

THE BLUETEC SYSTEM

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In addition to efficiency and reliability, diesel units are not too environmentally friendly – when working, they emit nitrogen oxides and hydrocarbons into the atmosphere. Old diesel units heavily pollute the air with soot. Both engineers and doctors express the growing concern about this issue. Moreover, the doctors add that the effect of diesel exhaust on human respiratory organs increases the risk of cancer.

Automobile conglomerates have been trying for a long time to improve the environmental friendliness of diesels. Daimler AG was not satisfied with the requirements of Euro 4 and Euro 5 environmental standards and created its own “clean” diesel system called BlueTEC.

After the introduction of the Euro 5 environmental standard, automobile conglomerates began hastily equipping the produced vehicles with an exhaust gas neutralization system. The basis of such systems is a catalyst. Daimler AG engineers presented their solution, called BlueTEC. Its key feature is the use of urea.

Here’s how it works: the AdBlue reagent is injected into the exhaust stream in small portions, where it is mixed with the exhaust (already cleaned of soot), goes to the neutralizer and contributes to the conversion of gases into nitrogen and water. The reagent is designed to combat nitrogen oxides, while the rest of the system components remove or burn soot, hydrocarbons and other components of diesel exhaust.

The BlueTEC system effectively reduces the percentage of harmful compounds in exhaust gases and prevents the emission of soot, but compares favorably with systems with catalytic converters in simplicity.

The main feature of Daimler AG technology can be described as follows: the diesel unit becomes more environmentally friendly, but it does not contain any complex and significant improvements that can dramatically increase the efficiency.

The main elements of BlueTEC have a large operational resource, and their maintenance is simple.