

Supplement

California & Federal Emissions Control Warranty Information

**Warranty Information For Certified Engines
Used In Mobile Nonroad Machines and Equipment**

Federal Emission Control Warranty

Emissions Warranty

Caterpillar Inc., or any of its subsidiaries ("Caterpillar") warrants to the initial owner and subsequent owner of a certified nonroad diesel engine (powering mobile machinery), that such engine is:

1. Designed, built, and equipped so as to conform, at the time of sale, with all applicable regulations adopted by the United States Environmental Protection Agency (EPA).
2. Free from defects in materials and workmanship in specific emission-related parts for a period of 60 months, or 3,000 hours of operation, whichever occurs first, after date of delivery to the initial owner.

If an emission-related part fails during the warranty period, it will be repaired, or replaced. Any such part repaired or replaced under warranty is warranted for the remainder of the warranty period.

The engine is certified if it has a special certification label. A Caterpillar dealer can also inform you if the engine is certified.

During the term of this warranty, Caterpillar will provide, through a Caterpillar dealer or other source approved by it, repair or replacement of any warranted part at no charge to the nonroad diesel engine owner.

In an emergency, repairs may be performed at any service establishment, or by the owner, using any replacement part. Caterpillar will reimburse the owner for their expenses, including diagnostic charges for such emergency repair. These expenses shall not exceed Caterpillar's suggested retail price for all warranted parts replaced, and labor charges based on Caterpillar's recommended time allowance for the warranty repair and the geographically appropriate hourly labor rate.

A part not being available within 30 days or a repair not being complete within 30 days constitutes an emergency.

As a condition of reimbursement, replaced parts and validated invoices must be presented at a place of business of a Caterpillar dealer or other source approved by Caterpillar.

Responsibilities & Limitations

The warranty is subject to the following:

Caterpillar Responsibilities

During the emission warranty period, if a defect in material or workmanship of an emission-related part or component is found, Caterpillar will provide:

- New, Remanufactured, or repaired parts and/or components, approved pursuant to EPA Regulations, required to correct the defect.

Note: Items replaced under warranty become the property of Caterpillar

- Reasonable or customary labor, during normal working hours, needed to correct the defect, including labor for removal and installation when necessary to make the repair.

User Responsibilities

During the emission warranty period, the owner is responsible for:

- Providing proof of the delivery date to the first user.
- Premium or overtime labor costs.
- Costs to investigate complaints which are not caused by a defect in Caterpillar material or workmanship.
- Providing timely notice of a warrantable failure and promptly making the product available for repair.
- Performance of the required maintenance and use of proper fuel, oil, lubricants and coolant.

Federal Emission Control Warranty

Limitations

Caterpillar is not responsible for resultant damages to an emission-related part or component resulting from:

- Any use or installation which Caterpillar judges improper.
- Attachments, accessory items and parts not sold or approved by Caterpillar.
- Abuse, neglect and/or improper engine repair.
- User's delay in making the product available after being notified of a potential product problem.
- Unauthorized repair or adjustments and unauthorized fuel setting changes.

This warranty is in addition to Caterpillar's standard warranty, applicable to the nonroad engine product involved.

NEITHER THE FOREGOING EXPRESS WARRANTY NOR ANY OTHER WARRANTY BY CATERPILLAR, EXPRESS OR IMPLIED, IS APPLICABLE TO ANY ITEM CATERPILLAR SELLS WHICH IS WARRANTED DIRECTLY TO THE USER BY ITS MANUFACTURER.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. REMEDIES UNDER THIS WARRANTY ARE LIMITED TO THE PROVISION OF MATERIAL AND SERVICES, AS SPECIFIED HEREIN. CATERPILLAR IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

California Emission Control Warranty Statement

California Emission Control Warranty Statement

CAT®		CATERPILLAR INC.		IMPORTANT ENGINE INFORMATION		1997	1JM00001
ENGINE MODEL: 3412 - DISPLACEMENT: 27.0L - VALVE LASH: 0.38mm INTAKE 0.76mm EXHAUST							
ENGINE FAMILY	MAXIMUM ADVERTISED kW (HP)	MAXIMUM RATED SPEED (RPM)	MAXIMUM LOW IDLE SPEED (RPM)	MAX. FUEL RATE @ MAXIMUM kW (mm ³ /STROKE)	MAXIMUM INITIAL TIMING DEGREES BTDC	EXHAUST EMISSION CONTROL SYSTEM	
VCP27.RZDARK	477 (640)	1800	700	179	ELECTRONIC	EM,DI,TC,ECM,CAC	

THIS 3412 ENGINE CONFORMS TO 1997 U.S. EPA AND CALIFORNIA REGULATIONS LARGE NON-ROAD COMPRESSION-IGNITION ENGINES.
THIS ENGINE IS CERTIFIED TO OPERATE ON COMMERCIALLY AVAILABLE DIESEL FUEL.

DATE OF MANUFACTURE MONTH: 12

7E-8050 01

Certification Label.

