

Title (en)

Plasma sprayed layer on cylinder bores of engine blocks

Title (de)

Durch Plasmaspritzen aufgebrachte Schicht für Zylinderlaufflächen von Motorblöcken und Verfahren zu deren Herstellung

Title (fr)

Couche déposée par jet de plasma sur des alésages de cylindres de blocs moteur

Publication

**EP 1022351 B2 20090225 (DE)**

Application

**EP 99811122 A 19991208**

Priority

- CH 9199 A 19990119
- CH 24599 A 19990209

Abstract (en)

[origin: EP1022351A1] Iron-containing layer applied by plasma spraying contains 1-4 wt.% bound oxygen. An Independent claim is also included for a process for the production of layers comprising injecting an amount of air of 200-1000 NLPM during plasma spraying.

IPC 8 full level

**C23C 4/08** (2006.01); **F02F 1/00** (2006.01); **C23C 4/04** (2006.01); **C23C 4/16** (2006.01)

CPC (source: EP KR US)

**B05B 7/1436** (2013.01 - KR); **C23C 4/08** (2013.01 - EP US); **C23C 4/11** (2016.01 - KR); **C23C 4/134** (2016.01 - KR); **C23C 4/16** (2013.01 - EP US)

Citation (opposition)

Opponent :

THERMALLY-SPRAYED SELF-LUBRICATING COMPOSITES FROM CORED WIRES - PART 1: FABRICATION AND CHEMISTRY, R.C. MCCUNE ET AL., PROCEEDINGS OF THE 7TH NATIONAL THERMAL SPRAY CONFERENCE, BOSTON, MASSACHUSETTS, 20 June 1994 (1994-06-20) - 24 June 1994 (1994-06-24)

Cited by

DE102012009496A1; DE102012112394A1; EP1113086A1; EP1340834A3; FR2974610A1; DE102005040015B3; DE102012009496B4; DE102009016650B3; JP2012522896A; US6701882B2; US6578539B2; WO2008031468A3; EP2664684A2; WO2010115448A1; WO2011147526A1; WO2017137500A1; US10677355B2; EP1757710A1; EP2829713A1; US9487660B2; US9556819B2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**EP 1022351 A1 20000726; EP 1022351 B1 20040519; EP 1022351 B2 20090225;** AT E267275 T1 20040615; AT E365814 T1 20070715; CA 2296155 A1 20000719; CA 2296155 C 20040914; CA 2296155 E 20000719; DE 59909522 D1 20040624; DE 59914394 D1 20070809; EP 1507020 A2 20050216; EP 1507020 A3 20050420; EP 1507020 B1 20070627; ES 2221343 T3 20041216; ES 2221343 T5 20090612; ES 2288232 T3 20080101; JP 2000212717 A 20000802; JP 2007191795 A 20070802; JP 3967511 B2 20070829; JP 4644687 B2 20110302; KR 100593342 B1 20060626; KR 20000071238 A 20001125; PT 1022351 E 20041029; PT 1507020 E 20070713; US 2002051851 A1 20020502; US 6548195 B1 20030415; US 6572931 B2 20030603

DOCDB simple family (application)

**EP 99811122 A 19991208;** AT 04011394 T 19991208; AT 99811122 T 19991208; CA 2296155 A 20000117; DE 59909522 T 19991208; DE 59914394 T 19991208; EP 04011394 A 19991208; ES 04011394 T 19991208; ES 99811122 T 19991208; JP 2000010617 A 20000119; JP 2007009236 A 20070118; KR 20000001269 A 20000112; PT 04011394 T 19991208; PT 99811122 T 19991208; US 113201 A 20011023; US 47600999 A 19991229