

Title (en)
DIAMOND SURFACE POLISHING METHOD

Title (de)
VERFAHREN ZUM GLÄTTEN VON DIAMANTOBERFLÄCHEN

Title (fr)
PROCÉDÉ DE POLISSAGE D'UNE SURFACE DE DIAMANT

Publication
EP 2660004 A4 20171122 (EN)

Application
EP 11852528 A 20110726

Priority
• JP 2010292145 A 20101228
• JP 2011066952 W 20110726

Abstract (en)
[origin: WO2012090540A1] The present invention provides a diamond surface polishing method wherein it is possible to reduce the production of abrasion powder, increase the lifespan of a polishing member, easily control the polishing member, obtain a highly-smooth surface, and easily polish an uneven three-dimensional surface. A method for polishing a diamond surface (1a), the method being characterized in that a polishing member (3a) having a surface formed from carbon and an easily-reactive metal or a cementation metal is used, the diamond surface (1a) is irradiated with laser beams (5) before polishing the diamond surface (1a) with the polishing member (3a), and the polishing member (3a) is rubbed against a laser beam irradiation unit after the laser beams are emitted.

IPC 8 full level
B24B 1/00 (2006.01); **B24B 7/02** (2006.01); **B24B 9/16** (2006.01); **B24B 21/04** (2006.01); **B24D 3/06** (2006.01)

CPC (source: EP KR)
B24B 1/00 (2013.01 - EP KR); **B24B 7/02** (2013.01 - EP); **B24B 7/22** (2013.01 - EP); **B24B 9/166** (2013.01 - EP); **B24B 19/22** (2013.01 - EP); **B24B 21/04** (2013.01 - EP KR); **B24B 21/16** (2013.01 - EP); **B24D 3/06** (2013.01 - EP)

Citation (search report)
• [XY] JP H08175826 A 19960709 - CANON KK
• [Y] JP 7075818 B
• [Y] EP 1052058 A2 20001115 - STATE OF JAPAN [JP]
• [YD] JP 2001198833 A 20010724 - NAT INST OF ADVANCED IND SCIEN, et al
• [YD] JP 2005231022 A 20050902 - TOKYO METROPOLITAN GOV
• See references of WO 2012090540A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2012090540 A1 20120705; BR 112013015008 A2 20160809; BR 112013015008 B1 20210413; CN 103282157 A 20130904; CN 103282157 B 20160518; EP 2660004 A1 20131106; EP 2660004 A4 20171122; EP 2660004 B1 20210714; KR 101785183 B1 20171012; KR 20130092606 A 20130820; KR 20150104214 A 20150914

DOCDB simple family (application)
JP 2011066952 W 20110726; BR 112013015008 A 20110726; CN 201180063496 A 20110726; EP 11852528 A 20110726; KR 20137017272 A 20110726; KR 20157023185 A 20110726