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## **FAULT ANALYSIS AND OPERATIONAL RELIABILITY OF LONGWALL MINING SHEARERS**

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### **Abstract**

The research conducted within this paperwork focuses on the determination of the operational reliability of several parts and sub-assemblies of the longwall mining shearers which operate in coal mines. From the analysis of the obtained data we established the lifetime of the parts, the needed spare parts, the period of time between scheduled repairs in order to avoid the mechanical faults of the longwall shearers, which generate additional costs and decreased income. The least reliable element of the longwall shearers has been established to be the guiding-driving mechanism, and the most reliable one being the cutting-body. The developed paperwork follows the line which is currently granted for the studies and researches carried out in the field of operational reliability of products, aiming to enrich the database, mainly the one specific for the mechanical field.

*Key words:* coal mining, longwall mining shearers, operational reliability

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