

Title (en)  
COMPOSITE TOOTH WITH TAPERED INSERT

Title (de)  
ZAHN AUS VERBUNDWERKSTOFF MIT KEGELSTUMPFÖRMIGEM EINSATZ

Title (fr)  
DENT COMPOSITE AVEC INSERT TRONCONIQUE

Publication  
**EP 3563951 A1 20191106 (FR)**

Application  
**EP 18170766 A 20180504**

Priority  
EP 18170766 A 20180504

Abstract (en)  
[origin: CA3098478A1] The present invention discloses a composite tooth for working the ground or rocks, said tooth having a ferrous alloy reinforced at least in part by an insert, said part reinforced by the insert making it possible, after in situ reaction, to obtain an alternating macro/microstructure of concentrated millimetric zones of micrometric globular particles of titanium carbides separated by millimetric zones substantially free of micrometric globular particles of titanium carbides, said concentrated zones of micrometric globular particles of titanium carbides forming a microstructure in which micrometric interstices between said globular particles are also occupied by said ferrous alloy, characterized in that said macro/microstructure generated by the insert is spaced by at least 2 mm, preferably at least 3 mm, from the distal surface of said tooth.

Abstract (fr)  
La présente invention divulgue une dent composite pour le travail du sol ou des roches, ladite dent comportant un alliage ferreux renforcé au moins en partie par un insert, ladite partie renforcée par l'insert permettant, après réaction in situ, l'obtention d'une macro-microstructure alternée de zones millimétriques concentrées en particules globulaires micrométriques de carbures de titane séparées par des zones millimétriques substantiellement exemptes de particules globulaires micrométriques de carbures de titane, lesdites zones concentrées en particules globulaires micrométriques de carbures de titane formant une microstructure dans laquelle les interstices micrométriques entre lesdites particules globulaires sont également occupés par ledit alliage ferreux caractérisée en ce que ladite macro-microstructure engendrée par l'insert est distante d'au moins 2 mm, de préférence au moins 3 mm de la surface distale de ladite dent.

IPC 8 full level  
**B22F 3/23** (2006.01); **B22D 19/02** (2006.01); **B22D 19/06** (2006.01); **B22F 5/08** (2006.01); **C22C 1/05** (2006.01); **C22C 1/10** (2006.01); **C22C 29/10** (2006.01); **C22C 33/02** (2006.01); **E02F 9/28** (2006.01); **B22F 5/00** (2006.01); **B22F 7/06** (2006.01)

CPC (source: EP US)  
**B22D 19/02** (2013.01 - EP US); **B22F 3/23** (2013.01 - EP); **B22F 5/08** (2013.01 - EP); **C22C 1/055** (2013.01 - EP); **C22C 1/1015** (2013.01 - EP); **C22C 1/1036** (2013.01 - EP US); **C22C 1/1057** (2023.01 - EP); **C22C 33/0242** (2013.01 - EP); **E02F 9/285** (2013.01 - EP US); **B22F 2005/001** (2013.01 - EP US); **B22F 2007/066** (2013.01 - EP); **B22F 2998/00** (2013.01 - EP)

C-Set (source: EP US)  
**B22F 2998/00** + **B22F 1/148** + **C22C 1/1036**

Citation (applicant)  
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Citation (search report)  
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• [Y] US 5337801 A 19940816 - MATERKOWSKI JAMES P [US]  
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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)  
**EP 3563951 A1 20191106**; AU 2019263606 A1 20201126; AU 2019263606 B2 20240613; BR 112020022315 A2 20210323; CA 3098478 A1 20191107; CL 2020002817 A1 20210212; CN 112203786 A 20210108; CN 112203786 B 20230704; EP 3787820 A1 20210310; MX 2020011682 A 20201210; US 2021131076 A1 20210506; WO 2019211268 A1 20191107; ZA 202006519 B 20220330

DOCDB simple family (application)  
**EP 18170766 A 20180504**; AU 2019263606 A 20190430; BR 112020022315 A 20190430; CA 3098478 A 20190430; CL 2020002817 A 20201029; CN 201980028893 A 20190430; EP 19720596 A 20190430; EP 2019061021 W 20190430; MX 2020011682 A 20190430; US 201917051152 A 20190430; ZA 202006519 A 20201020