Title (en)

Device for driving rotating components in an open-end spinning machine

Title (de)

Vorrichtung zum Antreiben rotierbarer Organe einer OE-Spinnmaschine

Title (fr)

Dispositif d'entraînement d'organes tournant dans une machine à filer à bout libre

Publication

EP 1126058 A2 20010822 (DE)

Application

EP 00108205 A 20000414

Priority

- EP 00108205 A 20000414
- EP 00103190 A 20000217

Abstract (en)

The drive (2) for a rotating component (7), at an open-end spinning station, is a single motor drive system (2). The single motor drive is a step motor (2), to power a friction roller (3) which bears against the bobbin (7) to rotate it by friction contact directly or indirectly. Or the rotating component is a yarn take-off roller, between the spinner and the bobbin winder, with a single drive for a group of take-off rollers which covers only a small part of the workstations of the spinning machine. At the bobbin drive, with a friction roller (3), the acceleration phase on splicing increases the pressure between the friction roller (3) and the bobbin (7). The friction roller (3) has a surface character and/or structure to give the maximum force transfer to the bobbin. The diameter of the friction roller (3) is set so that, for the single motor drive system (2), an optimum combination is achieved of rotary speed and torque. When the wound bobbin (7) has reached the required diameter or the required yarn length has been wound, the bobbin (7) is braked by the motor drive (2). The single motor drive (2) has a selected direction of rotation. The rotary speed of the bobbin (7) is set according to the yarn tension. The yarn tension is registered according to the actual position of the yarn laying lever (5). The bobbin (7) rotary speed is controlled by the level of power fed to the drive motor or by an electronic control (6). A sensor (9) monitors the rotary speed of the bobbin (7) and/or its diameter.

Abstract (de)

Auf einer OE-Spinnmaschine sind bestimmte rotierbare Organe, insbesondere Spulen (7) und/oder im Fadenlauf zwischen der Spinneinheit und der Spulstelle angeordnete Abzugswalzen durch einen motorischen Einzelantrieb (2) angetrieben. Dabei kann der Antrieb der Abzugswalzen auch gruppenweise erfolgen, wobei eine Gruppe mit einem gemeinsamen Antrieb jeweils nur einen kleinen Teil der Arbeitsstellen der Spinnmaschine umfasst. Der motorische Einzelantrieb (2) ist vorzugsweise durch einen Schrittmotor gebildet. Die Spulen (7) können direkt oder über eine Reibwalze (3) antreibbar sein. <IMAGE>

IPC 1-7

D01H 4/50; D01H 4/52

IPC 8 full level

B65H 54/28 (2006.01); **B65H 54/34** (2006.01); **B65H 54/42** (2006.01); **B65H 54/74** (2006.01); **B65H 59/24** (2006.01); **D01H 4/42** (2006.01); **D01H 4/48** (2006.01)

CPC (source: EP)

B65H 54/2827 (2013.01); **B65H 54/2887** (2013.01); **B65H 54/42** (2013.01); **B65H 54/74** (2013.01); **B65H 59/005** (2013.01); **B65H 59/24** (2013.01); **D01H 4/42** (2013.01); **D01H 4/48** (2013.01); B65H 2515/12 (2013.01); B65H 2701/31 (2013.01)

Cited by

DE102007018660A1; EP2465802A3; CN111731934A; CN112607511A; DE102005002409A1; US6820405B2; CN104129681A; US7378813B2; DE102018112798A1; WO2007144714A1; EP1982943A2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 1126058 A2 20010822; **EP 1126058 A3 20021127**

DOCDB simple family (application)

EP 00108205 A 20000414