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The Loading Parameters Calculation of a Hollow Sphere at the Large Elastocreep Deformations

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We presented a model of large elastocreep deformations. Separation of Almansi strain tensor is determined by the quadratic form of reversible and irreversible components. We consider spherically symmetric deformation of a hollow sphere in the steady creep process. Numerical solution of boundary-value problem was obtained. A method for determining loading force on the deformed state was proposed. Functions of the external loading force according to the laws of a given change in the displacement field were constructed.

Key words: large deformation, creep, relaxation, elasticity.

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