

Title (en)
METHOD FOR PRODUCING A PISTON FOR A COMBUSTION ENGINE

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES KOLBENS FÜR EINEN VERBRENNUNGSMOTOR

Title (fr)
PROCÉDÉ DE FABRICATION D'UN PISTON DESTINÉ À UN MOTEUR À COMBUSTION INTERNE

Publication
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Application
EP 14824796 A 20141211

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Abstract (en)
[origin: WO2015091217A1] The invention relates to a method for producing a piston (1) with a combustion bowl (2), comprising the fastening of an annular fibrous preform (3) with a shape which is suitable for reinforcing the edge of the combustion bowl (2) in a casting mould for the piston (1) coaxially with respect to the piston axis (10) in the plane of the piston head (5), the introduction of a metallic melt into the casting mould in order to produce the piston blank, the generation of a pressure difference between the melt and the fibrous preform (3) for the infiltration of the melt into the fibrous preform (3), and the machining of the piston blank by means of a chip-removing manufacturing method for finishing the piston (1), wherein the pressure difference between the melt and the fibrous preform (3) is caused by the fibrous preform (3) being held in the casting mould by suction tubes (10, 11), wherein a vacuum prevails in the suction tubes (10, 11) which is such that the melt is sucked into the fibrous preform (3) by it and infiltrates the fibrous preform (3). An optimized solidifying behaviour arises if at least one section (13, 14) of at least one of the suction tubes (10, 11) accelerates the solidification of the melt which enters the suction tube (10, 11).

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