Title (en)

ENGINE SYSTEM AND VEHICLE

Title (de)

MOTORSYSTEM UND FAHRZEUG

Title (fr)

SYSTÈME MOTEUR ET VÉHICULE

Publication

EP 3309376 A4 20180704 (EN)

Application

EP 16811168 A 20160415

Priority

- JP 2015120450 A 20150615
- JP 2016002057 W 20160415

Abstract (en)

[origin: EP3309376A1] A camshaft rotates in forward and reverse directions in conjunction with a rotation of a crankshaft in the forward and reverse directions. An intake cam and a sub-intake cam are provided at the camshaft. The intake cam acts on an intake valve within a range of a crank angle corresponding to an intake process by integrally rotating with the camshaft. The sub-intake cam is rotatable within a constant angular range with respect to the camshaft, thereby being movable between a normal position and a start-up position in a circumferential direction of the camshaft. During the rotation of the crankshaft in the reverse direction, the sub-intake moves to the start-up position by rotating with a delay relative to the intake cam.

IPC 8 full level

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CPC (source: EP)

F01L 1/04 (2013.01); **F01L 1/08** (2013.01); **F01L 1/181** (2013.01); **F01L 13/02** (2013.01); **F02D 13/0223** (2013.01); **F02N 19/005** (2013.01); F01L 2001/467 (2013.01); F01L 2305/00 (2020.05); F01L 2760/002 (2013.01); F01L 2820/032 (2013.01); F02D 2250/06 (2013.01); F02N 2019/007 (2013.01)

Citation (search report)

- [XAI] EP 2881565 A1 20150610 - YAMAHA MOTOR CO LTD [JP]
- [XAI] EP 2719883 A1 20140416 - YAMAHA MOTOR CO LTD [JP]
- [A] JP S62195608 U 19871212
- See references of WO 2016203687A1

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3309376 A1 20180418; **EP 3309376 A4 20180704**; TW 201643311 A 20161216; TW I589772 B 20170701; WO 2016203687 A1 20161222

DOCDB simple family (application)

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