

Title (en)

Yarn winder, connection member, and yarn winding method

Title (de)

Garnwickler, Verbindungselement und Garnwickelverfahren

Title (fr)

Bobineur de fil, élément de raccordement et procédé de bobinage de fil

Publication

**EP 2554506 A3 20131225 (EN)**

Application

**EP 12178825 A 20120801**

Priority

JP 2011171934 A 20110805

Abstract (en)

[origin: EP2554506A2] A connection member 41 is a substantially cylindrical component. Parts sandwiching the central portion in the axial directions are insertion portions 42, and these two insertion portions 42 are inserted into take up tubes 19B from the leading end sides so that the two take up tubes 19B are connected with each other. Each insertion portion 42 extends from the leading end of the insertion portion 42 along the axial directions of the connection member 41, and has a plurality of slits 46 aligned in the circumferential directions of the connection member 41. With this, the insertion portion 42 is changeable in diameter. Around the part of the connection member 41 between the two insertion portions 42, an O-ring 43 (annular component) made of an elastic material such as rubber is provided.

IPC 8 full level

**B65H 54/20** (2006.01); **B65H 65/00** (2006.01); **B65H 75/18** (2006.01); **B65H 75/28** (2006.01)

CPC (source: EP)

**B65H 54/20** (2013.01); **B65H 65/00** (2013.01); **B65H 75/185** (2013.01); **B65H 75/28** (2013.01); **B65H 2701/31** (2013.01); **B65H 2701/534** (2013.01)

Citation (search report)

- [X] DE 102008038343 A1 20090305 - TMT MACHINERY INC [JP]
- [X] JP S49118929 A 19741113
- [X] JP S5244681 Y1 19771011
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Cited by

CN104562417A; DE102018000259A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2554506 A2 20130206**; **EP 2554506 A3 20131225**; **EP 2554506 B1 20171004**; CN 102912490 A 20130206; CN 102912490 B 20170301; JP 2013035640 A 20130221; JP 5757818 B2 20150805

DOCDB simple family (application)

**EP 12178825 A 20120801**; CN 201210272031 A 20120801; JP 2011171934 A 20110805