

## Identification of the technical condition of automatic valve clearance compensators of an internal combustion engine using machine learning methods

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*Abstract:* Dynamic development of internal combustion engines (ICE) creates a need to adopt a strategy concerning the operational use of these driving units based on the knowledge of their technical condition. The assessment of technical condition belongs to tasks of technical diagnostics. The article presents an analysis of issues concerning vibration diagnostics of automatic compensators of valves in a combustion engine. Scientific experiments were carried out and described in order to provide information necessary for the development of diagnostic models enabling the assessment of the technical condition of those elements of the internal combustion engine which are necessary from the point of view of efficiency and durability. On the basis of the developed diagnostic model, an algorithm for identification of the technical condition of automatic valve lash compensators was developed, using machine learning methods.

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