

Title (en)
ELECTRIC STARTING DEVICE FOR AN INTERNAL COMBUSTION ENGINE

Title (de)
ELEKTRISCHE STARTVORRICHTUNG EINER BRENNKRAFTMASCHINE

Title (fr)
DEMARREUR ELECTRIQUE D'UN MOTEUR A COMBUSTION INTERNE

Publication
EP 1920157 A1 20080514 (DE)

Application
EP 06762887 A 20060728

Priority
• EP 2006007506 W 20060728
• DE 102005036087 A 20050801

Abstract (en)
[origin: WO2007014719A1] The invention proposes an electric starting device for an internal combustion engine, having a starter motor (2) which can, by means of an angular gearing (14) and with the interposition of a pre-engaged drive (10), be placed in engagement with a toothing (12) on an ignition rotor (13) in order to act on a crankshaft of the internal combustion engine (15), wherein the motor shaft of the starter motor (2) is arranged substantially perpendicularly to the crankshaft axis, the angular gearing (14) has a crown gear (3) and a cylindrical gear (5) which are arranged in a rotationally fixed manner on an intermediate shaft (4), and the cylindrical gear (5) meshes with a cylindrical gear (8) of the pre-engaged drive (10).

IPC 8 full level
F02N 15/02 (2006.01); **F02N 15/04** (2006.01)

CPC (source: EP US)
F02N 15/006 (2013.01 - EP US); **F02N 15/02** (2013.01 - EP US); **F02N 15/04** (2013.01 - EP US); **Y10T 74/137** (2015.01 - EP US)

Citation (search report)
See references of WO 2007014719A1

Cited by
CN110690550A

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
DE 102005036087 A1 20070208; AU 2006275095 A1 20070208; EP 1920157 A1 20080514; EP 1920157 B1 20121219; ES 2402271 T3 20130430; JP 2009503347 A 20090129; US 2009293670 A1 20091203; WO 2007014719 A1 20070208; ZA 200801191 B 20081126

DOCDB simple family (application)
DE 102005036087 A 20050801; AU 2006275095 A 20060728; EP 06762887 A 20060728; EP 2006007506 W 20060728; ES 06762887 T 20060728; JP 2008524410 A 20060728; US 98972406 A 20060728; ZA 200801191 A 20080204