

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 A4 20180214 (EN)

Application
EP 14885070 A 20140723

Priority
JP 2014003881 W 20140723

Abstract (en)
[origin: EP3173605A1] 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)
F02D 13/0203 (2013.01); **F02D 13/0215** (2013.01); **F02D 41/062** (2013.01); **F02D 41/34** (2013.01); **F02D 43/00** (2013.01); **F02N 19/005** (2013.01); **F02D 2013/0292** (2013.01); **F02D 2041/001** (2013.01); **F02D 2250/06** (2013.01); **F02N 2019/007** (2013.01); **F02N 2300/2011** (2013.01)

Citation (search report)

- [XAYI] EP 2719883 A1 20140416 - YAMAHA MOTOR CO LTD [JP]
- [Y] US 2003140881 A1 20030731 - MAKAJIMA HIROYUKI [JP], et al
- [A] US 2007204827 A1 20070906 - KISHIBATA KAZUYOSHI [JP], et al
- See references of WO 2016013045A1

Cited by
US2017198675A1; US10066591B2

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 3173605 A1 20170531; EP 3173605 A4 20180214; TW 201608114 A 20160301; WO 2016013045 A1 20160128

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