

If the DSM will not produce a printout then the tester must make a written note of the following: -

- test station number
- testers name
- date and time
- test number
- vehicle type
- vehicle registration number
- that the vehicle passed the emissions test
- no print out was produced due to low emissions

This information must be recorded and kept with the emissions records for 3 months.

Test Procedure (pre-1980 vehicles)

1. If the engine checks are satisfactory and having removed any oil temperature probe, raise the engine speed to around 2500rpm, or half the maximum engine speed if this is lower, and hold for 30 seconds to fully purge the inlet and exhaust system.
2. Allow the engine to return to idle and assess the smoke emitted from the tailpipe.
3. Rapidly increase the engine speed to 2500rpm or half maximum engine speed if this is lower and assess the smoke emitted from the tailpipe under acceleration.

Test Procedure (post 1980 vehicles)

1. Before starting the test, ascertain the maximum smoke level limit for the vehicle and enter the required details into the diesel smoke meter. This will be:
 - a. for vehicles first used before 1 July 2008 not more than the level specified on the manufacture's plate, or where no value displayed:
 - for a non-turbocharged engine not more than 2.5m^{-1}
 - for a turbocharged engine not more than 3.0m^{-1}
 - b. for vehicles first used on or after 1 July 2008 not more than the level specified on the manufacture's plate, or 1.5m^{-1} where no value displayed
 - c. for vehicles first used on or after 1 January 2014 not more than the level specified on the manufacture's plate, or 0.7m^{-1} where no value displayed.
2. If the engine checks are satisfactory and having removed any oil temperature probe, raise the engine speed to around 2500rpm, or half the maximum engine speed if this is lower, and hold for 30 seconds to fully purge the inlet and exhaust system.
3. Raise engine speed slowly to maximum to check the operation of the governor. Once the engine speed has stabilised or if it becomes clear that the governor is not working, release the pedal, return to idle and stop the engine.
4. Prompt the meter to carry out a zero check and then insert the probe fully and securely in line with the gas flow. Restart the engine.
5. Following the meter prompts, depress the accelerator pedal quickly and continuously but not violently, to reach full fuel position **in less than one second**. Hold it there until a release prompt is given, then immediately release the pedal. Allow the engine, and any turbocharger fitted, to return to idle speed.

After the first acceleration read the smoke level displayed on the meter. If it is equal to, or less than the limit for the vehicle, the vehicle has passed the opacity test and a pass result will be displayed on the meter.