

Title (en)
Cold worked steel object

Title (de)
Kaltarbeitsstahl-Gegenstand

Title (fr)
Objet en acier pour travail à froid

Publication
EP 2233596 B1 20130918 (DE)

Application
EP 10450028 A 20100223

Priority
AT 4022009 A 20090312

Abstract (en)
[origin: EP2233596A1] A cold-forming steel article contains composition comprising (in wt.%) carbon (1.1-1.7), manganese (0.1-0.6), silicon (0.4-1.1), chromium (5.6-7.0), molybdenum (1.2-1.8), vanadium (3.5-3.9), tungsten (1.1-5.0), optionally niobium (0.4 or less) and remaining iron and unavoidable impurities. The article is formed by atomization of a melt to form a powder, carrying out hot isotactic pressing of the powder and hardening the powder by heat treatment. The article has hardness of 60 HRC or more and toughness of more than 50 J. An independent claim is included for manufacture of the cold-forming steel article.

IPC 8 full level
C22C 33/02 (2006.01); **C22C 38/22** (2006.01)

CPC (source: EP US)
B22F 9/08 (2013.01 - EP US); **C22C 33/0285** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **C22C 38/22** (2013.01 - EP US); **C22C 38/24** (2013.01 - EP US); **B22F 2003/248** (2013.01 - EP US); **B22F 2998/10** (2013.01 - EP US); **Y10T 428/12028** (2015.01 - US); **Y10T 428/12056** (2015.01 - US)

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