

Title (en)

Support of a dabbing brush with automatic wear compensation in a rectilinear combing machine

Title (de)

Haltekörper einer Einschlagbürste mit automatischem Abnutzungsausgleich in einer Flachkämmaschine

Title (fr)

Dispositif de support de brosse enfonceuse sur une peigneuse rectiligne à compensation automatique de l'usure de ladite brosse

Publication

EP 1018570 B1 20030502 (FR)

Application

EP 99440345 A 19991203

Priority

FR 9816696 A 19981229

Abstract (en)

[origin: EP1018570A1] The mounting structure (1) for a brush (2) at a rectilinear combing machine, to press the fiber heads against the circular comb near the nipper (3), is at each lateral end of the jaw of the nipper (3). The brush mounting (1) has a mechanism (6), such as with a crank action, with a system to move the lateral free end of the brush (2) in relation to the brush body (7) and give an automatic movement to the brush body (7) and brush (2) against the circular comb as a function of the wear on the brush (2). The brush (2) is fixed rigidly to the brush body (7), which has its ends at the mechanism (6) to move the brush mounting automatically. The brush movement mechanism (6) has a screw bolt (8) in a tapping aligned with the brush body (7) ends, which is rotated continuously or in steps by a drive at the mounting crank (11). The rotary drive is through a toothed pinion (9) and a rack or a continuous spiral threading. The drive is controlled by a pneumatic, hydraulic, mechanical or electrical system, and it can also be through a step or pulse motor (10). The toothed pinion (9) acts on the bolt head (8), away from the brush body (7), through a non-return freewheel (12). The mounting is at the nipper jaw by a simple bolt fixed to the jaw by welding or a plate screwed to the jaw. The drive motor unit (10) has a piston moving in a cylinder crank opening (11) to give the mounting (1). The piston movement is defined by the length of the cylinder opening (11) and/or by limit stops. The piston is moved by a hydraulic or pneumatic fluid, mechanically or electrically, against a return spring. The drive (10) can also be a rack which engages the pinion (9). The brush movement mechanisms (6) are symmetrical on a plane through the drive pinion (9) and parallel to a plane formed by the nipper (3) jaw. The adjustment movements, to compensate for brush wear, are shown by an index marker formed by a ball pressed between two teeth of the pinion (9). The drive (10) can also have a second pinion, meshing with the first pinion (9) or a continuous screw spiral, operated by a step or pulse motor. The drive system can also incorporate a mechanical drive transmission. A transmission shaft, keyed to the drive (10), has a rack section to engage the pinion (9). The position of the screw bolt (8) can also be set manually by a hand tool at the bolt head. The setting motor can have the fixed section fitted to the nipper jaw and the moving section secured to the brush body. A sensor (16) monitors the movements of the brush body (7) towards the circular comb. The sensor (16) trips an alarm as a light and/or acoustic warning and/or generates an alarm signal at a control screen. A mechanical limit stop defines the end of the movement path of the brush body (7) towards the circular comb.

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