

Title (en)

METHOD FOR THERMAL TREATMENT OF AUSTENITIC STEELS AND AUSTENITIC STEELS THUS OBTAINED

Title (de)

WÄRMEBEHANDLUNGSVERFAHREN VON AUSTENITISCHEN STÄHLEN, UND SO HERGESTELLTE AUSTENITISCHE STÄHLE

Title (fr)

PROCÉDÉ DE TRAITEMENT THERMIQUE D'ACIERS AUSTÉNITIQUES ET ACIERS AUSTÉNITIQUES AINSI OBTENUS

Publication

EP 3249059 A1 20171129 (FR)

Application

EP 16171672 A 20160527

Priority

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Abstract (en)

[origin: JP2017210684A] PROBLEM TO BE SOLVED: To provide a method for facilitating machining austenitic steels. SOLUTION: The invention concerns a method for heat-treating an austenitic steel of the High Nitrogen Steel or austenitic HNS type, or an austenitic steel of the High Interstitial Steel or austenitic HIS type, the austenitic HNS or austenitic HIS containing precipitates of nitrides, carbides or carbonitrides of chromium and/or of molybdenum. The method comprises: machining the austenitic HNS or austenitic HIS containing the precipitates, and thereafter redissolving the precipitates by bringing the austenitic HNS or austenitic HIS to its austenitizing temperature; and then cooling the austenitic HNS or austenitic HIS sufficiently rapidly to avoid re-formation of the precipitates. SELECTED DRAWING: None

Abstract (fr)

L'invention concerne un procédé de traitement thermique d'aciers austénitiques HNS ou HIS qui consiste à soumettre les aciers austénitiques HNS et HIS à un traitement thermique dont la durée et la température sont telles qu'il place ces aciers austénitiques HNS et HIS dans des conditions qui permettent l'apparition de précipités tels que des nitrures, des carbures ou des carbonitrides de molybdène ou de chrome. La présence de tels précipités, généralement peu liés à la matrice du matériau, favorise la formation et l'enlèvement des copeaux lors de l'usinage des pièces. L'invention concerne également des aciers austénitiques HNS ou HIS comprenant des précipités dans leur matrice.

IPC 8 full level

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CPC (source: CN EP US)

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