

Title (en)

Method of making steel useful in springs.

Title (de)

Wärmebehandlungsverfahren für Stahl, insbesondere von Stahl für Federn.

Title (fr)

Procédé de traitement thermique d'acier, notamment d'acier pour ressorts.

Publication

**EP 0462779 A2 19911227 (EN)**

Application

**EP 91305456 A 19910617**

Priority

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- JP 2507791 A 19910128
- JP 15879090 A 19900619

Abstract (en)

Steel material containing by weight from 0.4 % to 0.8 % carbon, from 0.5 % to 2.5 % silicon, from 0.3 % to 2.0 % manganese, from 0.1 % to 1.5 % chromium, and from 0.1 % to 0.5 % molybdenum is hot-rolled to form a strip or plate. The hot-rolled plate or strip is annealed and cold-rolled at a rolling reduction between 10 % and 80 %. The cold-rolled strip or plate is heated at a temperature above Ac<sub>3</sub> critical point for a time sufficient to austenitize carbide and annealed. Steel springs with attractive properties for use in motor vehicle clutches can be produced from this steel material.

IPC 1-7

**C21D 8/02; C21D 9/02**

IPC 8 full level

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Cited by

EP1347072A4; CN106202937A; EP1612287A4; EP2028285A4; EP1491647A4; GB2352726A; EP2682493A4; EP0672761A3; SE1950679A1; SE543422C2; EP3980571A4; US8613809B2; US7615186B2; US7749298B2; WO2005021190A1; US6884306B1; US9341223B2; US7597768B2; US7763123B2; WO2020246937A1

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