

Title (en)

COMPONENT PRODUCED BY ADDITIVE MANUFACTURING AND HAVING A SUPPORT STRUCTURE

Title (de)

MITTELS ADDITIVER FERTIGUNG HERGESTELLTES BAUTEIL MIT EINER STÜTZSTRUKTUR

Title (fr)

COMPOSANT PRODUIT PAR FABRICATION ADDITIVE POURVU D'UNE STRUCTURE DE SUPPORT

Publication

EP 3507078 A1 20190710 (DE)

Application

EP 17764328 A 20170821

Priority

- DE 102016116372 A 20160901
- EP 2017001000 W 20170821

Abstract (en)

[origin: WO2018041395A1] The aim of the invention is to enable, in a particularly simple manner, the removal of a support structure (2) for a component (1) produced by additive manufacturing. This aim is achieved, according to the invention, in that the free end (9) of the support structure (2) is repeatedly deflected from a starting position (16) to a deflection position (17) by application of a bending torque, in such a way that the support structure (2) experiences working hardening due to plastic deformation at a defined location, in particular at the fixed end (8) of the support structure, until the support structure (2) fractures at said location during a further deflection.

IPC 8 full level

B29C 64/40 (2017.01); **B22F 3/105** (2006.01); **B33Y 99/00** (2015.01)

CPC (source: EP US)

B22F 3/24 (2013.01 - EP US); **B22F 10/47** (2021.01 - EP US); **B29C 64/40** (2017.07 - EP US); **B33Y 99/00** (2014.12 - EP US);
B22F 10/28 (2021.01 - EP US); **B22F 2999/00** (2013.01 - EP US); **B33Y 10/00** (2014.12 - EP US); **B33Y 80/00** (2014.12 - EP US);
Y02P 10/25 (2015.11 - EP)

Citation (search report)

See references of WO 2018041395A1

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 102016116372 A1 20180301; CN 109890596 A 20190614; EP 3507078 A1 20190710; JP 2019531924 A 20191107;
RU 2019109016 A 20201001; RU 2019109016 A3 20201001; US 2019240916 A1 20190808; WO 2018041395 A1 20180308

DOCDB simple family (application)

DE 102016116372 A 20160901; CN 201780065732 A 20170821; EP 17764328 A 20170821; EP 2017001000 W 20170821;
JP 2019511470 A 20170821; RU 2019109016 A 20170821; US 201716329844 A 20170821