

EPA Phase 3 Exhaust and Evaporative Emission Regulations

PART 1054 CONTROL OF EMISSIONS FROM NEW, SMALL NONROAD SPARK-IGNITION ENGINES AND EQUIPMENT and
PART 1068 – GENERAL COMPLIANCE PROVISIONS FOR NONROAD PROGRAMS

EPA 3 Effective Date: January 1, 2010

Rebuilding, Maintenance, Service, Defects Reporting, Tampering and Penalties

NOTE: The following is edited or suitably paraphrased for relevance to STIHL products/engines, STIHL Distributors, STIHL authorized servicing dealer network and the ultimate end user. Complete regulatory text is available at www.epa.gov.

§ 1054.135 How must STIHL label and identify the EPA compliant engines STIHL manufactures?

SERIAL NUMBER: Each product/engine is assigned a unique identification number. This unique identification number must be permanently affixed, engraved, or stamped on the engine at the time of manufacture.

EMISSION COMPLIANCE LABEL: Each product/engine must have an emissions compliance label applied at the time of manufacture. The label must be—

- (1) Attached in one piece so it is not removable without being destroyed or defaced.
- (2) Secured to a part of the engine needed for normal operation and not normally requiring replacement.
- (3) Durable and readable for the engine's entire life.
- (4) Written in English.
- (5) Include the heading "EMISSION CONTROL INFORMATION".
- (6) Include the full STIHL corporate name and trademark.
- (7) Include EPA's standardized designation for the emission family
- (8) State the useful life: "EMISSION COMPLIANCE PERIOD = [50, 125 or 300] HOURS"
- (9) State the engine's displacement (in cubic centimeters)
- (10) State the date of manufacture.
- (11) Identify the emission control system.

(12) State as appropriate —

“THIS ENGINE MEETS U.S. EPA EXH REGS FOR [MODEL YEAR].” or “THIS ENGINE MEETS U.S. EPA EXH/EVP REGS FOR [MODEL YEAR].”

If not included on the label, specifications and adjustments for engine maintenance, the recommended fuel type and any requirements for fuel and lubricants must be included in the instruction manual.

§ 1068.101 What general actions does this regulation prohibit?

The following prohibitions apply to **everyone** with respect to the engines and equipment.

Tampering. Removing or rendering inoperative any device or element of design installed on or in engines in compliance with EPA regulations **prior to its sale** and delivery to the ultimate purchaser is prohibited.

You also may not knowingly remove or render inoperative any such device or element of design after the sale and delivery to the ultimate purchaser.

STIHL, STIHL distributors and/or dealers, can be assessed a civil penalty up to **\$37,500 for each engine** or piece of equipment in violation. For anyone else (i.e., the ultimate purchaser) the EPA can assess a civil penalty up to **\$3,750 for each day an engine or piece of equipment is operated in violation**.

Defeat devices. You may not knowingly manufacture, sell, offer to sell, or install, any part that bypasses, impairs, defeats, or disables the control of emissions. The EPA may assess a civil penalty up to **\$3,750 for each part in violation**.

Competition engines/equipment. If you modify any engines/equipment after they have been placed into service in the United States so they will be used solely for competition, they are exempt without request. This exemption is valid only as long as the engine/equipment is used solely for competition. If you modify any engines/equipment so they will be used solely for competition, you must destroy the original emission labels. If you loan, lease, sell, or give any of these engines/equipment to someone else, you must tell the new owner (or operator, if applicable) **in writing** that they may be used only for competition.

However, you may not use this engine in a manner that is inconsistent with use solely for competition. The EPA can assess a civil penalty up to **\$37,500 for each day** you are in violation.

Importation. You may not import an uncertified engine or piece of equipment. Anyone violating this requirement is deemed to be a manufacturer in violation and the EPA may assess a civil penalty up to **\$37,500 for each day** you are in violation.

Emissions Warranty. Except as specifically provided by the EPA regulation, you are prohibited from directly or indirectly communicating to the ultimate purchaser or a later

purchaser that the emission-related warranty is valid only if the owner has service performed at authorized facilities or only if the owner uses authorized parts, components, or systems. The EPA can assess a civil penalty up to **\$37,500 for each engine** or piece of equipment in violation.

