

Title (en)
Method for manufacturing a high strength flat steel product

Title (de)
Verfahren zur Erzeugung eines hochfesten Stahlflachprodukts

Title (fr)
Procédé de génération d'un produit plat en acier haute résistance

Publication
EP 2924140 B1 20171115 (DE)

Application
EP 14161606 A 20140325

Priority
EP 14161606 A 20140325

Abstract (en)
[origin: CA2941202A1] To produce a flat steel product having a yield strength of = 700 MPa and a microstructure which is bainitic to an extent of = 70% by volume, the following working steps are carried out according to the invention: a) melting of a steel melt consisting of (in % by weight) C: 0.05-0.08%, Si: 0.015-0.500%, Mn: 1.60-2.00%, P: = 0.025%, S: = 0.010%, Al: 0.020-0.050%, N: = 0.006%, Cr: = 0.40%, Nb: 0.060-0.070%, B: 0.0005-0.0025%, Ti: 0.090- 0.130% and unavoidable impurities, remainder Fe; b) casting of the melt to form a slab; c) reheating of the slab to 1200-1300°C; d) rough rolling of the slab at 950-1250°C and with an overall pass reduction of = 50%; e) hot finish-rolling of the rough-rolled slab with a hot-rolling end temperature of 800-880°C; f) cooling of the hot finish-rolled flat steel product within = 10 s after the hot finish-rolling to 50-620°C at a cooling rate of = 40 K/s; g) coiling of the hot finish-rolled flat steel product.

IPC 8 full level
C22C 38/02 (2006.01); **C21D 8/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/12** (2006.01); **C22C 38/14** (2006.01)

CPC (source: CN EP KR RU US)
C21D 8/02 (2013.01 - RU); **C21D 8/0226** (2013.01 - CN EP US); **C21D 8/0263** (2013.01 - CN EP KR US); **C21D 9/52** (2013.01 - EP US); **C22C 38/00** (2013.01 - RU); **C22C 38/001** (2013.01 - EP US); **C22C 38/002** (2013.01 - EP US); **C22C 38/02** (2013.01 - CN EP KR US); **C22C 38/04** (2013.01 - CN EP KR US); **C22C 38/06** (2013.01 - CN EP KR US); **C22C 38/12** (2013.01 - CN EP KR US); **C22C 38/14** (2013.01 - CN EP KR US); **C22C 38/18** (2013.01 - CN); **C22C 38/32** (2013.01 - CN); **C22C 38/42** (2013.01 - EP KR US); **C22C 38/44** (2013.01 - EP KR US); **C22C 38/46** (2013.01 - EP KR US); **C22C 38/48** (2013.01 - EP US); **C22C 38/50** (2013.01 - EP US); **C22C 38/54** (2013.01 - EP US); **C22C 38/58** (2013.01 - EP KR RU US); **C22C 38/60** (2013.01 - EP KR US); **C21D 2211/002** (2013.01 - CN EP US)

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CN111187977A; US11220721B2; WO2021123130A1; WO2018134186A1; EP3719147A1; WO2020201352A1

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 2924140 A1 20150930; EP 2924140 B1 20171115; BR 112016022053 B1 20210427; CA 2941202 A1 20151001; CA 2941202 C 20180918; CN 106133154 A 20161116; DK 2924140 T3 20180219; DK 3305935 T3 20190902; EP 3305935 A1 20180411; EP 3305935 B1 20190529; EP 3305935 B9 20191204; ES 2659544 T3 20180316; ES 2745046 T3 20200227; JP 2017512905 A 20170525; JP 6603669 B2 20191106; KR 20160137588 A 20161130; MX 2016012491 A 20170106; PL 2924140 T3 20180430; PL 3305935 T3 20191129; RU 2016141474 A 20180427; RU 2016141474 A3 20181106; RU 2675183 C2 20181217; SI 2924140 T1 20180430; SI 3305935 T1 20191129; UA 117959 C2 20181025; US 10280477 B2 20190507; US 10934602 B2 20210302; US 2017137911 A1 20170518; US 2019203318 A1 20190704; WO 2015144529 A1 20151001

DOCDB simple family (application)
EP 14161606 A 20140325; BR 112016022053 A 20150318; CA 2941202 A 20150318; CN 201580016149 A 20150318; DK 14161606 T 20140325; DK 17191293 T 20140325; EP 17191293 A 20140325; EP 2015055685 W 20150318; ES 14161606 T 20140325; ES 17191293 T 20140325; JP 2016558769 A 20150318; KR 20167029332 A 20150318; MX 2016012491 A 20150318; PL 14161606 T 20140325; PL 17191293 T 20140325; RU 2016141474 A 20150318; SI 201430572 T 20140325; SI 201431325 T 20140325; UA A201610736 A 20150318; US 201515127529 A 20150318; US 201916294468 A 20190306