

Title (en)
METHOD FOR PRODUCING AN OBJECT FROM A HOT WORK STEEL

Title (de)
VERFAHREN ZUM HERSTELLEN EINES GEGENSTANDES AUS EINEM WARMARBEITSSTAHL

Title (fr)
PROCÉDÉ DE FABRICATION D'UN OBJET EN ACIER POUR TRAVAIL À CHAUD

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Application
EP 19729227 A 20190603

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Abstract (en)
[origin: WO2019233962A1] The present invention relates to a method for producing an object from a hot work steel, wherein a hot work steel alloy, in particular a hot work steel alloy with a carbon content of more than 0.35 wt %, is melted, wherein the melting occurs in an electric arc furnace with subsequent secondary metallurgy; the molten metal is cast in an ingot casting process and optionally remelted, and then the molten metal is atomized to create a powder, wherein the obtained powder is sized. The method is characterised in that, in a subsequent step in an additive manufacturing process for producing the object, energy is applied to the powder and the powder is selectively fused, a powder bed process being used, in which the powder is selectively fused and combined with previously fused layers, the working chamber being preheated to a working chamber temperature and the powder being preheated, the powder being heated to temperatures between 200 and 450°C before it is selectively fused, and the object thus obtained undergoes subsequent heat treatment, said heat treatment consisting of at least one hardening step and at least one or more annealing steps.

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