

Title (en)

A ground dust removing apparatus and method for grinding wheel.

Title (de)

Verfahren und Vorrichtung zur Staubaubsaugung 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>

IPC 1-7

B24B 53/007; **B24C 1/02**; **B24C 11/00**; **B24B 55/04**; **B24B 55/06**

IPC 8 full level

B24B 53/007 (2006.01); **B24B 55/04** (2006.01); **B24B 55/06** (2006.01); **B24C 1/02** (2006.01); **B24C 11/00** (2006.01)

CPC (source: EP)

B24B 53/007 (2013.01); **B24B 55/04** (2013.01); **B24B 55/06** (2013.01); **B24C 1/02** (2013.01); **B24C 11/00** (2013.01)

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

Designated contracting state (EPC)

BE DE FR GB

DOCDB simple family (publication)

EP 0584578 A1 19940302; **EP 0584578 B1 19980520**; CA 2101387 A1 19940201; DE 69318649 D1 19980625; DE 69318649 T2 19981126; JP 2731101 B2 19980325; JP H0691531 A 19940405

DOCDB simple family (application)

EP 93112229 A 19930730; CA 2101387 A 19930727; DE 69318649 T 19930730; JP 14100593 A 19930611