

Title (en)

Steel for use at high temperatures

Title (de)

Eisenbasislegierung zur Verwendung bei erhöhten Temperaturen

Title (fr)

Acier pour utiliser à hautes températures

Publication

**EP 0939140 B1 20020508 (DE)**

Application

**EP 98890052 A 19980227**

Priority

EP 98890052 A 19980227

Abstract (en)

[origin: EP0939140A1] A chromium-molybdenum-vanadium steel has specified impurity content and accompanying elements for producing tools with isotropic properties. A ferrous metal alloy, of composition (by wt.) 0.25-0.79% C, 1.10-7.95% Cr, 0.56-3.49% Mo, 0.26-1.48% V and balance Fe, contains impurity and accompanying elements in the following quantities: (solid solution elements) 0.098-0.29% Mn and NOTGREATER 0.35 Ni+Co+Cu+W; (impurity elements) NOTGREATER 0.007% S+P and NOTGREATER 0.0014% O; (oxide-forming elements) 0.081-0.25% Si+Al and 0.00014-0.0009% Ca+Mg; (monocarbide-forming elements) NOTGREATER 0.008% Ti+Nb+Zr+Hf+Ta; (grain boundary active impurity elements) NOTGREATER 0.009% As+Bi+Sb+Sn+Zn+B; and (gases) NOTGREATER 0.008% N+H.

IPC 1-7

**C22C 38/18**; **C22C 38/22**; **C22C 38/24**

IPC 8 full level

**C22C 38/18** (2006.01); **C22C 38/22** (2006.01); **C22C 38/24** (2006.01)

CPC (source: EP)

**C22C 38/18** (2013.01); **C22C 38/22** (2013.01); **C22C 38/24** (2013.01)

Cited by

CN103667941A; CN104046915A; CN106834931A; CN106435390A; EP2194155A1; EP2375212A3; US6773662B2; EP1300482A1; JP2019504197A; US11131012B2; EP1084282B2

Designated contracting state (EPC)

AT BE CH DE ES FR GB IT LI NL SE

DOCDB simple family (publication)

**EP 0939140 A1 19990901**; **EP 0939140 B1 20020508**; AT E217360 T1 20020515; DE 59804046 D1 20020613; ES 2176944 T3 20021201; HK 1024512 A1 20001013

DOCDB simple family (application)

**EP 98890052 A 19980227**; AT 98890052 T 19980227; DE 59804046 T 19980227; ES 98890052 T 19980227; HK 00101331 A 20000301