

Title (en)

Winding machine in particular for sensitive material

Title (de)

Spulmaschine für insbesondere empfindliches Spulgut

Title (fr)

Machine de bobinage notamment pour du matériau sensible

Publication

EP 1190974 B1 20050511 (DE)

Application

EP 01121322 A 20010906

Priority

DE 10046844 A 20000920

Abstract (en)

[origin: EP1190974A2] The bobbin winder (1), especially for delicate yarns (8), has feed rollers (11) and a powered bobbin spindle (4). A monitor (14) registers the yarn tension, and generates proportional signals to the control for the bobbin spindle and the reciprocating yarn guide (10). The yarn tension monitor has a single roller (16) on a cantilever arm (15) with a restricted movement. The monitor roller deflects the yarn path from the feed to the yarn guide, without additional deflection rollers. The bobbin winder, for delicate yarns, has a cantilever to support the monitor roller. The monitor has at least one sensor to register the bending movements of the cantilever, and generate a signal proportional to the detected movements. The cantilever arm can be a weighing beam, to register the force of the yarn on the roller, and generate a proportional signal. The cantilever beam is fitted with expansion measurement strips at its nominal bending zone. The bending beam can be within a housing tube, with adjustable limit stops to set the movement range. The winder has a number of bobbin winding heads, each with a drive spindle and a reciprocating yarn guide. Each bobbin winding head has its own yarn tension monitor, with a single roller, within a separate machine unit (13).

IPC 1-7

B65H 59/40; **G01L 5/10**

IPC 8 full level

B65H 54/22 (2006.01); **B65H 54/70** (2006.01); **B65H 59/40** (2006.01); **B65H 63/028** (2006.01); **G01L 5/10** (2006.01)

CPC (source: EP US)

B65H 59/40 (2013.01 - EP US); **B65H 2553/21** (2013.01 - EP US); **B65H 2701/31** (2013.01 - EP US)

Cited by

DE102011052699A1; WO2016197158A1; CN103306075A; DE102008032643B3; KR20130018171A; DE102011052699B4; KR101867628B1; CN111350023A; DE202010008846U1; EP2143681A1; EP2557061A2

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