

Title (en)

PREPARATION METHOD OF STEEL PRODUCT HAVING DIFFERENT STRENGTHS USING LASER HEAT TREATMENT

Title (de)

HERSTELLUNGSVERFAHREN FÜR EIN STAHLPRODUKT MIT UNTERSCHIEDLICHEN FESTIGKEITEN MITTELS LASERWÄRMEBEHANDLUNG

Title (fr)

MÉTHODE DE FABRICATION D'UN PRODUIT EN ACIER AVEC RÉSISTANCES DIFFÉRENTES PAR TRAITEMENT THERMIQUE AVEC LASER

Publication

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Application

**EP 11873399 A 20111017**

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Abstract (en)

Disclosed are a preparation method of a steel product capable of local reinforcement using laser heat treatment, and a heat hardened steel used in the method. According to the present invention, the preparation method of a steel part comprises the following steps: (a) preparing a material comprising 0.1-0.5 wt% of C, 0.1-0.5 wt% of Si, 0.5-3.0 wt% of Mn, 0.1 wt% or less of P, 0.05 wt% or less of S, 0.01-1.0 wt% of Cr, 0.1 wt% or less of Al, 0.2 wt% or less of Ti, 0.0005-0.08 wt% of B, and the balance of Fe and inevitable impurities; (b) preparing a formed product by forming the material into a predetermined shape; and (c) locally reinforcing the high strength portion by carrying out laser heat treatment on a portion requiring high strength at the formed product.

IPC 8 full level

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Cited by

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