Title (en)
METHOD AND BENDING DEVICE FOR BENDING FLAT METAL WORKPIECES

Title (de)
VERFAHREN UND BIEGEVORRICHTUNG ZUM BIEGEN VON FLÄCHIGEN METALLISCHEN WERKSTÜCKEN

Title (fr)
PROCÉDÉ ET DISPOSITIF DE PLIAGE DE PIÈCES MÉTALLIQUES PLATES

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Application
EP 07710531 A 20070323

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Abstract (en)
[origin: US2011036136A1] The invention relates to a method and device for bending flat metal workpieces, especially steel sheets, by bending freely over edges along a bending line with a straight, linear movement of the tool, wherein the bending edges are arranged parallel to the longitudinal direction of the sheet and the tool is displaced along the width of the metal sheet, characterized by the steps: inserting a punch between the bending edges of a die, holding the punch at the lowest point of the bend, applying compressive stress in order to level out the stresses in the shaping zone produced by the bending and incrementally superimposing the tensile stress with compressive stress, that is effective along the bending line in the direction of the sheet width of the bent workpiece, wherein the tool producing the compressive stress is moved along the bending line in the direction of the sheet width. In the bending device between the die assemblies below the punch, a carriage is arranged that can be displaced in the direction of the bending axis (i.e. in the sheet width) with a nip roller being effective in the punch axis, which has a groove in the plane of intersection with the punch axis.

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CPC (source: EP US)
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