

Title (en)  
ENGINE SYSTEM AND SADDLE-TYPE VEHICLE

Title (de)  
MOTORSYSTEM UND SATTELFahrzeug

Title (fr)  
SYSTÈME DE MOTEUR ET Véhicule du type à selle

Publication  
**EP 3173605 A1 20170531 (EN)**

Application  
**EP 14885070 A 20140723**

Priority  
JP 2014003881 W 20140723

Abstract (en)  
A forward rotation positioning operation of rotating a crankshaft in a forward direction is performed before start-up of an engine, and a reverse rotation start-up operation of rotating the crankshaft in a reverse direction is performed during the start-up of the engine. In the forward rotation positioning operation, a rotation driver drives the crankshaft such that a crank angle reaches a predetermined reverse starting range. In the reverse rotation start-up operation, the rotation driver drives the crankshaft such that the crank angle exceeds a predetermined start-up intake range from the reverse rotation starting range and reaches a predetermined start-up ignition range, a fuel injection device injects fuel such that a fuel-air mixture is introduced into a combustion chamber from an intake passage through an intake port, when the crank angle is in the start-up intake range, and an ignition device ignites when the crank angle is in the start-up ignition range. Ignition performed by the ignition device is prevented during the forward rotation positioning operation.

IPC 8 full level  
**F02D 29/02** (2006.01); **F02D 13/02** (2006.01); **F02D 41/06** (2006.01); **F02D 43/00** (2006.01); **F02D 45/00** (2006.01); **F02N 11/08** (2006.01); **F02P 5/15** (2006.01)

CPC (source: EP)  
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Cited by  
US2017198675A1; US10066591B2

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Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
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**EP 14885070 A 20140723**; JP 2014003881 W 20140723; TW 104122407 A 20150709