Title (en)

METHOD FOR SPARK-EROSIVE TREATMENT OF ELECTRICALLY NONCONDUCTIVE MATERIALS

Title (de)

VERFAHREN ZUR FUNKENEROSIVEN BEARBEITUNG EINES ELEKTRISCH NICHT LEITENDEN MATERIALS

Title (fr)

PROCÉDÉ DE TRAITEMENT PAR ÉLECTRO-ÉROSION D'UN MATÉRIAU ÉLECTRIQUEMENT NON CONDUCTEUR

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Application

EP 07728100 A 20070413

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Abstract (en)

[origin: EP1870189A1] A preliminary bore (3) is formed in the electrically non-conducting material, e.g. using a laser. Electrically-conducting material (4) is introduced into the bore and is connected as an auxiliary electrode. A final bore (8) is formed along the preliminary bore, using a working electrode (6) for spark erosion. The diameter of the final bore (8) exceeds that of the preliminary bore. The electrically-conductive material is graphite, an organic compound or a metal. The inner wall of the preliminary bore is coated with electrically-conducting material. This material is introduced into the bore as a wire or rod. It is optionally a fluid. The electrically non-conductive material is a ceramic. It contains or comprises completely- or partially-stabilized zirconium oxide. The electrically non-conducting material is a coating on a component. It is a thermally-insulating layer. The component is part of a turbine, being a running blade or a flow guidance blade.

IPC 8 full level (invention and additional information)

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