

FROM THE USSR TO THE PRESENT

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Do you think it is possible to upgrade an old Soviet-era car with the help of spare parts of modern cars? I can say with confidence that this is possible, but only if you have a lot of work experience and professionalism. My father and I improved the 1970 LOISE in a month with the help of spare parts of various cars, selecting them according to certain parameters. The purpose of this experiment was to make the car more powerful in order to improve cross-country ability and not get stuck in the mud. Let's take a closer look at what has been changed. The only thing left of the stock LOISE is the body and manual transmission. The factory 40-horsepower gasoline engine was replaced with a 68-horsepower diesel engine taken from a Volkswagen Passat. We replaced it in order to be able to install larger diameter wheels to increase ground clearance, since it would be difficult for the old engine to rotate these large wheels. All other parts were matched to the manual transmission and the engine. The clutch is the main element that had to be picked up when docking a more powerful motor with a native LOISE gearbox. It was taken from the Audi 80. To do this, a special transition plate was measured and made, which was attached to the gearbox, the drive shaft of the gearbox was centered with the center of the crankshaft. A bearing was selected, which was installed in the crankshaft so that the shaft of the box got into the crankshaft of the engine. The clutch was selected so that the clutch disc was put on the primary shaft of the box and pressed against the basket. The basket was also taken from the Audi 80, and the clutch disc from the Chevrolet Niva. We took the new starter from the Audi A6 C5. The cylinder came from the BMW 3, because a large cylinder stroke was

needed. The release bearing came from the VAZ-2108. As a result, out of four cars, we assembled a clutch assembly that works at full capacity. For convenience, the seats were taken from the Lancha zetta with heating and with a 180° turn. We are planning to install different-wide tires from the quad bike BRP 1000. New disc brakes were installed because the pre-installed drum brakes were in bad condition because they got clogged with dirt and stopped working properly. The rear and front brake discs were taken from Mazda 626. Adapter plates were machined in order to be installed on discs, which were taken from the VAZ-2109 as well as brake pads. The steering system has been completely redesigned. At the factory in Lugansk, LUAZ steering was made through a steering reducer and 8 additional levers. This is a very complex steering, and often it breaks and there is a big backlash in the steering wheel. A steering rack was installed from the Tavria. We extended the steering rods, installed an angular steering reducer from Volkswagen Transporter T2, which was put on the steering rack, since it stands at the back, and the steering wheel is opposite it. The entire cooling system was redesigned. We installed a fan switch sensor from the Volkswagen Golf, a radiator from the Volkswagen Passat B2, an engine from the Volkswagen Passat B3, a fan installed from the Mitsubishi Outlander, the second one will soon be installed. Why Mitsubishi Outlander? Because the new engine turned out to be longer than the native one, and the distance from the radiator to the engine was very small, so we had to choose a thin cooling fan. It was connected via a fan switch-on sensor, which was installed at the radiator inlet. As soon as the temperature rises to 90°, the sensor is triggered and the fans automatically turn on. To accommodate the radiator, it was necessary to trim the hood mount, because the hood opened forward.

Thus, the LOISE was assembled by the method of selection and measurement from various vehicle parts, most of which were bought at auto disassembly.