

Title (en)
METHOD FOR CONTROLLING AN ELECTROMAGNETIC ADJUSTMENT UNIT

Title (de)
VERFAHREN ZUR STEUERUNG EINER ELEKTROMAGNETISCHEN STELLEINHEIT

Title (fr)
PROCÉDÉ DE COMMANDE D'UNE UNITÉ DE RÉGLAGE ÉLECTROMAGNÉTIQUE

Publication
EP 3414442 A1 20181219 (DE)

Application
EP 16815807 A 20161214

Priority
• DE 102016201894 A 20160209
• EP 2016080951 W 20161214

Abstract (en)
[origin: WO2017137119A1] The invention relates to a method for controlling an electromagnetic adjustment unit (1) with an annular magnetic coil (2) and with an armature (5), which is able to execute a stroke motion between a first and a second end stop (3, 4) in order to actuate a valve piston (6) of a valve (7), in particular of an electromagnetically actuatable suction valve, in which method a magnetic force is generated by energization of the magnetic coil (2), by means of which magnetic force the armature (5) is drawn in the direction of the second end stop (4) counter to the spring force of a spring (8). According to the invention, the speed of the armature (5) before reaching the second end stop (4) is reduced, within a predefined switching time, by varying the energization profile and/or the electrical voltage present at the magnetic coil (2).

IPC 8 full level
F02D 41/20 (2006.01); **F02M 59/36** (2006.01)

CPC (source: EP)
F02D 41/20 (2013.01); **F02D 41/3845** (2013.01); **F02D 2041/2003** (2013.01); **F02D 2041/2027** (2013.01); **F02D 2041/2037** (2013.01); **F02D 2041/2048** (2013.01); **F02D 2041/2051** (2013.01); **F02M 59/368** (2013.01)

Citation (examination)
DE 112006000782 T5 20080207 - CATERPILLAR INC [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)
WO 2017137119 A1 20170817; CN 108699988 A 20181023; DE 102016201894 A1 20170824; EP 3414442 A1 20181219

DOCDB simple family (application)
EP 2016080951 W 20161214; CN 201680081445 A 20161214; DE 102016201894 A 20160209; EP 16815807 A 20161214