

Title (en)

HARDENED AND TEMPERED STEEL AND METHOD FOR PRODUCING PARTS OF SAID STEEL

Title (de)

GEHÄRTETER UND GETEMPERTER STAHL UND VERFAHREN ZUR HERSTELLUNG VON TEILEN AUS DEM STAHL

Title (fr)

ACIER TREMPÉ ET DURCI ET PROCÉDÉ PERMETTANT DE PRODUIRE DES PIÈCES À PARTIR DUDIT ACIER

Publication

**EP 2159296 A4 20140910 (EN)**

Application

**EP 07730464 A 20070413**

Priority

ES 2007000224 W 20070413

Abstract (en)

[origin: EP2159296A1] The invention relates to a quench hardened and tempered steel with a specific composition of the following elements: 0.22% # C # 0.30%, 0.40% # Mn <1.00%, 1.00% # Cr # 2.50%, 1.80,% # Ni # 4.00%, 0.30% # Mo < 0.90% and 0.01 % # V < 0.50%, which with a method for obtaining said steel achieves low P and S contents, contributes to increasing the mechanical strength of the steel to values greater than 1200 N/mm<sup>2</sup> and with high toughness, KV resilience at low temperature, -20°C, with values greater than 60 J, when a part for the manufacture of which said steel has been selected is subjected to a specific quench hardening and tempering treatment.

IPC 8 full level

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Citation (search report)

- [X] EP 0225425 A2 19870616 - KOBEL STEEL LTD [JP]
- [X] US 2002124716 A1 20020912 - GRIMM WALTER [DE], et al
- [X] WO 2005121384 A2 20051222 - CHAMBERLAIN MFG CORP [US]
- [A] JP S54145318 A 19791113 - TOKYO SHIBAURA ELECTRIC CO
- See references of WO 2008125700A1

Cited by

CN101831593A; EP3168319A4; US10428410B2; US9359653B2; WO2017141424A1; WO2017141425A1; WO2012058404A1

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