

Title (en)

Control valve for a camshaft timing phaser in an internal combustion engine

Title (de)

Steuerventil für eine Vorrichtung zur Veränderung der Steuerzeiten einer Brennkraftmaschine

Title (fr)

Valve de commande pour déphaseur d'arbre à cames de moteur à combustion interne

Publication

**EP 1596041 A3 20080716 (DE)**

Application

**EP 05007929 A 20050412**

Priority

- DE 102004023976 A 20040514
- DE 102004038252 A 20040806

Abstract (en)

[origin: EP1596041A2] The control valve has a hollow-cylindrical valve housing and a hollow control piston arranged within the valve housing and displaceable axially in the valve housing. A pressure medium connection, two operating connections and a tank connection are provided. The operating connections, pressure medium connection and a tank connection are formed as respective radial connections. The operating connections are connected to the pressure medium connection and the tank connection due to axial displacement of the control piston within the valve housing. In the axial direction of the control valve, the connections are arranged in the sequence: pressure medium connection, tank connection, and operating connection. The control piston has a peripheral surface, two openings in the peripheral surface. The pressure medium connection communicates with the control piston, via the two openings introduced into the peripheral surface of the control piston, in any position of the control piston relative to the valve housing.

IPC 8 full level

**F01L 1/344** (2006.01); **F01L 1/34** (2006.01); **F15B 13/04** (2006.01)

CPC (source: EP US)

**F01L 1/022** (2013.01 - EP US); **F01L 1/34** (2013.01 - EP US); **F01L 1/344** (2013.01 - EP US); **F01L 1/3442** (2013.01 - EP US); **F01L 1/024** (2013.01 - EP US); **F01L 1/026** (2013.01 - EP US); **F01L 2001/34426** (2013.01 - EP US); **F01L 2001/3443** (2013.01 - EP US); **F01L 2001/3444** (2013.01 - EP US); **F01L 2001/34469** (2013.01 - EP US); **Y10T 137/86702** (2015.04 - EP US)

Citation (search report)

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AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR LV MK YU

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DOCDB simple family (application)

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