

Title (en)

OIL CONTROL VALVE FOR CONTROLLING A CAMSHAFT ADJUSTER WITH A PISTON POSITIONED BY AN EXTERNAL ACTUATOR

Title (de)

ÖLSTEUERVENTIL ZUR STEUERUNG EINES NOCKENWELLENVERSTELLERS MIT EINEM KOLBEN, DER DURCH EINEN EXTERNEN AKTUATOR POSITIONIERT WIRD

Title (fr)

SOUPAPE DE COMMANDE D'HUILE PERMETTANT LA COMMANDE D'UN DISPOSITIF DE RÉGLAGE D'ARBRE À CAMES DOTÉ D'UN PISTON POSITIONNÉ PAR UN ACTIONNEUR EXTÉRIEUR

Publication

**EP 3460209 B1 20210526 (DE)**

Application

**EP 18189919 A 20180821**

Priority

- US 201762560273 P 20170919
- US 201715831078 A 20171204

Abstract (en)

[origin: CN109519246A] An oil control valve for a cam phaser of an internal combustion engine where the spool is positioned by an external actuator. The pressure enters the end of the oil control valve where the resultant pressure force is balanced by the differential area of the spool. The spool contains two plate check valves enabling cam torque recirculation of oil from A to B or B to A depending upon the spool position. In mid position, the spool lands block A and B to hold the cam phaser position. Three or five positions may be utilized.

IPC 8 full level

**F01L 1/344** (2006.01)

CPC (source: CN EP)

**F01L 1/344** (2013.01 - EP); **F01L 1/34409** (2013.01 - EP); **F01L 1/3442** (2013.01 - CN); **F01L 2001/34426** (2013.01 - CN EP); **F01L 2001/3443** (2013.01 - EP); **F01L 2301/00** (2020.05 - EP)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**EP 3460209 A1 20190327**; **EP 3460209 B1 20210526**; CN 109519246 A 20190326; CN 109519246 B 20211008

DOCDB simple family (application)

**EP 18189919 A 20180821**; CN 201811073648 A 20180914