

Title (en)

Automation plant for the doffing of cops and the insertion of empty pirns and for the replacement of bobbins, in self-acting mules.

Title (de)

Automatisch arbeitende Einrichtung für die Entnahme von Spulen und das Einsetzen leerer Spulenhülsen sowie zum Auswechseln von Vorgarnspulen bei Wagenspinnern.

Title (fr)

Dispositif automatique pour la levée de canettes et l'insertion de tubes de bobines ainsi que le remplacement de bobines de mèche dans les renvideurs.

Publication

**EP 0299934 A1 19890118 (EN)**

Application

**EP 88830300 A 19880714**

Priority

- IT 943787 A 19870717
- IT 943887 A 19870717

Abstract (en)

The plant performs, even in partial temporal superimposition: - a cycle of pirn predisposition for carrying out the doffing of cops (S), comprising: turning the pirns right side out in the same direction; transferring the pirns; positioning the pirns in their rack support; and preloading the pirns; - an automatic cycle for the doffing of cops (S) comprising the steps of: partial running-in of the bench (5), carrying out the fastening of the cop (S) and the underwinding; lowering the cop doffing group (54) with the feeding bench (5) at standstill partially removing the cops from the spindle rod (19) with the breaking off of the yarns (F); lifting the winding faller sickles (22) as far as a position that does not hinder the successive removal of the cops; completing the step of the removal of the cops from the spindles until said cops are overturned onto the unloading belt; positioning the cop doffing group for the insertion of pirns on the spindles; performing the insertion of the pirns; lifting the cop doffing group (54) up to the dead top point; unloading the cops beside the machine, separating the cops from empty pirns and storing them away; - a step for the predisposition of packs (CN) of feeding material (bobbins) with manual positioning of the new roves within clamp means (82); - an automatic cycle of bobbin replacement with: cutting of the rove under work; removal of the exhausted (or partially exhausted) bobbins (C) from the feeding bench (5); possible transfer of the partially exhausted or reeled off bobbins to a loading station; positioning of the feeding bench in the predetermined position for the bobbin replacement and simultaneous winding of the yarn on the cop; stopping of the spindles; transfer of previously predisposed full bobbins (CN) to the work position in contact with the feeding drums (7); transfer of the new rove and superimposition thereof to the one under work, and junction of the roves.

IPC 1-7

**B65H 67/00; B65H 67/02; B65H 67/04; D01H 3/00; D01H 9/00; D01H 9/02; D01H 9/04**

IPC 8 full level

**B65H 67/00** (2006.01); **B65H 67/02** (2006.01); **B65H 67/04** (2006.01); **D01H 3/00** (2006.01); **D01H 9/00** (2006.01); **D01H 9/02** (2006.01); **D01H 9/04** (2006.01)

CPC (source: EP)

**B65H 67/00** (2013.01); **B65H 67/02** (2013.01); **B65H 67/04** (2013.01); **D01H 3/00** (2013.01); **D01H 9/00** (2013.01); **D01H 9/005** (2013.01); **D01H 9/02** (2013.01); **D01H 9/04** (2013.01); **B65H 2701/31** (2013.01)

Citation (search report)

- [A] US 3678672 A 19720725 - BRISSEY CHARLES DAVID, et al
- [A] GB 800271 A 19580820 - WILLIAM HATCH
- [A] FR 689559 A 19300909
- [A] US 4165046 A 19790821 - SUZUKI YOSHIHISA, et al

Cited by

CN114180395A; EP0467862A1; ITUB20155494A1

Designated contracting state (EPC)

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DOCDB simple family (application)

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