [X] DE 4330085 A1 19950309 - HUGO VOGELSANG MASCHINENBAU GM [DE]
- [Y] EP 0405161 A1 19910102 - ALLWEILER AG [DE]
- [Y] GB 2023739 A 19800103 - ALLWEILER AG
- [Y] US 4017223 A 19770412 - BLACKWELL ELLIOTT H

Cited by

EP1371848A1; EP2317144A2; CN103486023A; CN102052447A; CN103850932A; EP2154372A1; ITBO20080522A1; WO2013011535A2; US7726115B2; US9404366B2; US7530217B2; WO2008111017A1; WO2015183135A1; US6769891B2; US7854111B2; US8708643B2; US6887055B2; US8556609B2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

EP 1132618 A2 20010912; EP 1132618 A3 20020710; EP 1132618 B1 20080430; AT E393882 T1 20080515; DE 60133786 D1 20080612; DE 60133786 T2 20090625; DK 1132618 T3 20080825; EP 1921319 A2 20080514; EP 1921319 A3 20080625; ES 2306681 T3 20081116; IT BO20000119 A1 20010910

DOCDB simple family (application)

EP 01105738 A 20010308; AT 01105738 T 20010308; DE 60133786 T 20010308; DK 01105738 T 20010308; EP 08101970 A 20010308; ES 01105738 T 20010308; IT BO20000119 A 20000308