Identification of Internal Residual Stress of Steel after Milling by Ultrasound

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Article is focused on detection internal residual stress caused by machining with variant spindle speed of milling tool and also in the article is represented new method of residual stress measuring using by ultrasound with verification method using RTG diffraction. Effect of residual stress have in industry important place because large number of structures requires a clearly described process of the occurrence and intensity of internal residual stresses, which directly affect the quality and equipment life. Nowadays are mostly used destructive methods, which can occur changes in functionality of the products or non destructive methods are used, which require to measure residual stress outside of the workplace and those methods are often lengthy. In the article is presented new method base on ultrasound, which provides opportunity to measure residual stress in same place in a short time.

Keywords: Residual stress, Measurement, Ultrasonic, Spindle speed, RTG diffraction

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