

Title (en)  
ENGINE

Title (de)  
MOTOR

Title (fr)  
MOTEUR

Publication  
**EP 3363999 A1 20180822 (EN)**

Application  
**EP 16831610 A 20161012**

Priority  
• JP 2015203543 A 20151015  
• JP 2016080242 W 20161012

Abstract (en)

A first rocker arm includes a roller and a pressing member. The pressing member presses a valve. A second rocker arm includes a slipper. When the engine rotation speed is in a predetermined low-speed region, the pressing member presses the valve according to the rotation of the first rocker arm. When the engine rotation speed is in a predetermined high-speed region, the pressing member presses the valve according to the rotation of the second rocker arm. The roller comes into rolling contact with the camshaft. The slipper comes into sliding contact with the camshaft. The tip end of the slipper is closer to the axis of the rocker shaft than the tip end of the roller as seen from the axial direction of the rocker shaft. The maximum width of the slipper is greater than the width of the roller in the axial direction of the rocker shaft.

IPC 8 full level  
**F01L 13/00** (2006.01)

CPC (source: EP)  
**F01L 1/181** (2013.01); **F01L 1/267** (2013.01); **F01L 13/0036** (2013.01)

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

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)

**EP 3156618 A1 20170419; EP 3156618 B1 20180613;** BR 112017003899 A2 20171205; BR 112017003899 B1 20230117;  
EP 3363999 A1 20180822; EP 3363999 A4 20190605; EP 3363999 B1 20211229; ES 2675287 T3 20180710; JP 2018197498 A 20181213;  
TW 201713846 A 20170416; TW 201814146 A 20180416; TW I626366 B 20180611; TW I652403 B 20190301; WO 2017065168 A1 20170420

DOCDB simple family (application)

**EP 16190756 A 20160927;** BR 112017003899 A 20161012; EP 16831610 A 20161012; ES 16190756 T 20160927; JP 2015203543 A 20151015;  
JP 2016080242 W 20161012; TW 105132340 A 20161006; TW 106106361 A 20170224