

Title (en)

Method for determining the quantity of the cutting material cut by an electrically driven cutting tool as well as arrangement for carrying out the method

Title (de)

Verfahren zur Bestimmung der Menge des von einem elektrisch angetriebenen Schneidwerkzeug geschnittenen Schneidguts sowie Schaltungsanordnung zur Durchführung des Verfahrens

Title (fr)

Procédé pour déterminer la quantité de la matière de coupe découpée par un outil de coupe entraîné électriquement et montage pour la mise en oeuvre du procédé

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Application

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Priority

DE 19743853 A 19971004

Abstract (en)

[origin: US6072399A] The invention is directed to a method and a circuit arrangement for determining the quantity of the material cut by an electrically powered cutting tool. According to the present invention, the fluctuations of the current consumed by a drive motor are detected, filtered and evaluated. By a comparison with a reference value, it is possible to determine the soiling of the cutting tool with cut residues. The invention is particularly suitable for use in shaving apparatus.

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Citation (search report)

- [XA] US 5274735 A 19931228 - OKADA TETSUYA [JP]
- [DA] DE 19606719 A1 19970828 - BRAUN AG [DE]
- [A] US 5600888 A 19970211 - BECKER KLAUS [DE]

Cited by

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Designated contracting state (EPC)

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US 6072399 A 20000606; AT E234709 T1 20030415; CN 1213600 A 19990414; CN 1280072 C 20061018; DE 19743853 C1 19981126; DE 59807528 D1 20030424; DK 0908278 T3 20030623; EP 0908278 A2 19990414; EP 0908278 A3 19990915; EP 0908278 B1 20030319; ES 2196434 T3 20031216; HK 1017302 A1 19991119; JP 4141546 B2 20080827; JP H11165298 A 19990622; KR 100582874 B1 20060927; KR 19990036630 A 19990525; RU 2214906 C2 20031027

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US 13016398 A 19980806; AT 98114058 T 19980728; CN 98117681 A 19980907; DE 19743853 A 19971004; DE 59807528 T 19980728; DK 98114058 T 19980728; EP 98114058 A 19980728; ES 98114058 T 19980728; HK 99102380 A 19990527; JP 28145198 A 19981002; KR 19980037744 A 19980914; RU 98118497 A 19981002