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OPTIMIZATION PROBLEM OF DETERMINING THE BEST GEOMETRICAL SHAPE OF MECHANICAL CENTRIFUGAL UNBALANCE VIBRATION EXCITER

Optimization model was designed and analyzed; it allowed to determine the best geometry of the mechanical centrifugal unbalance vibration exciter by the impact on the overall dynamic performance of vibration exciter; optimization problem is solved with condition of identical material consumption; according to the results formulated conclusions.

Keywords: *centrifugal force of inertia unbalance of vibration exciter, shape of the unbalance; controlled mechanical centrifugal unbalanced vibration exciters of oscillations, optimization mathematical model, the objective (target) function, permissible limit, optimal values, materials consumption.*