

Title (en)

Method for producing steel product having excellent mechanical properties, steel product produced with the method and its use

Title (de)

Methode zur Herstellung eines Stahlproduktes mit exzellenten mechanischen Eigenschaften, das Stahlprodukt gefertigt nach dieser Methode sowie sein Gebrauch

Title (fr)

Méthode pour la production d'un produit d'acier avec des propriétés mécaniques excellentes, le produit fabriqué par ladite méthode et l'utilisation des produits

Publication

EP 2562272 A3 20170726 (EN)

Application

EP 12181887 A 20120827

Priority

FI 20115832 A 20110826

Abstract (en)

[origin: EP2562272A2] The invention relates to a method for producing a steel product having excellent mechanical properties and to a steel product produced by the method and used, in particular, for manufacturing components for automotive industry, inter alia. In addition, the invention relates to the use of a strain hardened steel pipe and to the manufacturing of said component. The invention is based on the idea that in the micro structure of a steel pipe to be heated very rapidly there is provided a strain hardened structure that is not soft annealed prior to the very rapid heating. Further, it is essential for the invention that the very rapid heating is followed by immediate cooling such that the micro structure formed in the steel product comprises at least 30% by volume martensite and/or bainite. The invention has significant advantages as to both a production chain and mechanical properties of the product.

IPC 8 full level

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Citation (search report)

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