

Title (en)

METHOD FOR MANUFACTURING A BENT PART AND BENDING MACHINE FOR CARRYING OUT THE METHOD

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES BIEGETEILS UND BIEGEMASCHINE ZUR DURCHFÜHRUNG DES VERFAHRENS

Title (fr)

PROCÉDÉ DE PRODUCTION D'UNE PIÈCE PLIÉE ET MACHINE DE PLIAGE DESTINÉE À METTRE EN OEUVRE LE PROCÉDÉ

Publication

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Application

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Abstract (en)

[origin: WO2021008896A1] The invention relates to a method for producing a bent part from an elongate workpiece (110) made of a composite fibre material, said method comprising the steps of: providing an elongate workpiece (110) made of a composite fibre material which has a thermoplastic matrix (111) in which reinforcing fibres (115) running in the longitudinal direction of the workpiece are embedded; heating a portion (119) of the workpiece (110), which portion is to be provided with a bend, to a first temperature at which the thermoplastic matrix (111) is present in a thermoplastic state, the heated portion (119) being produced between a more solid front portion (117) and a more solid rear portion (118); twisting the heated portion (119) by rotating the rear portion (118) relative to front portion (117) about an angle of rotation in such a way that the reinforcing fibres (115) in the heated portion (119) are brought into a torsioned configuration and a twisted portion results; producing a bend in the twisted portion by bending at least a part of the twisted portion about a bending former (122); cooling the twisted portion provided with the bend to a second temperature at which the twisted portion transitions into a thermoelastic or solid state. The invention also relates to a bending machine (100) for carrying out the method.

IPC 8 full level

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