

Electro-Discharge Drilling in Residual Stress Measurement of Annealed St.37 Steel

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Abstract : For materials such as hard coating whose stresses state are difficult to obtain by a widely used method called high-speed hole-drilling method (ASTM Standard E837). It is important to develop a non contact method. This process itself imposes an additional stresses. The through thickness residual stress of st37 steel using elector-discharge was investigated. The strain gage and dynamic strain indicator used in all cases was FRS-2-11 rosette type and TML 221, respectively. The average residual stress in depth of 320 μm was -6.47 MPa.

Keywords : HVOF, residual stress, thermal spray, WC-Co

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