

Title (en)
SPOOL SPINDLE

Title (de)
SPULSPINDEL

Title (fr)
BROCHE À BOBINE

Publication
EP 2523884 B1 20140507 (DE)

Application
EP 11700740 A 20110113

Priority

- DE 102010004562 A 20100114
- EP 2011050419 W 20110113

Abstract (en)
[origin: WO2011086142A1] The invention relates to a spool spindle for a winding machine, comprising an outer jacket bushing (1) for receiving at least one spool sleeve (24). In order to fix the spool sleeve, a clamping device (16) is provided, which is arranged concentrically beneath the jacket bushing on the circumference of a drivable hollow spindle (2). For this purpose, the clamping device comprises a plurality of clamping bodies (18), which are guided in openings (19) of the jacket bushing and which can be moved radially by at least one axially displaceable ring piston (12) so as to tension or relax the spool sleeve (24), wherein the ring piston is arranged inside an annular space formed between the jacket bushing and the hollow spindle and is held in the tensioned position by a plurality of springs. In order to obtain the highest possible carrying capacity for a predefined outside diameter of the spool spindle, according to the invention each of the springs comprises a plurality of flat windings (25) that are oriented in the circumferential direction of the ring piston. In this way, the installation height of the clamping device can be minimized, even when using a plurality of springs.

IPC 8 full level
B65H 54/54 (2006.01); **B65H 75/24** (2006.01)

CPC (source: EP US)
B65H 54/543 (2013.01 - EP); **B65H 75/248** (2013.01 - EP US)

Cited by
DE102021102752A1; DE102021123260A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2011086142 A1 20110721; CN 102712435 A 20121003; CN 102712435 B 20140115; DE 102010004562 A1 20110721;
EP 2523884 A1 20121121; EP 2523884 B1 20140507; JP 2013517190 A 20130516

DOCDB simple family (application)
EP 2011050419 W 20110113; CN 201180005971 A 20110113; DE 102010004562 A 20100114; EP 11700740 A 20110113;
JP 2012548442 A 20110113