

Title (en)
PUNCHING DEVICE AND METHOD FOR PUNCHING A WORKPIECE

Title (de)
STANZVORRICHTUNG UND VERFAHREN ZUM STANZEN EINES WERKSTÜCKS

Title (fr)
DISPOSITIF DE POINÇONNAGE ET PROCÉDÉ DE POINÇONNAGE D'UNE PIÈCE

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Application
EP 15747404 A 20150723

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Abstract (en)
[origin: WO2016016102A1] The invention relates to a punching device (1) comprising: a punching tool (5) which is movable along a stroke axis (Z) towards a workpiece (2) to be punched during a punching stroke and is movable away from the punched workpiece (2) during a return stroke, wherein the punching tool (5) has a first component (6) and a second component (7) which are couplable hydraulically in order to move jointly along the stroke axis (Z), and also a punching drive (8) for moving the first component (6) along the stroke axis (Z), wherein the punching device (1) is configured to move the second component (7) at a first transmission ratio relative to the first component (6) during the punching stroke and, if a threshold value of a counter-force (F) is exceeded during the punching stroke, said counter-force (F) being exerted on the punching tool (5) by the workpiece to be punched (2), to move the second component (7) at a second transmission ratio, different from the first, relative to the first component (6). The punching device (1) is configured to maintain a relative position ($\Delta P'$) of the two components (6, 7) to one another, at least along a section of the return stroke of the punching tool (5) along the stroke axis (Z), said relative position ($\Delta P'$) being assumed immediately after the workpiece (2) has been punched through. The invention also relates to an associated method for punching a workpiece (2).

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