

Title (en)
WIRE ROD FOR SPRINGS WITH EXCELLENT CORROSION FATIGUE RESISTANCE, STEEL WIRE, AND MANUFACTURING METHOD THEREOF

Title (de)
WALZDRAHT FÜR FEDERN MIT HERVORRAGENDER KORROSIONSERMÜDUNGSBESTÄNDIGKEIT, STAHLDRAHT UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
FIL MACHINE POUR RESSORTS À EXCELLENTE RÉSISTANCE À LA FATIGUE PAR CORROSION, FIL D'ACIER ET SON PROCÉDÉ DE FABRICATION

Publication
EP 3553198 B1 20240814 (EN)

Application
EP 17877467 A 20171206

Priority
• KR 20160165185 A 20161206
• KR 2017014232 W 20171206

Abstract (en)
[origin: EP3553198A1] One aspect of the present invention relates to a wire rod for springs with high strength and excellent corrosion fatigue resistance, in which a combination of Cr, Cu, and Ni content is controlled to an appropriate level, the maximum depth of corrosion pits is set to be below a certain level, and fine carbides containing Mo are set to be at a certain level or greater.

IPC 8 full level
C22C 38/42 (2006.01); **C21D 8/06** (2006.01); **C21D 9/02** (2006.01); **C21D 9/52** (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/34** (2006.01); **C22C 38/44** (2006.01); **C22C 38/46** (2006.01); **C22C 38/48** (2006.01); **C22C 38/50** (2006.01)

CPC (source: EP KR US)
C21D 1/58 (2013.01 - US); **C21D 8/0226** (2013.01 - US); **C21D 8/06** (2013.01 - EP KR); **C21D 8/065** (2013.01 - EP US); **C21D 9/02** (2013.01 - EP US); **C21D 9/52** (2013.01 - EP); **C21D 9/525** (2013.01 - EP KR US); **C21D 9/5732** (2013.01 - US); **C22C 38/00** (2013.01 - EP); **C22C 38/001** (2013.01 - EP KR US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/34** (2013.01 - EP KR); **C22C 38/42** (2013.01 - EP KR US); **C22C 38/44** (2013.01 - EP KR US); **C22C 38/46** (2013.01 - EP); **C22C 38/48** (2013.01 - EP); **C22C 38/50** (2013.01 - EP); **C21D 2211/001** (2013.01 - US); **C21D 2211/004** (2013.01 - EP); **C21D 2211/005** (2013.01 - EP KR US); **C21D 2211/008** (2013.01 - KR); **C21D 2211/009** (2013.01 - EP KR 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 3553198 A1 20191016; **EP 3553198 A4 20191113**; **EP 3553198 B1 20240814**; CN 110036131 A 20190719; CN 110036131 B 20210706; JP 2020509158 A 20200326; JP 7018444 B2 20220210; KR 101867709 B1 20180614; US 2020063228 A1 20200227; WO 2018106016 A1 20180614

DOCDB simple family (application)
EP 17877467 A 20171206; CN 201780075012 A 20171206; JP 2019526575 A 20171206; KR 20160165185 A 20161206; KR 2017014232 W 20171206; US 201716466984 A 20171206