# Elastic hollow cylinder under the influence of "traveling" and "background" loads

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*In the work a problem of determining the stress-strain state of an elastic hollow cylinder loaded at the same time with loading, which is moving at a constant speed (running), and an enclosed radial (background) loading, is solved. Loading is made in a cylinder cavity. In view of linearity of tasks the common decision of tasks is received by superposition of decisions at separate loading. The rectangular «running» impulse is chosen. Calculations of the cylinder stress-strain state are carried out; dependences of its parameters on width of a rectangular impulse, speed of movement of mobile loading for different parameters of the cylinder are received. Dependences for the general problem of the state parameters for real installation by superposition of decisions for these loadings are received.*

***Keywords:*** *elastic hollow cylinder, moving loading, "background" loading, superposition of decisions.*

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