

Title (en)  
MACHINE PART AND METHOD FOR MANUFACTURING SAME

Title (de)  
MASCHINENTEIL UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)  
PIECE DETACHEE DE MACHINE ET SON PROCEDE DE FABRICATION

Publication  
**EP 1548141 B1 20111221 (EN)**

Application  
**EP 03798399 A 20030911**

Priority

- JP 0311612 W 20030911
- JP 2002279833 A 20020925
- JP 2003037802 A 20030217

Abstract (en)

[origin: EP1548141A1] A mechanical component 1 composed of a steel is surface-hardened by nitriding, and specifically has a surficial layer 2 raised in the surface hardness by the nitriding, and an inner portion 3 not affected by the nitriding and showing a nearly constant hardness. Vickers hardness of the inner portion 3 is adjusted to 190 to 260 HV, Vickers hardness of the surficial portion 2 measured at a reference position corresponded to a 50 mu m depth from the component surface is adjusted to 340 to 460 HV, and effective depth of hardened layer measured from the component surface 4, where a Vickers hardness of 270 HV is achieved, is adjusted to 0.3 mm or more. This makes it possible to provide a mechanical component which is composed of a steel and surface-hardened by nitriding, and is successfully improved in the strength and bending straightening property, and also to provide a method of fabricating the same. <IMAGE>

IPC 8 full level

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CPC (source: EP US)

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