

Title (en)
WIRE MATERIAL FOR STEEL WIRE, AND STEEL WIRE

Title (de)
DRAHTMATERIAL FÜR STAHL DRAHT SOWIE STAHL DRAHT

Title (fr)
MATÉRIAU DE FIL POUR FIL D'ACIER, ET FIL D'ACIER

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Application
EP 15814419 A 20150602

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Abstract (en)
[origin: EP3165623A1] An object of the present invention is to provide a wire rod for a steel wire, which is excellent in low cycle fatigue characteristics and is useful as a material for a high-strength steel wire such as a wire rope or a PC steel wire, and to provide a steel wire that can exhibit such characteristics. A wire rod for a steel wire of the present invention comprises by mass: C: 0.70 to 1.3%; Si: 0.1 to 1.5%; Mn: 0.1 to 1.5%; N: 0.001 to 0.006%; Al: 0.001 to 0.10%; Ti: 0.02 to 0.20%; B: 0.0005 to 0.010%; P: 0% or more and 0.030% or less; and S: 0% or more and 0.030% or less, with the balance being iron and inevitable impurities, wherein, the wire rod having pearlite as a main phase and a hydrogen diffusion coefficient D in steel at 300 °C satisfies formula (1) below: $D \# 2.5 \times 10^{-7} \text{ cm}^2 / \text{sec}$

IPC 8 full level
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Citation (search report)
• [X] JP 2013204069 A 20131007 - KOBE STEEL LTD
• [X] JP 2008007856 A 20080117 - NIPPON STEEL CORP
• [A] JP 2007039800 A 20070215 - NIPPON STEEL CORP
• [A] JP H11199978 A 19990727 - KOBE STEEL LTD
• [E] EP 2990499 A1 20160302 - NIPPON STEEL & SUMITOMO METAL CORP [JP]
• See references of WO 2016002414A1

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