

Title (en)
Powder metallurgy articles.

Title (de)
Nach pulvermetallurgischem Verfahren hergestellte Formkörper.

Title (fr)
Objets produits à partir de métaux en poudre.

Publication
EP 0076027 A2 19830406 (EN)

Application
EP 82304064 A 19820802

Priority
US 30604081 A 19810928

Abstract (en)
A powder metallurgy article, e.g., a hot working roll or tool or a high toughness cold work tool such as a shear blade or slitter knife, formed from compacted prealloyed powder of an alloy consisting of, in weight percent, manganese 0.2 to 1.5, silicon 2 max., chromium 1.5 to 6, molybdenum 0.50 to 6, sulfur 0.30 max., vanadium 7 to 10, carbon expressed by the formula (.25 minimum, .40 maximum + .16 x percent vanadium), optional carbide forming elements such as tungsten and niobium in amounts up to 5 percent (with the corresponding stoichiometric carbon required for balance) may partially replace vanadium, optional cobalt additions may be included for heat resistance and balance iron and incidental impurities; the article is characterized by a fully martensitic structure with essentially no carbon in the steel matrix in excess of the carbon necessary to combine with the vanadium present to form vanadium carbides and to ensure said fully martensitic structure.

IPC 1-7
C22C 38/24; **C22C 33/02**; **B21B 1/00**

IPC 8 full level
B21B 1/00 (2006.01); **B21B 27/00** (2006.01); **C22C 33/02** (2006.01); **C22C 38/00** (2006.01); **C22C 38/24** (2006.01)

CPC (source: EP KR)
B21B 27/00 (2013.01 - EP); **B22F 7/00** (2013.01 - KR); **C22C 33/0278** (2013.01 - EP)

Cited by
FR2767725A1; EP0875588A3; EP1921175A1; US2017016099A1; US10472704B2; NL1016811C2

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