

Ultrasonic device calibration for estimation of retained austenite in tool steel

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Abstract: High percent of retained austenite in tool steel involve ill-fated effects as cracks. It is very important to control it. Ultrasonic device can be calibrated by using of ultrasonic velocities measurements. The variation of the velocities in tool steel as function of the rate of austenite is very small and require measurements with high accuracy. The calibration method is very simple and need neither mathematical methods nor simulations.

Keywords : • Martensite, • Retained austenite, • Ultrasound longitudinal velocity, • Ultrasound transversal velocity