

Title (en)  
FREE-CUTTING STAINLESS-STEEL MATERIAL FOR PRECISION PROCESSING AND PROCESS FOR PRODUCING SAME

Title (de)  
BELIEBIG SCHNEIDBARES EDELSTAHL MATERIAL FÜR PRÄZISIONSVERARBEITUNG UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)  
MATÉRIAU À BASE D'ACIER INOXYDABLE DE DÉCOLLETAGE POUR TRAITEMENT DE PRÉCISION ET SON PROCÉDÉ DE PRODUCTION

Publication  
**EP 2565286 A4 20140507 (EN)**

Application  
**EP 11774682 A 20110217**

Priority  
• JP 2010104780 A 20100430  
• JP 2011053330 W 20110217

Abstract (en)  
[origin: EP2565286A1] The present invention provides a free-cutting stainless steel material for precision machining capable of attaining all of excellent cutting accuracy, machinability, corrosion resistance, and environmental friendliness at the same time and a method for producing the same material. The free-cutting stainless steel material for precision machining of the present invention is used for forming performed by cutting of a micrometer level, and is characterized in that a free-cutting additive is h-BN particles that are distributed in a simple substance state in a steel. Also, the method for producing the free-cutting stainless steel material for precision machining of the present invention is characterized in that a free-cutting stainless steel material for precision machining in which h-BN particles precipitate is heated followed by rapid cooling to make the h-BN particles once dissolve and disappear, and subsequently is tempered, whereby the h-BN particles are dispersedly precipitated again evenly in the material.

IPC 8 full level  
**C21C 7/00** (2006.01); **C21C 7/04** (2006.01); **C21C 7/072** (2006.01); **C21C 7/10** (2006.01); **C21D 6/00** (2006.01); **C22C 38/00** (2006.01); **C22C 38/54** (2006.01)

CPC (source: EP)  
**C21C 5/005** (2013.01); **C21C 7/0006** (2013.01); **C21C 7/072** (2013.01); **C21D 6/002** (2013.01); **C21D 6/004** (2013.01); **C21D 9/00** (2013.01); **C21D 9/0068** (2013.01); **C22C 33/04** (2013.01); **C22C 38/00** (2013.01); **C22C 38/001** (2013.01); **C22C 38/002** (2013.01); **C22C 38/02** (2013.01); **C22C 38/04** (2013.01); **C22C 38/40** (2013.01); **C22C 38/54** (2013.01); **C21C 2007/0018** (2013.01)

Citation (search report)  
• [X] EP 2048257 A1 20090415 - NAT INST FOR MATERIALS SCIENCE [JP]  
• See references of WO 2011135897A1

Cited by  
EP2537952A4

Designated contracting state (EPC)  
AL 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 RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 2565286 A1 20130306**; **EP 2565286 A4 20140507**; CN 102906290 A 20130130; CN 102906290 B 20150114; JP 2011231387 A 20111117; JP 6044037 B2 20161214; WO 2011135897 A1 20111103

DOCDB simple family (application)  
**EP 11774682 A 20110217**; CN 201180021615 A 20110217; JP 2010104780 A 20100430; JP 2011053330 W 20110217