

Title (en)  
Starter device for combustion engine

Title (de)  
Startvorrichtung für Brennkraftmotor

Title (fr)  
Dispositif de démarrage pour un moteur à combustion interne

Publication  
**EP 2299104 B1 20141112 (DE)**

Application  
**EP 10173587 A 20100820**

Priority  
• DE 202009011429 U 20090825  
• DE 202009011430 U 20090825

Abstract (en)  
[origin: EP2290222A2] The device (100) has a rope pulley or rope drum (17) rotatably supported in a housing (10). The pulley or the drum is displaceable during rotation for producing drive torque for an engine shaft by an actuating ratchet or a push-pull ratchet, and is connected with a driver i.e. ratchet driver (25). An elastic coupling member i.e. three-dimensional spiral spring (26), has an end engaged with the driver and another end engaged with the pulley or drum. The spring is wound from wires, where cross-sectional area of the spring is reduced from the latter end to the former end of the spring.

IPC 8 full level  
**F02N 3/02** (2006.01); **F02N 5/02** (2006.01)

CPC (source: EP US)  
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