Title (en)

Device for severing a sliver

Title (de)

Vorrichtung zum Trennen eines Faserbandes

Title (fr)

Dispositif pour couper une mèche

Publication

EP 0965667 A1 19991222 (DE)

Application

EP 99810516 A 19990611

Priority

CH 130898 A 19980618

Abstract (en)

The apparatus to cut a sliver, on a sliver can change, has a cutter (30) on a swing arm (12), to sever the sliver (F). It has at least two clamping edges (26) and a toothed cutting plate (30) with a longitudinal sliding movement to the clamping edges. During the cutting action, the toothed side (32) is moved along and against the under side (11) of a rotating head plate (10). During the cutting action, the cutting plate (30) is pressed by springs against the under side (11) of the rotating head plate (10). The cutting plate (30) extends in parallel to the two clamping edges (26), with a slightly narrower gap from one edge than from the other. The teeth (33) of the toothed clothing (32) of the cutting plate (30) are pitched at an acute angle in the movement direction during sliver cutting. The attack angle of the leading tooth flanks decreases towards the tooth feet. The setting angle of the trailing tooth flanks increases towards the tooth feet during the cutting action. The cutting plate (30) has a guide system to direct the movement of the tooth points from a rest position into a working position towards the under side (11) of the rotating head plate (10). The guide mechanism has at least one guide bolt fixed to the swing arm (12), to ride in a curved slit sliding guide at the cutting plate (30). The teeth (33) of the cutting plate (30) are stacked separately along the cutting plate (30), with a guide structure to give a restricted lateral movement along the cutting plate (30) with a spring restraint. The longitudinal movement of the cutting plate (30) is activated by a cylinder (45) at the swing arm (12). A multiple linkage is at the swing axis (13) of the swing arm (12), linked to an operating cylinder (Z) at the machine frame. The transmitted forces are applied along the swing arm (12) at its center (24). The swing arm (12) has a switch system (50,51) which breaks into the control line (60) for the operating cylinder (45) through the movement of the swing arm (12). The sliding speed of the cutting plate (30) and/or the swing movement speed of the swing arm (12) are adjustable. The material of the under side (11) of the rotating head plate (10) has a higher resistance to wear than the material used at the teeth points. The swing axis (13) of the swing arm (12) is near the rotary axis of the rotating sliver can change system, and over its capstan handle. An Independent claim is included for a can change, where the start of the exchange of a full can for an empty can is triggered if the outlet opening of the funnel wheel has reached a given and monitored position on a slower rotating speed with the smallest possible length of sliver (F) between the two cans. Preferred Features: During the downwards movement of the cutting plate (30) after sliver cutting, the sliver plate (30) is moved at least once to and fro longitudinally.

Abstract (de)

Die Erfindung bezieht sich auf eine Vorrichtung zum Durchtrennen eines in Spinnkannen (K2) abgelegten Faserbandes (F) beim Kannenwechsel, mit Mitteln (12, 26) zum Festhalten des sich beim Kannenwechsel von einer ausfahrenden vollen Spinnkanne (K2) zu einer leeren Spinnkanne (K1) erstreckenden Faserbandes (F) und mit Mitteln (30) zum Trennen des Faserbandes zwischen zwei linienförmigen Haltestellen (26). Die Erfindung stellt sich die Aufgabe bekannte Trenneinrichtungen zu verbessern und eine Einrichtung vorzuschlagen, welche eine schnelle und sichere Trennung des Faserbandes ermöglicht. Dies wird dadurch erreicht, indem das Mittel (30) zum Trennen des Faserbandes (F) an einem schwenkbaren Arm (12) angeordnet ist, welcher wenigstens zwei Klemmkanten (26) aufweist und ein zu den Klemmkanten in Längsrichtung verschiebbar gelagertes, verzahntes Trennblech (30), das während des Trennvorganges mit seiner verzahnten Seite (32) auf der Unterseite (11) einer Drehkopfplatte (10) entlanggeführt wird, aufweist. <IMAGE>

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CPC (source: EP)

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Citation (search report)

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