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# Shock wave processes simulation in multilayer structures elements with considering initial internal pressure

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*The article considers a calculation method allowing us to take into account the non-zero initial stress-strain state of the multi-layer cylindrical structure elements due to static internal pressure. These calculations made it possible to estimate the influence of the initial stress-strain state on the material structure transition to the plastic stage under the effect of short-term dynamic loading.*

**Keywords:** *stress-strain state, internal pressure, dynamic load, yield strength, elastic-plastic materials, shock-wave processes.*

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