

Title (en)

METHOD FOR MECHANICALLY CONNECTING TWO COMPONENTS IN A RIGID MANNER, ROTOR OF AN ELECTRIC ROTATION MACHINE, METHOD FOR PRODUCING A ROTOR OF AN ELECTRIC ROTATION MACHINE, AND ELECTRIC ROTATION MACHINE

Title (de)

VERFAHREN ZUM FESTEN MECHANISCHEN VERBINDEN VON ZWEI BAUTEILEN, ROTOR EINER ELEKTRISCHEN ROTATIONS MASCHINE, EIN VERFAHREN ZUR HERSTELLUNG EINES ROTORS EINER ELEKTRISCHEN ROTATIONS MASCHINE UND ELEKTRISCHE ROTATIONS MASCHINE

Title (fr)

PROCÉDÉ DE LIAISON MÉCANIQUE DE DEUX COMPOSANTS D'UNE MANIÈRE RIGIDE, ROTOR D'UNE MACHINE ÉLECTRIQUE TOURNANTE, PROCÉDÉ DE PRODUCTION D'UN ROTOR D'UNE MACHINE ÉLECTRIQUE TOURNANTE ET MACHINE ÉLECTRIQUE TOURNANTE

Publication

EP 4320707 A1 20240214 (DE)

Application

EP 22714352 A 20220323

Priority

- DE 102021108893 A 20210409
- DE 2022100221 W 20220323

Abstract (en)

[origin: WO2022214131A1] The invention relates to a method for mechanically connecting two components in a rigid manner, to a rotor of an electric rotation machine, to a method for producing a rotor of an electric rotation machine, and to an electric rotation machine. According to the method for mechanically connecting two components in a rigid manner, a first component (50) and a second component (60) are provided, wherein at least one pin (51) is produced in the first component (50) by pressing into the material of the first component (50), at least one through-hole (61) is produced in the second component (60), a pin (51) of the first component (50) is introduced into a through-hole (61) of the second component (60), a pressing force (70) and/or a pulse is applied to the pin (51) in the axial direction thereof by means of a pressing element, and a counter pressure force (71) and/or a counter pulse is applied to the pin in the axial direction opposite the pressing direction of the pressing force (70) by means of a counter pressing element in the through-hole (61) such that pin (51) material located between the pressing elements is moved radially and a force-fitting connection is produced with the wall of the through-hole (61). The aforementioned method for mechanically connecting two components in a rigid manner and the rotor produced using said method ensure a durable and rigid connection of rotor sheet metal ends to the shaft.

IPC 8 full level

H02K 1/28 (2006.01); **H02K 7/00** (2006.01); **H02K 15/02** (2006.01)

CPC (source: EP US)

H02K 1/28 (2013.01 - EP); **H02K 1/30** (2013.01 - US); **H02K 7/003** (2013.01 - EP); **H02K 15/02** (2013.01 - EP)

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

DE 102021108893 A1 20221013; CN 117157855 A 20231201; EP 4320707 A1 20240214; US 2024195247 A1 20240613; WO 2022214131 A1 20221013

DOCDB simple family (application)

DE 102021108893 A 20210409; CN 202280027401 A 20220323; DE 2022100221 W 20220323; EP 22714352 A 20220323; US 202218285893 A 20220323