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# Simulation of the stress-strain state of a cylindrical shell under the action of the shock of a concentrated load

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*On the basis of the general theory of shallow shells of the problem is solved by evaluating the stress and strain of orthotropic cylindrical shell under the action of the shock of a concentrated load, directed normal to the surface of the shell. Initially, the problem is solved by providing a contact area of the elementary area on the middle surface of the shell. Then there is the main part of the solution determines the asymptotic formula for the displacement and internal force factors, provided that the contact area tends to zero.*

**Keywords:** *contact impact force, contact zone, cylindrical shell, stress, deformation, differential operator, asymptotical approximation.*

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