

Title (en)

Method for operating a cutting press and cutting press

Title (de)

Verfahren zum Betrieb einer Schneidpresse und Schneidpresse

Title (fr)

Méthode de commande d'une presse à couper et une presse à couper

Publication

EP 0607498 B1 19960710 (DE)

Application

EP 93114296 A 19930907

Priority

DE 4301309 A 19930120

Abstract (en)

[origin: EP0607498A1] For the automatic adjustment of the stroke of the punching tool (8) of a turret cutting press equipped with a punch drive (6) there is provided a radiation sequence, which is characterised by a transmitter (12), a beam path (14) and a receiver (13) and which intersects the path of movement of the punching tool (8) and is arranged at the least possible distance above the workpiece (10) to be machined. The transmitter (12), the receiver (13) and hence the beam path (14) can be moved in the direction of the punching movement and hence in the direction of the workpiece (10), and during that movement of the punching tool (8) which is directed towards the workpiece (10), the upper dead centre of the punching stroke is fixed automatically from the time of the interruption of the beam path (14) in association with position information delivered via a displacement sensor (11), i.e. independently of the tool length determined in advance, the lower dead centre being available from the remaining machine data. From the measurement and from the continuous monitoring of a displacement element between the upper dead centre and the point of interruption of the beam path (14), the operation of the particular punching tool (8) is monitored for the appearance of a rupture in the tool. The cutting press offers the essential advantage that adjusting work for the individual punching tools and also after regrinding for the purpose of setting an optimum punching stroke is dispensed with and that a rupture occurring in the tool can be detected at an early time. <IMAGE>

IPC 1-7

B21D 28/12; **B21D 55/00**

IPC 8 full level

B21D 28/12 (2006.01); **B21D 55/00** (2006.01); **B30B 15/00** (2006.01)

CPC (source: EP)

B21D 28/12 (2013.01); **B21D 55/00** (2013.01); **B30B 15/0041** (2013.01)

Cited by

CN110202062A; EP1782943A3; US7803294B2

Designated contracting state (EPC)

CH DE FR IT LI

DOCDB simple family (publication)

DE 4301309 A1 19940721; **DE 4301309 C2 19941013**; DE 59303198 D1 19960814; EP 0607498 A1 19940727; EP 0607498 B1 19960710

DOCDB simple family (application)

DE 4301309 A 19930120; DE 59303198 T 19930907; EP 93114296 A 19930907