

Title (en)

Valve driving apparatus of an internal combustion engine.

Title (de)

Ventilsteuervorrichtung für eine Brennkraftmaschine.

Title (fr)

Dispositif de commande de soupape pour moteur à combustion interne.

Publication

**EP 0455937 B1 19940810 (EN)**

Application

**EP 91101372 A 19910201**

Priority

JP 12007390 A 19900511

Abstract (en)

[origin: EP0455937A1] pressure source (17) and an accumulator (16) for pressurizing operating hydraulic oil and accumulating the pressurized operating hydraulic oil, and adapted to drive an intake and exhaust valve (2) by controlling the operating hydraulic oil in the accumulator, is improved. The improved apparatus comprises two logic valves (11, 14) communicated with each other for opening and closing a high-pressure hydraulic oil path communicated with an upper side of an intake and exhaust valve driving piston (9), two electromagnetically driven control valves (13, 15) for controlling opening and closure of the two logic valves, the control hydraulic oil for opening and closing the logic valves and the operating hydraulic oil for driving the intake and exhaust valve to open being fed from the accumulator at a high pressure, and means for closing the intake and exhaust valve with a resilient force generated as a result of lift of the intake and exhaust valve driving piston upon opening of the intake and exhaust valve. Preferably, the means for closing the intake and exhaust valve with a resilient force, consists of an air cylinder (6), and an air piston (5) adapted to slide within the air cylinder as driven by the intake and exhaust valve driving piston (9) and to generate a pneumatic resilient force. <IMAGE>

IPC 1-7

**F01L 9/02**

IPC 8 full level

**F01L 9/10** (2021.01); **F16K 31/12** (2006.01)

CPC (source: EP KR)

**F01L 9/10** (2021.01 - EP); **F01L 25/02** (2013.01 - KR)

Cited by

CN102713173A; AT403835B; CN103388502A; GB2572965A; CN110500156A; EP1416128A1; CN104632317A; DE10135377A1; EP2295786A1; CN101988451A; GB2291121A; GB2291121B; CN104791043A; US5586533A; US5586526A; CN114087076A; US6907851B2

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