

Title (en)
METHOD AND DEVICE FOR THE QUALITY ASSURANCE OF AT LEAST ONE COMPONENT DURING THE PRODUCTION THEREOF BY A GENERATIVE PRODUCTION PROCESS

Title (de)
VERFAHREN UND VORRICHTUNG ZUR QUALITÄTSSICHERUNG MINDESTENS EINES BAUTEILS WÄHREND DESSEN HERSTELLUNG DURCH GENERATIVES FERTIGUNGSVERFAHREN

Title (fr)
PROCÉDÉ ET DISPOSITIF DE CONTRÔLE DE LA QUALITÉ D'AU MOINS UN COMPOSANT PENDANT LA PRODUCTION DE CELUI-CI AU MOYEN D'AU MOINS UN PROCÉDÉ DE FABRICATION ADDITIVE

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Application
EP 15733608 A 20150429

Priority
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Abstract (en)
[origin: WO2015197038A1] The invention relates to a method for the quality assurance of at least one component (14) during the production thereof, wherein the production takes place by means of at least one additive manufacturing process, which comprises the following steps: building up the component (14) layer by layer, and thermographically recording at least one image of each individual layer applied. In order to facilitate nondestructive crack detection of a metallic component (14) during the production process (inspection by means of an online process), at least some of the layers applied are subjected to a controlled heat treatment below the melting temperature of the material of the component before the thermographic recording of the associated image, wherein the heat treatment causes the last layer applied to radiate heat which, if at least one crack in the layer develops, exhibits a characteristic heat profile at the crack, wherein the heat profile, and consequently the crack, is made visible by means of the associated thermographic recording. Preferably, each layer applied is subjected to such a treatment.

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Citation (search report)
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Cited by
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