Today, an enormous number of research papers by foreign and domestic authors cover the research into vibration of plates. Despite this variety, oscillation of transversely isotropic plates remains understudied. The most substantial contribution into this area of research was made by S.A. Ambartsumyan, V.V. Bolotin, E.J. Brunelle, and M. Levinson. The author provides the summary of a frequency equation describing self-excited oscillations of a transversely isotropic plate resting on the strain foundation, if one edge of the plate is rigidly fixed and the other three edges are hinged. The problem was solved using the approximate method employed to derive the frequency equation needed to identify self-excited oscillations of the plate. The formulas, derived by the author and designated for the identification of frequencies of free transverse vibrations of the plate, are suitable for practical application; they may be applied for the identification of the nature of dependence between natural frequencies of the plate and its geometry.

**Key words:** transversely isotropic plate, self-excited vibrations, rigidly fixed, hinged.

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