

Title (en)
Drive arrangement for a pump

Title (de)
Antriebsanordnung für eine Pumpe

Title (fr)
Système d'entraînement pour une Pompe

Publication
EP 1489301 A1 20041222 (EN)

Application
EP 03253852 A 20030618

Priority
EP 03253852 A 20030618

Abstract (en)
A drive arrangement for a pumping plunger (24) of a pump assembly comprises a drive member (30) that is firstly co-operable with the pumping plunger (24) and secondly co-operable with a cam rider (20) so as to impart axial drive to the plunger (24) to perform a plunger pumping stroke whilst permitting lateral sliding movement of the rider (20) relative to the drive member (30). The drive member (30) and the cam rider (20) are co-operably shaped to define (i) an increased volume (44) for lubricating fluid which is variable throughout the pumping cycle and (ii) restricted flow means through which fluid within said volume (44) is dispelled at a relatively low rate as the plunger (24) is driven throughout the pumping stroke. This has the effect of prolonging transient fluid pressure within the volume (44) through that period of the pumping stroke for which return loading of the drive member (30) is a maximum and, hence, provides the benefit that wear of the drive member (30) due to scuffing is reduced. <IMAGE>

IPC 1-7
F04B 1/04; **F04B 53/18**

IPC 8 full level
F04B 1/04 (2006.01)

CPC (source: EP)
F04B 1/0404 (2013.01); **F04B 1/0413** (2013.01); **F04B 1/0426** (2013.01)

Citation (search report)

- [X] US 6077056 A 20000620 - GMELIN KARL [DE]
- [X] US 6350107 B1 20020226 - HAMUTCU KASIM-MELIH [DE]
- [XA] DE 2909248 A1 19800911 - VOITH GETRIEBE KG
- [A] DE 19836901 A1 20000224 - BOSCH GMBH ROBERT [DE]
- [XA] PATENT ABSTRACTS OF JAPAN vol. 2002, no. 05 3 May 2002 (2002-05-03)

Cited by
CN115807748A; EP1780415A1; WO2006131741A2; EP2018925A2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1489301 A1 20041222; **EP 1489301 B1 20061018**; AT E343060 T1 20061115; DE 60309145 D1 20061130; DE 60309145 T2 20070816

DOCDB simple family (application)
EP 03253852 A 20030618; AT 03253852 T 20030618; DE 60309145 T 20030618