

Title (en)  
HONING METHOD FOR FORM HONING AND MACHINING EQUIPMENT

Title (de)  
HONVERFAHREN ZUM FORMHONEN UND BEARBEITUNGSANLAGE

Title (fr)  
PROCÉDÉ DE PIERRAGE DE FORME ET INSTALLATION D'USINAGE

Publication  
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Application  
**EP 16704610 A 20160215**

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Abstract (en)  
[origin: WO2016131736A1] The invention relates to a honing method for machining the inner surface of a bore (110) in a workpiece (100) with the aid of at least one honing operation, wherein during a honing operation, an expandable honing tool coupled with a spindle is moved back and forth inside the bore for generating a lifting movement in the axial direction of the bore, and at the same time, is rotated about a tool axis for generating a rotational movement superimposing the lifting movement. In this way, a bore is generated that is rotationally symmetrical with respect to a bore axis and that deviates from the circular cylinder shape, which bore has a circular cylindrical first bore section (120) and adjacent thereto, has a non-circular cylindrical second bore section (130) having an axially variable diameter. A measuring of the diameter of the first bore section (120) in at least one measuring plane (M1-1, M1-2, M1-3) for determining a first diameter value and a measuring of the diameter of the second bore section (130) in at least one second measuring plane (M2-1, M2-2, M2-3) for determining a second diameter value takes place. An evaluation of the second diameter value takes place using the first diameter value in order to determine actual shape values, which represent an actual shape of the bore. The actual shape values are compared to target shape values in order to determine shape deviation values. A subsequent honing operation is controlled subject to the shape deviation values.

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Citation (examination)  
• US 2011223833 A1 20110915 - RAUSCHER HERBERT [DE], et al  
• DE 102013203340 A1 20140828 - NAGEL MASCH WERKZEUG [DE]

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