CEC Test Methods and Publications For Sale

Fuels

CEC Code Number	Description	Issue	Realease Date	Available Format	Price in Euro
CEC F-98-08 (S)	Direct Injection, Common Rail Diesel Engine Nozzle Coking Test.	10	16 November 2017	Electronic	9000

(U): These publications are not supported by a CEC Working Group and will not be updated. Only limited copies of methods in paper format are available.

(S): Sponsored Test Method. Pricing per CEC Constitution Guideline 17.

(F): Free to Existing Test Method Holders

Synopsis

Test Synopsis
CEC F-98-08 Direct Injection, Common Rail Diesel Engine Nozzle Coking Test.

Hardware
A Euro 4 PSA DW10 2.0L, Common-Rail, 4 cylinder, turbo-charged engine fitted with Euro 5 injectors and mounted on a test-bed.

Test
The DW10 Nozzle Fouling test was developed to demonstrate the propensity of some fuels to provoke fuel injector fouling in modern engines, and also to demonstrate the ability of detergent fuel additives to prevent or control these deposits.

The objective of the test is to discriminate between fuels that differ in their ability to produce injector deposits in direct injection diesel engines. The target is to be able to discriminate between a fuel that produces no measurable deposits and one which produces deposits that cause the 2% loss in power considered unacceptable by engine manufacturers.

• The test cycle used for the test consists of 12-stages and lasts 1hour.
• New injectors are bedded-in for 16 cycles on the non-fouling RF79 fuel
• Test fuel is flushed through the engine and the test is runs for 8 cycles and then stops for 4 hrs. This is repeated 3 times and test finishes after a further 8 cycles.
• The percentage power loss at Stage 12 over the 32 cycles is the final result of this test.

CEC Target parameters
• A reproducibility target of 1% power loss for the high reference fuel (RF-79-07). This target was chosen, so that the test would be able to protect against fuels giving more than 2% power loss.
• A reproducibility target of 5% power loss was set for the low reference fuel (RF-79-07 + 1ppm Zinc).
• No repeatability targets were set.

Auxiliary parameters
Not set

Specifications
OEM's state fuels giving more than 2% power loss are deemed to be unacceptable for modern European passenger car engines.

Major purpose of the group
Maintain and improve the test precision of the test