Labeling. Removing or altering an emission control information label is a violation. However, it is not a violation to remove a label in the following circumstances:

- The engine is destroyed or is permanently disassembled.
- The part on which the label is mounted needs to be replaced. In this case, you must have a replacement part with a duplicate of the original label installed by STIHL, except that the replacement label may omit the date of manufacture if applicable. The EPA generally require labels to be permanently attached to parts that will not normally be replaced, but this provision allows for replacements in unusual circumstances.
- The original label is incorrect, provided that it is replaced with the correct label from STIHL.

For labels identifying temporary exemptions, you may not remove or alter the label while the engine/equipment is in an exempt status. The exemption is automatically revoked for each engine/equipment for which the label has been removed.

For temporary or removable consumer information labels, only the ultimate purchaser may remove the label.

You may not apply a false emission control information label. You also may not manufacture, sell, or offer to sell false labels. The application, manufacture, sale, or offer for sale of false labels is a violation. Applying an otherwise valid emission control information label to the wrong engine is considered to be applying a false label.

If you cause someone to commit a prohibited act, you are in violation of that prohibition.

NOTE: The prohibitions and penalties stated do not limit the prohibitions and penalties described in the Clean Air Act. **A single act may trigger multiple violations.** The EPA may pursue all available administrative, civil, or criminal remedies for those violations even if the regulation references only a single prohibited act.

§ 1068.110 What other provisions apply to engines/equipment in service?

Aftermarket parts and service. STIHL can not require anyone to use STIHL parts or service to maintain or repair an engine or piece of equipment, without prior EPA approval. However it is a violation of the Clean Air Act for anyone to manufacture a replacement part if it reduces the effectiveness of the emission controls.

Compliance with standards. The EPA may test engines and equipment to investigate compliance with emission standards and other requirements.

Warranty and maintenance. Owners are responsible for properly maintaining their engines/equipment; however, owners may make warranty claims against STIHL for all expenses related to diagnosing and repairing or replacing emission-related parts. STIHL may ask to limit diagnosis and repair to authorized service facilities, provided this does not limit the owner's ability to meet the emission warranty obligation. The emission warranty period begins when the equipment is first placed into service. It is a violation of the Clean Air Act for anyone to disable emission controls.

§ 1068.115 When must manufacturers honor emission-related warranty claims?

Section 207(a) of the Clean Air Act (42 U.S.C. 7541(a)) requires STIHL to warrant to purchasers that their engines/equipment are designed, built, and equipped to conform at the time of sale to the applicable regulations for their full useful life, including a warranty that the engines/equipment are free from defects in materials and workmanship that would cause any engine/equipment to fail to conform to the applicable regulations during the specified warranty period.

STIHL may deny warranty claims only for failures that have been caused by the owner's or operator's improper maintenance or use, by accidents for which you have no responsibility, or by acts of God. For example, you would not need to honor emission warranty claims for failures that have been directly caused by the operator's abuse of the engine or the operator's use of the engine in a manner for which it was not designed and are not attributable to STIHL in any way.

STIHL can not deny emission-related warranty claims based on any of the following:

- (1) Maintenance or other service you or your authorized facilities performed.
- (2) Engine/equipment repair work that an operator performed to correct an unsafe, emergency condition attributable to you as long as the operator tries to restore the engine/equipment to its proper configuration as soon as possible.
- (3) Any action or inaction by the operator unrelated to the warranty claim.
- (4) Maintenance that was performed more frequently than you specify.
- (5) Anything that is your fault or responsibility.
- (6) The use of any fuel that is commonly available where the equipment operates unless your written maintenance instructions state that this fuel would harm the equipment's emission control system and operators can readily find the proper fuel.

§ 1068.120 What requirements must I follow to rebuild engines?

These requirements apply to **anyone** rebuilding an emission regulated engine. Recordkeeping requirements apply only to businesses. The end user is not required to

keep records. Recordkeeping for maintenance or service that is not rebuilding, including maintenance to evaporative emission components such as fuel tanks, fuel caps and fuel hoses, is not required. Any changes that might increase emissions is prohibited.

The term “rebuilding” refers to a rebuild of an engine, including a major overhaul in which you replace the engine's piston or power assembly or make other changes that significantly increase the service life of the engine. It also includes replacing or rebuilding the engine's system for fuel metering or electronic control so that it significantly increases the service life of the engine.

