

Title (en)
PERMANENT-MESH STARTER EQUIPPED WITH A SYSTEM FOR COUPLING THE DRIVE WHEEL TO THE ROTOR OF THE STARTER MOTOR

Title (de)
PERMANENT-MESH-STARTER MIT SYSTEM ZUR KOPPLUNG DES ANTRIEBSRADES AN DEN ROTOR DES STARTERMOTORS

Title (fr)
DEMARREUR A ENGRENEMENT PERMANENT EQUIPE D'UN SYSTEME D'ACCOUPEMENT DE LA ROUE D'ENTRAINEMENT AU ROTOR DU MOTEUR DU DEMARREUR

Publication
EP 2655861 A1 20131030 (FR)

Application
EP 11817381 A 20111216

Priority
• FR 1060959 A 20101221
• FR 2011053038 W 20111216

Abstract (en)
[origin: WO2012085419A1] The invention relates to a permanent-mesh starter motor (1) for an internal combustion engine, notably of a motor vehicle, comprising a cylinder head (3), an electric motor (14), a drive wheel assembly, an epicyclic reduction gearbox (130). The drive wheel assembly comprises a drive wheel (11) able to rotate about its axis and mounted on a drive shaft (111). The epicyclic reduction gearbox (130) comprises two coaxial shafts known as planetary shafts, a first of which forms a sun gear (131) connected to the shaft of the rotor (145), and the second of which forms an annulus gear (133), at least one planet pinion (135) between the two planetaries and a planet carrier (137) coupled in rotation to the drive shaft (111). The starter further comprises a moving part (55) designed to act on the annulus gear (133) to move it from an uncoupled state in which the annulus gear (133) is free to turn with respect to the cylinder head (3) into a coupled state in which the annulus gear (133) is secured in terms of rotation to the cylinder head (3) at least in the direction that opposes the start-up torque.

IPC 8 full level
F02N 15/04 (2006.01)

CPC (source: EP)
F02N 15/046 (2013.01); **F02N 15/08** (2013.01)

Citation (search report)
See references of WO 2012085419A1

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)
FR 2969221 A1 20120622; FR 2969221 B1 20150807; EP 2655861 A1 20131030; WO 2012085419 A1 20120628

DOCDB simple family (application)
FR 1060959 A 20101221; EP 11817381 A 20111216; FR 2011053038 W 20111216