

Title (en)
Valve control for intake and exhaust valves in internal combustion engines

Title (de)
Ventilsteuerung für Ein- und Auslassventile von Verbrennungsmotoren

Title (fr)
Commande de soupape pour soupapes d'admission et d'échappement de moteur à combustion interne

Publication
EP 1001143 A3 20001206 (DE)

Application
EP 99121736 A 19991103

Priority
DE 19852209 A 19981112

Abstract (en)
[origin: EP1001143A2] The valve controller has at least one control element with which the inlet/outlet valve is opened and closed. At least one piezo element (1) actuates at least one valve element (3) that controls the input and output flow of a pressurized medium to at least one control piston (15) that is displaced by the pressurized medium against a countering force to open the valve (30).

IPC 1-7
F01L 9/04; **F01L 9/02**; **F01L 1/14**; **F01L 1/24**

IPC 8 full level
F01L 1/20 (2006.01); **F01L 1/14** (2006.01); **F01L 1/25** (2006.01); **F01L 9/10** (2021.01); **F01L 9/20** (2021.01); **F16K 31/02** (2006.01)

CPC (source: EP US)
F01L 1/143 (2013.01 - EP US); **F01L 1/25** (2013.01 - EP US); **F01L 9/10** (2021.01 - EP US); **F01L 9/20** (2021.01 - EP US)

Citation (search report)
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• [X] US 4724801 A 19880216 - O'NEILL CORMAC G [US]
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• [A] US 3727595 A 19730417 - LINKS H
• [A] US 5806474 A 19980915 - PAUL MARIUS A [US], et al
• [A] PATENT ABSTRACTS OF JAPAN vol. 009, no. 268 (M - 424) 25 October 1985 (1985-10-25)

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FR2815076A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

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EP 1001143 A2 20000517; **EP 1001143 A3 20001206**; **EP 1001143 B1 20050921**; DE 19852209 A1 20000518; DE 59912577 D1 20060202; ES 2245495 T3 20060101; JP 2000161031 A 20000613; US 6374784 B1 20020423

DOCDB simple family (application)
EP 99121736 A 19991103; DE 19852209 A 19981112; DE 59912577 T 19991103; ES 99121736 T 19991103; JP 32335099 A 19991112; US 44165299 A 19991112