

Title (en)  
WIRE ROD AND STEEL WIRE FOR SPRING, SPRING WITH IMPROVED STRENGTH AND FATIGUE LIMIT, AND METHOD FOR MANUFACTURING SAME

Title (de)  
WALZDRAHT UND STAHLDRAHT FÜR FEDER, FEDER MIT VERBESSERTER FESTIGKEIT UND ERMÜDUNGSGRENZE UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)  
FIL MACHINE ET FIL D'ACIER POUR RESSORT, RESSORT AYANT UNE RÉSISTANCE ET UNE LIMITE DE FATIGUE AMÉLIORÉES, ET PROCÉDÉ DE FABRICATION CORRESPONDANT

Publication  
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Application  
**EP 22816386 A 20220526**

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Abstract (en)  
Disclosed are a wire rod and a steel wire for a spring, a spring with improved strength and fatigue limit, and a method for manufacturing the same. The disclosed wire rod for a spring with improved strength and fatigue limit according to an embodiment includes, in percent by weight (wt%): 0.6 to 0.7% of C, 2.0 to 2.5% of Si, 0.2 to 0.7% of Mn, 0.9 to 1.5% of Cr, 0.015% or less of P, 0.01% or less of S, 0.01% or less of Al, 0.01% or less of N, 0.25% or less of Mo, 0.25% or less of W, 0.05% to 0.2% of V, 0.05% or less of Nb, and the balance of Fe and unavoidable impurities, wherein  $Mn+Cr \leq 1.8\%$  and  $0.05 \text{ at}\% \leq Mo+W \leq 0.15 \text{ at}\%$  may be satisfied.

IPC 8 full level  
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