

Title (en)
METHOD FOR COATING A COMPONENT

Title (de)
VERFAHREN ZUM BESCHICHTEN EINES BAUTEILS

Title (fr)
PROCÉDÉ POUR L'ENDUCTION D'UN COMPOSANT

Publication
EP 2099948 A2 20090916 (DE)

Application
EP 07820464 A 20070921

Priority
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Abstract (en)
[origin: EP1932936A1] The method for coating a component with a multilayer ceramic coating, comprises applying individual layers of the ceramic coating covering one another on the component and supplying the ceramic particles to a coating burner in which the particles are melted partly or completely and then deposited on the component. The ceramic particles with a particle size, which increases from layer to layer, are supplied to the coating burner. On the multilayered ceramic coating, a multilayered top layer is applied. A plasma burner (10) is used as the coating burner. The method for coating a component with a multilayer ceramic coating, comprises applying individual layers of the ceramic coating covering one another on the component and supplying the ceramic particles to a coating burner in which the particles are melted partly or completely and then deposited on the component. The ceramic particles with a particle size, which increases from layer to layer, are supplied to the coating burner. On the multilayered ceramic coating, a multilayered top layer is applied. The ceramic particles for the top layer have larger particle size than the ceramic particles supplied to the coating burner. A plasma burner (10) is used as the coating burner, whose power is adjusted through a variation of the ampacity, hydrogen gas flow and/or the argon gas rate during applying individual layers of the ceramic coating continuously on the component. The thickness of the individual layers of the ceramic coating is 20-50 μm . The overall thickness of the ceramic coating is 250-650 μm . The ceramic particles are introduced with a grain size of 75 μm + 10 μm or -53 μm + 11 μm or -90 μm + 11 μm to the coating burner for the first layer, with a grain size of -106 μm + 11 μm or -125 μm + 45 μm or -150 μm + 75 μm to the coating burner for the last layer and with a constant grain size of -75 μm + 10 μm or -53 μm + 11 μm or -90 μm + 11 μm to the coating burner for the formation of lower layer. The thickness of the individual layer of the lower layer is 20-50 μm . The overall thickness of the lower layer is 150-450 μm . Independent claims are included for: (1) a multilayer ceramic coating; and (2) a component of a gas turbine.

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