Title (en)

A turbine blade outer air seal comprising a ceramic coating on the stator and the rotor respectively.

Title (de)

Eine Turbinenschaufelaussendichtung bestehend aus jeweils einer keramischen Schicht auf dem Stator und dem Rotor.

Title (fr)

Etanchéité extérieur d'une aube de turbine comprenant un revêtement céramique sur le stator et le rotor respectivement

Publication

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Application

EP 13161673 A 20130328

Priority

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Abstract (en)

Turbomachine (6) comprises a rotor and a stator. A sealing (1) for reducing the radial gap is arranged in at least one radial gap between the rotor and the stator. The sealing comprises two opposite coating. A first coating is applied on a stator section (4), which is bounding the radial gap in a radially outward manner, and the second coating (40) is applied to a rotor section (2), which is bounding the radial gap in a radially inward manner. The coatings are made of ceramic powder with particle size of less than 1 mm. Turbomachine (6) comprises a rotor and a stator. A sealing (1) for reducing the radial gap is arranged in at least one radial gap between the rotor and the stator. The sealing comprises two opposite coating. A first coating is applied on a stator section (4), which is bounding the radial gap in a radially outward manner, and the second coating (40) is applied to a rotor section (2), which is bounding the radial gap in a radially inward manner. The coatings are made of ceramic powder with particle size of less than 1 mm or powder-based individual layers with outer layer having a higher ceramic content than the section, which is near to rotor- or stator section of the base layer.

Abstract (de)

Offenbart ist eine Strömungsmaschine (6) mit zumindest einer Radialspaltdichtung 1), die zumindest zwei gegenüberliegende Keramikbeschichtungen (40, 2) aufweist, die jeweils aus einem Keramikpulver aufgebaut sind, dessen Partikelgröße kleiner als 1,0 µm ist, und eine Strömungsmaschine (6) mit zumindest einer Radialspaltdichtung (1), wobei die Beschichtungen aus pulverbasierten Einzelschichten aufgebaut sind, deren äußere Schicht einen höheren Keramikanteil als eine rotor- bzw. statorabschnittsnahe Grundschicht aufweist, wobei die Partikelgröße des Pulvermaterials kleiner als 1,0 µm ist.

IPC 8 full level

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CPC (source: EP US)

F01D 5/005 (2013.01 - EP US); **F01D 5/20** (2013.01 - EP US); **F01D 5/284** (2013.01 - EP US); **F01D 5/288** (2013.01 - EP US); **F01D 11/08** (2013.01 - US); **F01D 11/122** (2013.01 - EP US); F05D 2300/611 (2013.01 - US)

Citation (search report)

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Designated contracting state (EPC)

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