



ROSTEC TESTS ANSAT FUEL TANK BY DROPPING IT FROM 15 METERS

News / Manufacturer



Russian Helicopters has successfully tested the additional fuel tank of the Ansat helicopter for resistance during an emergency landing. Certification tests were carried out at the Kazan Helicopters plant by dropping a tank filled with a contrast liquid from a height of 15.2 meters. This kind of testing was done for the first time in Russia, but has been carried out earlier abroad.

A special platform was created at Kazan Helicopters to conduct the testing procedure. A fragment of Ansat fuselage with an additional fuel tank installed inside the passenger cabin was dropped from a height of 15.2 meters. The tank was filled with contrast liquid and the main criterion for passing the test was the total absence of any leaks.

The additional 195-liter fuel tank will increase the helicopter's flight range by 140-150 km, up to 650 km. This option will be in demand when making long-distance flights, e.g. for delivering a helicopter to a permanent base of operations or using it as an air ambulance to evacuate patients. Work is currently underway to modernize the model's main fuel system, increasing its maximum flight range to 800 km.



“We began to prepare for testing in 2020 and tried to maximally focus and develop all the relevant capacities for it at Kazan Helicopters. A lot of work has been done in cooperation with specialists from the certification center of the State Research Institute of Aviation Systems, State Aviation Register and Rosaviatsia. I would like to note that earlier certification tests of crash-proof fuel systems for helicopters were carried out abroad. The tests carried out at our enterprise were recognized as successful, we managed not only to create a crash-resistant additional fuel tank for Ansat, but also integrate a new type of procedure to our testing system,” said Deputy Managing Director and Chief Designer of Kazan Helicopters, Alexey Garipov.

The ‘drop’ was preceded by a number of certification procedures: puncture tests of the flexible tank shell, pressure tests, ground and flight tests of Ansat with an additional fuel tank. Corresponding corrections to the design were made based on the testing results. For example, after puncture tests, the number of layers of fabric was increased and their layout changed. Bench tests for splashing and vibration, as well as static tests of the additional fuel tank were carried out in the testing laboratory of Kazan National Research Technical University (KNRTU-KAI).

Most of the bench certification tests, as well as ground and flight tests of Ansat with an additional fuel tank have now been completed. Evidence-based documentation is being prepared.

The additional tank will fit inside the Ansat passenger cabin. Its installation is possible in passenger and ambulance variants of the helicopter. It can also be retrofitted to helicopters already in service, though this will require minor modifications to the aircraft.



12 JUNE 2021

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