

Title (en)

METHOD OF HOT FORMING A STEEL BLANK AND THE HOT FORMED PART

Title (de)

METHODE ZUM HEISSUMFORMEN EINES STAHL BELCHES UND DAS HEISS UMGEFORMTE TEIL

Title (fr)

METHODE POUR DEFORMATION A CHAUD D' UNE TOLE D'ACIER ET TOLE D'ACIER

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Application

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Abstract (en)

[origin: WO2012048841A1] According to a first aspect the present invention provides a method of hot forming a steel blank into an article the method comprising the following steps: d) cooling a heated steel blank to form an article during hot forming, starting at a starting temperature T2 above Ar3; to an interrupt temperature T3 in the range of 400 - 550 °C at a cooling rate V2 of at least 25 °C/s; e) immediately further cooling the article from the interrupt temperature T3 to ambient temperature at a cooling rate V3 of 0.2 - 10 °C/s, wherein the interrupt temperature T3 and cooling rate V3 are selected such that the article thus obtained has multiphase microstructure comprising by volume fraction: 55 - 90% of bainitic ferrite 5 - 15% of retained austenite 5 - 30% martensite.

IPC 8 full level

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