

Title (en)  
STEEL WIRE FOR SPRING

Title (de)  
STAHLDRAHT FÜR FEDER

Title (fr)  
FIL D ACIER POUR RESSORT

Publication  
**EP 1731625 A4 20120328 (EN)**

Application  
**EP 05709768 A 20050204**

Priority  
• JP 2005001703 W 20050204  
• JP 2004027891 A 20040204

Abstract (en)  
[origin: EP1731625A1] The present invention provides a spring steel wire which has a tempered martensitic structure brought about by quenching-tempering. The present spring steel wire has a 40 % or higher reduction of area and a 1,000 MPa or higher shear yield stress after subjected to heat treatment for at least 2 hours at a temperature ranging from 420°C to 480°C. The present steel wire preferably constitutes, based on mass %, C: 0.50-0.75%, Si: 1.80-2.70%, Mn: 0.1-0.7%, Cr: 0.70-1.50%, Co: 0.02 - 1.00%, and remnants consisting of Fe and impurities, or constitutes, based on mass %, C: 0.50-0.75%, Si: 1.80-2.70%, Mn: over 0.7-1.50%, Cr: 0.70-1.50%, and remnants consisting of Fe and impurities.

IPC 8 full level  
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Citation (search report)  
• [A] JP 2003213372 A 20030730 - SUMITOMO DENKO STEEL WIRE KK  
• [A] JP 2001247934 A 20010914 - SUMITOMO ELECTRIC INDUSTRIES  
• [A] JP H10251795 A 19980922 - HONDA MOTOR CO LTD, et al  
• [E] EP 1619264 A1 20060125 - KOBELITE LTD [JP], et al  
• [AP] WO 2004055226 A1 20040701 - SUMITOMO SEI STEEL WIRE CORP [JP], et al  
• See references of WO 2005075695A1

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DE FR GB IT SE

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