

Title (en)  
Actuator for a combustion engine

Title (de)  
Aktuator für eine Verbrennungskraftmaschine

Title (fr)  
Actionneur pour un moteur à combustion interne

Publication  
**EP 2306472 A3 20140618 (DE)**

Application  
**EP 10176122 A 20100910**

Priority  
DE 102009043722 A 20091001

Abstract (en)  
[origin: EP2306472A2] The actuator has permanent magnets (6) holding an anchor (12) in a de-energized condition of electromagnets (2). The permanent magnets are designed as a radial magnetized circular magnet and an anchor is designed as a hollow cylinder. A return plate (22) is arranged at a distance from the permanent magnets so that a permanent magnetic circuit is closed by the permanent magnets, the yoke (10), the return plate and the anchor in an end position of the anchor. Another permanent magnetic circuit is closed by the permanent magnets, yoke, anchor and a core (16) in another end position.

IPC 8 full level  
**H01F 7/16** (2006.01); **F01L 13/00** (2006.01); **H01F 7/08** (2006.01); **H01F 7/122** (2006.01)

CPC (source: EP)  
**F01L 13/0036** (2013.01); **H01F 7/081** (2013.01); **H01F 7/122** (2013.01); **H01F 7/1615** (2013.01); **F01L 2013/0052** (2013.01); **H01F 2007/1669** (2013.01)

Citation (search report)

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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 SE SI SK SM TR

Designated extension state (EPC)  
BA ME RS

DOCDB simple family (publication)  
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DOCDB simple family (application)  
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