If you rebuild an engine or engine system, you must have a reasonable technical basis for knowing that the rebuilt engine's emission control system performs as well as, or better than, it performs in its certified configuration.

You have a reasonable basis if you meet two main conditions:

(1) Install parts—new, used, or rebuilt—so a person familiar with engine design and function would reasonably believe that the engine with those parts will control emissions to the same degree as the original parts.

(2) Adjust parameters or change design elements only according to the original engine manufacturer's instructions. Or, if you differ from these instructions, you must have data or some other technical basis to show you should not expect in-use emissions to increase.

A rebuilt engine may replace another certified engine in a piece of equipment only if the engine was rebuilt to a certified configuration meeting equivalent or more stringent emission standards. A rebuilt engine being installed that is from the same model year or a newer model year than the engine being replaced meets this requirement.

You may never replace a certified engine with an engine rebuilt to a configuration that does not meet EPA emission standards.

When you rebuild an engine, check, clean, adjust, repair, or replace all emission-related components as needed according to STIHL's recommended practice.

You must show or send the EPA your records if the EPA requests them. Keep records for at least two years after rebuilding an engine. Keep them in any format that allows the EPA to readily review them.

(1) You do not need to keep information that is not reasonably available through normal business practices. The EPA does not expect you to have information that you cannot reasonably access.

(2) You do not need to keep records of what other companies do.

(3) You may keep records based on families rather than individual engines if that is the way you normally do business.

§ 1068.125 What happens if I violate the regulations?

Civil penalties and injunctions. The EPA may bring a civil action to assess and recover civil penalties and restrain violations.

(1) To determine the amount of a civil penalty and reach a just conclusion, the court considers these factors:

- (i) The seriousness of your violation.
- (ii) How much you benefited or saved because of the violation.
- (iii) The size of your business.
- (iv) Your history of compliance with Title II of the Clean Air Act (42 U.S.C. 7401–7590).
- (v) What you did to remedy the violation.
- (vi) How the penalty will affect your ability to continue in business.
- (vii) Such other matters as justice may require.

Administrative penalties. Instead of bringing a civil action, the EPA may assess administrative penalties **if the total is less than \$270,000 against you individually**. This maximum penalty may be greater if the Administrator and the Attorney General jointly determine that a greater administrative penalty assessment is appropriate. Before the EPA assesses an administrative penalty, you may ask for a hearing.

§ 1068.501 How do I report emission-related defects?

General provisions. STIHL must investigate in certain circumstances whether engines/equipment have incorrect, improperly installed, or otherwise defective emission-related components or systems. This includes defects in design, materials, or workmanship. STIHL must also send the EPA reports as specified by this section.

Defects do not include damage to emission-related components or systems (or maladjustment of parameters) caused by owners improperly maintaining or abusing their engines/equipment.

STIHL must review emission component failures at least every three months to determine whether the reporting thresholds are exceeded.

If the EPA determines that an emission-related defect results in noncompliance of a substantial number of properly maintained and used engines/equipment during their useful life, the EPA may order STIHL to conduct an emissions recall of the engines/equipment.

Investigation of possible defects. If the number of engines/equipment that have a possible emissions component defect exceeds 4% of sales for the affected engine family, STIHL must conduct an investigation to determine if an emission-related component or system is actually defective.

STIHL must classify an engine/equipment component or system as having a possible defect if --

- A warranty claim is submitted for the component.
- STIHL's quality-assurance procedures suggest that a defect may exist.
- STIHL receives information from other sources which good engineering judgment would indicate the component or system may be defective, such as information from dealers and field-service personnel.

If the number of shipped replacement parts for any individual component is high enough that good engineering judgment would indicate a significant possibility that a defect exists, STIHL must conduct an investigation to determine if it is actually defective.

The investigation must continue until the data indicates that there is no emission-related defect or until all information specified for a defect report is obtained.

Reporting defects. STIHL must send the EPA a defect report within 21 days if the emission component failure investigation shows that the number of engines/equipment with a defect exceeds 1% of sales for the affected engine family.

