Title (en)

COATING SYSTEM FOR A COMPONENT HAVING A THERMAL BARRIER COATING, A METALLIC BONDING LAYER AND A METALLIC EROSION RESISTANT COATING, METHOD FOR MANUFACTURING AND METHOD FOR USING SAID COMPONENT

Title (de)

SCHICHTSYSTEM FÜR EIN BAUTEIL MIT WÄRMEDÄMMSCHICHT, EINER METALLISCHEN ANBINDUNGSSCHICHT UND EINER METALLISCHEN EROSIONSSCHUTZSCHICHT, VERFAHREN ZUR HERSTELLUNG UND VERFAHREN ZUM BETREIBEN EINER DAMPFTURBINE

Title (fr)

COMPOSANT AYANT UN REVÊTEMENT AVEC UNE BARRIÈRE THERMIQUE, UNE COUCHE DE LIAISON METALIQUE ET UNE COUCHE METALLIQUE RESISTANTE À L'EROSION, PROCÉDE DE MANUFACTURE ET MÉTHODE POUR SA UTILISATION

Publication

EP 1891249 A1 20080227 (DE)

Application

EP 06725133 A 20060317

Priority

- EP 2006060835 W 20060317
- EP 05012633 A 20050613
- EP 06725133 A 20060317

Abstract (en)

[origin: EP1734145A1] Gas- or steam-turbine component has a substrate layer (4) under a metal bonding layer (10), a ceramic heat insulation layer (7) and an upper anti-erosion layer (13). The materials making up the bonding layer and anti-erosion layer are the same or of nearly the same composition. Metal bonding layer and anti-erosion layer are an MCrAlX alloy. The bonding layer has 29-31% wt. Nickel, 27-29% wt. Chromium, 7-8% wt. Aluminum, 0.5-0.7% wt. Yttrium and 0.3-0.7% wt. Silicon; the residue is cobalt. The anti-erosion layer consists of 11-13% wt cobalt, 20-22% wt. Chromium, 10.5-11.5% aluminum, 0.3-0.5% Yttrium and 1.5-2.5% Wt. Rhenium; the residue is Nickel. Also claimed is a process to operate a commensurate steam turbine.

IPC 8 full level

C23C 4/02 (2006.01); **F01D 25/00** (2006.01)

CPC (source: EP US)

C23C 4/02 (2013.01 - EP US); **C23C 28/321** (2013.01 - EP US); **C23C 28/3215** (2013.01 - EP US); **C23C 28/345** (2013.01 - EP US); **C23C 28/3455** (2013.01 - EP US); **C23C 28/347** (2013.01 - EP US); **C23C 28/36** (2013.01 - EP US); **F01D 5/286** (2013.01 - EP US); **F01D 5/288** (2013.01 - EP US); **F01D 25/007** (2013.01 - EP US); F05C 2201/0466 (2013.01 - EP US); F05D 2220/31 (2013.01 - EP US); F05D 2250/51 (2013.01 - EP US); F05D 2300/121 (2013.01 - EP US); F05D 2300/132 (2013.01 - EP US); F05D 2300/222 (2013.01 - EP US); Y10T 428/12479 (2015.01 - EP US); Y10T 428/12535 (2015.01 - EP US); Y10T 428/12611 (2015.01 - EP US)

Citation (search report)

See references of WO 2006133980A1

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