

Title (en)

USE OF A THERMAL INSULATING LAYER FOR A HOUSING OF A STEAM TURBINE AND A STEAM TURBINE

Title (de)

VERWENDUNG EINER WÄRMEDÄMMSCHICHT FÜR EIN GEHÄUSE EINER DAMPFTURBINE UND EINE DAMPFTURBINE

Title (fr)

UTILISATION D'UNE COUCHE D'ISOLATION THERMIQUE POUR LE BOITIER D'UNE TURBINE A VAPEUR ET TURBINE A VAPEUR

Publication

EP 1692372 A1 20060823 (DE)

Application

EP 04801187 A 20041201

Priority

- EP 2004013651 W 20041201
- EP 03028575 A 20031211
- EP 04801187 A 20041201

Abstract (en)

[origin: EP1541810A1] The heat insulation layer (7) is used in one component, e.g. a valve housing (34) of a steam turbine, which is next to a second component, e.g. a housing cover (37), to adjust, esp. even out, differing deformation behavior of the components, esp. between room and operational temperatures, to reduce radial and/or axial tolerances. The first component is subject to a heat differential of at least 200[deg]C. The heat insulation layer is used for a steam inlet section of a turbine, which is next to a blade section, a turbine housing, a valve housing unit (31), a turbine blade, or for a component consisting of a main material, e.g. iron/nickel/cobalt alloy. The heat insulation layer consists at least partially, pref. completely, of zirconium oxide (ZrO₂), or titanium oxide (TiO₂). An intermediate protection layer below the heat insulation is a MCrAlX layer, with M being an element from the group nickel, cobalt, and esp. iron, and X being yttrium and/or silicon and/or at least one of the rare earth.

IPC 8 full level

F01D 25/14 (2006.01); **C23C 28/00** (2006.01); **C23C 30/00** (2006.01); **F01D 5/28** (2006.01); **F01D 9/04** (2006.01); **F01D 11/18** (2006.01); **F01D 25/00** (2006.01)

CPC (source: EP KR US)

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Citation (search report)

See references of WO 2005056985A1

Citation (examination)

- DE 69000984 T2 19930609 - ALSTHOM GEC [FR]
- US 5127795 A 19920707 - PLEMMONS LARRY W [US], et al
- EP 1272441 A2 20030108 - SIEMENS WESTINGHOUSE POWER [US]
- EP 1247941 A1 20021009 - SIEMENS AG [DE]

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DOCDB simple family (application)

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