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 shearsers which operate ion 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 shearsers, which generate additional costs and decreased income. The least reliable element of the longwall shearsers 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 shearsers, operational reliability

Received: February, 2012; Revised final: June, 2012; Accepted: July, 2012