

Title (en)

METHOD TO PRODUCE A HOT FORMED PART, AND PART THUS FORMED

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES HEISSGEFORMTEN TEILS UND IN DIESEM VERFAHREN GEFORMTES TEIL

Title (fr)

PROCÉDÉ DE FABRICATION D'UNE PIÈCE FAÇONNÉE À CHAUD ET PIÈCE AINSI FAÇONNÉE

Publication

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Application

EP 12700452 A 20120117

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Abstract (en)

[origin: WO2012097976A1] The invention relates to a. method for manufacturing a coated steel part having very high mechanical properties using hot forming techniques. According to the invention, the method comprises the following steps: ° providing a coated steel blank comprising a steel substrate with a coating layer ° heating the blank to a temperature of 800° C or more in a furnace ° transporting the heated blank from the furnace and placing the blank in a hot forming press ° hot forming the blank in the press to form the coated steel part ° quenching the coated steel part wherein the heated blank has a temperature of at most 780° C when placed in the hot forming press. The invention also relates to a hot formed part manufactured using the method according to the invention.

IPC 8 full level

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Citation (search report)

See references of WO 2012097976A1

Citation (examination)

H. KARBASIAN ET AL: "A review on hot stamping", JOURNAL OF MATERIALS PROCESSING TECHNOLOGY, vol. 210, no. 15, 1 November 2010 (2010-11-01), pages 2103 - 2118, XP055141086, ISSN: 0924-0136, DOI: 10.1016/j.jmatprotec.2010.07.019

Citation (third parties)

Third party :

- EP 2623226 A1 20130807 - KOBE STEEL LTD [JP]
- DE 102008039264 A1 20100304 - SCHULER CARTEC GMBH & CO KG [DE]
- WO 2006015849 A2 20060216 - VOESTALPINE AUTOMOTIVE HOLDING [AT], et al
- EP 2324938 A1 20110525 - THYSSENKRUPP UMFORMTECHNIK GMBH [DE], et al
- DE 102006019395 A1 20071025 - THYSSENKRUPP STEEL AG [DE]

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