

Title (en)

STARTER DEVICE FOR STARTING INTERNAL COMBUSTION ENGINES

Title (de)

STARTVORRICHTUNG ZUM ANDREHEN VON BRENNKRAFTMASCHINEN

Title (fr)

DISPOSITIF DE DEMARRAGE POUR LANCER DES MOTEURS A COMBUSTION INTERNE

Publication

**EP 1941156 A1 20080709 (DE)**

Application

**EP 06807035 A 20061006**

Priority

- EP 2006067133 W 20061006
- DE 102005048598 A 20051006

Abstract (en)

[origin: WO2007039643A1] The invention relates to a starter device which is used to start internal combustion engines, which comprises an electromagnetic toe-in mechanism (10) and a start-stop-mechanism, which in a stop-phase of the internal combustion engine, even during and/or after stopping the internal combustion engine, a positioned state of the toe-in mechanism (10) is provoked, such that when the internal combustion engine is subsequently started, it is already in the positioned state. According to the invention, a locking device (20), which is used to lock the toe-in mechanism (10) in the positioned state, is embodied in such a manner that it can be controlled such that the electromagnetic toe-in mechanism (10) is maintained in the advanced position during the stop-phase.

IPC 8 full level

**F02N 15/06** (2006.01); **F02N 11/08** (2006.01); **F02N 99/00** (2010.01)

CPC (source: EP KR US)

**F02N 11/08** (2013.01 - KR); **F02N 11/0855** (2013.01 - EP US); **F02N 15/06** (2013.01 - KR); **F02N 15/065** (2013.01 - EP US)

Citation (search report)

See references of WO 2007039643A1

Designated contracting state (EPC)

DE FR

DOCDB simple family (publication)

**DE 102005048598 A1 20070412**; **DE 102005048598 B4 20160630**; CN 101326360 A 20081217; CN 101326360 B 20110302; EP 1941156 A1 20080709; KR 101110096 B1 20120308; KR 20080053356 A 20080612; US 2011120406 A1 20110526; US 8439006 B2 20130514; WO 2007039643 A1 20070412

DOCDB simple family (application)

**DE 102005048598 A 20051006**; CN 200680045832 A 20061006; EP 06807035 A 20061006; EP 2006067133 W 20061006; KR 20087008196 A 20061006; US 8922006 A 20061006