

The method of diagnosing machine systems by measuring the accuracy of manufactured parts

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Abstract

© Published under licence by IOP Publishing Ltd. The main provisions of the technique allowing to create a diagnostic complex of the technical state of the machine system, which is informative at the same time of several diagnostic complexes - geometrical accuracy, strain gauge, technological accuracy, the influence of technological heredity - are revealed.

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References

- [1] Vasiliev V A, Odinokov S A, Borisova E V and Letuchev G M 2016 Methods of quality management of innovation process IEEE Conference on Quality Management, Transport and Information Security, Information Technologies, IT and MQ and IS 2016 233-235
- [2] Statistical process control (SPC) Reference Manual 2 (Chrysler Corporation, Ford Motor Company, and General Motors Corporation) Issued 1992 Issued July 2005. Copyright ©1992, ©1995, ©2005
- [3] Samsonov M A and Kas'yanov S V 2003 Flexible plant systems for post-examination repairs instead of scheduled preventive maintenance system *Avtomobil'naya Promyshlennost* 22-26
- [4] Safarov D T, Fedorova K A and Ilyasova A I 2016 Algorithms development of making special techniques in APQP manufacturing process of automotive components IOP Conference Series: Materials Science and Engineering 134 012036
- [5] Safarov D T and Kondrashov A G 2018 Stand for monitoring the operational parameters of conjugations "ball support - Body of the tie-rod end" of automotive components IOP Conference Series: Materials Science and Engineering 289 12 012018
- [6] Kas'yanov S V, Kondrashov A G and Safarov D T 2017 Regulation of Geometrical Parameters Deviations of Automotive Components Parts through Diagnostic Measurements *Organization Procedia Engineering* 206 1508-14
- [7] Kasjanov S V, Kondrashov A G and Safarov D T 2013 Russian patent 2496611
- [8] Kasjanov S V, Kondrashov A G and Safarov D T 2013 Russian patent 133040
- [9] Kasjanov S V, Kondrashov A G and Safarov D T 2013 Russian patent 133039
- [10] Kasjanov S V and Safarov D T 2004 Diagnosis of technical state of equipment and tools according to indices of technological accuracy *Avtomobil'naya Promyshlennost* 24-28
- [11] Akhmetov I D, Zakirova A R, Sadykov Z B and Khafizov I I 2017 New electrode-tool for the combined kerf of electrically conductive materials IOP Conference Series: Materials Science and Engineering 240 012003
- [12] Khafizov I I and Galimov A N 2017 IT-strategy and major aspects of quality management on the market of goods and services IOP Conference Series: Materials Science and Engineering 240 012038
- [13] Khafizov I I 2017 Ways of decrease in the material consumption in case of their separation by the combined methods IOP Conference Series: Materials Science and Engineering 240 012037
- [14] Khafizov I I 2016 Economic efficiency and effectiveness of ways of separating materials electro diamond processing IOP Conference Series: Materials Science and Engineering 134 012014

[15] Khafizov I I 2015 Processing methods with imposing of electric field at low- waste division of materials IOP Conf. Series: Materials Science and Engineering 86 012013