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Regenerating particulate filters in Euro 6 diesel vehicles before emissions tests

To ensure that Euro 6 diesel vehicles are well prepared for stricter emissions tests, workshops and their customers need to be aware of a few key points.

Since July 1, 2023, diesel vehicles in the Euro 6 emission class have only been permitted to emit a maximum of 250,000 particles per cubic centimeter of exhaust gas. This is now checked with a contamination measuring system as part of exhaust emissions tests. Since this requirement was introduced, the number of vehicles failing their emissions tests has increased significantly. However, there are relatively simple ways to address some of the causes.



Figure 1: Best in class: The CPC technology in the MAHLE PMU 400 ensures precise measurement

Causes and possible remedy

In many cases, the diesel particulate filter (DPF) becomes saturated more quickly if the vehicle is mainly driven short distances and frequently or exclusively in eco mode. At the same time, this type of driving doesn't usually raise the temperature high enough to trigger the regeneration of the filter. If automatic regeneration fails too often, this is indicated on the illumination of the diesel particulate filter warning light on the instrument panel (Fig. 2).

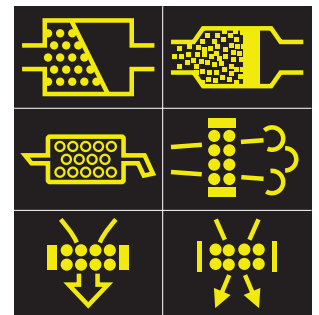


Figure 2: If this warning light illuminates, the diesel particulate filter needs to be regenerated.

When this warning light comes on, it's important to bring the vehicle up to the required temperature on a longer journey under a higher load (e.g., by taking a trip on a freeway) and to drive until the light goes out again after successful regeneration. If this doesn't solve the problem, a workshop can perform a forced regeneration of the DPF. If this doesn't work either, replacing the filter is usually unavoidable. Injecting chemical cleaning agents into the exhaust system or filter is only successful in some cases and can damage the filter fabric, leading to gas leaks. None of the manufacturers have approved or recommended DPF cleaners that are added to the fuel tank.

Important!

If a diesel vehicle is mainly driven short distances or in eco mode, longer journeys with higher loads should be planned several times a month. Before an emissions test, the vehicle should be brought to operating temperature, for example, by taking a journey on a freeway.