

Title (en)

METHOD FOR CONTROLLING A PRESS WITH A VARIABLE GEAR RATIO

Title (de)

VERFAHREN ZUR STEUERUNG EINER PRESSE MIT VARIABLER GETRIEBEÜBERSETZUNG

Title (fr)

PROCÉDÉ PERMETTANT DE COMMANDER UNE PRESSE À DÉMULTIPLICATION VARIABLE DE LA TRANSMISSION

Publication

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Application

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Abstract (en)

[origin: WO2014191285A1] The invention relates to a method for controlling a press (10). The press (10) has an electric drive motor (21) and a press transmission (22) with a variable gear ratio ( $\dot{U}$ ). A tappet (12) of the press (10) is mounted in a movable manner in a stroke direction (R) and is connected to the electric drive motor (21) via the press transmission (22). The gear ratio ( $\dot{U}$ ) continuously increases and to a high degree as the tappet moves from an upper reversal point (OT) to a lower reversal point (UT). In order to prevent the press (10) from exceeding a specified maximum pressing force ( $F_{max}$ ), a position-dependent maximum torque ( $M_{max}$ ) is specified for the electric drive motor (21). The control device compares each applied drive torque (M) with the position-dependent maximum torque ( $M_{max}$ ). As soon as the drive torque (M) exceeds the position-dependent maximum torque ( $M_{max}$ ), the danger of the force applied by the tappet (12) exceeding the maximum pressing force ( $F_{max}$ ) during an ongoing forming movement is detected. The control device (12) then reduces the drive torque (M) in order to prevent damage to the press (10).

IPC 8 full level

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