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Identification of „natural“ breaker cut during the machining of carbon steels

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Tool wear is generally considered a negative fact, which worsens machining results. According to theories it causes the growth of cutting forces, cutting temperature worsens the quality of machined surface. Closer study of the process of the wear leads to the need to distinguish between the effects of the wear on the back and on the face of the tool. The paper deals with the study of the mechanism of wear on the face in time relation. It shows that the groove on the face, which is created by leaving chip, can have positive aspect. It can be used as „natural chip shaper“.

Keywords: cutting tool, tool wear, machining time, tool life

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