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**EXPERIMENTAL RESEARCH OF TORQUES
AT PROCESSING OF BOOK BLOCKS COUNTERFOILS
BY DISK KNIVES**

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***Research methodology.*** *The experimental research program has included the following tasks: design and manufacture of an experimental stand; practical realization on the press of the perfect binding method of processing counterfoils by disk knives inclined under an angle to the counterfoils; a quantitative assessment of torques to the drive shaft of the faceplate with circular knives depending on the kinematic parameters of the process and types of paper.*

***Results.*** *The evaluation of torque values has shown that among the studied kinematic parameters the greatest impact on their shift has the velocity of the blocks transportation. Maximum torques Мmax = 49 N•m occurred at processing the coated (85 g/m2) paper, and the minimum Мmin = 2,5 N•m occurred at processing the newsprint (35 g/m2).*

*To reduce the load on the drive shaft we should use the passing movement of the knife, at which the torques are in 1,2–1,4 times less than in the case of oncoming knife.*

***Novelty.*** *The possibility of implementing the method of processing the counterfoils by disk knives, that are inclined at an angle to the counterfoil on the production press, has been experimentally confirmed, contributing to the improvement of the perfect binding of book blocks.*

***Practical significance.*** *The application of the improved technology of processing counterfoils causes a reduction of torques; creates pre-conditions of the quality improvement of the perfect binding of book blocks and operating time of book editions.*