

Title (en)
FREE CUTTING MILD STEEL AND PROCESS FOR MANUFACTURING SAME

Publication
EP 0371840 B1 19930818 (FR)

Application
EP 89403078 A 19891108

Priority
FR 8816093 A 19881201

Abstract (en)
[origin: US4978499A] A soft steel for machine cutting with high machinability performances having a content of C \leq 0.25%, a content of Mn of 0.8 to 1.5%, a content of P of \leq 0.1%, a content of S of 0.15 to 0.40%, and a content of Si of 0.05 to 0.40%, expressed in percentages by weight. After finishing of the metal, the inclusions of manganese sulfide are surrounded by a plastic oxide layer of an average composition SiO₂: 35 to 45%; Al₂O₃: 10 to 20%; CaO: 15 to 25%; MnO: 10 to 20%. In producing this grade, after the addition of silicon and manganese, the liquid metal is agitated in the presence of a slag of a composition CaO: 20 to 55%; SiO₂: 35 to 65%; Al₂O₃: 15 to 40%; with a CaO %/SiO₂% ratio of about 1.

IPC 1-7
C22C 38/60

IPC 8 full level
C22C 33/04 (2006.01); **C22C 38/00** (2006.01); **C22C 38/04** (2006.01); **C22C 38/60** (2006.01)

CPC (source: EP KR US)
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Cited by
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EP 0371840 A1 19900606; **EP 0371840 B1 19930818**; AT E93278 T1 19930915; CA 2004294 A1 19900601; CA 2004294 C 19960430; DE 68908535 D1 19930923; DE 68908535 T2 19940120; ES 2044186 T3 19940101; FR 2639960 A1 19900608; FR 2639960 B1 19930723; JP H02213446 A 19900824; JP H068481 B2 19940202; KR 900010038 A 19900706; KR 930010326 B1 19931016; US 4978499 A 19901218

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