Audi A3 Sportback – Twin dosing

In addition, Audi is using an innovative exhaust-gas aftertreatment system in the 2.0 TDI known as twin dosing. By injecting AdBlue into the exhaust system at two separate points connected in series, it enables the injection of urea to be distributed far better and in a way that is appropriate to the situation, reducing nitrogen oxides significantly.

Compared with the generation of engines in the predecessor model, the NO_x values are cut by around 80 percent. In previous exhaust-gas aftertreatment systems, an SCR catalytic converter is positioned close to the engine, which enables nitrogen oxides to be reduced particularly efficiently in the case of cold starts or slow city driving through the injection of AdBlue. With the twin dosing method, the urea is also injected at a second point – upstream of an SCR catalytic converter in the vehicle underbody. The greater distance from the engine means that the temperature window for exhaust gas aftertreatment is widened. As a result, nitrogen oxide emissions can be reduced as far as possible even at high exhaust gas temperatures such as when driving at high speed on the freeway, transporting heavy loads, or driving uphill, for example. At the end of the exhaust system downstream of the SCR system, a blocking catalytic converter prevents unused ammonia from the injected AdBlue from being released into the environment.

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