

Title (en)

Engine valve drive with electromagnetic actuators comprising pneumatic return springs

Title (de)

Ventilsteuerung für Brennkraftmaschinen mit einem mit Gasfedern ausgerüsteten elektro-magnetischen Aktor

Title (fr)

Commande de soupape de moteur à combustion interne par actionneur électromagnétique muni de ressorts de rappel pneumatiques

Publication

EP 1120550 B1 20050608 (DE)

Application

EP 00126375 A 20001202

Priority

DE 10003142 A 20000126

Abstract (en)

[origin: EP1120550A2] The controller has an electromagnetic actuator with gas springs and an armature connected to a gas replacement valve and oscillating between magnets. Gas is fed from a reservoir via valves to the gas springs, which are separated by the armature, and is let out of the gas springs by outlet valves. The armature is a separating piston sliding in an actuator cylinder between the gas springs, which use a medium with larger molecules than air. The valve controller has an electromagnetic actuator (2) fitted with gas springs (3,4) and an armature (6) connected to a gas replacement valve (5) and oscillating between closing and opening magnets (7,8). Gas is fed from a rechargeable reservoir (9) via controlled valves (10) to the gas springs, which are separated by the armature, and gas is let out of the gas springs by controlled outlet valves (11). The armature is a separating piston (13) able to slide in an actuator cylinder (12) between the gas springs, which use a medium whose molecule size is greater than that of air.

IPC 1-7

F01L 9/04

IPC 8 full level

F01L 9/20 (2021.01)

CPC (source: EP)

F01L 9/20 (2021.01)

Cited by

WO2004044390A1

Designated contracting state (EPC)

DE ES FR GB IT SE

DOCDB simple family (publication)

EP 1120550 A2 20010801; EP 1120550 A3 20011205; EP 1120550 B1 20050608; DE 10003142 A1 20010802; DE 50010513 D1 20050714; ES 2239996 T3 20051016

DOCDB simple family (application)

EP 00126375 A 20001202; DE 10003142 A 20000126; DE 50010513 T 20001202; ES 00126375 T 20001202