Title (en)

Winding apparatus

Title (de)

Aufwickelvorrichtung

Title (fr)

Dispositif de bobinage

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Application

EP 98120683 A 19981105

Priority

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Abstract (en)

The bobbin winder assembly has the yarn guide (18,21), the bobbin clamping plate (2) with the catch slit (4) and the suction unit (37) in an array so that the yarn (1) is on an angled path over the edge (6) of the clamping plate towards the bobbin sleeve (13) on the direction of clamping plate rotation. The plate edge has a yarn catch projection (5), and a cutback recess (7) of the catch slit which, with the edge of the clamping plate, form a yarn guide edge (9). The guide edge extends against the direction of rotation to an entry plane, so that the yarn is moved along the inner surface (15) of the plate into the clamping slit (14) through the clamping plate rotation. The yarn guide (18,21) moves parallel to the rotary axis of the bobbin sleeve, with the guide (18,21), sleeve clamping plate and suction unit in sequence along the line of yarn travel. The guide edge (9) has a spiral shape towards the sleeve edge (17). The clamping slit (14) is formed by a recess (12) in the centering shoulder (8) of the clamping plate and the sleeve edge. The recess has a radial angled clamping flank (16), tapering down below the sleeve edge, so that the clamping slit has an increasing width in the direction of the sleeve (13) rotation. On an axial section, the recess has a turned-in L-shape, extending over an arc of the smaller dimensions. The recess extends over the centering shoulder (8) by an angle of 60-120 degrees , so that the cutout (7) in the end edge (6) and the recess (12) in the centering shoulder overlap. The catch slit (4), at the clamping plate (2), is offset axially away from the sleeve center in front of the clamping slit, in the direction of rotation, into the entry plane. The cutter (45) is between the suction unit (37) and the sleeve clamping plate, so that the caught yarn (1) is drawn into the cutter by the catch projection (5), through the rotation of the clamping plate (2). The cutter has an entry edge with a blade at its end shortly after a step. A sensor (32) monitors the position of the catch slit (4) at the clamping plate connected to the control (27) for the movements of the yarn guide. The sensor (32) is a pulse generator, to deliver a pulse to the control on each rotation of the clamping plate. The control evaluates the number of pulses in a time unit, to calculate the sleeve rotation speed. The yarn guide is a reciprocating guide (21) at a reciprocating movement system, to move the yarn to and fro along the length of the sleeve to carry the wound yarn as a bobbin, and outside the length of the windings. The yarn guide speed is set through a variable drive, independent of the movement direction.

Abstract (de)

Die Erfindung betrifft eine Aufwickelvorrichtung und ein Verfahren zum Anlegen eines kontinuierlich zulaufenden Fadens an eine angetriebene Hülse. Hierbei ist die Hülse zwischen zwei drehbar an einem Spulenhalter gelagerten Spanntellern eingespannt. Einer der Spannteller weist in einer zur Hülse gewandten Stirnkante einen Fangschlitz mit in Drehrichtung weisender Fangnase und einen Klemmschlitz zum Klemmen des Fadens auf. Zum Anlegen wird der Faden durch einen Fadenführer und eine Absaugeinrichtung derart an die Stirnkante des Spanntellers geführt, daß der Faden und der Spannteller in ihrer Bewegung gleichgerichtet sind. Um den Faden nach Einfall in den Fangschlitz sicher in eine Einlaufebene des Klemmschlitzes zu führen, weist der Spannteller in der Stirnkante eine die Fangnase und den Fangschlitz hinterschneidende Aussparung mit einer am Rand des Spanntellers ausgebildeten Führungskante auf. <IMAGE> <IMAGE>

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