

Title (en)

METHOD FOR HEAT-TREATING WORK PIECES MADE OF TEMPERATURE-RESISTANT STEELS

Title (de)

VERFAHREN ZUR WÄRMEBEHANDLUNG VON WERKSTÜCKEN AUS TEMPERATURBESTÄNDIGEN STÄHLEN

Title (fr)

PROCEDE DE TRAITEMENT THERMIQUE DE PIECES EN ACIERS RESISTANTS A LA TEMPERATURE

Publication

EP 1432841 A2 20040630 (DE)

Application

EP 02776699 A 20020924

Priority

- DE 0203582 W 20020924
- DE 10147205 A 20010925

Abstract (en)

[origin: WO03027349A2] The invention relates to a method for heat-treating work pieces made of a temperature-resistant steel. According to the inventive method, the work piece, once mechanically machined and electrochemically treated, is hardened and depassivated. The hardening comprises a reduction step so that before nitration no depassivation such as for example by pickling is required, thereby producing in the hardening step a surface condition that is favorable for the step-wise nitration.

IPC 1-7

C23C 8/26

IPC 8 full level

C21D 1/06 (2006.01); **C21D 1/76** (2006.01); **C21D 1/773** (2006.01); **C21D 6/00** (2006.01); **C23C 8/02** (2006.01); **C23C 8/26** (2006.01)

CPC (source: EP US)

C23C 8/02 (2013.01 - EP US); **C23C 8/26** (2013.01 - EP US)

Citation (search report)

See references of WO 03027349A2

Cited by

DE102014213510A1; US10156006B2; US10934611B2; US9617632B2; US10246766B2; US11035032B2

Designated contracting state (EPC)

FR GB IT

DOCDB simple family (publication)

WO 03027349 A2 20030403; **WO 03027349 A3 20031204**; BR 0206051 A 20030923; BR 0206051 B1 20110208; DE 10147205 C1 20030508; EP 1432841 A2 20040630; EP 1432841 B1 20080123; JP 2005503488 A 20050203; US 2004055670 A1 20040325; US 7108756 B2 20060919

DOCDB simple family (application)

DE 0203582 W 20020924; BR 0206051 A 20020924; DE 10147205 A 20010925; EP 02776699 A 20020924; JP 2003530909 A 20020924; US 43275103 A 20031022