

Title (en)

Abrasive turbine blade tips.

Title (de)

Abrasives Turbinenschaufelende.

Title (fr)

Extrémité abrasive pour aube de turbine.

Publication

EP 0484115 A1 19920506 (EN)

Application

EP 91309998 A 19911030

Priority

US 60796890 A 19901101

Abstract (en)

A method for applying a thin layer of uncoated abrasive particles (20) to the tip of a turbine blade. A single layer of particles (20) and a thin layer of metal (36) are first deposited on the tip (14). A metal matrix comprising a fine alloying powder and a metal is then deposited over the first thin metal layer and the particles using co-electrodeposition. The turbine blade is then thermally treated to homogenize the thin layer and the codeposited layer containing alloying powders and metal. <IMAGE>

IPC 1-7

C25D 15/00; F01D 5/20

IPC 8 full level

C23C 24/08 (2006.01); **C25D 5/48** (2006.01); **C25D 5/50** (2006.01); **C25D 15/00** (2006.01); **C25D 15/02** (2006.01); **F01D 5/20** (2006.01);
F01D 11/00 (2006.01)

CPC (source: EP)

C25D 15/00 (2013.01); **F01D 11/12** (2013.01)

Citation (search report)

- [X] GB 2162201 A 19860129 - GEN ELECTRIC
- [A] GB 2167446 A 19860529 - BAJ LTD, et al
- [AD] US 4744725 A 19880517 - MATARESE ALFRED P [US], et al
- [A] US 4818833 A 19890404 - FORMANACK JAMES D [US], et al
- [X] US 3980549 A 19760914 - GRUTZA ZIGMUND R
- [XP] EP 0443877 A1 19910828 - BAJ LTD [GB]

Cited by

FR2726580A1; EP3095965A1; EP1460152A1; EP3056679A1; EP2105520A1; GB2529854A; GB2529854B; EP2851455A1; CN104769228A; EP2971533A4; EP1674662A1; US5847357A; EP2096194A3; EP1365107A4; EP3020931A1; US10465536B2; US10428437B2; US11713681B1; WO02103165A1; WO2009146684A3; US7445854B2; US7851027B2; US10822967B2; EP2096194A2; US6896485B2; US8431238B2; WO2014074370A3; WO2015041787A1; WO02068799A1; WO2006069816A3; US6702553B1; WO2014151101A1; US9926794B2; US11299993B2; US12084988B2

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0484115 A1 19920506; CA 2048804 A1 19920502; JP H04285198 A 19921009

DOCDB simple family (application)

EP 91309998 A 19911030; CA 2048804 A 19910808; JP 30724691 A 19911028