

Title (en)  
READY-USE LOW-CARBON STEEL MECHANICAL COMPONENT FOR PLASTIC DEFORMATION AND METHOD FOR MAKING SAME

Title (de)  
GEBRAUCHSFERTIGES MECHANISCHES TEIL AUS STAHL MIT NIEDRIGEM KOHLENSTOFFGEGHALT FÜR PLASTISCHE VERFORMUNG UND HERSTELLUNGSVERFAHREN

Title (fr)  
PIECE MECANIQUE PRETE A L EMPLOI EN ACIER BAS CARBONE POUR D EFORMATION PLASTIQUE ET SON PROCEDE DE FABRICATION

Publication  
**EP 1565587 B1 20100127 (FR)**

Application  
**EP 03796115 A 20031127**

Priority  
• FR 0303516 W 20031127  
• FR 0214838 A 20021127

Abstract (en)  
[origin: FR2847592A1] A steel for the fabrication of a mechanical component by hot or cold plastic deformation has the following composition, in addition to iron and production impurities, (by wt %): (a) 0.02 at most C at most 0.15; (b) 1.3 at most Mn at most 2.0; (c) 0.04 at most Nb at most 0.10; (d) 0.10 at most Mo at most 0.35; (e) 0.001 at most B at most 0.005; (f) 0.15 at most Si at most 1.30; (g) 0.01 at most Al 0.08; (h) N at most 0.015 with Ti at least 3.5xN; (i) possibly up to 0.80 of chromium and/or up to 0.1 of sulfur. Independent claims are also included for: (a) the fabrication of a mechanical component by cold plastic deformation; (b) the fabrication of a mechanical component by hot plastic deformation; (c) a ready for use steel mechanical component.

IPC 8 full level  
**C22C 38/12** (2006.01); **C21D 8/06** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/14** (2006.01); **C22C 38/38** (2006.01)

CPC (source: EP US)  
**C21D 8/06** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/06** (2013.01 - EP US); **C22C 38/12** (2013.01 - EP US); **C22C 38/14** (2013.01 - EP US); **C21D 2211/002** (2013.01 - EP US)

Cited by  
EP2199422A1; WO2010112611A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)  
**US 2007051434 A1 20070308**; AT E456685 T1 20100215; AU 2003298375 A1 20040623; DE 60331163 D1 20100318; EP 1565587 A1 20050824; EP 1565587 B1 20100127; ES 2338227 T3 20100505; FR 2847592 A1 20040528; FR 2847592 B1 20070525; JP 2006508248 A 20060309; JP 5036967 B2 20120926; WO 2004050935 A1 20040617

DOCDB simple family (application)  
**US 53645503 A 20031127**; AT 03796115 T 20031127; AU 2003298375 A 20031127; DE 60331163 T 20031127; EP 03796115 A 20031127; ES 03796115 T 20031127; FR 0214838 A 20021127; FR 0303516 W 20031127; JP 2004556435 A 20031127