

Title (en)  
HYDRAULIC COUPLING

Title (de)  
HYDRAULISCHER KOPPLER

Title (fr)  
COUPLEUR HYDRAULIQUE

Publication  
**EP 2766593 B1 20150610 (DE)**

Application  
**EP 12770055 A 20120925**

Priority  
• DE 102011084512 A 20111014  
• EP 2012068832 W 20120925

Abstract (en)  
[origin: WO2013053594A1] A hydraulic coupling, in particular for fuel injection valves, is specified, which hydraulic coupling has a housing pot (31) with pot bottom (311) and pot shell (312), a piston (33) which is guided axially displaceably in the housing pot (31), a fluid-filled coupling gap (35) which is provided between the piston (33) and the pot bottom (311), a diaphragm (36) which is arranged on that outer side of the housing pot (31) which faces away from the piston (33), a compensation chamber (37) which is delimited by the diaphragm (36) and is flow-connected to the coupling gap (35), and a spring element (40) which acts on the diaphragm (36) with an axially directed spring force. In order to achieve a low overall stiffness of the hydraulic coupling at the required predefined coupling force, the spring element (40) is configured as a spring clip (45) which is fixed on the housing pot (31) and bears with axial prestress against the diaphragm (36) in the region of the pot bottom (311).

IPC 8 full level  
**F02M 51/06** (2006.01); **F02M 61/08** (2006.01); **F02M 61/16** (2006.01)

CPC (source: EP KR RU US)  
**F02M 51/0603** (2013.01 - EP KR RU US); **F02M 61/08** (2013.01 - EP KR RU US); **F02M 61/167** (2013.01 - EP KR RU US);  
**F02M 61/205** (2013.01 - KR RU US); **F02M 2200/705** (2013.01 - EP KR US); **F02M 2200/8023** (2013.01 - KR)

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 2013053594 A1 20130418**; CN 103874848 A 20140618; CN 103874848 B 20161026; DE 102011084512 A1 20130418;  
EP 2766593 A1 20140820; EP 2766593 B1 20150610; IN 2720CHN2014 A 20150703; JP 2014528548 A 20141027; JP 5916868 B2 20160511;  
KR 20140073525 A 20140616; RU 20141119129 A 20151210; RU 2606731 C2 20170110; US 2015048265 A1 20150219;  
US 9624886 B2 20170418

DOCDB simple family (application)  
**EP 2012068832 W 20120925**; CN 201280049980 A 20120925; DE 102011084512 A 20111014; EP 12770055 A 20120925;  
IN 2720CHN2014 A 20140410; JP 2014534995 A 20120925; KR 20147009492 A 20120925; RU 20141119129 A 20120925;  
US 201214348998 A 20120925