

Title (en)

PROCESS FOR UNIFORM THERMOCHEMICAL TREATMENT OF STEEL PIECES HAVING DIFFICULT ACCESSIBLE AREAS

Publication

EP 0512254 A3 19930324 (DE)

Application

EP 92105758 A 19920403

Priority

DE 4115135 A 19910508

Abstract (en)

[origin: EP0512254A2] For uniform thermochemical treatment of steel parts having areas with difficult access from the outside, reactive gases are used at temperatures above 450 DEG C and pressures above 0.2 MPa.

IPC 1-7

C23C 8/26; **C23C 8/22**

IPC 8 full level

C23C 8/20 (2006.01); **C23C 8/22** (2006.01); **C23C 8/26** (2006.01); **F02M 61/16** (2006.01)

CPC (source: EP)

C23C 8/22 (2013.01); **C23C 8/26** (2013.01); **F02M 61/166** (2013.01)

Citation (search report)

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- [XE] EP 0485686 A1 19920520 - DEGUSSA [DE]
- [XD] US 2779697 A 19570129 - CHENAULT ROY L, et al
- [X] GB 749992 A 19560606 - UNITED STATES STEEL CORP
- [A] GB 1309257 A 19730307 - MILLINGFORD ENG CO LTD
- [AD] DE 2851983 A1 19800604 - DEGUSSA
- [X] PATENT ABSTRACTS OF JAPAN, unexamined applications, Field C, Band 5, Nr. 124, 11. August 1981 THE PATENT OFFICE JAPANESE GOVERNMENT Seite 6 C 66

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Designated contracting state (EPC)

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

DOCDB simple family (publication)

EP 0512254 A2 19921111; **EP 0512254 A3 19930324**; **EP 0512254 B1 19960619**; **EP 0512254 B2 20000119**; AT E139579 T1 19960715; CS 137592 A3 19921216; CZ 288263 B6 20010516; DE 4115135 C1 19920227; DE 59206595 D1 19960725; ES 2088515 T3 19960816; ES 2088515 T5 20000501; HU 209457 B 19940628; HU 913870 D0 19920228; HU T61056 A 19921130; JP 3258071 B2 20020218; JP H05132753 A 19930528; PL 291528 A1 19921116; RU 2052535 C1 19960120; TW 223128 B 19940501

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EP 92105758 A 19920403; AT 92105758 T 19920403; CS 137592 A 19920506; DE 4115135 A 19910508; DE 59206595 T 19920403; ES 92105758 T 19920403; HU 387091 A 19911209; JP 11353092 A 19920506; PL 29152891 A 19910826; SU 5011449 A 19920507; TW 80106842 A 19910828