

Frequently Asked Questions In-Use Off-Road Diesel Vehicle Regulation

Definition of Engine Model Year and How It Can Be Determined FAQ Revised May 2011

Q – What is meant by engine model year?

A – The engine model year is determined by the *annual new model production period* during which the engine was produced. The *annual new model production period* (according to Title 40, CFR, § 89.2 and Title 13, CCR, § 2421(a)(37)) is defined as:

- Engines manufactured from January 2 of one year through December 31 of the following year; or
- The calendar year that it was produced in.

Therefore, for example, a 2008 model year engine can not be produced after December 31, 2008, but could have been produced in 2007 (except for January 1, 2007).

Q – Can the vehicle model year be different than the engine model year?

A – Yes. Once an engine is produced legally, it can be sold indefinitely. Therefore, for example, a 2008 model year vehicle could contain a model year 2006 engine.

Q – How can I figure out what my engine model year is?

A – Since off-road engines have been certified (1996), the convention for engine family name has been that the engine family name begins with the model year, which is represented by a character or a number. From 1996 to 2000, the following engine model years were represented by the following characters.

- 1996 – T
- 1997 – V
- 1998 – W
- 1999 – X
- 2000 – Y

In 2001, the engine model year was represented by a number at the beginning of the family name. Therefore, for example, a model year 2001 engine would have an engine family name beginning with 1. In 2010, they may switch back to letters. EPA and ARB use the same engine family convention.

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Beginning in 2010, the engine model year reverted back to being represented by characters. The following engine model years are represented by the following characters:

- 2010 – A
- 2011 – B
- 2012 – C
- 2013 – D
- 2014 – E
- 2015 – F

The model years follow this pattern until it reaches Y in 2030. However, the following letters are skipped: I, O, Q, U, Z.

Prior to 1996, for Tier 0 engines, there are no engine family names.

If the model year of an engine is unknown because it is missing a serial number, manufacturer's build code, and/or an engine family number, the fleet owner should check with the engine manufacturer or their authorized representative (such as a dealer). Some OEM's will provide this information, because they track which engines are in the equipment by model serial number. If a manufacturer or dealer can bracket the model year of an engine (for example that an engine was built between 1987 and 1994) by examining the engine's build and components, the earliest date the engine could have been manufactured can be reported as the model year of that engine (in the example, 1987). If the fleet owner is still unable to determine the model year of the engine after checking with the manufacturer or dealer, the engine can be reported and treated as a 1969 model year engine.

Q – What are pre- and post-2007 flexibility (flex) engines?

A – Flexibility (flex) engines are engines that were produced by engine manufacturers to a less stringent emission standard after a new tier of emission standards goes into effect. The purpose was to provide equipment manufacturers with some lead time to redesign their equipment for the newer, more stringent, engines.

Pre-2007 flex engines are engines that were subject to the 2000 Plus Limited Test Procedures for new off-road diesel engines and have been certified to either Tier 1 or Tier 2 emission standards. Post-2007 flex engines are engines that are subject to the 2008 and Later Test procedures for new off-road diesel engines and are certified to Tier 2, Tier 3, or Tier 4 interim emission standards (depending on the year and engine power rating).

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Q – How can I tell if I have a flex engine in my vehicle?

A – All engines that have been certified to the flexibility standards must have a label that identifies the engine as such. In most situations, the label will read:

“THIS ENGINE COMPLIES WITH CALIFORNIA EMISSION REQUIREMENTS UNDER 13 CCR 2423(d). SELLING OR INSTALLING THIS ENGINE FOR ANY PURPOSE OTHER THAN FOR THE EQUIPMENT FLEXIBILITY PROVISIONS CITED MAY BE A VIOLATION OF STATE LAW SUBJECT TO CIVIL PENALTY.”

In rare circumstances, the language may be different but will always have a reference to the Flexibility Provisions in section 2423(d) of the regulation for new Off-Road Compression Ignition Engines and Equipment.

Q – Do I need to report flex engines in DOORS, or count them differently in my fleet average calculations?

A – All fleets must report whether or not an engine is flexed in DOORS. However, a fleet does not need to determine what model year the engines were flexed to, since it is not required to use the emission factor to which the engine is certified. Instead, a fleet should report the engine model year as it would for any other non-flexed vehicle in its fleet.

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