

Title (en)  
RADIAL PISTON PUMP

Title (de)  
RADIALKOLBENPUMPE

Title (fr)  
POMPE A PISTONS RADIAUX

Publication  
**EP 1269021 B1 20051116 (DE)**

Application  
**EP 00987099 A 20001109**

Priority  
• DE 0003914 W 20001109  
• DE 19959006 A 19991208

Abstract (en)  
[origin: DE19959006C1] The invention relates to a radial piston pump for producing high pressure fuel in fuel injection systems for internal combustion engines, in particular, in a common rail injection system. Said pump comprises a drive shaft, rotatably mounted in a pump housing, which is eccentric and which cooperates with several, in particular three, pistons, arranged radially, relative to the driveshaft, each in a drilling element, which may move radially back and forth in the respective drilling element on turning the driveshaft. Each piston defines a cylinder volume, which is connected via an inlet valve (S1, S2, S3) to a low pressure chamber. In order to guarantee a similar output from each pump element, precisely one inlet valve (S2) is controlled, such that it opens and closes depending upon the angular position of the driveshaft.

IPC 1-7  
**F04B 1/04**; **F02M 59/36**; **F02M 59/46**

IPC 8 full level  
**F02M 59/06** (2006.01); **F02M 59/34** (2006.01); **F02M 63/02** (2006.01); **F04B 1/04** (2006.01); **F04B 1/06** (2006.01); **F04B 1/07** (2006.01); **F04B 49/06** (2006.01); **F04B 53/10** (2006.01)

CPC (source: EP US)  
**F02M 59/06** (2013.01 - EP US); **F02M 63/0225** (2013.01 - EP US); **F04B 1/0452** (2013.01 - EP US); **F04B 53/1022** (2013.01 - EP US)

Designated contracting state (EPC)  
CH DE FR GB IT LI

DOCDB simple family (publication)  
**DE 19959006 C1 20001221**; DE 50011662 D1 20051222; EP 1269021 A1 20030102; EP 1269021 B1 20051116; JP 2003516498 A 20030513; JP 4787444 B2 20111005; US 6843641 B1 20050118; WO 0142651 A1 20010614

DOCDB simple family (application)  
**DE 19959006 A 19991208**; DE 0003914 W 20001109; DE 50011662 T 20001109; EP 00987099 A 20001109; JP 2001543910 A 20001109; US 14896402 A 20020828