



Ltvytskiy A., Zaitsev Ie., Kobzar K., O., Tytko Titko V. **Methods and means of monitoring the state of compression of the stator core of high-power generators.** – Kyiv.Naukova Dumka, 2023. – 140(10). – 10. – ISBN: 978-966-00-1846-4..

The monograph is devoted to the development of new and improvement of existing methods and means of control of the stator core of powerful turbine generators (TG), which is one of the main components of machines and whose technical condition affects the technical characteristics and performance of machines. The topicality of the work determined by the growing requirements for

information and measurement systems for monitoring and diagnostics of powerful TG to ensure their reliable and trouble-free operation.

Shown that the main features of powerful TG, which determine the choice of technology to provide elastic compression of the stator core, are the method of collecting the core, the method of combining the core in the stator housing, the design of the end zone of the stator core and the cooling system.

It is noted that periodic diagnosis of the core of the stator TG reduces the likelihood of an accident, but does not guarantee the detection of defects that may occur in the repair period. The need to develop methods and means of detecting defects in the core that occur during operation of the machine, at the initial stage of their formation and development, which will provide a high rate of readiness, reduce downtime, reduce the cost of repairs TG.

The results of researches of methods of obtaining informative data on the state of compression in the end zones of the core during the operation of TG using sensors that measure the forces in the clamping prisms of the stator core and installed under the clamping nuts.