

Title (en)
Method for manufacturing an injection valve

Title (de)
Verfahren zur Herstellung eines Einspritzventils

Title (fr)
Procédé de fabrication d'une soupape d'injection

Publication
EP 2607680 A1 20130626 (EN)

Application
EP 11194600 A 20111220

Priority
EP 11194600 A 20111220

Abstract (en)
Method for manufacturing an injection valve (10), the injection valve (10) comprising a valve body (14) including a central longitudinal axis (L), the valve body (14) comprising a cavity (18) with a fluid inlet portion (42) and a fluid outlet portion (40), a valve needle (20) axially movable in the cavity (18), the valve needle (20) preventing a fluid flow through the fluid outlet portion (40) in a closing position and releasing the fluid flow through the fluid outlet portion (40) in further positions, and an electro-magnetic actuator unit (36) comprising a coil (38) and an armature (22). The coil (38) is designed to effect an electro-magnetic force on the armature (22). The armature (22) is axially movable in the cavity (18) and is designed to actuate the valve needle (20). The method comprises the steps: providing the injection valve (10) and coupling the injection valve (10) with a fluid supply, actuating the actuator unit (16) by means of a predetermined voltage curve to actuate the valve needle (20) to move between the closing position and a further position to release a fluid flow through the fluid outlet portion (40), determining an opening time of the valve needle (20) from the closing position to the further position, and adjusting an electric resistance (52) in a series circuit (50) with the coil (38) depending on the determined opening time of the valve needle (20).

IPC 8 full level
F02M 61/16 (2006.01); **F02M 61/20** (2006.01); **F02M 65/00** (2006.01)

CPC (source: EP)
F02M 61/168 (2013.01); **F02M 61/205** (2013.01); **F02M 65/005** (2013.01); **F02M 2200/8092** (2013.01)

Citation (search report)
• [XYI] US 5291170 A 19940301 - WAHBA BRENT J [US], et al
• [YA] EP 1467086 A1 20041013 - SIEMENS AG [DE]
• [A] US 7407120 B1 20080805 - FRENCH JACK [US]

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

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2607680 A1 20130626

DOCDB simple family (application)
EP 11194600 A 20111220