Title (en)

METHOD FOR CONTROLLING, MONITORING AND CHECKING A FORMING OPERATION OF A METAL-FORMING MACHINE TOOL, ESPECIALLY A RIVETING MACHINE

Title (de)

VERFAHREN ZUM STEUERN, ÜBERWACHEN UND ÜBERPRÜFEN EINES UMFORMVORGANGES EINER UMFORMMASCHINE, INSBESONDERE NIETMASCHINE

Title (fr)

PROCEDE PERMETTANT DE COMMANDER, DE SURVEILLER ET DE CONTROLER UNE OPERATION DE FORMAGE D'UNE MACHINE DE FORMAGE, NOTAMMENT D'UNE RIVETEUSE

Publication

EP 1064111 A1 20010103 (DE)

Application

EP 99907589 A 19990303

Priority

- DE 19812133 A 19980320
- EP 9901365 W 19990303

Abstract (en)

[origin: DE19812133A1] The method involves measuring the change in pressure or force that occurs when the machine's working piston (4) comes into contact with the workpiece (27, to detect the start of a change of shape, e.g. the start of the riveting process. A conversion force is displayed or computed throughout the whole process by measuring pressure or differential pressure. An Independent claim is also included for a shaping machine, especially a riveting machine.

IPC 1-7

B21J 15/28; B21J 9/20

IPC 8 full level

B21J 15/10 (2006.01); **B21J 9/20** (2006.01); **B21J 15/12** (2006.01); **B21J 15/28** (2006.01)

CPC (source: EP US)

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See references of WO 9948633A1

Designated contracting state (EPC)

CH DE ES FR GB IT LI

DOCDB simple family (publication)

DE 19812133 A1 19990923; AU 2727699 A 19991018; BR 9908917 A 20001121; CA 2325040 A1 19990930; CZ 12039 U1 20020304; DE 59903091 D1 20021121; EP 1064111 A1 20010103; EP 1064111 B1 20021016; ES 2185320 T3 20030416; US 6089062 A 20000718; WO 9948633 A1 19990930

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DE 19812133 A 19980320; AU 2727699 A 19990303; BR 9908917 A 19990303; CA 2325040 A 19990303; CZ 200212704 U 19990303; DE 59903091 T 19990303; EP 9901365 W 19990303; EP 99907589 A 19990303; ES 99907589 T 19990303; US 7810798 A 19980513