

# IMPACT OF SMOOTH PART RESIDUAL STRESS DISTRIBUTION ON ADDITIONAL STRESSES IN CASE OF LEADING SURFACE PLASTIC DEFORMATION

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The paper deals with distributions of residual stresses of reinforced smooth part as well as additional compressing residual stresses after making a semicircular profile notch. Various laws of changing axial residual stresses of a smooth part which simulate practically all possible cases of their distribution after reinforcing the parts by known methods of surface plastic deformation are also discussed.

*Leading surface plastic deformation, residual stresses, stress concentration, residual stress redistribution*

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