

Title (en)

Method for producing steel product or steel component having excellent mechanical properties, steel product produced by the method and use of steel pipe made of strain hardened steel

Title (de)

Methode zur Herstellung eines Stahlproduktes oder einer Stahlkomponente mit exzellenten mechanischen Eigenschaften, das Stahlprodukt gefertigt nach dieser Methode sowie der Gebrauch als Stahlrohr gefertigt aus kaltgehärtetem Stahl

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 B1 20210616 (EN)**

Application

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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 (examination)

SPIEKERMANN P: "Alloys - a special problem of patent law", NONPUBLISHED ENGLISH TRANSLATION OF DOCUMENT, 31 December 1993 (1993-12-31), pages 1 - 20, XP002184689

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