

Title (en)

Free cutting alloy

Title (de)

Automatenlegierung

Title (fr)

Alliage de décolletage

Publication

EP 1431410 A1 20040623 (EN)

Application

EP 04004044 A 20000901

Priority

- EP 00118990 A 20000901
- JP 25090299 A 19990903
- JP 2000070257 A 20000314
- JP 2000221433 A 20000721
- JP 2000251602 A 20000822
- JP 2000251626 A 20000822

Abstract (en)

Provided is free cutting alloy excellent in machinability, preserving various characteristics as alloy. The free cutting alloy contains: one or more of Ti and Zr as a metal element component; and C being an indispensable element as a bonding component with the metal element component, wherein a (Ti,Zr) based compound including one or more of S, Se and Te is formed in a matrix metal phase. The free cutting alloy is more excellent in machinability, preserving various characteristics as alloy at similar levels to a conventional case. The effect is especially conspicuous, for example, when a compound expressed in a chemical form of (Ti,Zr)₄C₂(S,Se,Te)₂ as the (Ti,Zr) based compound is formed at least in a dispersed state in the alloy structure. <IMAGE>

IPC 1-7

C22C 38/60; C22C 38/40; C22C 38/28; C22C 38/18; C22C 19/05; C22C 27/06

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [A] US 4705581 A 19871110 - HONKURA YOSHINOBU [JP], et al & US 6033625 A 20000307 - NAGASHIMA TOMOTAKA [JP], et al
- [A] R.KIESSLING ET AL: "Non-metallic inclusions in steel", 1978, THE INSTITUTE OF MATERIALS, LONDON, GB, XP002155733
- [A] PATENT ABSTRACTS OF JAPAN vol. 1998, no. 10 31 August 1998 (1998-08-31)
- [A] PATENT ABSTRACTS OF JAPAN vol. 012, no. 333 (C - 526) 8 September 1988 (1988-09-08)
- [A] PATENT ABSTRACTS OF JAPAN vol. 014, no. 439 (C - 0761) 19 September 1990 (1990-09-19)
- [A] PATENT ABSTRACTS OF JAPAN vol. 1999, no. 10 31 August 1999 (1999-08-31)

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