

Title (en)
CUTTING INSERT AND TOOL FOR MACHINING

Title (de)
SCHNEIDPLATTE UND WERKZEUG ZUR SPANENDEN BEARBEITUNG

Title (fr)
PLAQUETTE DE COUPE ET OUTIL D'USINAGE PAR ENLÈVEMENT DE COPEAUX

Publication
EP 3463724 A1 20190410 (DE)

Application
EP 17724060 A 20170518

Priority
• DE 102016109670 A 20160525
• EP 2017061951 W 20170518

Abstract (en)
[origin: WO2017202679A1] The invention relates to a cutting insert (14) for a tool (10) for machining a workpiece, comprising a first side (30), an opposing second side (32) and a borehole (26) running along a borehole axis (28), which penetrates the cutting insert (14) and extends from the first side (30) to the second side (32), comprising at least three cutting heads (20) distributed around the circumference of the cutting insert (14), each having a cutting edge (22) running transverse to the first and the second side (30, 32) and extending between the two sides (30, 32), wherein the at least three cutting heads (20) have a first cutting head (20'), a second cutting head (20) directly following the first cutting head (20') in the circumferential direction, and a third cutting head (20'') directly following the second cutting head (20) in the circumferential direction, wherein the cutting insert (14) has a first contact surface (36) arranged on the first side (30), running orthogonal to the borehole axis (28) and at least partially surrounding the borehole (26), wherein the cutting insert (14) is rotationally symmetrical to the borehole axis (28) and is mirror-symmetrical to a central plane running perpendicular to the borehole axis (28), said central plane dividing the cutting insert (14) into two equally sized halves, and wherein, when viewed from above along the borehole axis (28), a notional straight connection line (46) between the cutting edge (22) of the first cutting head (20') and the cutting edge (22) of the third cutting head (20'') does not cut through the borehole (26) nor the first contact surface (36).

IPC 8 full level
B23B 27/04 (2006.01); **B23B 27/14** (2006.01); **B23B 29/04** (2006.01)

CPC (source: CN EP RU US)
B23B 27/04 (2013.01 - EP RU US); **B23B 27/145** (2013.01 - EP US); **B23B 27/16** (2013.01 - CN); **B23B 29/043** (2013.01 - EP US); **B23B 29/04** (2013.01 - US); **B23B 2200/048** (2013.01 - EP US); **B23B 2200/369** (2013.01 - EP US); **B23B 2205/12** (2013.01 - EP US); **B23B 2220/123** (2013.01 - EP US)

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

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
WO 2017202679 A1 20171130; CA 3025385 A1 20171130; CA 3025385 C 20201103; CN 109311096 A 20190205; CN 116921719 A 20231024; DE 102016109670 A1 20171130; EP 3463724 A1 20190410; JP 2019516574 A 20190620; JP 6737904 B2 20200812; MX 2018014336 A 20190306; RU 2717617 C1 20200324; US 10758986 B2 20200901; US 2019084053 A1 20190321

DOCDB simple family (application)
EP 2017061951 W 20170518; CA 3025385 A 20170518; CN 201780032432 A 20170518; CN 202310953378 A 20170518; DE 102016109670 A 20160525; EP 17724060 A 20170518; JP 2018562050 A 20170518; MX 2018014336 A 20170518; RU 2018141201 A 20170518; US 201816196208 A 20181120