

Title (en)

Stone cutting element with increased wear resistance

Title (de)

Steinbearbeitungswerkzeug mit verbessertem Anschnittverhalten

Title (fr)

Élément pour couper de la pierre ayant une résistance accrue à l'usure

Publication

EP 0857552 A3 20000209 (DE)

Application

EP 98200161 A 19980122

Priority

AT 10997 A 19970127

Abstract (en)

[origin: EP0857552A2] In a stone working (e.g. core drilling) tool with multilayer abrasive elements consisting of sintered metal-bonded cutting material, preferably diamond, each abrasive element (1) has a leading initial cutting zone (3) with a different composition and increased wear compared with the regular portion (4) of the element. Preferably, the initial cutting zone (3) contains a wear promoting filler selected from tungsten disulphide, tungsten carbide, molybdenum disulphide, lime, corundum, silicon carbide, carbon particles, glass, ceramic and pore formers. It contains more fragile and easily worn diamond particles, has a lower concentration of diamond particles and/or has a binder with lower hardness and/or wear resistance, compared with the regular portion (4) of the abrasive element.

IPC 1-7

B28D 1/12; **B28D 1/04**; **B24D 3/34**

IPC 8 full level

B24D 3/34 (2006.01); **B24D 7/14** (2006.01); **B28D 1/04** (2006.01); **B28D 1/12** (2006.01)

CPC (source: EP)

B24D 3/34 (2013.01); **B24D 7/14** (2013.01); **B28D 1/041** (2013.01); **B28D 1/12** (2013.01)

Citation (search report)

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- [A] US 4861350 A 19890829 - PHAAL CORNELIUS [ZA], et al
- [A] EP 0280835 A1 19880907 - HILTI AG [LI]
- [A] EP 0156762 A1 19851002 - HILTI AG [LI] & EP 0156762 B1 19880518

Cited by

EP1980346A1; DE10005064A1; EP1480781A4; US7373997B2; US6712062B2; US10308559B2

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