

Title (en)

Turbine blade with a cover plate and a protective layer on the cover plate

Title (de)

Turbinenschaufel mit einer Deckplatte und einer auf der Deckplatte aufgebrachte Schutzschicht

Title (fr)

Aube de turbine ayant une bande couvrante et une couche de protection sur la bande couvrante

Publication

**EP 1715140 A1 20061025 (DE)**

Application

**EP 05008811 A 20050421**

Priority

EP 05008811 A 20050421

Abstract (en)

The blade has a cover plate (20) formed at a blade leaf (18). A protective layer (28) is applied on a surface of the cover plate by deposit welding, where the surface is turned away from the blade leaf. The cover plate is made of a nickel based alloy or a cobalt based alloy, and the protective layer is formed by an armor alloy of cobalt base. A hard material layer is provided as the protective layer. The blade leaf and the cover plate are manufactured from a single component work piece. An independent claim is also included for a method for manufacturing a steam turbine with multiple turbine blades.

IPC 8 full level

**F01D 11/12** (2006.01); **C23C 4/10** (2016.01)

CPC (source: EP US)

**F01D 5/225** (2013.01 - EP US); **F01D 5/288** (2013.01 - EP US); **F01D 11/12** (2013.01 - EP US); **F01D 11/122** (2013.01 - EP US); **F05C 2201/0463** (2013.01 - EP US); **F05D 2230/232** (2013.01 - EP US); **F05D 2230/30** (2013.01 - EP US); **F05D 2230/312** (2013.01 - EP US); **F05D 2230/313** (2013.01 - EP US); **F05D 2230/90** (2013.01 - EP US); **F05D 2300/226** (2013.01 - EP US); **F05D 2300/228** (2013.01 - EP US); **F05D 2300/2284** (2013.01 - EP US); **Y10T 29/4932** (2015.01 - EP US)

Citation (search report)

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Designated contracting state (EPC)

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Designated extension state (EPC)

AL BA HR LV MK YU

DOCDB simple family (publication)

**EP 1715140 A1 20061025**; CN 101163862 A 20080416; CN 101163862 B 20111005; EP 1871991 A1 20080102; JP 2008538399 A 20081023; JP 4874329 B2 20120215; US 2009022583 A1 20090122; US 8021120 B2 20110920; WO 2006111427 A1 20061026

DOCDB simple family (application)

**EP 05008811 A 20050421**; CN 200680013189 A 20060120; EP 06703576 A 20060120; EP 2006050337 W 20060120; JP 2008507029 A 20060120; US 91880906 A 20060120