

Title (en)

Process for manufacturing work-hardened metallic workpieces by forging or pressing.

Title (de)

Verfahren zur Herstellung eines kaltverfestigten metallischen Werkstücks durch Schmieden oder Pressen.

Title (fr)

Procédé pour la fabrication de pièces métalliques écrouies par forgeage ou pressage.

Publication

EP 0101097 A1 19840222 (DE)

Application

EP 83200763 A 19830530

Priority

CH 447382 A 19820722

Abstract (en)

1. Process for the production of a work-hardened metallic workpiece from an austenitic iron or nickel alloy, capable of extensive work-hardening, by forging or pressing in a preheated and heated mould formed as a die, characterised in that the forging blank present as a preform is converted into the end product in a single working pass in one heat with the use of a single mould, forming being accomplished essentially in a first working phase and work-hardening of the workpiece being accomplished essentially in a second working phase, the forging blank being brought to different initial temperatures in different parts of its geometry as a function of the location and being deformed in the various parts in such a way that the degree of work-hardening over the entire workpiece reaches approximately the same value, and that the workpiece is finally cooled to room temperature.

Abstract (de)

Ein kaltverfestigtes metallisches Werkstück, insbesondere aus einem austenitischen Stahl wird in einem Arbeitsgang dadurch hergestellt, dass der als Vorform vorliegende Schmiederohling in seinen verschiedenen Teilen auf unterschiedliche Anfangstemperaturen erwärmt, in einer ersten Arbeitsphase im Wesentlichen einer Formgebungs- und in einer zweiten gleich anschließenden Phase in einer Hitze einer zusätzlichen kaltverfestigungsoperation bei erhöhter Temperatur in einem beheizten Gesenk unterworfen wird.

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CPC (source: EP)

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Citation (search report)

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