

Title (en)

CUTTING INSERT AND TOOL, CONSISTING OF A TOOLHOLDER AND CUTTING INSERT

Title (de)

SCHNEIDEINSATZ UND WERKZEUG, BESTEHEND AUS WERKZEUGHALTER UND SCHNEIDEINSATZ

Title (fr)

INSERT DE COUPE ET OUTIL, SE COMPOSANT D'UN PORTE-OUTIL ET D'UN INSERT DE COUPE

Publication

EP 2018238 A1 20090128 (DE)

Application

EP 07722261 A 20070420

Priority

- DE 2007000703 W 20070420
- DE 102006023740 A 20060518

Abstract (en)

[origin: WO2007134561A1] The invention relates to a cutting insert with a supporting surface (11) and a cutting surface at a distance therefrom and at least one flank (12) positioned by a positive clearance angle, which form a circumferential round or polygonal cutting edge, as well as at least one cutting edge point (13) at a maximum distance from a plane in which the supporting surface (11) is located and at least one cutting edge point (16, 17) at a minimum distance from said plane. According to the invention, the geometric location of each cutting edge point, but at least the cutting edge point (16, 17) at a minimum distance and points adjacent thereto is the intersection point of a vertical envelope with a plane parallel to the supporting surface (11), wherein the vertical envelope is perpendicular to the supporting surface (11) and is formed by a plurality of parallel vertical lines (18, 19) that lie in the plane parallel to the support surface (11) in which the point (13) with maximum distance from the support surface plane lies and constitutes an ideal theoretical round or polygonal cutting edge curve.

IPC 8 full level

B23B 27/14 (2006.01)

CPC (source: EP KR US)

B23B 27/14 (2013.01 - KR); **B23B 27/141** (2013.01 - EP US); **B23C 5/02** (2013.01 - KR); **B23C 5/16** (2013.01 - KR);
B23B 2200/0461 (2013.01 - EP US); **B23B 2200/087** (2013.01 - EP US); **B23B 2200/123** (2013.01 - EP US); **B23B 2200/125** (2013.01 - EP US);
B23B 2200/202 (2013.01 - EP US); **B23B 2200/28** (2013.01 - EP US); **B23B 2200/286** (2013.01 - EP US); **B23B 2215/36** (2013.01 - EP US);
Y10T 407/2222 (2015.01 - EP US); **Y10T 407/23** (2015.01 - EP US); **Y10T 407/235** (2015.01 - EP US); **Y10T 407/245** (2015.01 - EP US)

Citation (search report)

See references of WO 2007134561A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

DE 102006023740 A1 20071122; DE 102006023740 B4 20170511; BR PI0711374 A2 20111101; CA 2646201 A1 20071129;
CN 101437640 A 20090520; CN 101437640 B 20120328; EP 2018238 A1 20090128; JP 2009537335 A 20091029;
KR 20090019787 A 20090225; MX 2008014309 A 20081118; RU 2008149931 A 20100627; RU 2433890 C2 20111120;
US 2009290946 A1 20091126; US 8371774 B2 20130212; WO 2007134561 A1 20071129

DOCDB simple family (application)

DE 102006023740 A 20060518; BR PI0711374 A 20070420; CA 2646201 A 20070420; CN 200780016413 A 20070420;
DE 2007000703 W 20070420; EP 07722261 A 20070420; JP 2009510270 A 20070420; KR 20087028048 A 20081117;
MX 2008014309 A 20070420; RU 2008149931 A 20070420; US 27238308 A 20081117