

Title (en)
DEVICE FOR GUIDING METAL STRIPS WITH GRINDING BODIES

Title (de)
VORRICHTUNG UND VERFAHREN ZUR FÜHRUNG VON METALLBÄNDERN MIT SCHLEISSKÖRPERN

Title (fr)
DISPOSITIF DE GUIDAGE DE BANDES MÉTALLIQUES AVEC DES CORPS D'USURE

Publication
EP 3049198 B1 20170614 (DE)

Application
EP 14766935 A 20140905

Priority
• EP 13186131 A 20130926
• EP 2014068929 W 20140905
• EP 14766935 A 20140905

Abstract (en)
[origin: CA2925378A1] The invention relates to a device for the lateral guidance (1) of a metal strip (2) moving on a metal belt conveying device, comprising at least one basic body module (7) having an essentially vertical guiding plane (10), characterized in that at least one wear body (12) having a wear surface (12a), which can be rotated into several defined rotational positions in a controlled manner, is provided, and that the wear surface (12a) is substantially planar, and in all defined rotational positions is parallel to the guiding plane (10). The invention further relates to a method for the lateral guidance of metal strips (2) moving on a metal belt conveying device, characterized in that after a first metal strip has passed through the metal belt conveying device, and prior to a second metal strip entering the metal belt conveying device, the wear body (12) is rotated from a first defined rotational position to a second defined rotational position in a controlled manner, wherein in all defined rotational positions, the wear surface (12a) is parallel to the guiding plane (10).

IPC 8 full level
B21B 39/14 (2006.01)

CPC (source: AT EP KR RU US)
B21B 1/22 (2013.01 - EP KR US); **B21B 39/14** (2013.01 - AT EP KR RU US); **B21B 39/18** (2013.01 - KR); **B65H 23/032** (2013.01 - US); **B21B 2267/24** (2013.01 - KR); **B65H 2701/173** (2013.01 - US)

Citation (opposition)
Opponent : SMS group GmbH
• US 2818954 A 19580107 - VICE EARL C
• JP H05161917 A 19930629 - NIPPON STEEL CORP, et al
• JP S59215202 A 19841205 - NIPPON STEEL CORP
• US 5218848 A 19930615 - TAKAKURA YOSHIO [JP], et al
• DE 1427923 A1 19690123 - KLOECKNER WERKE AG
• DE 69408332 T2 19980625 - SIDMAR NV [BE]
• JP S6234910 U 19870302
• JP S6340609 A 19880222 - KOBE STEEL LTD
• JP S5350039 A 19780508 - HITACHI LTD
• AUFSATZ: "Operation time extended by a factor of ten", ECO SLIDE DISC, 1 March 2014 (2014-03-01), XP055478703

Cited by
US11504755B2; EP3711874A1; WO2020187837A1; US11779970B2; DE202020006048U1

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 2853315 A1 20150401; AT 15727 U2 20180515; AT 15727 U3 20180715; BR 112016006157 A2 20170801; BR 112016006157 B1 20221101; CA 2925378 A1 20150402; CA 2925378 C 20210316; CN 105705260 A 20160622; CN 105705260 B 20171013; CZ 31134 U1 20171030; DE 202014011026 U1 20170608; EP 3049198 A1 20160803; EP 3049198 B1 20170614; EP 3049198 B2 20230524; ES 2639800 T3 20171030; ES 2639800 T5 20231009; FI 11946 U1 20180126; FI 3049198 T4 20230831; HU 5010 U 20190628; HU E036286 T2 20180628; JP 2016536141 A 20161124; JP 2018089701 A 20180614; JP 6363177 B2 20180725; JP 6779928 B2 20201104; KR 101690963 B1 20170109; KR 20160055943 A 20160518; MX 2016003779 A 20160624; MY 176656 A 20200819; PL 3049198 T3 20171130; PL 3049198 T5 20230911; RS 56151 B1 20171130; RS 56151 B2 20230831; RU 2016116014 A 20171031; RU 2016116014 A3 20180618; RU 2664849 C2 20180823; SA 516370793 B1 20200401; SI 3049198 T1 20171030; SI 3049198 T2 20231030; SK 1472017 U1 20180404; SK 8208 Y1 20180903; TW 201527007 A 20150716; TW I624314 B 20180521; UA 118855 C2 20190325; US 10376938 B2 20190813; US 2016214154 A1 20160728; WO 2015043926 A1 20150402

DOCDB simple family (application)
EP 13186131 A 20130926; AT 502132017 U 20140905; BR 112016006157 A 20140905; CA 2925378 A 20140905; CN 201480053160 A 20140905; CZ 201733807 U 20140905; DE 202014011026 U 20140905; EP 14766935 A 20140905; EP 2014068929 W 20140905; ES 14766935 T 20140905; FI 14766935 T 20140905; FI U20174156 U 20170612; HU 1700108 U 20140905; HU E14766935 A 20140905; JP 2016515544 A 20140905; JP 2018016280 A 20180201; KR 20167010980 A 20140905; MX 2016003779 A 20140905; MY PI2016701026 A 20140905; PL 14766935 T 20140905; RS P20170795 A 20140905; RU 2016116014 A 20140905; SA 516370793 A 20160323; SI 201430383 T 20140905; SK 1472017 U 20140905; TW 103132007 A 20140917; UA A201603042 A 20140905; US 201415024722 A 20140905