Title (en)

STEEL WIRE FOR COLD FORGING HAVING EXCELLENT LOW TEMPERATURE IMPACT PROPERTIES AND METHOD OF PRODUCING SAME

Title (de)

STAHLDRAHT ZUM KALTSCHMIEDEN MIT HERVORRAGENDEN KÄLTESCHLAGEIGENSCHAFTEN UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)

FIL D'ACIER POUR FORGEAGE A FROID PRESENTANT D'EXCELLENTES PROPRIETES D'IMPACT A FAIBLE TEMPERATURE ET PROCEDE DE PRODUCTION ASSOCIE

Publication

EP 1697552 A1 20060906 (EN)

Application

EP 04820547 A 20041129

Priority

- KR 2004003107 W 20041129
- KR 20030093269 A 20031218

Abstract (en)

[origin: US2007006947A1] Disclosed is a steel wire for cold forging, which has excellent low temperature impact properties, and a method of producing the same. The steel wire consists of 0.10-0.40 wt % C, 1.0 wt % or less of Si, 0.30-2.0 wt % Mn, 0.03 wt % or less of P, 0.03 wt % or less of S, and the balance of Fe and impurities. The steel wire has an austenite grain size of 5-20 mum, impact absorption energy of 60 J/cm²or more at -40° C., and tensile strength of 70-130 kgf/mm². A steel material for cold forming according to the present invention has impact toughness that is greatly superior to a conventional spheroidized material or non-heat treated steel at a low temperature of -40° C.

IPC 8 full level

C22C 38/00 (2006.01); **C21D 1/25** (2006.01); **C21D 9/52** (2006.01)

CPC (source: EP KR US)

C21D 1/25 (2013.01 - EP US); **C21D 8/06** (2013.01 - EP US); **C21D 9/0093** (2013.01 - EP US); **C21D 9/52** (2013.01 - EP US); **C21D 9/525** (2013.01 - EP US); **C22C 38/00** (2013.01 - KR); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/18** (2013.01 - EP US); **C22C 38/44** (2013.01 - EP US)

Cited by

WO2008125700A1

Designated contracting state (EPC)

BE DE ES FR GB IT

DOCDB simple family (publication)

US 2007006947 A1 20070111; CN 1894432 A 20070110; EP 1697552 A1 20060906; EP 1697552 A4 20110112; JP 2007513259 A 20070524; KR 100536660 B1 20051214; KR 20050061805 A 20050623; US 2007256767 A1 20071108; WO 2005059192 A1 20050630

DOCDB simple family (application)

US 45441606 A 20060616; CN 200480037913 A 20041129; EP 04820547 A 20041129; JP 2006543738 A 20041129; KR 20030093269 A 20031218; KR 2004003107 W 20041129; US 58339904 A 20041129