

Title (en)

A METHOD OF PRODUCING A HIGH SPEED STEEL ALLOY

Title (de)

VERFAHREN ZUR HERSTELLUNG EINER HOCHGESCHWINDIGKEITSSTAHLLEGIERUNG

Title (fr)

PROCÉDÉ DE PRODUCTION D'UN ALLIAGE D'ACIER À HAUTE VITESSE

Publication

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Application

EP 19876810 A 20191024

Priority

- SE 1851330 A 20181026
- IB 2019001160 W 20191024

Abstract (en)

[origin: WO2020084352A1] A method of producing a high speed steel alloy containing, in percent by weight (wt.%): C 1.00-1.10, N 0.005-0.025, Cr 3.80- 4.40, Mo 3.90-4.50, W 0-1.0, Co 0-0.99, V 1.8-2.2, Nb 0-0.30, Mn 0.20-0.40, Si 1.40-1.55, Ni 0-0.50, and Cu 0-0.50, the balance being Fe and normally occurring impurities, and wherein said method comprises the following steps: providing a melt of said alloy, casting said melt followed by solidification thereof, hot forming the alloy into a predetermined body, soft annealing the solidified alloy, and hardening said body of the alloy at a hardening temperature T in the range of 1100°C-1200°C for a predetermined time t which is in the range of t1-t2, wherein t1 is a time which is sufficient for carbide-forming elements of the alloy to be dissolved in an austenitic structure presented by the alloy. Maximum hardening time t2 is below a time at which a medium austenite grain size of the alloy, as measured with the Snyder- Graff method, is such that the Snyder-Graff intercept grain size number (SG) is at least 13.

IPC 8 full level

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CPC (source: EP SE)

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Citation (search report)

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