

Title (en)
PROCEDE FOR ROLLING BEVEL GEARS ON AN AXIAL STAMPING ROLLING MACHINE AND TOOLING FOR ITS IMPLEMENTATION

Title (de)
VERFAHREN ZUM WALZEN VON KEGELRÄDERN AUF EINER AXIAL-GESENKWALZMASCHINE UND WERKZEUGANORDNUNG ZU DESSEN DURCHFÜHRUNG

Title (fr)
PROCEDE POUR LAMINER DES ROUES CONIQUES SUR UN LAMINOIR A ESTAMPER DANS LE SENS AXIAL ET OUTILLAGE APPROPRIE POUR METTRE LEDIT PROCEDE EN OEUVRE

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Application
EP 97922945 A 19970502

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Abstract (en)
[origin: WO9741982A1] The invention relates to a process for ring rolling the teeth of bevel gears, preferably hypoid-toothed bevel gears, in a closed die, in which use is made of a pretreated blank of which the outline outside the shaping region of the profiled tools already substantially corresponds to the finished outline, the outline to the shaped is heated before rolling, the shaped tool together with at least one closing device rotating with it forms a closed space with respect to the heated outline of the tool, shaping is performed between two rotating tools and the bevelled upper tool is set in the direction of its line of symmetry. The invention proposes that the closing device is axially shifted along the line of symmetry of the upper shaped tool during the rolling process. The tooling of the invention for implementing the process consists of two rotating tools which are inclined towards each other in accordance with the outlines of the bevel gear to be produced. The upper shaped tool is axially adjustable towards its line of symmetry and the outline of the workpiece to be shaped is arranged during the rolling process in a closed space formed by the upper shaped tool and at least one closing device rotating with it. The closing device (4, 5) consists of an inner (4) and an outer (5) band which can be moved in the adjusting direction in relation to the upper shaped tool (3) during the rolling process.

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