Title (en)
Method of nitriding steel articles under pressure.

Title (de)
Verfahren zum Nitrieren von Werkstücken aus Stahl unter Druck.

Title (fr)
Procédé de nitruration sous pression d'articles en acier.

Publication
EP 0485686 A1 19920520 (DE)

Application
EP 91104103 A 19910316

Priority
DE 4036381 A 19901115

Abstract (en)
In gas-nitriding under pressure, thick nitride layers with very few pores are obtained in a short time, if a mixture of 5 to 95% by volume of ammonia and 95-5% by volume of nitrogen is used and the nitriding is carried out at constant pressure above 0.2 MPa.

Abstract (de)
Beim Gasnitrieren unter Druck bekommt man in kurzer Zeit sehr porenarme, dicke Nitridschichten, wenn man ein Gemisch aus 5 bis 95 Vol. % Ammoniak und 95-5 Vol.% Stickstoff einsetzt und bei konstantem Druck oberhalb 0,2 MPa nitriert.

IPC 1-7
C23C 8/26

IPC 8 full level
C23C 8/26 (2006.01)

CPC (source: EP)
C23C 8/26 (2013.01)

Citation (search report)
- [A] GB 1510158 A 19780510 - ROLLS ROYCE MOTORS LTD
- [A] GB 2055404 A 19810304 - LUCAS INDUSTRIES LTD
- [A] FR 1319729 A 19630301 - P I M PRODOTTI PER L IND METAL
- [A] PATENT ABSTRACTS OF JAPAN vol. 12, no. 159 (C-495)(3006) 14. Mai 1988 & JP-A-62 270 761 (ISHIKAWAJIMA HARIMA HEAVY IND) 25. November 1987
- [A] CHEMICAL ABSTRACTS, vol. 69, no. 55, 1968, Columbus, Ohio, US; abstract no. 29529Q, BELORUCHEV L. V.: 'improvements in the nitriding of steels' Seite 2767 ;
- [A] CHEMICAL ABSTRACTS, vol. 72, no. 55, 1970, Columbus, Ohio, US; abstract no. 124218H, SUMAROKOV N.V.: 'experimental use of dilute ammonia for nitriding austenic steel' Seite 201 ;
- [A] CHEMICAL ABSTRACTS, vol. 89, no. 4, 24. Juli 1978, Columbus, Ohio, US; abstract no. 28897J, OGAWA KIYOICHI: 'steel nitriding under pressure' Seite 281 ;Spalte 89 ;

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US5292555A; US5499861A; EP0512254A3

Designated contracting state (EPC)
AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)
DE 4036381 C1 19910814; BR 9101780 A 19920623; CA 2055541 A1 19920516; CS 336091 A3 19920617; EP 0485686 A1 19920520; JP H04268063 A 19920924; JP H076053 B2 19950125; PL 289794 A1 19920601; RU 2015197 C1 19940630; YU 47730 B 19960108; YU 50691 A 19931116

DOCDB simple family (application)
DE 4036381 A 19901115; BR 9101780 A 19910503; CA 2055541 A 19911114; CS 336091 A 19911106; EP 91104103 A 19910316; JP 29545091 A 19911112; PL 28979491 A 19910409; SU 5001982 A 19911114; YU 50691 A 19910322