



PRESS RELEASE

Diesel emissions scandal 2.0: Deutsche Umwelthilfe (Environmental Action Germany) presents expert report identifying eight previously unknown defeat devices in the Euro 6 Mercedes E-Class

- Explosive automotive software report by Felix Domke reveals, in detail, the operating principles of previously unknown software-controlled defeat devices that drastically reduce the effectiveness of exhaust gas purification in real-world road use
- The DUH's national director, Resch, believes that the Daimler group is now guilty of using additional illegal “defeat devices” beyond temperature-controlled devices.
- The consequence of this is that limit values are complied with on the test bench, whereas in real driving conditions nitrogen oxide emissions increase by up to 500 percent.
- The DUH demands that the new federal government officially recall all diesel cars still equipped with active defeat devices to repair the affected exhaust gas catalytic converters.

Berlin, 05/11/2021: The Stuttgart-based Daimler Group is more deeply involved in the diesel emissions scandal than was previously known. This has been revealed in a report that Deutsche Umwelthilfe (DUH) presented to the public in detail today. In it, the automotive software expert Felix Domke documented a total of eight previously unknown defeat devices in a Mercedes-Benz Euro 6 E-Class diesel car on behalf of a US law firm. In DUH's view, these clearly illegal so-called “defeat devices” reduce the effective purification of exhaust gases by the SCR catalytic converter. The result: the actual nitrogen oxide emissions on the road are up to 500 percent above the legally prescribed limit value. Until now, Daimler AG has always denied using illegal defeat devices in diesel cars sold in Germany and Europe.

“The expert report by Felix Domke finally proves that Daimler is guilty. It shows us for the first time how the company succeeds in complying with the legal limits in the test laboratory, while literally flooding our cities with harmful nitrogen oxides during real road use. The manipulation of the exhaust gas purification is not carried out because it is necessary for physical reasons or for the purpose of engine protection. The reason is as simple as it is cynical: it is about maximising profits at the expense of the environment and the health of city residents,” says Jürgen Resch, DUH's national director: *“We demand from the new federal government that all diesel vehicles with defeat devices in the exhaust gas purification system are either decommissioned or repaired via an official recall at the expense of the manufacturers, as is the case in the USA. The World Health Organisation recently called for the nitrogen dioxide limit to be lowered from an annual average of 40 to 10 µg/m³. To do this, all illegal diesel exhaust sources must be targeted - action must finally be taken.”*

In total, the expert discovered eight defeat devices and documented them in detail. Six of these are associated with the SCR system. Three of them depend on an “ageing factor” that significantly lowers the thresholds at which the shutdown devices activate. In two cases, this already begins to occur after ageing of about 1 percent in relation to the vehicle's service life. - i.e., after only a few thousand kilometres. A further reduction occurs after the vehicle has aged by approximately 20 per cent. Two illegal defeat devices are linked to the vehicle's exhaust gas recirculation system. There is no plausible physical reason for the existence of any of them.

“The defeat devices found activate in driving situations that are common in road use conditions. Even under normal driving conditions, at least one defeat device almost always actively prevents the improvement of emissions, even if it is not physically necessary or necessary for engine protection. This significantly reduces the amount of AdBlue injected, which is urgently needed to neutralise the nitrogen oxides in the SCR catalytic converter; similarly, the exhaust gas recirculation rate is reduced. As a result, the normally effective exhaust gas treatment hardware often only performs at a fraction of its potential capacity, and the vehicle emits unnecessarily large amounts of nitrogen oxides,” says expert Felix Domke.

The expert report is supported by current exhaust gas measurements obtained on the road by DUH's Emissions Control Institute (EKI). These demonstrate that the manufacturer Daimler installed several illegal defeat devices in the E350T Euronorm 6 vehicle under investigation. The vehicle complies with the legal nitrogen oxide limit values when examined on the test bench. However, based on a similar driving profile on the road, the EKI's exhaust measurements indicate an increase in nitrogen oxide emissions of up to 500 percent and more. The German Federal Motor Vehicle and Transport Authority (KBA) had already demanded a software update for the model under investigation here. The illegal defeat devices have been removed in the updated software. The nitrogen oxide emissions are subsequently also below the legal limit value during road testing. This underlines that the vehicle's hardware has always been capable of reducing emissions in compliance with the law, however, this was deliberately prevented by the software programming.

“The car manufacturers' claims that driving conditions lead to high pollutant emissions on the road are taken to the point of absurdity in this regard,” explains the environment and transport expert Axel Friedrich. *“It is to be hoped that the courts will also stop believing the car manufacturers' nonsensical claims and finally help car owners assert their rights.”*

Even though only one vehicle was evaluated in the current case due to the considerable effort involved, the expert assumes that other Mercedes vehicles with comparable engines and technologies contain comparable illegal defeat devices. Several exhaust measurements carried out by the EKI on other Mercedes diesel cars have already provided clear indications to this effect. The KBA has also detected illegal defeat devices in a large number of the manufacturer's vehicles.

“From a legal point of view, the factual situation is clear,” comments Glenn Phillips, Managing Partner of the international law firm Milberg which commissioned the expert report. *“The investigation concludes that the Daimler Group has installed a large number of unauthorised defeat devices that clearly violate applicable law. Affected consumers are now obviously entitled to damages, after all, they have been sold a defective vehicle for which*

they paid the full purchase price. Legally, this can be considered fraud - committed not only against the environment, but also against consumers. Mercedes drivers should check to determine if their diesel vehicle is affected."

Deutsche Umwelthilfe presented the report, further details, and possible consequences today at a press conference at 10 am.

Background

Felix Domke, the author of the expert report, is a software expert for engine control systems and has already worked as an expert for the German Federal Motor Vehicle and Transport Authority (KBA) on the independent analysis of software implementation with regard to illegal defeat devices. He also served as an expert witness at the parliamentary enquiry committee into the VW emissions scandal in 2017.

Domke was commissioned by the US law firm Milberg to provide an expert report on the question of whether Mercedes vehicles intentionally degrade their exhaust gas purification system in real-world driving conditions. For this purpose, measurement data was collected on a modern (2015, Euro 6 emission standard) Mercedes passenger car equipped with an SCR catalytic converter (Selective Catalytic Reaction) to reduce NOx emissions. The model is a Mercedes E 350 BlueTEC 4MATIC T Engine: OM642, 190 kW, 2987 ccm, 6 cylinders, first registration January 2016. Furthermore, the built-in engine control unit's calibration data was also analysed. The measurement data from the engine control unit during real driving operation was subsequently correlated with the calibration data.

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