

Title (en)  
STARTER MOTOR FOR AN INTERNAL COMBUSTION ENGINE

Title (de)  
STARTER FÜR EINE BRENNKRAFTMASCHINE

Title (fr)  
MOTEUR DE DÉMARREUR POUR MOTEUR À COMBUSTION INTERNE

Publication  
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Application  
**EP 17180489 A 20170710**

Priority  
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Abstract (en)  
The present invention relates to a starter (1) for an internal combustion engine, having a support housing (2) for mounting the starter (1) on the internal combustion engine, an electric motor (3) which is fixed on the support housing (2) and which has a motor shaft (4), a one way clutch (10) which has an inner ring (11), an outer ring (12) and a plurality of clamping bodies (13), a driveshaft (14) which has a pinion (15) and a toothed shaft portion (16), and an electromagnetic actuator (17) fixed on the support housing (2) for axial adjustment of the driveshaft (14) between an extended active position (AS), in which the pinion (15) is in engagement with a ring gear of the internal combustion engine, and a retracted passive position (PS), in which the pinion (15) is spaced apart from the ring gear, wherein the toothed shaft portion (16) is in engagement with a toothing (25) of the outer ring (12). A reduced mechanical loading of the actuator (17) arises by means of a limiting device (26) for limiting the extension of the driveshaft (14) to the active position (AS), wherein the limiting device (26) supports the driveshaft (14) directly or indirectly axially on the support housing (2) at least in the active position (AS) while avoiding the clamping bodies (13) and the outer ring (12).

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Citation (applicant)  
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• US 5156057 A 19921020 - ISOZUMI SHUZOU [JP]  
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• US 5317933 A 19940607 - ROMETSCH WERNER [DE]  
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Citation (search report)  
• [YD] WO 2013117161 A1 20130815 - BOSCH AUTOMOTIVE PROD CHANGSHA [CN], et al  
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