Title (en)

CONTINUOUS TUBE ROLLING METHOD AND MANDREL ASSEMBLY FOR THE IMPLEMENTATION THEREOF

Title (de)

VERFAHREN ZUM KONTINUIERLICHEN WALZEN VON ROHREN UND DORNANORDNUNG ZUR UMSETZUNG DES VERFAHRENS

Title (fr)

PROCÉDÉ DE LAMINAGE ININTERROMPU DE TUBES ET UNITÉ À MANDRINER POUR SA MISE EN OEUVRE

Publication

EP 3623066 A4 20201230 (EN)

Application

EP 17909616 A 20170510

Priority

RU 2017000296 W 20170510

Abstract (en)

[origin: EP3623066A1] A method for rolling tubes on a continuous tube rolling mill involves deforming a tube billet using a mandrel assembly. The mandrel assembly comprises a cylindrical mandrel configured such that its ends can be alternately coupled to an attachment of the mandrel assembly. The mandrel is configured such that its ends have portions with a beveled lateral surface, wherein the angle of the generatrix of said surface to the longitudinal axis of the mandrel is between 10 and 70 degrees. The deformation of tube billets is carried out until the amount of wear on the working regions at both ends of the mandrel is not less than 25% of a critical value, then the mandrel is sharpened. The invention increases the service life of a mandrel, reduces the formation of flaws on the inside surface of the tubes, and prevents accidents from occurring during the rolling process.

IPC 8 full level

B21B 25/00 (2006.01); **B21B 17/02** (2006.01)

CPC (source: EA EP RU US)

B21B 17/02 (2013.01 - EP); **B21B 25/00** (2013.01 - EA RU US); B21B 25/06 (2013.01 - EP)

Citation (search report)

- [XY] CN 204365769 U 20150603 - CHINA CHANGJIANG NAT SHIPPING CORP JINLING SHIPYARD
- [Y] US 6006575 A 19991228 - ANDERSON WILLIAM RUSSELL [US], et al
- See references of WO 2018208184A1

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)

EP 3623066 A1 20200318; **EP 3623066 A4 20201230**; BR 112019023482 A2 20200630; CA 3052867 A1 20181115; CN 110382126 A 20191025; EA 036775 B1 20201221; EA 201800621 A1 20190430; JP 2020519452 A 20200702; MX 2019013406 A 20200817; RU 2707052 C1 20191121; US 2020156127 A1 20200521; WO 2018208184 A1 20181115; ZA 201907301 B 20231129

DOCDB simple family (application)

EP 17909616 A 20170510; BR 112019023482 A 20170510; CA 3052867 A 20170510; CN 201780088139 A 20170510; EA 201800621 A 20170510; JP 2020513481 A 20170510; MX 2019013406 A 20170510; RU 2017000296 W 20170510; RU 2018134751 A 20170510; US 201716610739 A 20170505; ZA 201907301 A 20191104