

Title (en)
FLUID INJECTION DEVICE

Title (de)
FLUIDEINSPRITZVORRICHTUNG

Title (fr)
DISPOSITIF D'INJECTION DE FLUIDE

Publication
EP 2324230 B1 20130227 (FR)

Application
EP 09740409 A 20090729

Priority
• FR 2009051525 W 20090729
• FR 0856218 A 20080916

Abstract (en)
[origin: WO2010031936A1] The invention relates to an injector (7) having an injection axis (AB) and comprising: a housing (2) including an axial cavity (20); an actuator (3) including an electrically active portion (30) and having a first front surface (31) extending in the form of a penetrating member (33), and a second front surface (32) opposite the first one (31), the actuator (3) being mounted in the housing (2) and the member (33) including a piston (330) inserted into said cavity (20) and defining a fluidic link between the actuator (3) and the housing (2); an excitation means for vibrating the electrically active portion (30) of the actuator (3) at a setpoint period t. According to the invention, the penetrating member (33) has a length (L) such that the propagation time (T) of the acoustic waves running therethrough corresponds to the equation: $T = [2n+1] \cdot [t/4]$, where n is a positive-integer multiplier coefficient.

IPC 8 full level
F02M 51/06 (2006.01); **F02M 69/04** (2006.01)

CPC (source: EP KR US)
F02M 51/0603 (2013.01 - EP KR US); **F02M 69/041** (2013.01 - EP KR US); **F02M 2200/02** (2013.01 - EP KR US);
F02M 2200/304 (2013.01 - EP KR US); **F02M 2200/705** (2013.01 - EP KR US)

Designated contracting state (EPC)
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 SE SI SK SM TR

DOCDB simple family (publication)
FR 2936025 A1 20100319; CN 102216600 A 20111012; EP 2324230 A1 20110525; EP 2324230 B1 20130227; JP 2012503129 A 20120202;
JP 5349599 B2 20131120; KR 20110059643 A 20110602; MX 2011002815 A 20110503; RU 2011115004 A 20121027;
RU 2471084 C1 20121227; US 2011233313 A1 20110929; WO 2010031936 A1 20100325

DOCDB simple family (application)
FR 0856218 A 20080916; CN 200980145155 A 20090729; EP 09740409 A 20090729; FR 2009051525 W 20090729;
JP 2011526532 A 20090729; KR 20117008529 A 20090729; MX 2011002815 A 20090729; RU 2011115004 A 20090729;
US 200913119259 A 20090729