

Title (en)
METHOD OF DESIGNING MATERIAL FOR CYLINDER FORMATION PROCESS, AND CYLINDER FORMATION PROCESSED PRODUCT

Title (de)
VERFAHREN ZUM ENTWURF EINES MATERIALS FÜR EIN ZYLINDERFORMUNGSVERFAHREN UND DURCH ZYLINDERFORMUNG VERARBEITETES PRODUKT

Title (fr)
PROCÉDÉ DE CONCEPTION D'UNE MATIÈRE POUR UNE OPÉRATION DE FORMATION DE CYLINDRE, ET PRODUIT TRAITÉ PAR FORMATION DE CYLINDRE

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Application
EP 11849189 A 20111213

Priority
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Abstract (en)
[origin: EP2638982A1] An object of the present invention is to provide a method for designing a metal material having mechanical properties with which a specified spring back angle can be achieved after any one of metal materials having a wide variety of mechanical properties and thicknesses has been formed by performing cylinder forming and a product formed by using the method. A method for designing a material to be subjected to cylinder forming, the method including, in the design of a metal material to be subjected to cylinder forming in which the metal material is formed by performing bending forming, calculating the yield strength YP, the Young's modulus E and the thickness t of the metal material so that a spring back angle θ_s becomes a specified value when cylinder forming is performed under conditions of a radius of curvature of bending r of 5 mm or more and a bending angle θ_b of 90 degrees or more and 180 degrees or less and designing the metal material so that the metal material has the calculated yield strength YP and Young's modulus E.

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• See references of WO 2012081717A1

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