

Title (en)
METHOD FOR PRODUCING A THREE-Dimensionally FORMED ARMOURING COMPONENT FOR VEHICLE BODIES

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES DREIDIMENSIONAL GEFORMTEN PANZERUNGSBAUTEILS FÜR FAHRZEUGKAROSSERIEN

Title (fr)
PROCEDE DE PRODUCTION D'UN ELEMENT DE BLINDAGE FORME EN TROIS DIMENSIONS POUR CARROSSERIES DE VEHICULES

Publication
EP 1711639 B1 20081231 (DE)

Application
EP 05726399 A 20050203

Priority

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- DE 102004006093 A 20040206

Abstract (en)
[origin: US2007130772A1] A method produces three-dimensionally formed armoring components for vehicle bodies. The armoring components are produced in a repeatedly accurate manner with minimal post-machining requirements and with lower dimensional tolerances than comparable weldments. Sheet metal molded parts are produced from hardenable steel by a thermal pre-treatment, the heating speed and temperature being selected at least until the austenitic or partially austenitic state is achieved depending on the alloy content, and formed armoring components are produced from press-forming and optionally subsequently subjected to quench or thermal treatment. The hot-forming and quench-hardening of the steel is performed in one working cycle, the austenitic steel plates are formed within a maximum period of 90 seconds by a compression mold, the entire formed component is held in contact with the compression mold, and the formed component is cooled in the closed mold, with a cooling speed corresponding to a material-specific critical cooling speed.

IPC 8 full level
C21D 9/42 (2006.01); **C21D 8/00** (2006.01); **C21D 1/25** (2006.01); **C21D 1/58** (2006.01); **C21D 1/673** (2006.01)

CPC (source: EP US)
C21D 9/42 (2013.01 - EP US); **C21D 1/25** (2013.01 - EP US); **C21D 1/58** (2013.01 - EP US); **C21D 1/673** (2013.01 - EP US); **Y10T 29/49622** (2015.01 - EP US)

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