

Title (en)

APPARATUS AND METHOD OF INDUCTION-HARDENING MACHINE COMPONENTS WITH PRECISE POWER OUTPUT CONTROL

Title (de)

GERÄT UND VERFAHREN ZUM INDUKTIONSHÄRTEN VON MASCHINENBESTANDTEILEN MIT GENAUER AUSGANGSLEISTUNGSREGELUNG

Title (fr)

APPAREIL ET PROCEDE DE TREMPER PAR INDUCTION DE PIECES DE MACHINE, COMPRENANT LA REGULATION PRECISE DE LA PUISSANCE EMISE

Publication

**EP 0542813 B1 19960410 (EN)**

Application

**EP 91914109 A 19910725**

Priority

- US 9105285 W 19910725
- US 69334391 A 19910430
- US 56339890 A 19900806

Abstract (en)

[origin: WO9203026A1] An induction hardening machine for contour hardening of machine components such as gears includes a phase angle detector circuit (112) which produces a pulse for each corresponding detection of a predetermined phase angle of an AC signal. A start switch (SW2) and the pulse produced by the phase detector provide inputs to a circuit (116) which requires concurrence of the pulse and activation of the switch before a predetermined width signal pulse is produced. The predetermined width signal pulse activates power switching devices (114) to supply a predetermined power signal to an RF generator (120) coupled to an induction heating coil (128). Precise induction heating is accomplished via precise control of power input to the RF generator (120).

IPC 1-7

**H05B 6/06**; **H05B 6/14**

IPC 8 full level

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