

## **VAZ: ORIGIN, DEVELOPMENT, THE CHARACTERISTIC OF MODELS**

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AvtoVAZ is a Russian automobile manufacturer, also known as VAZ, Volzhsky Avtomobilny Zavod, and better known to the world as Lada was set up in the late 1960s in collaboration with Fiat. It is 25% owned by French giant Renault.

The VAZ factory is one of the biggest in the world, has over 90 miles (144 km) of production lines and is unique in that most of the components for the cars are made in-house.

The original Lada was a basic car, lacking in most luxuries expected in cars of its time and was patterned after the Fiat 124. Ladas were available in several Western countries during the 1970s and 1980s, including Canada, the United Kingdom, France, Belgium, Luxembourg and the Netherlands, though trade sanctions banned their export to the United States.

The plant was set up as a collaboration between Italy and the Soviet Union and built on the banks of the Volga river in 1966. A new part of town Togliatti, named after the Italian Communist Party leader Palmiro Togliatti, was built around the factory. The Lada was envisaged as a "people's car" like the Citroën 2CV or the VW Beetle.

The lightweight Italian Fiat 124 was adapted into something intended to survive treacherous Russian driving conditions. Among many changes, aluminium brake drums were added to the rear, and the original Fiat engine was dropped in favour of a newer design. This new engine had a modern overhead camshaft design but was never used in Fiat cars. The suspension was raised (to clear rough Russian roads) and the bodyshell was made from thicker, heavier steel. The first Lada models were equipped with a starting handle in case the battery went flat in Siberian conditions, though this was later dropped. Another feature specifically intended to help out in cold conditions was a manual auxiliary fuel pump.

Engines fitted to the original Ladas start with the 1.2L carburetor in the original and go up to the 1.7L export model set up with a General Motors single point fuel injection system. Diesel engines were later fitted for the Russian market only.

The Fiat-based Ladas feature various headlight, trim and body styles. The original, Fiat style models included VAZ-2101 sedan and VAZ-2102 station wagon. 1972 saw introduction of deluxe version of the sedan, VAZ-2103, which was based on Fiat 124 Speciale and featured new 1.5 L engine and twin headlights.

The VAZ-2106 introduced in 1976 was an updated version of VAZ-2103, featuring different interiors and new 1.6 L engine. 2106 is the oldest and the most popular rear-drive model of AvtoVAZ.

VAZ-2105, still based on the 2101 but updated to 80s styling, was introduced in 1980. Square headlights and new body panels distinguish this style from the old models. A deluxe version, VAZ-2107, was out in 1982; it featured a better engine, refined interiors and Mercedes-like radiator grille. In 1984, the VAZ-2104 station wagon completed the line-up.

In the domestic market, these classic models were called Zhiguli, the Lada name was used for exports only.

AvtoVAZ designers proved that they had some original ideas when the VAZ-2121 Niva was introduced in 1978. This highly popular car was made with off-road use in mind, featuring full time all-wheel drive, an original body style and the most powerful 1.7 L engine in the VAZ range. The Niva has also been available with 1.9 L Peugeot sourced diesel engine. The Niva is still in production.

Based on the success of the Niva, the design department prepared the new family of front-wheel drive models by 1984, a completely domestic design. Production started with VAZ-21083 Sputnik 3-door hatchback; the series were later renamed Samara. 5-door VAZ-21093 hatchback followed in 1987, and 4-door 1.5 L sedan, VAZ-21099, was introduced in 1990.

The 2108-2109 models were in production until 2001, when they were restyled with new side panels, interiors and 1.5 L fuel injection engines. The Lada 2109 hatchback was rebadged as Lada 2114, and Lada 21099 sedan was rebadged as the Lada 2115. The 2104-21099 model range was transferred to IzhMash and ZAZ and is still being manufactured.

VAZ-1111 Oka micro-car, which resembles the Fiat Panda, was introduced in 1988, and in 1991 the production was transferred to KamAZ and SeAZ factories.

The VAZ-2120 Nadezhda minivan is based on original Niva and is in low-volume production since 1998. A five-door version of the Niva, the VAZ-2131, has been in production since 1995.

The break-up of the USSR delayed the production of new 110-series by a couple of years. The VAZ-2110 sedan was introduced in 1996, the 2111 station wagon followed in 1998 and the 2112 hatchback completed the range in 2001. These models are basically based on Samara technology with a new body and fuel injection engines as standard.

GM-AvtoVAZ, a joint-venture with General Motors, adopted updated version of Niva, VAZ-2123, that was considered for production since the 1990s. Named Chevrolet Niva, it's being built on the venture's plant since 2001 and is exported to Europe and Latin America. In 2004, the Chevrolet Viva, a four-door version of the Opel Astra G, was introduced.

VAZ has also tried to get into the sportier markets: several Ladas were factory-tuned and given a Momo steering wheel. In 2003, VAZ presented the concept car Lada Revolution, an open single seater sports car powered by a 1.6L engine producing 215hp (160kW).

Some models (mostly the police version) have a Wankel-type engine (like the Mazda RX-7).

2005 saw the introduction of the new Kalina supermini lineup to the market. AvtoVAZ has built a new modern plant for this model and is hoping to sell some 200,000 cars annually.

The restyled 110-series model, Lada 2170 Priora, is set for production in Q3 2006.

AvtoVAZ is currently in talks with Renault to negotiate a CKD assembly of the Renault Logan. They have also contracted Magna International to design a new car platform and equip a new plant for its production.

Each model has internal index that reflects modifications level, based on the engine and other options installed — for example, the VAZ-21103 variant has the 1.5L 16V engine, while the VAZ-21104 uses the latest 1.6L 16V fuel injection engine. Since 2001, trim levels are also indicated by including a number after the main index: '-00' means base trim level, '-01' means standard trim and '-02' designates deluxe version; for example, VAZ-21121-02 means Lada 112 hatchback with 1.6L SOHC engine in deluxe trim level.

The car's name was formed from 'VAZ-index model name. The classic Fiat-derived models were known on the domestic market as Zhiguli until late-1990s, when the name was dropped; thus, the 2104-2107 range, as well as 110-series, actually lack a model name. The restyled Sputnik range was renamed Samara but the Niva and the Oka retained their names. By 2000s, the VAZ designation was dropped from market names in favour of Lada and simplified export naming conventions were adopted, so VAZ-2104 effectively became Lada 2104, VAZ-2110 became Lada 110, VAZ-2114 became Lada Samara hatchback or Lada 114 and so on, though model indices continue to be used in both technical and marketing materials. AvtoVAZ is a Russian automobile manufacturer, also known as VAZ, Volzhsky Avtomobilny Zavod, and better known to the world as Lada.