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Konkin V.N. Influence of the nonlinear characteristics of support of the dynamics of the diesel `s housing 1D80B 02 004 1.Development of the finite-element model of housing

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The new need for controlling the frequency oscillation

spectrum of the of diesel’s was appeared in the process of

development the project of the new locomotive diesel 1D80B

02 004 on the plant named after Malyshev. Such a control,

according to the idea of the developers of project, can be

realized by changing in the characteristics of the damping

supports of frame, on which the diesel generator is placed

and which, in turn, is placed on the basic bearer frame of

locomotive. As a whole, the solution of problem consists of

the following basic stages: the creation of the optimum finiteelement

model of the housing of diesel, the mathematical

simulation of the supports of power frame with the elasticnonlinear

characteristics, conducting the calculated analysis

of the influence of such characteristics on the dynamics of

entire housing, the preparation of the necessary recommendations.

Tabl. 1. Il. 3. Bibliogr. 5 names.