Contents of a defect report. Include the following information in a defect report:

- (1) A description of the defect, including a summary of any engineering analyses and associated data, if available.
- (2) A description of the engines/equipment that have the defect, including families, models, and range of production dates.
- (3) An estimate of the number and percentage of each class or category of affected engines/equipment that have the defect, and an explanation of how you determined this number.
- (4) An estimate of the defect's impact on emissions, with an explanation of how this estimate was calculated and a summary of any emission data demonstrating the impact of the defect, if available.
- (5) A description of the plan for addressing the defect or an explanation of the reasons for not believing the defects must be addressed.

Investigation reports. When an investigation threshold is exceeded, STIHL must report to the EPA the progress and conclusions of the investigation.

During the investigation, STIHL must send to the EPA mid-year and end-of-year reports to describe the investigation methods and the status of the investigation. Send these status reports no later than June 30 and December 31 of each year.

If the investigation determines that the number of components or systems with an emission-related defect does not exceed the mandatory reporting threshold, STIHL must send the EPA a final report within 21 days supporting this conclusion. The investigation can exclude warranty claims that resulted from misdiagnosis and defects caused by improper maintenance, improper use, or misfueling.

New Phase 3 Engine Standards Affecting Retailers and Importers of Lawn and Garden Equipment

The Environmental Protection Agency (EPA) has adopted new regulations for nonroad spark-ignition engines that operate at or below 19 kW (www.epa.gov/otaq/regs/nonroad/marinesi-equipld/bondfrm.pdf). These engines, often called Small SI engines, are used in lawn and garden equipment and a wide range of other residential and commercial equipment. This fact sheet answers questions about these new standards for retailers, dealers, distributors and importers of this equipment.

What are the new regulations, and when do they go into effect?

The new regulations put in place a set of more stringent exhaust standards and establish new evaporative emission standards for the fuel tanks and fuel lines used in this equipment. We refer to these as the Phase 3 standards. They apply starting in the 2011 model year for Class II engines (above 225 cc) and in the 2012 model year for Class I engines (less than 225 cc, used in nonhandheld applications). The Phase 3 standards generally start in 2010 for handheld products.

Who should read this fact sheet?

Manufacturers, retailers, dealers and distributors of Small SI engines should read this fact sheet to learn about their responsibilities under the new regulations, and to learn some practical steps to ensure compliance.

In the case of imported engines and equipment, this fact sheet is addressed primarily to retailers that are not the importer of record. Because retailers that are the importer of record are subject to all the requirements that apply for importers under the Clean Air Act and the regulations, they have additional responsibilities beyond what we describe in this fact sheet.

How do these new regulations impact U.S. manufacturers of Small SI engines?

In order to sell this equipment in the U.S., manufacturers must first apply to EPA for a certificate of conformity (certificate). To obtain a certificate, manufacturers must perform tests and complete a certification process to ensure they meet emission standards. Each engine covered by a certificate must have an EPA emission label that describes its certification status.

The new regulations also clarify that retailers, dealers, and distributors have responsibilities under the Clean Air Act to ensure that Small SI engines conform to the regulations.

What are the general responsibilities of retailers, dealers and distributors under these new regulations?

The new regulations clarify that it is a violation of the federal Clean Air Act to “cause someone to commit a prohibited act,” such as importing or manufacturing noncompliant engines, equipment or regulated fuel-system components. For example, in certain circumstances we may hold you responsible for causing the importation of uncertified engines or equipment. We may also hold you responsible if the manufacturer failed to properly label the engines or equipment or if they have not met other requirements under the regulations. We may assess a civil penalty of up to \$37,500 for each engine or piece of equipment in violation.

In assessing whether you have committed a violation, we will consider your particular efforts or influence that may have caused or could have prevented the prohibited act from occurring. Accordingly, you should take reasonable precautions to ensure that your suppliers and their products comply fully with the regulations.

How can I ensure compliance?

You can take some or all of the following steps to confirm that you are not in violation by causing a prohibited act:

- Request copies of the EPA certificates of conformity before you commit to purchasing engine-powered equipment.
- Review certification information on our web site at www.epa.gov/otaq/certdata.htm. This web site identifies the engines and equipment models that have received a certificate of conformity from EPA. EPA updates this information on a routine basis, but there can be some lag time from when certificates are issued to when they are posted.
- Ask the manufacturer or importer to send a picture of the EPA emission label before you purchase their products. You may also want to inspect shipped products to confirm that proper emission labels are in place.
- Starting January 1, 2010 for 2010 model year products, the regulations require manufacturers or importers to post a bond for their products if they don't meet certain criteria. Ask your supplier to show how they either have arranged for a bond or they qualify for an exemption.
- Starting with 2010 model year products, manufacturers or importers must maintain a repair network and meet other requirements to ensure compliance with warranty requirements. Ask your supplier to show how they meet these requirements.

