Title (en)

METHOD FOR CASTING A CAST PART PROVIDED WITH AT LEAST ONE PASSAGE OPENING

Title (de)

VERFAHREN ZUM GIEßEN EINES MIT MINDESTENS EINER DURCHGANGSÖFFNUNG VERSEHENEN GUSSTEILS

Title (fr)

PROCÉDÉ DE COULÉE D'UNE PIÈCE COULÉE MUNIE D'AU MOINS UNE OUVERTURE DE PASSAGE

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Application

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Abstract (en)

[origin: CA2872082A1] According to the invention, in order to produce cast parts having passage openings and having optimized mechanical properties with low equipment expense, the following work steps are performed a) providing a casting mold (2), in which at least one casting core (8-19) for forming the passage opening (01, 02) is present, wherein the casting core (8-19) is made of a molding material comprising a binder, which molding material decomposes under the influence of force or temperature, b) pouring the metal melt (S) into the casting mold (2) to the cast part (Z1, Z2), c) cooling the cast part (Z1, Z2) in the casting mold (2) to a temperature that is below the liquidus temperature of the metal melt (S) but above a minimum temperature down to which a higher-strength microstructure is formed when accelerated cooling is performed, d) producing a passage channel (G1, G2), that leads through the passage opening (01, 02) of the cast part (Z1, Z2), which passage channel opens at an outside of the casting mold (2), in that the binder of the molding material, from which the casting core (8-19) forming the passage opening (01, 02) burns due to the heat input into the casting mold during the pouring of the metal melt into the casting mold, or in that the casting core (8-19) forming the particular passage opening (01, 02) and the areas of the casting mold (2) arranged in the extension (V1, V2) of the casting core are at least partially mechanically destroyed, e) cooling the cast part (Z1, Z2) in the casting mold (2) while a cooling medium (M1, M2) flows through the passage channel (G1, G2).

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