

Title (en)
Winding head and its use

Title (de)
Spulkopf und dessen Verwendung

Title (fr)
Tête de bobinage et son utilisation

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EP 00103190 A 20000217

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Abstract (en)

The winder head, to wind a yarn on to a bobbin (7), has a bobbin drive (2,3) and a yarn layer with a reciprocating lever (5) on a pivot axis (10) to lay the yarn along the length of the bobbin. The bobbin drive has a friction roller (3) with a roller drive (2). The yarn laying lever (5) has a separate drive (4). Both drives (2,4) are linked to a common winding head control (6). The friction roller (3) and the yarn laying unit are combined into a winding head module, mounted to a common carrier (1), which also has the winding head control (6). The winding head is fitted to the textile machine by a simple mounting e.g. a bayonet fitting. The pivot axis (10) for the yarn laying lever (5) is within a dust-proof housing, which contains at least a part of the drive for the yarn laying lever (5). The yarn laying lever drive has a unit (13) fitted to the pivot axis (10), working with a motor drive (14), with a reduction between them. The drive unit on the axis (10) is an angle segment (13), and the motor drive is a toothed pinion (14) acting on a toothed belt of the axis drive (13) within the dust-proof housing. The friction roller (3) is fitted directly to its drive (2), within the interior of the friction roller (3). A sensor registers the passage of the yarn laying lever (5) through the center of the stroke movement path. The sensor is a transmitter at the angle segment, and a detector fixed at the center of the stroke movement path. A sensor registers the rotary speed of the friction roller (3), and a sensor monitors the rotary speed of the bobbin (7). Each winding head or winding head module is linked by a bus (16) to a bi-directional interface (17) to a control.

Abstract (de)

Der Spulkopf zum Aufwickeln eines Fadens auf eine Spule (7) enthält einen Spulenantrieb (2, 3) und eine Fadenverlegung mit einem auf einer Drehachse (10) gelagerten, oszillierend antreibbaren Hebel (5) zur Verlegung des Fadens in Längsrichtung der Spule. Der Spulenantrieb (2, 3) ist durch eine Reibwalze (3) gebildet, und die Reibwalze (3) und der Fadenverlegehebel (5) weisen je einen separaten Antrieb (2 bzw. 4) auf, welche beide an eine gemeinsame Spulkopfsteuerung (6) angeschlossen sind. Die Reibwalze (3) und die Fadenverlegung sind baulich zu einem Spulkopfmodul zusammengefasst und auf einem gemeinsamen Träger (1) montiert, auf welchem auch die Spulkopfsteuerung (6) angeordnet ist. Bei Verwendung des Spulkopfs an Rotorspinnmaschinen ist jeder Spulkopf oder jedes Spulkopfmodul über einen Bus (16) an eine bidirektionale Schnittstelle (17) zu einem Leitrechner angeschlossen. <IMAGE>

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Citation (search report)

- [XY] EP 0808791 A2 19971126 - FREEMAN JAMES EDWARD [GB]
- [Y] DE 4438346 A1 19960502 - SCHLAFHORST & CO W [DE]
- [Y] DE 3801980 A1 19890727 - SCHLAFHORST & CO W [DE]
- [Y] EP 0302461 A1 19890208 - SCHUBERT & SALZER MASCHINEN [DE]
- [Y] EP 0453622 A1 19911030 - SSM AG [CH]
- [Y] US 4856723 A 19890815 - TONE SHOICHI [JP]
- [A] EP 0933322 A2 19990804 - MURATA MACHINERY LTD [JP]
- [A] US 4844358 A 19890704 - KAMP HEINZ [DE]

Cited by

DE102006018997A1; DE102004025519A1; EP2105398A3; CN109205385A; CN109607312A; CN112551270A; DE102010055575A1; DE102015014298A1; DE102006053045A1; CN105858332A; DE102005001094A1; EP1679277A3; CN103290540A; CN115335308A; JP2006193334A

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