

Title (en)
Incremental bending method and apparatus.

Title (de)
Verfahren und Vorrichtung zum schrittweisen Biegen.

Title (fr)
Procédé et dispositif de cintrage pas à pas.

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Application
EP 80304123 A 19801118

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Abstract (en)
Small gauge metal tubing is bent into required configuration by a repeated bend-shift-bend method in which the tubing (1) is advanced intermittently through a bend head (4) which operates to put an incremental bend portion of controlled angular extent into the tubing (1). The method determines the final configuration of the tubing (1) as a function (i) of the number and/or angular extent of the incremental bend portions, and (ii) of the extent of translation of the tubing (1) between successive incremental bend portions. The method also envisages rotation of the tubing (1) for determining the plane of the incremental bends. A bending machine for performing the method comprises a powered carriage (3) movable within a channel track (38) under control of a motor (13) and carrying a lazy-tongs type clamping arrangement (8) which is rotatable by a motor (44) for axially rotating a clamped tube (1) being bent. The carriage (3) moves the clamped tubing intermittently and by controlled amounts through a bending head (4) which comprises a hydraulically operated die and former arrangement wherein the die and former are relatively movable to put an incremental bend portion into that part of the tubing (1) which is engaged with the bending head (4). The bending, translating and rotating movements in the machine can be computer controlled.

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IPC 8 full level
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CPC (source: EP)
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Citation (search report)
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