

Title (en)
METHOD AND DEVICE FOR PRODUCING COIL SPRINGS BY SPRING WINDING

Title (de)
VERFAHREN UND VORRICHTUNG ZUR HERSTELLUNG VON SCHRAUBENFEDERN DURCH FEDERWINDEN

Title (fr)
PROCÉDÉ ET DISPOSITIF DE FABRICATION DE RESSORTS HÉLICOÏDAUX PAR ENROULEMENT

Publication
EP 3021995 B1 20170517 (DE)

Application
EP 14741216 A 20140626

Priority
• DE 102013214161 A 20130718
• EP 2014063577 W 20140626

Abstract (en)
[origin: WO2015007496A1] The invention relates to a method for producing coil springs by spring winding by means of a numerically controlled spring winding machine, wherein a wire is fed by a feeding device of a forming device of the spring winding machine under the control of an NC control program and is formed into a coil spring by means of tools of the forming device, and a finished coil spring is then severed from the fed wire by means of a cutting device. Before the finished coil spring is severed, a linear weakening is produced in the region of the surface of the wire at least at two diametrically opposite segments of the wire circumference at a defined severing position along the wire. In one embodiment, two notching tools (152, 154) are used for this purpose, which superficially notch the wire from opposite sides without cutting through the wire. The finished coil spring is then severed from the fed wire at the severing position, e.g., by means of a torsion cut.

IPC 8 full level
B21F 11/00 (2006.01); **B21F 3/02** (2006.01); **B21F 35/00** (2006.01)

CPC (source: EP)
B21F 5/00 (2013.01); **B21F 11/005** (2013.01); **B21F 35/00** (2013.01); **B21F 3/02** (2013.01)

Cited by
EP3922377A4

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 2015007496 A1 20150122; CN 105377466 A 20160302; CN 105377466 B 20170329; DE 102013214161 A1 20150219;
DE 102013214161 B4 20150507; EP 3021995 A1 20160525; EP 3021995 B1 20170517

DOCDB simple family (application)
EP 2014063577 W 20140626; CN 201480040803 A 20140626; DE 102013214161 A 20130718; EP 14741216 A 20140626