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Rosatom successfully manufactures the second RITM-400 reactor for nuclear icebreaker 'Rossiya'

- A Monitor Desk Report



Rosatom's Mechanical Engineering Division has completed the trial assembly of the second RITM-400 reactor unit intended for the most powerful nuclear icebreaker Rossiya. It was assembled in ZiO-Podolsk plant. The icebreaker will allow year-round shipping of vessels in the eastern sector of the Northern Sea Route and will give a strong impetus to the development of the Arctic.

The trial assembly is the final stage of manufacturing the nuclear vessel's "heart". During this stage, all the components are thoroughly tested for their compatibility before they are transported to the shipyard.

The main power unit of the icebreaker consists of two RITMs-400. The first reactor was manufactured in May 2025. Due to the exceptional

power of these reactors, which will enable the icebreaker to break ice up to four meters thick.

It took three years to manufacture a set of the most powerful propulsion units. One hundred know-how methods were employed, and seven innovations were registered as patents.

Rosatom's Mechanical Engineering Division supplies reactor equipment to the entire newest nuclear icebreaker fleet of Russia. Initially, the RITM-200 reactors were produced to ensure the operation of Project 22220 nuclear icebreakers on the Northern Sea Route. Now, Rosatom is producing more powerful RITM-400 reactors.

The RITM-400 is an advanced version of the RITM-200. Its distinctive feature is the arrangement of steam generators inside the vessel, which has resulted in a substantial reduction in the equipment's size and weight.