

Title (en)

BENDING APPARATUS WITH RIBBED ROLLERS COMPRISING MEANS FOR TAKING INTO ACCOUNT THE PLATE THICKNESS, AND MEANS FOR COMPENSATING THE ROLL DEFORMATION

Publication

EP 0096643 A3 19860723 (FR)

Application

EP 83401177 A 19830609

Priority

FR 8210455 A 19820609

Abstract (en)

[origin: EP0096643A2] 1. So-called rolling machine intended for bending metal sheets, of the type comprising a so-called support roller (6) rotatably mounted in bearings (7, 8) integral with the stand (1) of the machine, a double plurality of crenellated rollers (12, 13), the crenellations of the first plurality (12) alternating with those of the second plurality (13), the crenellations of the rollers of the first plurality being partially overlapped with those of the other plurality, the crenellated rollers of a same plurality being substantially coaxial, each crenellated roller being supported at its ends by bearings (18) integral with a movable frame (11) of the machine and a so-called pressure roller (14) supported at its ends by the said movable frame and intended to be in permanent contact with the crenellated rollers (12, 13) of each of the pluralities, the metal sheet to be rolled being intended to be introduced between the crenellated rollers (12, 13) and the support roller (6), the pressure roller (14) serving to press the crenellated rollers against the metal sheet, such an arrangement having the effect of reducing as far as possible the part of the rolled metal sheet which is not bent, characterized : - by first means for determining precisely the position of the surface of the metal sheet (48) opposite the crenellated rollers (12, 13) relative to the common plane of tangency (46) of the crenellated rollers opposite the said metal sheet, the said first means consisting of a sensor (40, 41, 42, 43), the sensing nose (43) of which is arranged in the intersecting plane (44) of the crenellated rollers (12, 13), the sensor being associated with means (47, 49) for actuating the lowering of the movable frame (11) and ; - by second means for, the relative positions of the surface of the metal sheet and the plane of tangency having been determined, moving closer by a given amount, which is a function of the radius of curvature to be obtained for the rolled metal sheet, the movable frame assembly, the said second means consisting of sloping wedges (31, 32) associated with means (34) for the relative displacement of the movable frame (11) parallel to the axis of the pressure roller (14), as a result of which whatever the thickness of the metal sheet to be rolled, within the usual range of dimensional tolerances of these products, the radius of curvature of the rolled metal sheet will be substantially constant.

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B21D 5/14

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

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