

Title (en)  
ENGINE

Title (de)  
MOTOR

Title (fr)  
MOTEUR

Publication  
**EP 3363999 A4 20190605 (EN)**

Application  
**EP 16831610 A 20161012**

Priority  
• JP 2015203543 A 20151015  
• JP 2016080242 W 20161012

Abstract (en)  
[origin: EP3156618A1] A rocker shaft includes a shaft member and a collar member. The shaft member includes a first end and a second end. The first end is one end of the shaft member in a direction of an axis of the rocker shaft, and is supported by a first shaft support portion. The second end is the other end of the shaft member in the direction of the axis of the rocker shaft, and is supported by a second shaft support portion. The collar member is provided separately from the shaft member. The collar member is disposed between the first end and the second end in the direction of the axis of the rocker shaft. A first rocker arm and a second rocker arm are attached to the collar member. The collar member has an outer diameter larger than each of an outer diameter of the first end and an outer diameter of the second end. The shaft member is inserted into a hole provided in the collar member.

IPC 8 full level  
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CPC (source: EP)  
**F01L 1/181** (2013.01); **F01L 1/267** (2013.01); **F01L 13/0036** (2013.01)

Citation (search report)  
• [X] JP H01110816 A 19890427 - MAZDA MOTOR  
• [AD] JP 2015010552 A 20150119 - YAMAHA MOTOR CO LTD  
• [A] EP 2853700 A1 20150401 - HONDA MOTOR CO LTD [JP]  
• [A] JP 2003161118 A 20030606 - MITSUBISHI MOTORS CORP  
• See references of WO 2017065168A1

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)  
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TW 201713846 A 20170416; TW 201814146 A 20180416; TW I626366 B 20180611; TW I652403 B 20190301; WO 2017065168 A1 20170420

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