

Title (en)
Grinding wheel for relief machining for resharpenable pinion-type cutter

Title (de)
Schleifscheibe zum Freischleifen eines nachschleifbaren Schneidrades

Title (fr)
Meule pour détalonner un outil-pignon réaffûtable

Publication
EP 1688202 A1 20060809 (EN)

Application
EP 06002184 A 20060202

Priority
JP 2005027173 A 20050203

Abstract (en)
An axially perpendicular tooth shape profile contour for an internal gear is given as a series of dispersive points, the given series of axially perpendicular cross-sectional tooth shape profile points for the internal gear is interpolated by Akima method, the axially perpendicular cross-sectional tooth shape profile for the internal gear is defined, the axially perpendicular cross-sectional tooth shape profile is defined by a formula whereby the coordinate system has been transformed to a fixed coordinate system that rotates integrally with the pinion type cutter, the envelope of a group of curves represented by the formula is determined, the cutting edge shape profile of the pinion type cutter is determined by projecting the envelope onto the cone of the rake surface of the pinion type cutter, and the cutting edge shape profile of the pinion type cutter is defined by superposing, in the axial direction of the pinion type cutter, the cutting edge shape profile obtained by varying the center distance between the pinion type cutter and the internal gear This profile is expressed in the fixed coordinate system on the grinding wheel side in relief motion, and the axial cross-sectional tooth shape profile of the grinding wheel for relief machining is obtained. A grinding wheel for relief machining that can prevent generating tooth shape errors in an obtained gear by using a resharpened pinion type cutter, can be realized.

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CPC (source: EP)
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Citation (search report)

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