Preface

The presented collection of scientific papers focuses on materials, technologies and quality assurance in the field of machines and equipment. These topics are among the fundamental research fields at the Faculty of Engineering of the Slovak University of Agriculture in Nitra.

The collection contains the selection of scientific papers that present knowledge resulting from work on scientific projects supported by the Structural Funds of the European Union: Operational Programme Education: Development of Human Resources and Quality Assurance at the Slovak University of Agriculture in Nitra (ITMS 26110230020); To Increase the Quality of Education at the Slovak University of Agriculture in Nitra and to Achieve its Adaptation to Current and Prospective Needs of Society (QEDU) (ITMS 261102230057); Operational Programme Research and Development: Application of Information Technologies to Increase the Environmental and Economic Sustainability of Production Agrosystem (ITEPAg) (ITMS 26220220014); Building the Research Centre 'AgroBioTech' (ITMS 26220220180) as well as the scientific project supported by the Ministry of Education, Science, Research and Sport of the Slovak Republic: VEGA No 1/0857/12 Reducing of Unfavourable Impacts of Agricultural and Transport Machinery on Environment.

Experiments presented in the papers were performed in internal laboratories of the Faculty of Engineering (SUA in Nitra) as well as in close cooperation with the companies Inweld Consulting, s.r.o. Vráble; Sandvik Coromant, s.r.o. Bratislava, Bibus SK, s.r.o. Nitra, Slovintegra Energy, s.r.o. Levice, Veolia Transport Services, s.r.o., Slovnaft, a.s. Bratislava, and Intertribodia, s.r.o., Welding Research Institute – Industrial Institute of SR. Part of experiments was performed in cooperation with foreign universities, namely the VŠB – Technical University of Ostrava, Mendel University in Brno, and the Czech University of Life Sciences Prague.

Knowledge presented in the contributions focuses on materials, technologies, increasing the reliability of machines and equipment, increasing the quality of production and ultimately increasing the economic effectiveness and market competitiveness.

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