

Title (en)

STRAIN HARDENING AUSTENITIC MANGANESE STEEL AND PROCESS FOR THE MANUFACTURE THEREOF

Publication

**EP 0091897 B1 19861126 (DE)**

Application

**EP 83890054 A 19830411**

Priority

AT 143582 A 19820413

Abstract (en)

[origin: ES8405079A1] A work-hardenable austenitic manganese steel has a base composition (each in percent by weight) of 0.7 to 1.7 carbon, 5.0 to 18.0 manganese, 0 to 3.0 chromium, 0 to 4.0 nickel, 0 to 2.5 molybdenum, 0.1 to 0.9 silicon, up to 0.1 phosphorus and contains micro-alloying elements of 0.0 to 0.05 titanium, 0.0 to 0.05 zirconium and 0.0 to 0.05 vanadium the remainder being iron and impurities arising from the melting process. The ratio of carbon to manganese is in the range of 1:4 to 1:14 and the total amount of micro-alloying elements is limited to a range of 0.002 to 0.05 percent by weight. The melt of the base composition is tapped at 1,450 DEG C. to 1,600 DEG C. into a casting ladle in which the micro-alloying elements are added. An ingot is cast, cooled, reheated to austenitization temperatures and quenched.

IPC 1-7

**C22C 38/04**; **C21D 6/00**

IPC 8 full level

**C22C 38/04** (2006.01)

CPC (source: EP US)

**C22C 38/04** (2013.01 - EP US)

Citation (examination)

- Stahleisen-Liste, 6. Auflage, 1977, S.74/75
- Metal Progress, Nov.1966, S.82-86
- Stahl und Eisen, 87, 1967, S.1355-1368

Cited by

CN104480372A; CN109518077A; DE102009035969A1; DE102009035969B4; EP3498378A1; EP0136433A1; EP0143873A1

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**EP 0091897 A1 19831019**; **EP 0091897 B1 19861126**; AT 377287 B 19850225; AT A143582 A 19840715; AU 1316783 A 19831201; AU 536111 B2 19840419; CA 1193117 A 19850910; DE 3367939 D1 19870115; ES 521388 A0 19840516; ES 8405079 A1 19840516; IN 160010 B 19870620; US 4512804 A 19850423; US 4531974 A 19850730; ZA 832425 B 19831228

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