

Title (en)

Spring steel wire rod excellent in pickling performance

Title (de)

Federstahldraht mit Leistung der Beizen

Title (fr)

Fil d'acier ressort avec performance de décapage

Publication

EP 1788105 A1 20070523 (EN)

Application

EP 06021771 A 20061017

Priority

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Abstract (en)

A spring steel wire rod according to the present invention is a spring steel wire rod wherein: the spring steel wire rod contains C: 0.35% to 0.7% (by mass, the same is hereunder applied), Si: 1.5% to 2.50%, Mn: 0.05% to 1.0%, Cr: 0.05% to 1.9%, Cu: 0.05% to 0.7%, Ni: 0.15% to 0.8%, P: 0.02% or less (excluding 0%), S: 0.02% or less (excluding 0%); and the balance being Fe and unavoidable impurities, wherein the ratio of Si to Cu (Si/Cu) is in the range of 4 or more; and the difference between the concentration of Cu in the surface layer and the concentration of Cu in the steel is 0.50% or less and the difference between the concentration of Ni in the surface layer and the concentration of Ni in the steel is 1.00% or less. The present invention makes it possible to improve pickling performance in a spring steel wire rod containing Si abundantly and further Cr, Cu, and Ni.

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