



New PTI-test for checking particulate filters of diesel cars with a particle counter

Proposal to amend Rule 1 and
R.E.6 of the 97 Agreement

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How it started in 2013

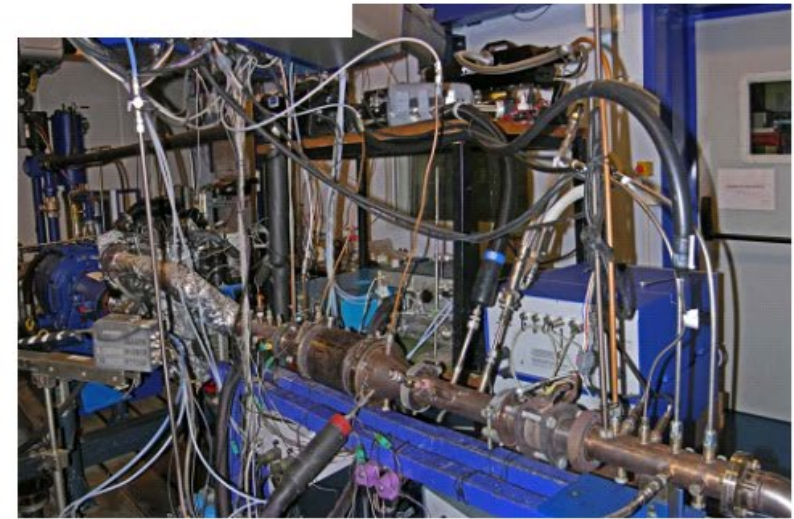
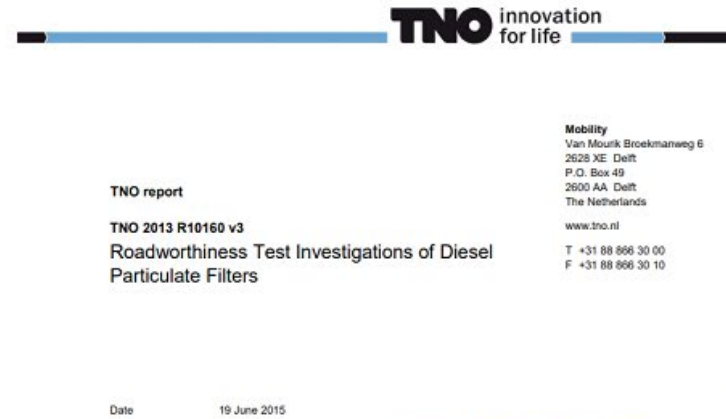


A lot of advertisements offering removal of particulate filters by diesel vehicles on the internet, but:

Almost no rejections in PTI

Assignment to TNO to conduct research 2013 – 2015:

Is there a problem?

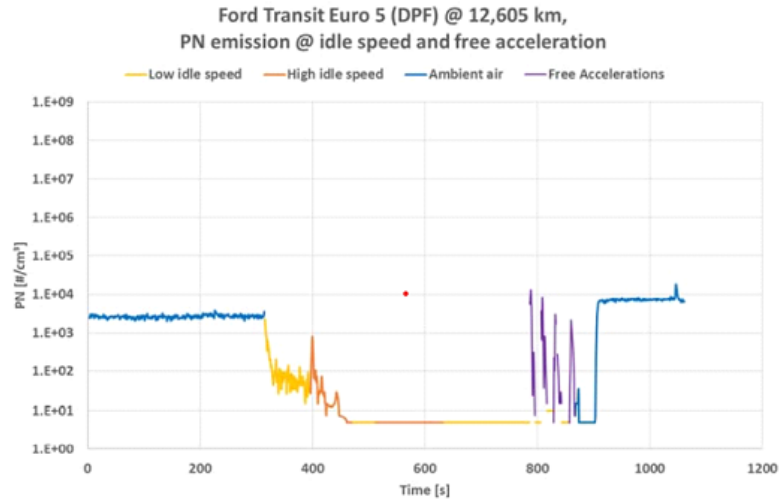


Result: The legally prescribed opacity test is not sufficient for modern vehicles with diesel engines.

Why a complete new test?

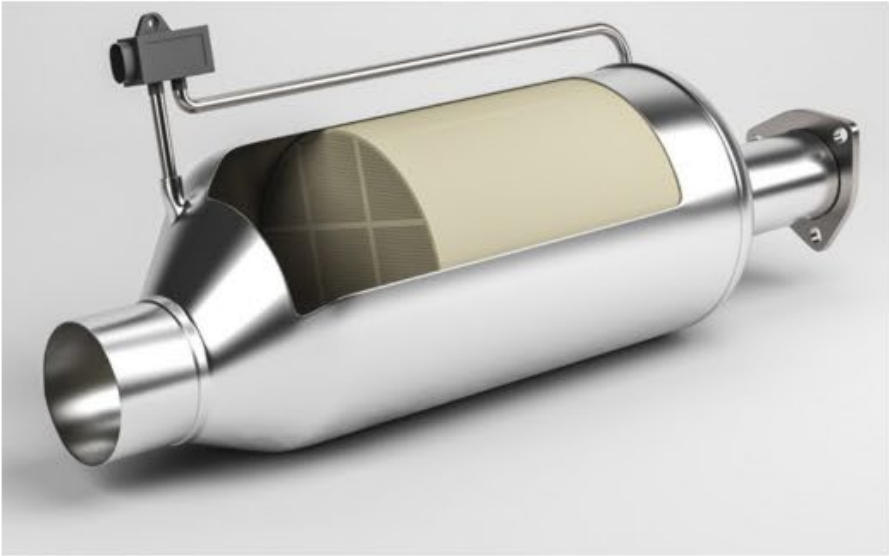
Opacity test is not suitable for modern Diesels

Fraud with emissions systems



- Opacimeter is not able to reliably measure the low concentration of emissions of a vehicle with a closed particulate filter.
- Vehicles with a filter that does not work properly pass the PTI without difficulty
- Even if the filter is removed, the measured value remains below the opacity measurement limit
- Vehicles with a particulate filter emit fewer particles than those present in ambient air

Diesel filter damaged or removed



Reading OBD and opacity test not suitable



NPTI working group started in 2014:

Germany, Belgium, Switzerland, UK, the Netherlands, Equipment industry, Metrology institutions, TNO, Environmental organizations



Their assignment:

- Develop a new PTI test method for modern diesels;
- Develop a device suitable for the PTI
- Develop a testing method
- Establish limit values

Some instruments:



Developments and results from 2022

- Introduction of the new test in:
 - Belgium July 2022
 - Switzerland January 2023
 - The Netherlands January 2023
 - Germany July 2023
- Summer 2023: Recommendation for PN test from European Commission. EU Commission will introduce PN test in the new proposal in the Roadworthiness Package
- Interest from all over the world in introducing this test.

First results in Europe

- First results:
- Different countries control different emission classes. ranging from Euro 5 or Euro 6
- The older the vehicles, the more rejection.
- Rejection percentage varies between 6.5% and 15%

Proposal to amend Rule 1 and R.E.6 of the 97 Agreement

- Rule 1: Option to use this test, no obligation.
- R.E.6 Specifications, test method.
- In cooperation with GRPE and adopted by GRPE and submitted to WP.29