

Title (en)

Process for producing coil springs

Title (de)

Verfahren zum Herstellen von Schraubenfedern

Title (fr)

Procédé de fabrication de ressorts à boudin

Publication

**EP 0990708 B1 20030326 (DE)**

Application

**EP 98118691 A 19981002**

Priority

EP 98118691 A 19981002

Abstract (en)

[origin: EP0990708A1] Production of helical springs made of steel wire comprises subjecting the helical springs to thermomechanical boundary layer reinforcement and first and second shot peening steps. The steps of the first shot peening stage is carried out without pre-tension followed by thermal drop in pressure and then the second shot peening stage.

IPC 1-7

**C21D 7/06**; **C21D 9/02**

IPC 8 full level

**C21D 7/06** (2006.01); **C21D 9/02** (2006.01); **C21D 1/30** (2006.01)

CPC (source: EP)

**C21D 7/06** (2013.01); **C21D 9/02** (2013.01); **C21D 1/30** (2013.01)

Cited by

CN104690495A; CN113510444A

Designated contracting state (EPC)

AT DE ES FR GB IT NL PT SE

DOCDB simple family (publication)

**EP 0990708 A1 20000405**; **EP 0990708 B1 20030326**; AT E235567 T1 20030415; DE 59807656 D1 20030430; ES 2190562 T3 20030801; PT 990708 E 20030630

DOCDB simple family (application)

**EP 98118691 A 19981002**; AT 98118691 T 19981002; DE 59807656 T 19981002; ES 98118691 T 19981002; PT 98118691 T 19981002