

Title (en)

METHOD FOR MANUFACTURING PRESS-MOLDED ARTICLE, AND PRESS-MOLDED ARTICLE

Title (de)

VERFAHREN ZUR HERSTELLUNG PRESSGEFORMTER ARTIKEL UND PRESSGEFORMTER ARTIKEL

Title (fr)

PROCÉDÉ POUR FABRIQUER UN ARTICLE MOULÉ À LA PRESSE, ET ARTICLE MOULÉ À LA PRESSE

Publication

EP 3045550 A4 20170531 (EN)

Application

EP 13893522 A 20130910

Priority

JP 2013074425 W 20130910

Abstract (en)

[origin: EP3045550A1] Provided is a manufacturing method useful for obtaining a press-molded article having excellent softening prevention characteristics in heat-affected zones (HAZ), the press-molded article being able to achieve a high level of balance between high strength and stretchability by the following steps being performed: heating a steel plate for hot-pressing to a temperature of 900-1100°C inclusive, the steel plate for hot-pressing having a prescribed chemical composition, Ti-containing deposits included in the steel plate having an equivalent circular diameter of 30nm or less and an average equivalent circular diameter of 6nm or less, the amount of deposited Ti and the total amount of Ti in the steel satisfying a prescribed relationship; commencing press-molding after the steel plate is heated; cooling the steel plate during press-molding or after press-molding is completed inside the mold such that the steel plate reaches a temperature of at or below 100°C less than the bainite transformation temperature (Bs) but at or above the martensite transformation temperature (Ms) while maintaining an average cooling rate of 20°C/s or more; and then cooling the steel plate at an average cooling rate of less than 20°C/s so as to cool the steel plate to 200°C or less.

IPC 8 full level

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CPC (source: EP RU US)

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Citation (search report)

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- [A] US 2013192726 A1 20130801 - CHEN SHANGPING [NL], et al
- [A] WO 2013012103 A1 20130124 - POSCO [KR], et al
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