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## **PECULIARITIES OF THE STRUCTURE OF MUL-T-LOCK® CYLINDER PINS**

The article discusses the principle of operation of cylinder mechanisms of models 7x7®, Integrator™, Classic, Interactive® by Mul-T-Lock®. The gaps in the current regulations of Ukraine, which made it impossible to conduct operational and investigative activities of the National Police of Ukraine, were considered. In order to reveal the problems of the research subject, the constructions, technical characteristics and levels of resistance to different methods of hacking of the considered mechanisms are investigated. Data on the structure of their bodies, cylinders, pins and keys to them, as well as the level of interchangeability of individual components are given. The interaction of the main components of cylinders in different modes of operation is described. The order of applying the code of cylinder mechanisms on their carrier is given – the key. Key profiles, typical for mechanisms, which are officially delivered to Ukraine, are specified. The geometrical sizes of code pins in pairs are determined and the constructive methods aimed at increasing the security of mechanisms from manipulative methods of breaking are described. The level of resistance of cylinder mechanisms to burglary is analyzed in accordance with GOST EN 1303:2014. The technical solution aimed at improving the performance of locks is proposed.

**Keywords:** Mul-T-Lock®, 7x7®, Integrator™, Classic, Interactive®, cylinder mechanism, pin, break-in, lock key.

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