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OBSAH — CONTENT

SEKCIA A : Kvalita produkcie
SESSION A : Production quality

SEKCIA B : Materiálové a technologické aspekty formovania technických systémov
SESSION B : Material and technological aspects involvend of technical systems

SEKCIA C : Údržba a diagnostika technických systémov
SESSION C : Maintenance and diagnostics of technical systems

IMPROVEMENT OF THE PRODUCTION PROCESS IN THE SELECTED ENTERPRISE

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Abstract: The problem of quality assurance and reliability of manufactured products (rendered services) applies to every enterprise that is customer-oriented. The article analyzed the production process of the enterprise in terms of the quality of manufactured products. The analysis used methods and tools known in the quality engineering, such as: FMEA, Pareto-Lorenzo diagram and Ishikawa diagram. As a result of the analysis, defects and errors in the production process were pointed out and corrective actions were implemented. The implementation of these activities should lead to an increase in the quality of production and thus a reduction in production costs.

Key words: production process, analysis, Pareto diagram, Ishikawa diagram

INTRODUCTION

The requirements of today's consumers put more and more demands on manufacturers, hence the problems of quality and reliability of the production process become more important. The first quality assurance procedures were implemented in the aerospace, military, space and nuclear industries. The goal was to create a system to prevent the causes of lack of quality by applying rigorous procedures in all phases of production. Hence, the task of any production enterprise should be to establish a policy, quality goals that should be in line with the company's internal policy and apply to every level of the company. Just controlling the production process or improving products is not enough to maintain the company's market position. It is necessary to create appropriate preventive mechanisms that will help prevent inaccuracies and imperfections during the production process.

In quality engineering, methods and tools are known to allow early detection and prevention of possible imperfections that may arise during the production process. These issues are dealt with in the quality management system, which covers the entire enterprise, including the external environment, where the elements of management are focused on meeting the requirements of quality assurance [1, 7, 8, 10].

BRIEF DESCRIPTION OF THE COMPANY

The company in which the research was carried out has a long tradition dating back to the 19th century. The changes that took place in Poland in the 1990s also affected the discussed company. Despite ownership transformations, survival turned out to be very difficult. In 2010, the indebted enterprise was bought by the new owner, it became a part of the larger Group, which had a significant impact on its development. The company was recapitalized, new machines were purchased, the existing machine tools stock was repaired and the work was reorganized.

Currently, the company is constantly improving and developing its offer in the field of machining services as well as plastics processing. Today, the company has one of the largest machine tools stocks in the region, it produces parts and components for manufacturers of central heating boilers and components for the automotive industry.

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