

Title (en)
DRIVE MOTOR WITH A BALANCING SECTION ON THE ROTOR

Title (de)
ANTRIEBSMOTOR MIT EINER WUCHTPARTIE AM ROTOR

Title (fr)
MOTEUR D'ENTRAÎNEMENT DOTÉ D'UNE PARTIE D'ÉQUILIBRAGE SUR LE ROTOR

Publication
EP 3963696 A1 20220309 (DE)

Application
EP 20723372 A 20200430

Priority
• DE 102019111333 A 20190502
• EP 2020062053 W 20200430

Abstract (en)
[origin: WO202221868A1] The invention relates to a drive motor for a suction device (400) or a machine tool in the form of a hand-held power tool (200, 300) or a semi-stationary machine tool. The drive motor (20, 120) has a stator (80) with an excitation coil assembly (86) and a rotor (40, 140) with a motor shaft (30, 130) which is rotatably mounted about a rotational axis (D) on the stator or relative to the stator (80) by means of a bearing assembly (24A) and which passes through a shaft through-opening (42, 142) of a laminated core (41, 141) held on the motor shaft (30, 130). The rotor (40, 140) has a magnet assembly (50) with at least one permanent magnet such that the rotor (40, 140) can be rotated about the rotational axis (D) by energizing the excitation coil assembly (86). According to the invention, the laminated core (41, 141) has at least one balancing section (55) produced by removing material from or notching the laminated core (41, 141), and/or the at least one permanent magnet is formed by a magnet body (52) which is magnetized when arranged on the laminated core (41, 141). The invention additionally relates to a method for producing such a drive motor.

IPC 8 full level
H02K 7/04 (2006.01); **H02K 1/27** (2022.01); **H02K 15/16** (2006.01)

CPC (source: EP US)
H02K 1/276 (2013.01 - EP); **H02K 1/30** (2013.01 - EP); **H02K 3/522** (2013.01 - EP); **H02K 7/003** (2013.01 - US); **H02K 7/04** (2013.01 - EP US); **H02K 7/08** (2013.01 - US); **H02K 7/145** (2013.01 - US); **H02K 15/0062** (2013.01 - EP); **H02K 15/165** (2013.01 - EP); **H02K 1/04** (2013.01 - US); **H02K 1/08** (2013.01 - US); **H02K 1/27** (2013.01 - 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

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
DE 102019111333 A1 20201105; CN 113711475 A 20211126; EP 3963696 A1 20220309; JP 2022529895 A 20220627; US 2022231573 A1 20220721; WO 202221868 A1 20201105

DOCDB simple family (application)
DE 102019111333 A 20190502; CN 202080032715 A 20200430; EP 2020062053 W 20200430; EP 20723372 A 20200430; JP 2021559164 A 20200430; US 202017607173 A 20200430