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| Autore | Baron Petr |
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Diagnostic -- 3.3.3 The Surface Analysis -- 3.3.4 The Measurement of Roughness -- 3.3.5 The Measurement of Roundness -- 3.3.6 Results of Analyses and Discussion -- 3.4 Application of Methods of Technical Diagnostics by Assessment of Oil Filling Condition in the Process of Running-In of Planetary Gearbox -- 3.4.1 Materials and Methodology. 3.4.2 Results of the Measurements and Experiments -- 3.4.3 Results and Discussion -- 3.5 The Parameter Correlation of Acoustic Emission and High-Frequency Vibrations in the Assessment Process of the Operating State of the Technical System -- 3.5.1 Description of the Measuring-Characteristics of the Machines and Measuring Methods -- References -- 4 Tribotechnical Diagnostics -- 4.1 Classification of Lubricants -- 4.2 Research and Correlation of Diagnostic Methods for Assessment of the State of Oil Filling in Cycloid Gearbox -- 4.2.1 Correlation, Quantification of Measured Parameters, Recommended Limits -- 4.2.2 Discussion of Realized Experiments -- References -- 5 Application of Technical Diagnostics Tools in the Reducers Test Operation -- 5.1 Determination of Methodology and Research of the Influence of the Trial Run of High-Precision Reducers on the Change of Their Characterizing Properties -- 5.1.1 Parameters Characteristic of High-Precision Reducers -- 5.1.2 Description of the Investigated Problem -- 5.1.3 Characteristics of the Diagnostic Methods Applied -- 5.1.4 Conducting Measurements of Characteristic Properties of Bearing Reducers During Their Trial Run -- 5.1.5 Evaluation of Results and Qualitative Assessment of the Impact of the Load During the Trial Run Mode -- 5.1.6 Discussion of the Study Mentioned Above -- 5.2 Design and Implementation of a Diagnostic System for Measuring High-Precision Reducers -- 5.2.1 Design of a Mechatronic Diagnostic System for Measuring High-Precision Reducers -- 5.2.2 Design of Diagnostic Equipment -- 5.2.3 Results and Discussion -- References -- 6 Conclusion -- References -- Index.
