«The main technologies of protection against corrosion of the body and welds of LADA VESTA and LADA LARGUS CARS used in agricultural production»

M L Skryabin
• The durability of the body, the most expensive element of the car, during normal operation, is usually regulated by the corrosion resistance of the panels. The most susceptible to corrosion are the wings, sills, underbody, and wheel arches.

• It should be borne in mind that the corrosion resistance of the body after its repair can significantly decrease, since when plastic deformation of individual sections of the steel part, it becomes inhomogeneous in structure, which contributes to the formation of foci of electrochemical corrosion. A similar effect can be given by the heterogeneity of metal coatings – after repair, the adjacent sections of panels are found to differ in composition and properties from the factory primers, paints, and putties.

• Application of anti-corrosion coatings is carried out by special installations that work on the type of spray gun equipped with nozzles in the form of thin straight or curved tubes that allow spraying coatings in hard-to-reach areas of the body. The Czech installation is widely used in domestic practice.

• «AVTOVAZ» activities to improve the anti-corrosion protection of vehicles are focused on the development of new materials with improved decorative and protective properties, materials with increased corrosion resistance, advanced materials for surface preparation and priming, and new paint technologies.
To sum up, there are five levels of anti-corrosion protection of VAZ cars:

1. Level of 1980: cars VAZ-2104-07, 21213 - protection from through corrosion for up to three years (parts made of non-galvanized steel with anaphoretic priming).

2. Level of 1985: cars VAZ-2108-099, 2115 («Samara») - protection from through corrosion for up to four years (a small number of parts made of galvanized steel with cataphoresis priming).

3. Level of 1997: cars VAZ - 2110, 2170 («Priora») - protection from through corrosion for up to six years (52% of the body weight-mainly one-sided galvanized steel with cataphoretic priming).

4. Level of 2002: cars VAZ - 2123, 1118 («Kalina») - protection from through corrosion for up to six years (up to 50% of the body weight-mainly double-sided galvanized steel with cataphoretic priming).

5. 2018 Level: LADA LARGUS cars - protection from through-corrosion for up to ten years (up to 90% of the body weight is mainly double-sided galvanized steel with cataphoretic priming).

Guided by the principle of reasonable sufficiency in relation to the domestic and Western markets for LADA VESTA and LADA LARGUS cars, the task of achieving guaranteed protection against through-body corrosion for six years was set and implemented, which corresponds to the world level for cars of this class.

In the future, «AVTOVAZ» plans to increase the guaranteed protection against through-body corrosion for its new cars to 12...15 years due to the use of double-sided galvanized steel (95% of the body weight) and new-generation cataphoretic primers.
Contacts

• M L Skryabin
• Vyatka State Agricultural Academy, Kirov, Russia
  E-mail: max.dvs@mail.ru

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