

Title (en)
STARTER DEVICE

Title (de)
STARTVORRICHTUNG

Title (fr)
DISPOSITIF DE DÉMARRAGE

Publication
EP 2510221 A1 20121017 (DE)

Application
EP 10788268 A 20101118

Priority
• DE 102009054539 A 20091211
• EP 2010067748 W 20101118

Abstract (en)
[origin: WO2011069800A1] The invention relates to a starter device (10) for an internal combustion engine having an electrical starter motor (13) having a starter relay (16) which serves to switch the starter motor (13), among other things, having an electrical connection line (201) between the starter relay (16) and the starter motor (13), wherein the electrical connection line (201) is fastened to a bolt (151) of the starter relay (16) and to said end a contact plate (203) of the electrical connection line (201) has a hole (209) through which the bolt (151) protrudes, wherein at least one form-fitting element (218) is arranged on the contact plate (203) which interacts with a relay cover (153) on the starter relay (16), thus preventing a rotation of the contact plate (203) around the bolt (151).

IPC 8 full level

F02N 11/08 (2006.01); **F02N 15/00** (2006.01); **F02N 15/06** (2006.01); **H01H 51/06** (2006.01); **H01H 51/28** (2006.01); **H01R 11/11** (2006.01);
H02K 5/22 (2006.01)

CPC (source: EP)

F02N 11/087 (2013.01); **F02N 15/00** (2013.01); **F02N 15/067** (2013.01); **H01H 50/14** (2013.01); **H01H 51/065** (2013.01); **F02D 2400/21** (2013.01);
F02D 2400/22 (2013.01); **F02N 11/00** (2013.01)

Citation (search report)

See references of WO 2011069800A1

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)

DE 102009054539 A1 20110616; CN 102639864 A 20120815; CN 102639864 B 20161026; EP 2510221 A1 20121017;
WO 2011069800 A1 20110616

DOCDB simple family (application)

DE 102009054539 A 20091211; CN 201080055771 A 20101118; EP 10788268 A 20101118; EP 2010067748 W 20101118