

FORCED VIBRATIONS OF A VISCOELASTIC THREE-LAYER PLATE

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DOI: 10.5958/2249-7137.2022.00181.1

ABSTRACT

In this article, forced vibrations of a viscoelastic three-layer plate of a particular type are considered and some solution of numerical computation by Maple is given. On the basis of the obtained refined equations of vibrations, the problem of harmonic vibrations of a trisyllabic plate is solved. Various methods and approaches are used to reduce the three-dimensional in spatial coordinates of the problem of the theory of plates to the two-dimensional one. The article is devoted to the development of the theory of symmetric vibrations of a three-layer elastic plate in a plane setting with respect to two unknown functions, which are the main parts of the displacements of some "intermediate" surface of the plate.

KEYWORDS: *Three-Syllable Plate, Forced Vibrations, Viscoelastic, Frequency Equations, Stress-Strain State, Displacement.*

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