

Title (en)
Progressive cavity pump

Title (de)
Exzenterschneckenpumpe

Title (fr)
Pompe à cavités progressives

Publication
EP 1559913 A1 20050803 (FR)

Application
EP 05290100 A 20050117

Priority
FR 0400927 A 20040130

Abstract (en)
The pump has cavities (4) formed between a helical rotor (2) and a helical stator (3). A hydraulic regulation system (7) is installed in the rotor for ensuring internal recirculation of fluid pumped between the cavities under conditions to ensure distribution of pressures along the pump, stabilization of the temperatures, control of leakage rate, and compensation of the volumes of compressed gas. An independent claim is also included for an application of progressing cavities pump for pumping of compressible multiphase mixture and pumping of viscous fluid.

Abstract (fr)
Cette pompe à cavités progressives comportant un rotor hélicoïdal (2) tournant à l'intérieur d'un stator hélicoïdal (3), ledit stator (3) et ledit rotor (2) étant disposés de telle sorte que les cavités (4) formées entre ledit rotor (2) et ledit stator (3) se déplacent de l'aspiration (5) vers le refoulement (6), est caractérisée par le fait que des moyens de régulation hydraulique (RH) sont prévus pour assurer une recirculation interne du fluide pompé entre au moins deux desdites cavités (4) dans des conditions capables d'assurer au moins une fonction parmi la distribution des pressions recherchée le long de la pompe, la stabilisation des températures, le contrôle des débits de fuite, et la compensation des volumes de gaz comprimé. <IMAGE>

IPC 1-7
F04C 13/00

IPC 8 full level
F04C 2/08 (2006.01); **F04C 2/107** (2006.01); **F04C 13/00** (2006.01)

CPC (source: EP US)
F04C 2/086 (2013.01 - EP US); **F04C 2/1073** (2013.01 - EP US); **F04C 2/1075** (2013.01 - EP US); **F04C 13/001** (2013.01 - EP US); **F04C 13/007** (2013.01 - EP US); **F04C 2/084** (2013.01 - EP US); **F04C 2210/24** (2013.01 - EP US)

Citation (search report)
• [X] FR 1361840 A 19640522
• [A] FR 695539 A 19301217
• [X] DATABASE WPI Section PQ Week 199345, Derwent World Patents Index; Class Q56, AN 1993-358797, XP002295333
• [XA] PATENT ABSTRACTS OF JAPAN vol. 015, no. 374 (M - 1160) 20 September 1991 (1991-09-20)

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