

Diesel Smog Check Inspection

Bureau of Automotive Repair
&
California Air Resources Board

January 20, 2009

Workshop Agenda

- Purpose of Workshops
- Overview
- Proposed Test Procedures
- Next Steps
- Contact Information

Purpose of Workshops

- Provide an overview of diesel-powered vehicles proposed test procedures

Overview

Assembly Bill 1488 (Mendoza, Chapter 739, Statutes of 2007) requires:

- Model year 1998 and newer diesel-powered vehicles be included in the Smog Check Program
- Under 14,000 lbs GVWR
- Testing begins January 2010
- Statewide implementation of diesel testing
- ARB/BAR to develop inspection procedures

Overview

- Estimated diesel vehicle population subject to the Smog Check Program for calendar year 2010
 - Biennial inspections
 - Change of Ownership inspections
 - Out of State vehicles inspections

Vehicle Type	GVWR (lbs)	Estimated # Vehicles
Autos	8,500 and less	10,000
Trucks	8,500 - 10,000	380,000
Trucks	10,000 - 14,000	150,000
Total		540,000

Overview

Registration

- DMV registration renewal notices will indicate whether an inspection is required.
- DMV will begin notification January 2010
- Diesel change-of-ownership will require inspections beginning January 2010

Overview

Equipment Update

- No new inspection equipment will be required
- BAR will be contracting with EIS manufacturers to update and install the needed software
- The BAR-97 analyzers will be able to perform the OBD test on all non-CAN vehicles

Overview

Technician Training

- Diesel-specific inspection training will be provided
- The training will be made available to all technicians

Proposed Test Procedures

- BAR has been working with the ARB to develop inspection procedures that will consist of:
 - Visual test
 - OBD test
 - Visible Smoke test

Proposed Test Procedures

Visual Check

- The Visual Check will consist of:
 - Crankcase Depression Regulator (CDR) or Positive Crankcase Ventilation (PCV)
 - Diesel Oxidation Catalyst (DOC), Diesel Particulate Filter (DPF), NOx Adsorber
 - EGR
 - Fuel Injection
 - Pressure sensors and temperature sensors
 - Wiring of Sensors/Switches/Computer
 - Vacuum Line Connections to Sensors/Switches
 - Other Diesel Emission-Related Components
Turbocharger/Supercharger, Cylinder Heads, Exhaust Manifolds, Intake Manifolds, and any other emissions-related components

Proposed Test Procedures

OBD Check

- The OBD Check will consist of:
 - Malfunction Indicator Light (MIL) is operational
 - MIL On/Off
 - MIL status, OBD readiness status codes, and DTCs will be downloaded to the BAR-97

Proposed Test Procedures

Visible Smoke Test

- Visible Smoke Test will consist of:
 - The Idle Test
 - The Idle Crankcase (CDR/PCV) Test
 - The Snap Test

Proposed Test Procedures

Visible Smoke Test - Idle

- The Idle Test will consist of:
 - With the engine at normal operating temperature, and running at idle
 - Go around to the vehicle's tailpipe
 - Observe the tailpipe exhaust plume of the vehicle for 10 seconds

Proposed Test Procedures

Visible Smoke Test - CDR

- The Idle Crankcase (PCV/CDR) Test will consist of:
 - Leave the vehicle's engine running at idle and go around to the vehicle engine compartment
 - Open the hood to the engine compartment, and locate the Crankcase (PCV/CDR) system components
 - Continuously watch the crankcase (PCV/CDR) system for 10 seconds

Proposed Test Procedures

Visible Smoke Test – Snap

- The Snap Test will consist of:
 - The technician shall push the accelerator pedal quickly from the idle position to between 2000 and 3000 RPM, then immediately release the accelerator pedal, allowing the engine to return to idle.

Proposed Test Procedures

Visible Smoke Test – Snap (Continued)

- The Snap Test will consist of:
 - Perform the second of three snap tests, while watching for visible emissions
 - Return to Idle, and wait for at least one second
 - Perform the third (and final) snap test, while watching for visible emissions

Open Discussion

- Suggestions
- Comments
- Questions

Next Steps

- Publish workshop summary on BAR Web site
- Develop regulations
- Regulatory hearing
- January 2010 implementation

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Diesel Truck Demonstration

- Practice the visible smoke test
- Check for emission components
- Discuss with ARB/BAR