

The Adequacy Of The Model Suspension Rotary Vibratory Gyroscope

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A comparative analysis of the results of experimental studies of elastic suspension layout two-stage rotary vibratory gyroscope and the results of mathematical modeling of the suspension by finite element method. The dependence of the rigidity of the suspension of the thickness of the elastic elements is identical, but the values of the calculated stiffnesses are somewhat too high compared with the experimental ones. This is due to the non-ideal shape of the elastic elements of the layout and depth of change in physical properties of the surface layer during spark processing. In what follows is supposed to use the results obtained by studying the dependence of natural frequencies of vibration of the gyroscope rotor elements of the parameters of the suspension.

Keywords: *rotary vibratory gyroscope, springy suspension, the finite element method.*