

Title (en)
METHOD OF GAS CARBURIZING

Title (de)
GASAUFKOHLUNGSVERFAHREN

Title (fr)
PROCEDE DE CEMENTATION GAZEUSE

Publication
EP 1598440 A4 20080618 (EN)

Application
EP 03723223 A 20030428

Priority

- JP 0305422 W 20030428
- JP 0205767 W 20020611
- JP 2002342505 A 20021126

Abstract (en)

[origin: EP1598440A1] A method of gas carburizing is carried out at a carburizing temperature which is not higher than a peritectic point temperature at which delta iron and liquid phase are transformed into gamma iron and not less than a eutectic point temperature at which liquid phase is transformed into gamma iron and cementite. The method comprises the step of predetermining the limiting carburizing conditions at which the surface layer of a sample of a steel treatment object present in a carburizing atmosphere is austenitized without melting and the step of gas carburizing the treatment object under carburizing conditions which are set so as not to contradict the limiting carburizing conditions, at a carburizing temperature which is not higher than the peritectic point temperature and not less than the eutectic point temperature. The limiting carburizing conditions comprise an upper limit value of a partial pressure of carburizing gas at which the surface layer of the sample is austenitized without melting. <IMAGE>

IPC 1-7
C23C 8/22

IPC 8 full level
C23C 8/22 (2006.01)

CPC (source: EP KR)
C23C 8/22 (2013.01 - EP KR)

Citation (search report)

- [X] GB 2284616 A 19950614 - NSK LTD [JP]
- [A] JP 2001214255 A 20010807 - ORIENTAL ENGINEERING CO LTD
- See references of WO 03104516A1

Cited by
EP1939318A3; US8123872B2

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 1598440 A1 20051123; EP 1598440 A4 20080618; EP 1598440 B1 20100616; AU 2003235955 A1 20031222; CN 1257305 C 20060524; CN 1545566 A 20041110; DE 60333039 D1 20100729; JP 3696614 B2 20050921; JP WO2003104516 A1 20051006; KR 100592757 B1 20060626; KR 20040106279 A 20041217; WO 03104516 A1 20031218

DOCDB simple family (application)
EP 03723223 A 20030428; AU 2003235955 A 20030428; CN 03800855 A 20030428; DE 60333039 T 20030428; JP 0305422 W 20030428; JP 2004511572 A 20030428; KR 20047002043 A 20030428