

Title (en)
Free-cutting alloy tool steel

Title (de)
Automatenlegierungswerkzeugstahl

Title (fr)
Acier à outil en alliage de décolletage

Publication
EP 2154260 B1 20110330 (EN)

Application
EP 09009568 A 20090723

Priority
• JP 2008189726 A 20080723
• JP 2009091602 A 20090403

Abstract (en)
[origin: EP2154260A1] The present invention provides a free-cutting alloy tool steel containing, in terms of mass%: C: from 0.50 to 0.90%, Si: from 0.50 to 2.20%, Mn: 0.8% or more, Mn+0.08Cr: from 1.35 to 2.05%, Ni: from 0.01 to 0.30%, Mo+0.5W: from 0.01 to 0.50%, V: from 0.01 to 0.15%, S: from 0.03 to 0.15%, with the balance being Fe and unavoidable impurities, in which the contents of Mn and Cr satisfy the following relationship: Mn/Cr: from 0.10 to 0.23, and the contents of Mo, W and Mn satisfy the following relationship: (Mo+0.5W)/Mn: 0.55 or less.

IPC 8 full level
C22C 38/18 (2006.01); **B21D 37/01** (2006.01)

CPC (source: EP KR)
C22C 38/02 (2013.01 - KR); **C22C 38/04** (2013.01 - KR); **C22C 38/18** (2013.01 - EP); **C22C 38/38** (2013.01 - KR)

Cited by
CN112639150A; WO2020161359A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)
EP 2154260 A1 20100217; EP 2154260 B1 20110330; AT E503853 T1 20110415; CN 101634002 A 20100127; CN 101634002 B 20130731; DE 602009000974 D1 20110512; JP 2010047831 A 20100304; JP 5504680 B2 20140528; KR 101608087 B1 20160331; KR 20100010918 A 20100202

DOCDB simple family (application)
EP 09009568 A 20090723; AT 09009568 T 20090723; CN 200910159952 A 20090723; DE 602009000974 T 20090723; JP 2009091602 A 20090403; KR 20090067386 A 20090723