

Title (en)
Starting device

Title (de)
Startvorrichtung

Title (fr)
Dispositif de démarrage

Publication
EP 2172645 B1 20171025 (DE)

Application
EP 09167909 A 20090814

Priority
DE 102008042525 A 20081001

Abstract (en)
[origin: EP2172645A2] The device has a drive end bearing housing (19) in which a bearing (122) e.g. ball bearing, is fixed. The bearing indirectly supports a drive shaft (142). A starting pinion (22) is fastened to the drive shaft such that torque is transferable from the drive shaft to the starting pinion. The starting pinion has a front side (203), which is provided away from a drive of the device. A securing clip (209) i.e. snap ring, is stationary arranged on the drive shaft. A stopper ring (218) overlaps the securing clip by a single-piece formed collar (220) that is plastically deformed.

IPC 8 full level
F02N 11/00 (2006.01); **F02N 15/02** (2006.01); **F02N 15/06** (2006.01)

CPC (source: EP)
F02N 15/06 (2013.01); **F02N 11/00** (2013.01); **F02N 15/023** (2013.01)

Citation (examination)
DE 102006045753 A1 20070503 - DENSO CORP [JP]

Cited by
CN103154500A; EP2812563A4; EP2693043A4; US9617964B2; WO2012001023A3; WO2012146495A3; WO2012001025A3; US9518550B2; US10184443B2

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