

Title (en)  
HIGH-PRESSURE PUMP

Title (de)  
HOCHDRUCKPUMPE

Title (fr)  
POMPE HAUTE PRESSION

Publication  
**EP 2663765 A1 20131120 (DE)**

Application  
**EP 11808664 A 20111230**

Priority  
• DE 102011002684 A 20110114  
• EP 2011074298 W 20111230

Abstract (en)  
[origin: WO2012095272A1] The invention relates to a high-pressure pump in particular for fuel injection in a self-igniting pump cylinder (4), which is covered by a pump cylinder head (3), forming a working chamber (2), wherein a pump piston (5) can be moved in a translational manner in the pump cylinder (4) and the working chamber (2) is connected to a low-pressure fuel system via an intake valve (1), which is arranged in the pump cylinder head (3) and has a spring-loaded valve element, and is connected to a high-pressure fuel system by means of a check valve, which is arranged in the pump cylinder head (3). According to the invention, a high-pressure pump is provided, which is improved in particular with regard to the necessary installation space and also the installation complexity of the intake valve (1). This is achieved in that the return spring (16) which loads the valve element of the intake valve (1) is arranged in the working chamber (2) and surrounding the pump piston (5).

IPC 8 full level  
**F02M 59/46** (2006.01); **F02M 59/06** (2006.01); **F02M 59/48** (2006.01); **F04B 1/04** (2006.01); **F04B 53/10** (2006.01)

CPC (source: EP)  
**F02M 59/464** (2013.01); **F02M 59/485** (2013.01); **F04B 1/0421** (2013.01); **F04B 1/0452** (2013.01)

Citation (search report)  
See references of WO 2012095272A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2012095272 A1 20120719**; CN 103299065 A 20130911; DE 102011002684 A1 20120719; EP 2663765 A1 20131120

DOCDB simple family (application)  
**EP 2011074298 W 20111230**; CN 201180064739 A 20111230; DE 102011002684 A 20110114; EP 11808664 A 20111230