

Title (en)
ELECTROMAGNETIC-HYDRAULIC VALVE DRIVE FOR AN INTERNAL-COMBUSTION ENGINE

Publication
EP 0244878 A3 19871223 (DE)

Application
EP 87107613 A 19860130

Priority
• DE 3504639 A 19850211
• DE 3534388 A 19850926

Abstract (en)
[origin: EP0244878A2] 1. Electromagnetic valve drive for a combustion engine, having a first electromagnet (20), which is excitable as a function of the operating parameters, more particularly in synchronism with the motor speed, and an armature (19) which can be attracted by the first electromagnet (20), characterised by a displacement path of the armature (19) of approximately 1-1.5 mm, a first piston (12), which slides in a first hydraulic cylinder (13) and is connected with the armature (19), a second piston (17) which acts on the valve shaft (5), has a diameter (d/D), diminished in relation to the first piston, and slides in a second hydraulic cylinder (16), and also a line (15) which connects the first and the second hydraulic cylinder one with the other.

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F01L 9/02; **F15B 7/02**; **F16H 53/02**

IPC 8 full level
F01L 1/047 (2006.01); **F01L 9/10** (2021.01); **F01L 9/20** (2021.01); **F15B 7/02** (2006.01); **F16H 53/02** (2006.01); **F02B 1/04** (2006.01)

CPC (source: EP)
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Citation (search report)
• [Y] DE 2057639 A1 19710624 - INST REGELUNGSTECHNIK
• [Y] EP 0043426 B1 19840711
• [Y] EP 0054107 A1 19820623 - BOSCH GMBH ROBERT [DE]
• [Y] FR 932936 A 19480406
• [A] GB 2137420 A 19841003 - FEV FORSCH ENERGIETECH VERBR
• [A] FR 2377525 A1 19780811 - LUCAS INDUSTRIES LTD [GB]
• [A] FR 573596 A 19240626
• [A] DE 2907033 A1 19800904 - BOSCH GMBH ROBERT
• [A] GB 2122257 A 19840111 - MOLONEY PAUL JULIAN

Cited by
EP1215369A3; DE102004057574A1; DE19829857A1; DE19723924B4; DE4004876A1; DE102005017482A1; DE102005017482B4; DE3920931A1; EP0405187A1; US5337565A; FR2638484A1; US7841309B2; US7989991B2; WO9200460A1; WO2013000155A1

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