

Title (en)

COMPOSITE TOOTH WITH FRUSTOCONICAL INSERT

Title (de)

VERBUNDZAHN MIT KEGELSTUMPFFÖRMIGEM EINSATZ

Title (fr)

DENT COMPOSITE AVEC INSERT TRONCONIQUE

Publication

**EP 3787820 A1 20210310 (FR)**

Application

**EP 19720596 A 20190430**

Priority

- EP 18170766 A 20180504
- EP 2019061021 W 20190430

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.

IPC 8 full level

**B22F 3/23** (2006.01); **B22D 19/02** (2006.01); **B22D 19/06** (2006.01); **B22F 5/00** (2006.01); **B22F 5/08** (2006.01); **B22F 7/06** (2006.01); **C04B 41/51** (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)

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**

Designated contracting state (EPC)

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Designated extension state (EPC)

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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

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