

Title (en)  
Starter device.

Title (de)  
Anlasservorrichtung.

Title (fr)  
Dispositif de démarrage.

Publication  
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Application  
**EP 92100335 A 19920110**

Priority  
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Abstract (en)  
The invention relates to a starter device comprising an output shaft (36), an over-running clutch (47) and a stopper (39). A rotation of the armature shaft (31) of a DC motor (30) is transmitted to the output shaft (36). The output shaft (36) has a helical spline gear (37). The over-running clutch (47) includes a clutch outer (48) coupled to the output shaft (36) through the helical spline gear (37), and a clutch inner (49) which is coupled to the clutch outer (48) through rollers (50) to transmit rotation in one direction to a pinion (54) provided on the front end portion thereof. The over-running clutch (47) moves the pinion (54) forwardly and backwardly. The stopper (39) is formed on the output shaft (36) in front of the helical spline gear (37) to stop the forward movement of the clutch outer (48) at a predetermined position. The clutch inner (49) has a cylindrical portion extended forwardly which is supported through a bearing (52) on the front bracket (35) of the DC motor (30). The inside diameter of the cylindrical portion of the clutch inner (49) is slightly larger than the outside diameters of the helical spline gear (37) and stopper (39) on the output shaft (36) so as to allow the cylindrical portion to cover at least a portion of the helical spline gear (37) and stopper (39). Thereby, the starter device is reduced in length due to the reduction of the over-running clutch (47) in length. <IMAGE>

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Citation (search report)  
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