

Title (en)

METHOD FOR POSITIONING A CRANKSHAFT OF A TURNED-OFF INTERNAL COMBUSTION ENGINE OF A MOTOR VEHICLE

Title (de)

VERFAHREN ZUM POSITIONIEREN EINER KURBELWELLE EINER ABGESCHALTETEN BRENNKRAFTMASCHINE EINES KRAFTFAHRZEUGS

Title (fr)

PROCÉDÉ DE POSITIONNEMENT D'UN VILEBREQUIN D'UN MOTEUR À COMBUSTION INTERNE ARRÊTÉ D'UN VÉHICULE

Publication

EP 2150697 B1 20100707 (DE)

Application

EP 08717250 A 20080229

Priority

- EP 2008052469 W 20080229
- DE 102007019941 A 20070427

Abstract (en)

[origin: WO2008131983A1] The invention relates to a method for positioning a crankshaft of a turned-off internal combustion engine of a motor vehicle, wherein the crankshaft is rotated into a desired target position for the subsequent start of the internal combustion engine by means of an electric starter motor having a free wheel. The invention provides that at least one characteristic curve and/or characteristic value of a correlation between a covered rotational distance of the crankshaft and a position of the angle of rotation is determined at a standardized pulsed current duration of the starter motor for a defined operating case, that the current position of the angle of rotation of the crankshaft is determined, and that at least one estimated pulsed current duration is applied to the electric starter motor as a function of the determined position of the angle of rotation of the crankshaft and the target position and the characteristic curve/characteristic values. The invention further relates to a device for carrying out the method according to one or more of the preceding claims, comprising at least one electric starter motor having a free wheel, and a controller actuating the starter motor, and a sensor for detecting the current position of the angle of rotation of a crankshaft of an internal combustion engine.

IPC 8 full level

F02N 19/00 (2010.01); **F02N 99/00** (2010.01); **H02P 29/00** (2016.01)

CPC (source: EP US)

F02N 11/0855 (2013.01 - EP US); **F02N 11/087** (2013.01 - EP US); **F02N 19/005** (2013.01 - EP US); **F02N 11/0814** (2013.01 - EP US); **F02N 15/067** (2013.01 - EP US); **F02N 2019/008** (2013.01 - EP US)

Designated contracting state (EPC)

DE FR IT

DOCDB simple family (publication)

DE 102007019941 A1 20081106; BR PI0810122 A2 20141029; CN 101688509 A 20100331; DE 502008000913 D1 20100819; EP 2150697 A1 20100210; EP 2150697 B1 20100707; JP 2010525777 A 20100722; JP 5096562 B2 20121212; US 2010101522 A1 20100429; WO 2008131983 A1 20081106

DOCDB simple family (application)

DE 102007019941 A 20070427; BR PI0810122 A 20080229; CN 200880013654 A 20080229; DE 502008000913 T 20080229; EP 08717250 A 20080229; EP 2008052469 W 20080229; JP 2010504592 A 20080229; US 45070908 A 20080229