

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

Publication
EP 0244878 B1 19901031 (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.

IPC 1-7
F01L 9/02; F15B 7/02; F16H 53/02

IPC 8 full level
F01L 1/047 (2006.01); **F01L 9/02** (2006.01); **F01L 9/04** (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)
F01L 1/047 (2013.01); **F01L 9/10** (2021.01); **F01L 9/20** (2021.01); **F15B 7/02** (2013.01); **F01L 2820/031** (2013.01); **F02B 1/04** (2013.01)

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

Designated contracting state (EPC)
AT BE CH DE FR GB IT LI LU SE

DOCDB simple family (publication)
EP 0244878 A2 19871111; EP 0244878 A3 19871223; EP 0244878 B1 19901031; DE 3660265 D1 19880707; DE 3675387 D1 19901206; EP 0191376 A1 19860820; EP 0191376 B1 19880601; ES 551808 A0 19861216; ES 8702577 A1 19861216; JP S61187505 A 19860821

DOCDB simple family (application)
EP 87107613 A 19860130; DE 3660265 T 19860130; DE 3675387 T 19860130; EP 86101217 A 19860130; ES 551808 A 19860210; JP 2365286 A 19860205