

Title (en)

METHOD FOR ENHANCING THE CORROSION AND EROSION RESISTANCE OF THE BLADE OF A ROTARY THERMAL APPARATUS AND BLADE PRODUCED BA SAID METHOD

Publication

**EP 0379699 B1 19931006 (DE)**

Application

**EP 89123291 A 19891215**

Priority

CH 25289 A 19890126

Abstract (en)

[origin: JPH02230902A] PURPOSE: To increase the resistance to corrosion and erosion of a vane of a heat engine by spraying a protective surface layer consisting of 6 to 15 wt.% of Si, the remainder being Al, onto a surface of a base material using a high- speed process with a particle velocity of at least 300 m/s. CONSTITUTION: A vane of a rotating heat engine consists of mainly a ferritic and/or ferritic-martensitic base material by applying a protective surface layer securing firmly thereon. The protective surface layer consisting of 6 to 15 wt.% of Si, the remainder being Al, is sprayed onto a surface of the base material using a high-speed process with a particle velocity of at least 300 m/s. Consequently, it is possible to increase the resistance to corrosion and erosion of the vane of the rotating heat engine.

IPC 1-7

**C23C 4/06**

IPC 8 full level

**C23C 4/067** (2016.01); **F01D 5/28** (2006.01)

CPC (source: EP US)

**C23C 4/067** (2016.01 - EP US); **F01D 5/288** (2013.01 - EP US); **Y10S 428/937** (2013.01 - EP US); **Y10T 428/12757** (2015.01 - EP US)

Cited by

US5547769A; US6755613B1; WO0070190A1

Designated contracting state (EPC)

CH DE GB LI

DOCDB simple family (publication)

**EP 0379699 A1 19900801**; **EP 0379699 B1 19931006**; CH 678067 A5 19910731; DE 58905843 D1 19931111; JP 2895135 B2 19990524; JP H02230902 A 19900913; US 5120613 A 19920609

DOCDB simple family (application)

**EP 89123291 A 19891215**; CH 25289 A 19890126; DE 58905843 T 19891215; JP 1515790 A 19900126; US 68347291 A 19910409