

Title (en)

STARTER APPARATUS FOR CRANKING OVER AN INTERNAL COMBUSTION ENGINE, AND STARTER SYSTEM FOR CRANKING OVER AN INTERNAL COMBUSTION ENGINE

Title (de)

ANLASSERVORRICHTUNG ZUM DURCHDREHEN EINER BRENNKRAFTMASCHINE UND ANLASSERSYSTEM ZUM ANKURBELN EINER BRENNKRAFTMASCHINE

Title (fr)

APPAREIL DE DÉMARRAGE POUR ENTRAINER UN MOTEUR À COMBUSTION INTERNE ET SYSTÈME DE DÉMARREUR POUR UN MOTEUR À COMBUSTION INTERNE

Publication

EP 3875749 B1 20230503 (EN)

Application

EP 20161293 A 20200305

Priority

EP 20161293 A 20200305

Abstract (en)

[origin: EP3875749A1] The present invention relates to a starter apparatus (1) for cranking over an internal combustion engine having a driveable drive shaft (3) which is coupled rotatably via a freewheel device (13) to a pinion shaft (7). It is essential for the invention that a sleeve (24) is arranged radially between the pinion shaft (7) and the freewheel device (13).

IPC 8 full level

F02N 15/02 (2006.01); **F02N 11/08** (2006.01); **F02N 15/06** (2006.01)

CPC (source: EP)

F02N 15/023 (2013.01); **F02N 15/026** (2013.01); **F02N 11/0851** (2013.01); **F02N 15/046** (2013.01); **F02N 15/06** (2013.01); **F02N 15/067** (2013.01); **F02N 2200/047** (2013.01); **F02N 2250/08** (2013.01)

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)

EP 3875749 A1 20210908; EP 3875749 B1 20230503

DOCDB simple family (application)

EP 20161293 A 20200305