

Title (en)
PROCESS FOR THE NITROCARBURIZING OF STEEL PIECES

Publication
EP 0421236 B1 19930512 (DE)

Application
EP 90118366 A 19900925

Priority
DE 3933053 A 19891004

Abstract (en)
[origin: US5102476A] Components made from steel can be nitrocarburized in cyanate- and cyanide-containing salt baths within relatively short times if the process is carried out at 600 DEG to 700 DEG C. in a first stage and at 560 DEG to 590 DEG C. in a second stage. The components exhibit the same or better characteristics as compared to considerably longer processing at 560 DEG to 590 DEG C.

IPC 1-7
C23C 8/56

IPC 8 full level
C23C 8/56 (2006.01)

CPC (source: EP US)
C23C 8/56 (2013.01 - EP US)

Cited by
US6165597A; CN109338280A; US6093303A; US6547888B1; US6461448B1

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

DOCDB simple family (publication)
US 5102476 A 19920407; AT E89333 T1 19930515; BR 9004967 A 19910910; CA 2026902 A1 19910405; CA 2026902 C 19981201; CS 275177 B2 19920219; CS 9004790 A3 19920219; DE 3933053 C1 19900503; DE 59001435 D1 19930617; DK 0421236 T3 19931011; EP 0421236 A1 19910410; EP 0421236 B1 19930512; ES 2055263 T3 19940816; JP 3001949 B2 20000124; JP H03177559 A 19910801; PT 95496 A 19910625; PT 95496 B 19970930; RU 1833436 C 19930807; TR 24861 A 19920701; YU 183690 A 19921221; ZA 907704 B 19920325

DOCDB simple family (application)
US 59244590 A 19901001; AT 90118366 T 19900925; BR 9004967 A 19901004; CA 2026902 A 19901004; CS 479090 A 19901002; DE 3933053 A 19891004; DE 59001435 T 19900925; DK 90118366 T 19900925; EP 90118366 A 19900925; ES 90118366 T 19900925; JP 26529190 A 19901004; PT 9549690 A 19901003; SU 4831180 A 19901003; TR 95090 A 19901002; YU 183690 A 19900928; ZA 907704 A 19900926