

Title (en)

A ground dust removing apparatus and method for grinding wheel.

Title (de)

Verfahren und Vorrichtung zur Staubaabsaugung einer Schleifscheibe.

Title (fr)

Procédé et dispositif pour enlever la poussière de meulage d'une meule de rectification.

Publication

EP 0584578 A1 19940302 (EN)

Application

EP 93112229 A 19930730

Priority

- JP 14100593 A 19930611
- JP 20579892 A 19920731

Abstract (en)

An apparatus for removing ground dust from the surface of a grinding wheel (1,38,45,55) including a blasting apparatus (9,31,47,57) for application in a dry grinding process of ceramic work piece (7,39,52,60). The blasting apparatus (9,31,47,57) blasts abrasive grains against the surface of the grinding wheel (1,38,45,55). A circulating passage (13,33a,33b), both ends of which are connected with the blasting apparatus (9,31,47,57), receives the abrasive grains in the vicinity of the apparatus and returns them to the blasting apparatus (9,31,47,57). By such process, the grinding of the work piece (7,39,52,60) and ground dust removal from the surface of the grinding wheel (1,38,45,55) can be accomplished simultaneously, efficiently and speedily. Further, the blasted abrasive grains are recovered and recycled, enabling a reduction in grinding process costs. <IMAGE>

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Citation (search report)

- [Y] GB 2143755 A 19850220 - SECR DEFENCE
- [Y] DE 177190 C
- [A] US 3172831 A 19650309 - WILLIAMS LYNN A
- [A] FR 2139233 A5 19730105 - CHRISTENSEN DIAMOND PROD CO
- [A] GB 2067935 A 19810805 - HENDERSON DIAMOND TOOL CO LTD
- [A] US 5115600 A 19920526 - KATAOKA SHIGEAKI [JP], et al
- [A] DATABASE WPI Week 8931, 27 July 1989 Derwent World Patents Index; AN 89-221491
- [A] ERNST SALJÉ: "Strahlverfahren für CBN- und Diamantschleifscheiben.", V.D.I.-ZEITSCHRIFT, vol. 125, no. 15, 1983, DÜSSELDORF,DE, pages 621 - 623

Cited by

CN105751391A; EP0711631A1; GB2299532A; EP0854010A1; US5961376A; EP0753381A1; US5727992A; WO9857779A1

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