

Title (en)

Method for producing a turbine blade made of titanium based alloy.

Title (de)

Verfahren zur Herstellung einer Turbinenschaufel aus einer Titan-Basislegierung.

Title (fr)

Procédé de préparation d'une aube de turbine en alliage à base de titane.

Publication

**EP 0491075 B1 19950705 (DE)**

Application

**EP 90124757 A 19901219**

Priority

EP 90124757 A 19901219

Abstract (en)

[origin: EP0491075A1] The turbine blade (2), which is preferably used in the low-pressure stage of a steam turbine, is formed from a titanium based alloy. In the region of the blade tip, it has a section surrounding the blade inlet edge (10) with a surface consisting of a material which is more resistant to erosion than the titanium based alloy. This turbine blade (2) is intended to be easy to produce and to be distinguished by a long life even under relatively severe operating conditions. This is achieved in that the section surrounding the blade inlet edge (11) has a protective layer formed by surface treatment of the titanium based alloy with a high-power energy source such as, in particular, a laser (5). <IMAGE>

IPC 1-7

**F01D 5/28**

IPC 8 full level

**C23C 8/08** (2006.01); **C23C 8/20** (2006.01); **C23C 8/24** (2006.01); **F01D 5/28** (2006.01)

CPC (source: EP US)

**C23C 8/24** (2013.01 - EP US); **F01D 5/28** (2013.01 - EP US); **F01D 5/288** (2013.01 - EP US)

Cited by

GB2282149A; DE19920567A1; DE19920567C2; EP0697503A1; US5573604A; EP0592309A1; FR2696759A1; US5413641A; US6231956B1; US6410125B1; US8203095B2; WO2006005527A1; WO9811272A1; WO9927147A3

Designated contracting state (EPC)

CH DE ES FR GB IT LI

DOCDB simple family (publication)

**EP 0491075 A1 19920624**; **EP 0491075 B1 19950705**; CN 1024703 C 19940525; CN 1062577 A 19920708; CS 384391 A3 19920812; CZ 282365 B6 19970716; DE 59009381 D1 19950810; ES 2075874 T3 19951016; JP 3217414 B2 20011009; JP H05186861 A 19930727; RU 2033526 C1 19950420; US 5366345 A 19941122

DOCDB simple family (application)

**EP 90124757 A 19901219**; CN 91111855 A 19911219; CS 384391 A 19911217; DE 59009381 T 19901219; ES 90124757 T 19901219; JP 33711491 A 19911219; SU 5010399 A 19911218; US 80232091 A 19911204