

Title (en)

METHOD FOR POWDER-BED-BASED ADDITIVE MANUFACTURE OF A WORKPIECE, METHOD FOR PRODUCING CORRECTION PARAMETERS FOR SAID FIRST METHOD AND COMPUTER PROGRAM PRODUCT FOR SAID SECOND METHOD

Title (de)

VERFAHREN ZUM PULVERBETTBASIERTEN ADDITIVEN HERSTELLEN EINES WERKSTÜCKS, VERFAHREN ZUM ERSTELLEN VON KORREKTURPARAMETERN FÜR DAS ERSTGENANNT VERFAHREN UND COMPUTERPROGRAMMPRODUKT FÜR DAS ZWEITGENANNT VERFAHREN

Title (fr)

PROCÉDÉ DE FABRICATION ADDITIVE SUR LIT DE POUDRE D'UNE PIÈCE, PROCÉDÉ PERMETTANT DE DÉFINIR DES PARAMÈTRES DE CORRECTION POUR LE PREMIER PROCÉDÉ CITÉ, ET PRODUIT-PROGRAMME INFORMATIQUE POUR LE SECOND PROCÉDÉ CITÉ

Publication

EP 3582914 A1 20191225 (DE)

Application

EP 17717433 A 20170413

Priority

EP 2017058997 W 20170413

Abstract (en)

[origin: WO2018188757A1] The invention relates to a method for manufacturing a workpiece (19) in an additive manufacturing plant (11) in a powder bed (13). In this context, critical overheating of the generated molten bath can occur in component areas where there is little component volume of the already manufactured component available underneath a beam of energy (17). In order to prevent this, the invention proposes that a contour function (gcf) takes into account the component (19) located underneath the position (25) to be manufactured. Correction parameters (vf) which reduce the quantity of introduced energy of the beam of energy (17) in order to prevent overheating of the molten bath can be derived therefrom. The invention also relates to a method for determining a contour function (gcf) or for producing correction parameters of a correction function (vf) and computer program products (26, 27) with which the above-mentioned methods can be carried out.

IPC 8 full level

B22F 3/105 (2006.01); **B29C 64/00** (2017.01); **B33Y 50/00** (2015.01); **B33Y 50/02** (2015.01); **G06T 17/20** (2006.01)

CPC (source: EP US)

B22F 10/28 (2021.01 - EP US); **B22F 10/36** (2021.01 - EP US); **B22F 10/80** (2021.01 - EP US); **B29C 64/153** (2017.07 - US); **B29C 64/264** (2017.07 - US); **B29C 64/393** (2017.07 - EP US); **B33Y 50/00** (2014.12 - EP); **B33Y 50/02** (2014.12 - EP US); **B22F 12/13** (2021.01 - EP US); **B22F 12/49** (2021.01 - EP US); **B22F 2998/10** (2013.01 - EP); **B22F 2999/00** (2013.01 - EP); **B29C 64/153** (2017.07 - EP); **B33Y 10/00** (2014.12 - EP US); **G06F 30/20** (2020.01 - EP); **Y02P 10/25** (2015.11 - EP)

Citation (search report)

See references of WO 2018188757A1

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)

WO 2018188757 A1 20181018; CN 110545940 A 20191206; CN 110545940 B 20220729; EP 3582914 A1 20191225; US 2020039145 A1 20200206

DOCDB simple family (application)

EP 2017058997 W 20170413; CN 201780089488 A 20170413; EP 17717433 A 20170413; US 201716603458 A 20170413