What are the labeling requirements in the new regulations?

Emission labels are one of the most important tools for EPA or U.S. Customs inspectors to determine whether products meet regulatory requirements. These labels can also help you avoid a situation where you purchase products that do not conform to the regulations.

The new Phase 3 regulations require that engines, fuel-system components and evaporative emission control systems must be properly labeled with permanent and legible labels to indicate that they meet all applicable EPA requirements.

For the last several years, certified engines have included labels describing how they comply with exhaust emission standards. This label contains basic information such as the manufacturer's name and EPA family name. Starting with the Phase 3 standards, manufacturers must also include the regulatory useful life of the engine on the label. See the complete list of engine label requirements for Phase 3 engines at §1054.135 (<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=670538974a7fa304d732ffc6067a8ef7&rgn=div8&view=text&node=40:32.0.1.1.8.2.1.11&idno=40>).

The equipment and fuel system components must also be labeled to demonstrate compliance with evaporative emission standards. See §1060.135 (<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=670538974a7fa304d732ffc6067a8ef7&rgn=div8&view=text&node=40:32.0.1.1.9.2.1.9&idno=40>) for requirements related to labeling equipment.

See §1060.137 (<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=670538974a7fa304d732ffc6067a8ef7&rgn=div8&view=text&node=40:32.0.1.1.9.2.1.10&idno=40>) for requirements related to labeling fuel tanks, fuel lines, and fuel caps.

What are the warranty service and repair network requirements in the new regulations?

The new Phase 3 regulations require that certificate holders must provide a two-year warranty (from the point of retail sale) for all engine components whose failure would increase exhaust emissions. The certifying engine manufacturer must maintain a supply of replacement parts in the United States and provide and monitor a toll-free telephone number and e-mail address to respond to warranty claims.

EPA has expanded its warranty coverage requirements to ensure that product owners have guaranteed access to free emission warranty repair work. For example, we generally require that manufacturers or importers maintain a network of authorized service centers with locations in all cities with a population of 100,000 or more. Manufacturers may also meet this requirement by locating their authorized service centers so that owners do not have to drive more than 100 miles to obtain warranty service (excluding several western states with high-altitude areas). In cases where affected customers are more than 100 miles from an authorized service center, the manufacturer or importer may alternatively meet warranty obligations by offering free shipping of defective products, sending a service technician to the owner's location, or providing reimbursement for service at a local repair shop.

Manufacturers or importers may in some circumstances look to retailers to help them meet the requirement to maintain an adequate network of authorized repair centers. In any case, you would do well to understand specifically how your suppliers intend to meet these requirements related to their warranty service.

What are the bond requirements in the new regulations?

In some cases, the Phase 3 regulations require manufacturers or importers of certified engines to post a bond to cover the cost of any potential compliance or enforcement actions under the Clean Air Act. Manufacturers or importers are exempted from the bond requirement if they have a specified level of fixed assets in the United States (\$3 million, \$6 million, or \$10 million, depending on the type of company) and they have a specified number of authorized service centers to respond to warranty claims and product recalls (100 service centers or one for every 5,000 engines, whichever is less). Manufacturers or importers that are not exempt will need to post a bond to cover the potential costs of an emission-related recall or penalties. Where a retailer is the importer of record for imported engines or equipment, the need for a bond may be determined based on the retailer's service centers and level of fixed assets.

EPA will require bonds of at least \$500,000 before products may be introduced into U.S. commerce. The bond requirements apply for 2010 and later model year products that are introduced in U.S. commerce starting January 1, 2010. For more detailed information on the bond requirements, see our bond fact sheet at www.epa.gov/otaq/certdat2.htm.

Where can I get more information?

More information on these regulations can be found on our web site at www.epa.gov/otaq/equipment.htm. If you have questions, you may contact us at:

U.S. Environmental Protection Agency
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