

Title (en)

ELECTROMAGNETIC SWITCH, MANUFACTURING METHOD THEREFOR, AND VEHICLE ENGINE

Title (de)

ELEKTROMAGNETISCHER SCHALTER, HERSTELLUNGSVERFAHREN DAFÜR UND KRAFTFAHRZEUG

Title (fr)

COMMUTATEUR ÉLECTROMAGNÉTIQUE, SON PROCÉDÉ DE FABRICATION ET MOTEUR DE VÉHICULE

Publication

**EP 2930734 A1 20151014 (EN)**

Application

**EP 13794212 A 20130521**

Priority

- CN 201210158379 A 20120521
- CN 2013075981 W 20130521

Abstract (en)

A method for manufacturing a solenoid switch of a vehicle starter, comprising: arranging within a housing (2) a fixed core (4) and a movable core (6) having a single-piece-type push rod (30), arranging a elastic element (22) onto the push rod, arranging a contact bridge (14) at the rear end of the push rod, allowing the push rod to move rearwards until detecting that an initial electric connection state is established between two contact studs (10) via the contact bridge, allowing the push rod to move further rearwards for a reserved stroke, then, in a state that the movable core is kept abutted against the fixed core, fixing the movable core onto the push rod, and processing the front end of the push rod into an engagement window (40a) used for inserting therein the upper end of a shift fork. Also, the solenoid switch manufactured on the basis of the method and the vehicle starter comprising such solenoid switch. Employment of the method in manufacturing of the solenoid switch allows for reductions in reserved stroke tolerance, in positioning tolerance, and in engagement window size, thus increasing the positioning precision of a drive gear.

IPC 8 full level

**H01H 51/06** (2006.01); **F02N 11/00** (2006.01)

CPC (source: EP)

**F02N 11/087** (2013.01); **H01H 49/00** (2013.01); **H01H 50/045** (2013.01); **H01H 51/06** (2013.01); **H01H 51/065** (2013.01); **F02N 15/006** (2013.01)

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 2930734 A1 20151014; EP 2930734 A4 20170809; EP 2930734 B1 20190403;** BR 112014028799 A2 20170627;  
BR 112014028799 A8 20180814; BR 112014028799 B1 20211116; CN 103426684 A 20131204; CN 103426684 B 20170208;  
HU E043481 T2 20190828; IN 9825DEN2014 A 20150731; WO 2013174253 A1 20131128

DOCDB simple family (application)

**EP 13794212 A 20130521;** BR 112014028799 A 20130521; CN 201210158379 A 20120521; CN 2013075981 W 20130521;  
HU E13794212 A 20130521; IN 9825DEN2014 A 20141119