Title (en)

SINTERED MECHANICAL PART WITH ABRASIONPROOF SURFACE AND METHOD FOR PRODUCING SAME

Title (de)

GESINTERTES MECHANISCHES TEIL MIT ABRIEBFESTER OBERFLÄCHE UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

PIECE MECANIQUE FRITTEE A SURFACE ANTIABRASION ET PROCEDE POUR SA REALISATION

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Application

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Abstract (en)

[origin: WO9854379A1] The invention concerns a mechanical part with abrasionproof surface characterised in that it comprises a sintered metallic body obtained from metallic powders and a laser-deposited cermet coating. The coating has a certain thickness whereof a portion is metallurgically bound with the metallic body. The laser deposit enables the sintered part to be surface-melted under the effect of the laser beam. The surface of the sintered part to be coated is therefore fused over a thickness ranging between 10 mu m and 1 mm, which enables the surface pores to be closed, as is characteristic of sintered parts, thereby increasing its resistance to shocks. Moreover, the small surface coated at a given moment by the laser enables the self-hardening of the exposed part, following the beam displacement, by the heat-sink effect of the surrounding metallic volume. The resulting coating also has very low porosity owing to the complete fusion of the powders by laser.

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