

VOSA Approved Vehicle Testing of Oxytane

These tests were carried out at Unit 33, Sugarbrook Road, Aston Fields Industrial Estate, Bromsgrove, B60 3DN, England, on September 29th 2008.

Tests carried out using Bosch 350 calibrated Diesel Smoke tester and Rotronics Dynamometer.

Vehicle: **Rover**

Mileage: **15911**

YOM: **2003**

Variant: **25 1800cc petrol**

HC Testing:

The European Law allows a level of up to 1.0 CO for this vehicle, with an MOT pass level of less than 0.20% CO. As you can see, this engine already had an output of 0.04. Concern was raised over the HC reading of 72ppm, with the pass rate being less than 200ppm. The actual reading was 72ppm. This is quite high for a reasonably low mileage vehicle.

European emission standards for passenger cars (Category M₁^{*}), g/km

Tier	Date	CO	HC	NO _x	HC+NO _x	PM
Diesel						
EM1	January 1989	2.72 (3.16)	-	-	0.97 (1.13)	0.14 (0.18)
Euro 2, IDI	January 1993	1.0	-	-	0.7	0.08
Euro 2, DI	January 1993	1.0	-	-	0.9	0.10
Euro 3	December 1997	0.64	-	0.50	0.56	0.05
Euro 4	January 2003	0.50	-	0.25	0.30	0.025
Euro 5 (future)	September 2009	0.50	-	0.18	0.23	0.005
Euro 6 (future)	September 2014	0.50	-	0.08	0.17	0.005
Petrol (Gasoline)						
EM1	January 1989	2.72 (3.16)	-	-	0.97 (1.13)	-
Euro 2	January 1993	2.2	-	-	0.5	-
Euro 3	January 1997	2.30	0.20	0.15	-	-
Euro 4	January 2003	1.0	0.10	0.08	-	-
Euro 5 (future)	September 2009	1.0	0.10	0.06	-	0.005**
Euro 6 (future)	September 2014	1.0	0.10	0.06	-	0.005**
* Before Euro 5, passenger vehicles > 2500 kg were type approved as light commercial vehicle N1 - I						
** Applies only to vehicles with direct injection engines						

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      B O S C H
    Basic Emission Test
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      TEST STATION
    CHIPPED U.K.
UNIT 33, SUGARBROOK ROAD
ASTON FIELDS IND. EST.
BROMSGROVE, B60 3DN.
TEL: (01527) 579345
VTS number:
-----
BEA version:    V1.20-UK
AMM version:    000-B6
-----
Date:           29.09.2008
Time:           10:30
-----
      VEHICLE DETAILS
Reg. Number:    KX53JZA
-----
      DESCRIPTION
Engine temp. measurement
by manual observation of
temperature gauge
-----
      Fast Idle Test
-----
Speed           2820 /min
CO              0.04 %vol
HC              72 ppm
Lambda          1.02
-----
      Natural Idle Test
-----
Speed           840 /min
CO              0.00 %vol
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As you can see, the CO was at 0.04% with HC at 72ppm.

We then added 11ml of Oxytane directly to the fuel supply to give the desired balance of 1ml to 1 gallon of fuel and allowed the car to idle for 5 minutes giving the fuel enough time to mix.

We proceeded to do a direct comparison test using the exact same procedure as the previous test.

The results were staggering. We saw a reduction in hydrocarbon's (HC) of 54% bringing them down from 72ppm to 40ppm. This is in addition to a drop in CO emission by 50%, down from 1.04% to 1.02%.

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Date:         29.09.2008
Time:         10:50
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      VEHICLE DETAILS
Reg. Number:   KX53JZA
-----
      DESCRIPTION
Engine temp. measurement
by manual observation of
temperature gauge
-----
      Fast Idle Test
-----
Speed         2810 /min
CO            0.02 %vol
HC            40 ppm
Lambda        1.01
-----
      Natural Idle Test
-----
Speed         820 /min
CO            0.00 %vol
-----

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Although the car would have passed a UK emission test for an MOT, the car was still in need of reducing the emissions as the HC output was fairly high for such a low mileage car.

Conclusion:

The end result of this product is a proven drop of over 54% in Hydrocarbons and 50% in CO.

The results have surpassed all expectations, as just 11ml of Oxytane totally changed the cars emissions. An added benefit of the testing was a considerable drop in engine noise within moments of adding the Oxytane to the fuel tank. A quieter and smoother engine note was the result.

Simon White.