

Title (en)

Martensitic stainless steel with improved machinability.

Title (de)

Martensitisches rostfreies Stahl mit verbesserter Bearbeitbarkeit.

Title (fr)

Acier inoxydable martensitique à usinabilité améliorée.

Publication

EP 0629714 A1 19941221 (FR)

Application

EP 94401246 A 19940606

Priority

FR 9307141 A 19930614

Abstract (en)

Martensitic stainless steel with improved machinability, characterised in that its composition by weight is the following: - carbon lower than 1.2 % - silicon lower than or equal to 2 % - manganese lower than or equal to 2 % - chromium: $10.5 < Cr < 19$ % - sulphur lower than or equal to 0.55 % - calcium higher than 32×10^{-4} % - oxygen higher than 70×10^{-4} %, - the ratio of the calcium and oxygen contents Ca/O being $0.2 < Ca/O < 0.6$, the said steel being subjected to at least one quenching heat treatment in order to give it a martensitic structure.

IPC 1-7

C22C 38/60

IPC 8 full level

C22C 38/00 (2006.01); **C21C 7/04** (2006.01); **C22C 38/18** (2006.01); **C22C 38/34** (2006.01); **C22C 38/38** (2006.01); **C22C 38/58** (2006.01); **C22C 38/60** (2006.01)

CPC (source: EP KR US)

C22C 38/02 (2013.01 - KR); **C22C 38/18** (2013.01 - KR); **C22C 38/60** (2013.01 - EP US)

Citation (search report)

- [A] EP 0403332 A1 19901219 - UGINE SAVOIE SA [FR] & FR 2648477 A1 19901221 - UGINE SAVOIE SA [FR]
- [Y] FR 2456785 A1 19801212 - DAIDO STEEL CO LTD [JP]
- [Y] FR 2445388 A1 19800725 - DAIDO STEEL CO LTD [JP]
- [Y] HOUDREMONT: "Handbuch der Sonderstahlkunde, vol.2, pages 1279-1290", 1956, SPRINGER-VERLAG, BERLIN/GÖTTINGEN/HEIDELBERG

Cited by

US6146475A; CZ303180B6; EP1314792A1; FR2832734A1; US2018274081A1; US10941083B2; EP2728028A1; US6921511B2; WO9936584A1; WO0053821A1; KR100437960B1

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IE IT LI LU NL PT SE

DOCDB simple family (publication)

EP 0629714 A1 19941221; **EP 0629714 B1 20000412**; AT E191753 T1 20000415; CA 2125732 A1 19941215; CA 2125732 C 20000801; CZ 141994 A3 19950816; CZ 292392 B6 20030917; DE 69423930 D1 20000518; DE 69423930 T2 20000817; DK 0629714 T3 20000717; EG 20378 A 19990228; ES 2145109 T3 20000701; FI 106267 B 20001229; FI 942801 A0 19940613; FI 942801 A 19941215; FR 2706489 A1 19941223; FR 2706489 B1 19950901; GR 3033773 T3 20001031; IL 109919 A0 19941007; IL 109919 A 19980222; JP 3398772 B2 20030421; JP H07150308 A 19950613; KR 100338886 B1 20021129; KR 950000912 A 19950103; NO 303180 B1 19980608; NO 942168 D0 19940610; NO 942168 L 19941215; PL 179128 B1 20000731; PL 303831 A1 19950109; PT 629714 E 20000929; RO 115276 B1 19991230; RU 2080410 C1 19970527; RU 94020719 A 19960627; SG 48134 A1 19980417; SI 0629714 T1 20000831; TR 28472 A 19960724; TW 304985 B 19970511; UA 26151 C2 19990607; US 5427635 A 19950627

DOCDB simple family (application)

EP 94401246 A 19940606; AT 94401246 T 19940606; CA 2125732 A 19940613; CZ 141994 A 19940609; DE 69423930 T 19940606; DK 94401246 T 19940606; EG 34994 A 19940613; ES 94401246 T 19940606; FI 942801 A 19940613; FR 9307141 A 19930614; GR 20000401470 T 20000623; IL 10991994 A 19940607; JP 15517194 A 19940614; KR 19940013329 A 19940614; NO 942168 A 19940610; PL 30383194 A 19940614; PT 94401246 T 19940606; RO 9401014 A 19940613; RU 94020719 A 19940610; SG 1996007240 A 19940606; SI 9430316 T 19940606; TR 56394 A 19940613; TW 83106562 A 19940716; UA 94005260 A 19940614; US 25892694 A 19940613