

Title (en)

STEEL WIRE MATERIAL AND METHOD FOR PRODUCING SAME

Title (de)

STAHLDRAHTMATERIAL UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

MATÉRIAUX DE FIL-MACHINE ET PROCÉDÉ POUR SA PRODUCTION

Publication

EP 2662468 A1 20131113 (EN)

Application

EP 12732406 A 20120106

Priority

- JP 2011002014 A 20110107
- JP 2012050155 W 20120106

Abstract (en)

The steel wire material of the present invention contains 0.05 to 1.2% of C (mass%; same for the chemical components hereafter), 0.01 to 0.5% of Si, 0.1 to 1.5% of Mn, 0.02% or less (but not 0%) of P, 0.02% or less (but not 0%) of S, and 0.005% or less (but not 0%) of N, with the balance being iron and inevitable impurities. The wire material has a scale layer that is no thicker than 7.0 µm or less. The scale layer has an FeO percentage of 30 to 80 vol% and an Fe₂SiO₄ percentage of less than 0.1 vol%. The scale layer that is formed will not peel when cooled after hot rolling or during storage and transport, but will easily peel during mechanical descaling.

IPC 8 full level

C21D 9/52 (2006.01); **C22C 38/00** (2006.01); **C22C 38/04** (2006.01); **C22C 38/54** (2006.01)

CPC (source: EP KR US)

B21B 1/16 (2013.01 - KR US); **C21D 1/74** (2013.01 - EP KR US); **C21D 1/76** (2013.01 - EP KR US); **C21D 8/06** (2013.01 - EP US); **C21D 8/05** (2013.01 - EP KR US); **C21D 9/52** (2013.01 - EP US); **C21D 9/525** (2013.01 - EP US); **C21D 9/561** (2013.01 - EP US); **C21D 9/562** (2013.01 - EP US); **C22C 38/00** (2013.01 - EP US); **C22C 38/01** (2013.01 - EP KR US); **C22C 38/002** (2013.01 - EP KR US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - EP US); **C22C 38/08** (2013.01 - EP US); **C22C 38/12** (2013.01 - EP US); **C22C 38/14** (2013.01 - EP US); **C22C 38/16** (2013.01 - EP US); **C22C 38/20** (2013.01 - EP US); **C22C 38/24** (2013.01 - EP US); **C22C 38/26** (2013.01 - EP US); **C22C 38/28** (2013.01 - EP US); **C22C 38/32** (2013.01 - EP US); **C22C 38/42** (2013.01 - EP KR US); **C22C 38/46** (2013.01 - EP KR US); **C22C 38/48** (2013.01 - EP KR US); **C22C 38/50** (2013.01 - EP KR US); **C22C 38/54** (2013.01 - EP KR US); **D07B 1/066** (2013.01 - EP US); **D07B 2205/3025** (2013.01 - EP US)

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 2662468 A1 20131113; EP 2662468 A4 20150527; CN 103314125 A 20130918; CN 103314125 B 20150527; JP 2012144756 A 20120802; JP 4980471 B1 20120718; KR 20130087613 A 20130806; KR 20140076642 A 20140620; US 2013272914 A1 20131017; WO 2012093715 A1 20120712

DOCDB simple family (application)

EP 12732406 A 20120106; CN 201280004664 A 20120106; JP 2011002014 A 20110107; JP 2012050155 W 20120106; KR 20137017580 A 20120106; KR 20147014715 A 20120106; US 201213995739 A 20120106