Owner Warranty Rights and Obligations

The California Air Resources Board (CARB) and Caterpillar are pleased to explain the emission control system warranty on your 1996 or later certified heavy duty off-road diesel engine. The engine is certified if it has a special certification label. A Caterpillar dealer can also inform you if the engine is certified.

In California, new heavy duty off-road diesel engines must be designed, built, and equipped to meet the state's stringent anti-smog standards. Caterpillar must warrant the emission control system on your engine for the duration of time listed below provided there has been no abuse, neglect, or improper maintenance of your engine.

Your emission control system may include parts such as the fuel injection system, air induction system, and engine computer, if equipped. Also included may be hoses, connectors, clamps and other emission-related components.

Where a warrantable condition exists, Caterpillar will repair the heavy duty off-road diesel engine at no cost to the owner including diagnosis, parts, and labor.

Manufacturer's Warranty Coverage

- The emissions warranty period for new heavy duty off-road diesel engines is a duration of 60 months, or 3,000 hours of operation, whichever occurs first after date of delivery to the initial owner.
- If an emission-related part or component on your diesel engine is defective, the part or component will be repaired, or replaced by Caterpillar. This is your emission control system **WARRANTY**.

Owner's Warranty Responsibilities

- As the heavy duty off-road diesel engine owner, you are responsible for the performance of the required maintenance listed in the owner's manual (Operation and Maintenance Manual). Caterpillar recommends that you retain all receipts and records covering the maintenance on your engine, but cannot deny warranty solely for the lack of receipts and records or for your failure to ensure the performance of all scheduled maintenance.
- As the heavy duty off-road diesel engine owner, you should also be aware that Caterpillar may deny you warranty coverage if your heavy duty off-road diesel engine, or an emission component, or part has failed due to abuse, neglect, improper maintenance, or unapproved modifications.

California Emission Control Warranty Statement

- Your engine is designed to operate on commercial diesel fuel only. Use of any other fuel may result in your engine no longer operating in compliance with California's emission requirements.
- You are responsible for contacting your Caterpillar dealer as soon as any engine problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.

If you have questions regarding your warranty rights and responsibilities, contact:

Caterpillar
Manager, Warranty Operations
Peoria, IL 61629-1250
Phone (309) 675-4037

OR

California Air Resources Board (CARB)
9528 Telstar Ave.
El Monte, CA 91731

Emissions Warranty

Caterpillar Inc., or any of its subsidiaries ("Caterpillar") warrants to the initial owner and subsequent owner of a certified off-road diesel engine powering mobile machinery that such engine is:

- 1.** Designed, built, and equipped so as to conform, at the time of sale, with all applicable regulations adopted by the California Air Resources Board (CARB).
- 2.** Free from defects in materials and workmanship in specific emission-related parts for a period of 60 months, or 3,000 hours of operation, whichever occurs first, after date of delivery to the initial owner.

If an emission-related part fails during the warranty period, it will be repaired, or replaced. Any such part repaired, or replaced under warranty is warranted for the remainder of the warranty period.

During the term of this warranty, Caterpillar will provide, through a Caterpillar dealer or other source approved by it, repair or replacement of any warranted part at no charge to the off-road diesel engine owner.

In an emergency, where an authorized dealer is not reasonably available, repairs may be performed at any service establishment, or by the owner, using any replacement part. Caterpillar will reimburse the owner for their expenses, including diagnostic charges for such emergency repair. These expenses shall not exceed Caterpillar's suggested retail price for all warranted parts replaced, and labor charges based on Caterpillar's recommended time allowance for the warranty repair and the geographically appropriate hourly labor rate.

A part not being available within 30 days or a repair not being complete within 30 days constitutes an emergency.

As a condition of reimbursement, replaced parts and validated invoices must be presented at a place of business of a Caterpillar dealer or other source approved by Caterpillar.

California Emission Control Warranty Statement

This warranty covers the following emission-related parts and components.

- Charge Air Cooling System (If equipped)
- Fuel Injection System
- Intake Manifold
- Exhaust Manifold
- Turbocharger System
- Air-Fuel Ratio Control System
- Electronic Control Module including Sensors and Personality Module (If equipped)
- Miscellaneous hoses, clamps, connectors and sealing devices used in the above systems.

Any replacement part may be used for maintenance or repairs. The owner should ensure that such parts are equivalent in design and durability to genuine Caterpillar parts. Use of non-genuine Caterpillar parts does not invalidate the warranty. However, Caterpillar is not liable for parts which are not genuine Caterpillar parts.

Responsibilities & Limitations

This warranty is subject to the following:

Caterpillar Responsibilities

During the emission warranty period, if a defect in material or workmanship of an emission-related part or component is found, Caterpillar will provide:

- New, Remanufactured, or repaired parts and/or components required to correct the defect.

Note: Items replaced under warranty become the property of Caterpillar.

