Dependability Characteristics – Indicators for Maintenance Performance Measurement of Manufacturing Technology

Adam Teringl1, Zdeněk Aleš2, Václav Legát2
1NET4GAS, s.r.o., Na Hřebenech II 1718/8, CZ-140 21 Praha 4 – Nusle, Czech Republic, E-mail: adam.teringl@net4gas.cz
2Faculty of Engineering, Czech University of Life Sciences Prague, Department for Quality and Dependability of Machines, Kamýcká 129, 165 21 Prague 6 – Suchdol, Czech Republic, E-mail: ales@tf.czu.cz, legat@tf.czu.cz

Authors define general dependability characteristics (reliability, maintainability, supportability and availability) and their measures. Further there is introduced method of data collection which shall be planned taking into account appropriate targets. Dependability data analysis needs clear understanding of an object, its operation, environment and physical attributes to be obtained required dependability measures which are described. These measures can be used as indicators for measuring maintenance impacts on reliability and maintainability. Data collection and its evaluation help to monitor the impact of maintenance on these indicators. Dependency between non-fulfillment of preventive maintenance and failure intensity including maintenance costs are also evaluated.

Keywords: Maintenance, Reliability, Availability, Preventive maintenance, Fulfillment of maintenance

Acknowledgement

Paper was created with the grant support – CZU IGA 2015 - 31190/1312/313117 - Operation quality and energy consumption of rotary cutter.

References

[8] IEC 61703/Ed2: Mathematical expressions for reliability, availability, maintainability and maintenance support terms
[9] EN 15341 Maintenance - Maintenance Key Performance Indicators

Paper number: M201579
Copyright © 2015. Published by Manufacturing Technology. All rights reserved.