Title (en)

IMPROVING THE POSITIONAL ACCURACY OF THE SUPPLY OF ENERGY IN AN ADDITIVE MANUFACTURING DEVICE

Title (de)

VERBESSERUNG DER POSITIONSGENAUIGKEIT DER ENERGIEZUFUHR IN EINER ADDITIVEN FERTIGUNGSVORRICHTUNG

Title (fr)

AMÉLIORATION DE LA PRÉCISION DE POSITION DE L'ALIMENTATION EN ÉNERGIE DANS UN DISPOSITIF DE FABRICATION ADDITIVE

Publication

EP 4384380 A1 20240619 (DE)

Application

EP 22753665 A 20220718

Priority

- DE 102021208911 A 20210813
- EP 2022070042 W 20220718

Abstract (en)

[origin: WO2023016759A1] The invention relates to a calibration method of a device for layered additive manufacturing of items, which device comprises: a control device for controlling the layered additive manufacturing process; a layer deposition device which is designed to provide a layer of a construction material; and an energy supply device which is designed to solidify points of the layer by supplying electromagnetic radiation; wherein the energy supply device is designed to be moved over the construction region and a predefined target direction (X) is specified to the energy supply device for this movement; and wherein the energy supply device comprises a number of radiation emitters which are arranged along an arrangement direction (Y) transversely to the predefined target direction (X); and, depending on the points, the control device specifies to the radiation emitters the emission locations at which radiation should be emitted over the construction region; in which calibration method it is determined whether the movement of the energy supply device leads to a deviation of the movement direction (B) from the predefined target direction (X) and the control device is prompted to specify other emission locations to the radiation emitters on the basis of a determined deviation.

IPC 8 full level

B29C 64/153 (2017.01); **B22F 10/28** (2021.01); **B22F 10/31** (2021.01); **B22F 10/85** (2021.01); **B22F 12/42** (2021.01); **B22F 12/47** (2021.01); **B29C 64/236** (2017.01); **B29C 64/277** (2017.01); **B29C 64/393** (2017.01); **B33Y 10/00** (2015.01); **B33Y 30/00** (2015.01)

CPC (source: EP)

B22F 10/28 (2021.01); **B22F 10/31** (2021.01); **B22F 12/47** (2021.01); **B29C 64/153** (2017.08); **B29C 64/236** (2017.08); **B29C 64/277** (2017.08); **B29C 64/393** (2017.08); **B33Y 10/00** (2014.12); **B33Y 30/00** (2014.12); **B33Y 50/02** (2014.12); B22F 12/41 (2021.01); B22F 12/45 (2021.01)

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

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

DE 102021208911 A1 20230216; CN 117881527 A 20240412; EP 4384380 A1 20240619; WO 2023016759 A1 20230216

DOCDB simple family (application)

DE 102021208911 A 20210813; CN 202280055676 A 20220718; EP 2022070042 W 20220718; EP 22753665 A 20220718