

OSCILLATIONS OF A NON-HOMOGENEOUS BEAM FROM THE MOTION OF CARGO ALLOWING FOR THE INFLUENCE OF NON-HOMOGENEOUS RESISTANCE

Abstract

The problem about forced oscillation in the case of cargo motion on non-homogeneous elastic beam allowing for resistance of the non-homogeneous basis is considered. It is supposed, that an elasticity module is a continuous function of coordinate of the length and height of the beam. The problem is solved by the method of separation of variables, with further use the Bubnov-Galerkin's method. The calculation has been done at concrete values of non-homogeneity.

The results of calculation are represented in the form of graph of dependence between characteristic values.