Title (en)

METHOD AND APPARATUS FOR WINDING UP METAL STRIPS ONTO A WINDING MANDREL

Title (de)

VERFAHREN UND VORRICHTUNG ZUM AUFWICKELN VON METALLBÄNDERN AUF EINEN WICKELDORN

Title (fr)

PROCÉDÉ ET DISPOSITIF D'ENROULEMENT DE FEUILLARDS MÉTALLIQUES SUR UN MANDRIN D'ENROULEMENT

Publication

EP 2109510 B1 20140212 (DE)

Application

EP 07818307 A 20070921

Priority

- EP 2007008217 W 20070921
- DE 102006045608 A 20060925
- DE 102007045425 A 20070921

Abstract (en)

[origin: WO2008037395A1] The invention relates to a method and an apparatus for winding up metal strips (2) onto a winding mandrel (3), which is arranged in a reeling shaft (1) and to which the metal strip is passed by a driver having a lower and an upper driver roller (5, 6), wherein a table (7) is provided underneath the metal strip (2) for guidance and a pivotable strip diverter and, adjoining the latter almost up to the winding mandrel (3), a pivotable shaft flap (11) are arranged above the metal strip. By measuring the strip tension in the reeling shaft, it is intended to regulate the driver in such a way that the running of the strip makes it possible for the metal strip to be wound up to form a coil with straight edges. To achieve this, the longitudinal tensile force exerted on the metal strip (2) by the driver is determined by means of a strip tension measuring device (13), which dips into the metal strip from above in the reeling shaft (1), and the measuring signal is passed to a driver regulating device (22) to control the running of the strip by the driver. In the case of an apparatus suitable for this purpose, the strip diverter is formed as a strip tension measuring device (13) which dips into the metal strip (2) from above and is provided with a diverter body, which has a rotatably mounted roller arm (16), carrying a roller (17) at its front end, wherein a force measuring means (20) that is connected in signalling terms to the regulating device (22) is arranged between the diverter body and the roller arm (16).

IPC 8 full level

B21C 47/00 (2006.01)

CPC (source: EP KR US)

B21C 47/00 (2013.01 - KR); **B21C 47/003** (2013.01 - EP US); **B21C 47/02** (2013.01 - KR); **B21C 47/063** (2013.01 - EP US); **B21C 47/10** (2013.01 - KR); **B21C 47/34** (2013.01 - EP US); **B21C 47/3425** (2013.01 - EP US); **B21C 47/3441** (2013.01 - EP US); **B21C 47/345** (2013.01 - EP US)

Cited by

CN103743953A

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2008037395 A1 20080403; BR PI0716770 A2 20130917; BR PI0716770 B1 20190326; CA 2664263 A1 20080403; CA 2664263 C 20110419; CN 101516539 A 20090826; CN 101516539 B 20120215; DE 102007045425 A1 20080417; EP 2109510 A1 20091021; EP 2109510 B1 20140212; JP 2010504216 A 20100212; KR 101071117 B1 20111007; KR 20090031622 A 20090326; RU 2391167 C1 20100610; US 2010025514 A1 20100204

DOCDB simple family (application)

EP 2007008217 W 20070921; BR PI0716770 A 20070921; CA 2664263 A 20070921; CN 200780035636 A 20070921; DE 102007045425 A 20070921; EP 07818307 A 20070921; JP 2009528648 A 20070921; KR 20097003037 A 20070921; RU 2009115695 A 20070921; US 44271507 A 20070921