

Title (en)

Starter device for a combustion engine

Title (de)

Startvorrichtung für einen Brennkraftmotor

Title (fr)

Dispositif de démarrage pour un moteur à combustion interne

Publication

**EP 2466117 B1 20141029 (DE)**

Application

**EP 11189135 A 20111115**

Priority

DE 202010016015 U 20101130

Abstract (en)

[origin: US2012132170A1] A starting device for an internal combustion engine includes a pulley mounted rotatably in a housing which can be set in rotation by a tension means to produce a drive torque for a motor shaft by a starter handle and which is connected to an engaging member by a damping spring. The drive torque is transmitted to the motor shaft to start the internal combustion engine, whereby under torsion of the damping spring, a twisting of the pulley against the engaging member is rendered possible until a stop element impacts against a counter-stop to delimit the twisting, which enables a high operational readiness of the starting device. In the case of a defect of the damping spring, the stop element and/or the counter-stop is formed from a material which has a higher strength than the material of the engaging member and/or the material of the pulley.

IPC 8 full level

**F02N 3/02** (2006.01); **F02N 5/02** (2006.01)

CPC (source: EP US)

**F02N 3/02** (2013.01 - EP US); **F02N 5/02** (2013.01 - EP US); **F02N 15/063** (2013.01 - EP US); **F02N 15/065** (2013.01 - EP US)

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 202010016015 U1 20120301**; CN 102562399 A 20120711; CN 102562399 B 20151014; EP 2466117 A1 20120620; EP 2466117 B1 20141029; JP 2012132434 A 20120712; JP 6067968 B2 20170125; US 2012132170 A1 20120531; US 9303611 B2 20160405

DOCDB simple family (application)

**DE 202010016015 U 20101130**; CN 201110397284 A 20111130; EP 11189135 A 20111115; JP 2011255974 A 20111124; US 201113307840 A 20111130