- Reasonable or customary labor, during normal working hours, needed to correct the defect, including labor for removal and installation when necessary to make the repair.

User Responsibilities

During the emission warranty period, the owner is responsible for:

- Providing proof of the delivery date to the first user.
- Premium or overtime labor costs.

- Costs to investigate complaints which are not caused by a defect in Caterpillar material or workmanship.
- Providing timely notice of a warrantable failure and promptly making the product available for repair.
- Performance of the required maintenance and use of proper fuel, oil, lubricants and coolant. A warranty claim will not be denied because the scheduled maintenance was not performed. However, if the lack of required maintenance was the reason for the repair, then the claim will be denied.

Limitations

Caterpillar is not responsible for resultant damages to an emission-related part or component resulting from:

- Any use or installation which Caterpillar judges improper as explained in the Operation and Maintenance Manual.
- Attachments, accessory items and parts not sold or approved by Caterpillar.
- Abuse, neglect and/or improper repair.
- User's delay in making the product available after being notified of a potential product problem.
- Unauthorized repair or adjustments, and unauthorized fuel setting changes.

This warranty is in addition to Caterpillar standard warranty, applicable to the off-road engine product involved.

NEITHER THE FOREGOING EXPRESS WARRANTY NOR ANY OTHER WARRANTY BY CATERPILLAR, EXPRESS OR IMPLIED, IS APPLICABLE TO ANY ITEM CATERPILLAR SELLS WHICH IS WARRANTED DIRECTLY TO THE USER BY ITS MANUFACTURER.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. REMEDIES UNDER THIS WARRANTY ARE LIMITED TO THE PROVISION OF MATERIAL AND SERVICES, AS SPECIFIED HEREIN. CATERPILLAR IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Emissions Warranty Information

Maintenance Recommendations

Some Caterpillar nonroad diesel engines are certified by the United States Environmental Protection Agency (EPA) to comply with smoke and gaseous emission standards prescribed by Federal laws at the time of manufacture.

The engine is certified if it has a special certification label. A Caterpillar dealer can also inform you if the engine is certified.

Efficiency of emission control and engine performance depends on adherence to proper operation and maintenance recommendations AND use of recommended fuels and lubricating oils. It is recommended that major adjustments and repair be made by your authorized Caterpillar dealer.

Various chemical fuel additives, which claim to reduce visible smoke, are available commercially. Although additives have been used by individuals to solve some isolated smoke problems in the field, they are not recommended for general use. Federal smoke regulations require that engines be certified without smoke depressants.

The corrective steps taken immediately on discovery of worn parts, which may affect emission levels, will help assure proper operation of emission control systems. The use of genuine Caterpillar parts is recommended. Suppliers of non-Caterpillar parts must assure the owner that the use of such parts will not adversely affect emission levels.

Regular maintenance intervals, along with special emphasis on the following items, are necessary to keep exhaust emissions within acceptable limits for the useful life of the engine. Refer to the Maintenance Section of this manual. If the engine is operating under severe conditions, adjust the maintenance schedule accordingly. See your authorized Caterpillar dealer to help analyze your specific application, operating environment and maintenance schedule adjustments.

The following is an explanation of maintenance for emission-related components. See the Maintenance Schedule for the specific interval for the following items.

FUEL INJECTORS OR NOZZLES – Fuel injectors or nozzles are subject to tip wear as a result of fuel contamination. This damage can cause an increase in fuel consumption, the engine to emit black smoke, misfire or run rough. Inspect, test and replace if necessary. Fuel injectors can be tested by an authorized Caterpillar dealer.

TURBOCHARGER – Check for any unusual sound or vibration in the turbocharger. Inspect inlet and exhaust piping and connections. Check bearing condition and perform maintenance as described in the Maintenance Schedule.

AIR/FUEL RATIO CONTROL – This component is a device to control the black smoke emission of an engine during its operation when low inlet manifold pressure exists.

Slow engine response and low power may indicate a need for adjustment or repair. Your Caterpillar dealer is equipped with the necessary tools, personnel, and procedures to perform this service.

Owner is encouraged to keep adequate maintenance records, but the absence of such, in and of itself, will not invalidate the warranty.

The machine or equipment owner may perform routine maintenance, repairs and other non warranty work or have it done at any repair facility. Such non warranty work need not be performed at a designated warranty station in order for the warranty to remain in force.

Federal Emission Control Warranty

Customer Assistance—Emission Control Systems Warranty

Caterpillar Inc. aims to ensure that the Emission Control Systems warranty is properly administered. In the event that you do not receive the warranty service to which you believe you are entitled under the Emission Control Systems Warranty, call or write:

Caterpillar
Manager, Warranty Operations
Peoria, IL 61629-1250
Ph. (309) 675-4037

Authorized dealers are recommended for major maintenance and repair work as they are staffed with trained personnel, proper tools and are aware of the latest maintenance methods and procedures. Owners and others who desire to perform their own work should purchase a Service Manual and obtain current service information from their Caterpillar dealer.