

Title (en)
Hot forming system for metal workpieces

Title (de)
Warmverformungsverfahren für metallische Werkstücke

Title (fr)
Système de formage à chaud pour pièces métalliques

Publication
EP 1598129 A1 20051123 (EN)

Application
EP 04011643 A 20040517

Priority
EP 04011643 A 20040517

Abstract (en)
A device including at least one transformer (1) with primer (9) seconder (10) coil ratio more than one and including a control unit (2) used to control timing and magnetude of the primer current is employed to heat a metal workpiece (4) to be subjected a subsequent forming operation. An homopolar DC generator can also be used as current source for current heating preparing workpiece for forming operation. Subsequent heating, forming and cooling processes of the metal workpiece are carried out in a controlled manner by a central synchronization unit. This process can be applied in hot metal bulk forging, sheet forming and hot tube blowforming.

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CPC (source: EP)
B21J 9/08 (2013.01); **B21J 13/10** (2013.01)

Citation (search report)

- [YDA] US 6463779 B1 20021015 - TERZIAKIN MEHMET [TR]
- [Y] FR 2607736 A1 19880610 - CEGEDUR [FR]
- [YD] US 5515705 A 19960514 - WELDON WILLIAM F [US], et al

Citation (examination)
GB 1008572 A 19651027 - HASENCLEVER AG MASCHF

Cited by
US2021079492A1; DE102020100461A1; RU2650217C1; US2018015519A1; US10967413B2; EP2233222A1

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