



Answers to Commonly Asked Questions from Dealers and Distributors



This brochure provides information about the U.S. Environmental Protection Agency's (EPA) new emission standards for small spark-ignition engines of 25 horsepower or less and answers some commonly asked questions about the new regulation.

Why Is EPA Regulating These Engines?

In many ways, the U.S. has been successful in cleaning the air, but we still have serious air pollution problems in many parts of the country—especially in large urban areas. Most people think of air pollution control programs in the U.S. as strict emission standards for cars, trucks, and large industrial facilities. In 1990, Congress asked EPA to look at other sources of air pollution such as nonroad mobile sources, including recreational vehicles, farm and construction equipment, boats, locomotives, and lawn and garden power equipment. Subsequently, EPA has been developing emission standards for virtually all types of nonroad equipment.

As part of that effort, EPA is implementing a regulation that establishes emission standards for small spark-ignition engines of 25 HP (19 kW) or less. These small spark-ignition engines are predominantly in lawn and garden power equipment and in some farm, construction and utility equipment.

Until recently, small engines of this type were not regulated at all except in California. According to EPA estimates, in many large urban areas, pre-1997 lawn and garden equipment accounts for as much as 5 percent of the total man-made hydrocarbons that contribute to ozone formation. EPA expects that reducing emissions from small engines will help to alleviate the formation of ground-level ozone—resulting in a decrease of air pollution-related health problems for urban residents.

Why Are Emissions from Small Engines Harmful?

Small engines used in power equipment emit a variety of pollutants. These include hydrocarbons and oxides of nitrogen (NO_x), which lead to the production of ground-level ozone, the principal component of smog. Ozone can impair human lung functions and inhibit plant growth. In addition, NO_x contributes to the production of acid rain. These engines also produce carbon monoxide, a colorless, odorless and poisonous gas which results from incomplete fuel combustion. Infants and people with heart disease or respiratory problems are especially sensitive to carbon monoxide poisoning.

How Much Cleaner Are the New Engines?

Compared to their unregulated counterparts, EPA estimates that engines complying with the new emission standards will emit on average more than one third less hydrocarbons.

How Does the Small Engine Rule Work?



The regulation (commonly called Phase 1) sets allowable exhaust levels for hydrocarbons, carbon monoxide, and NO_x from small engines of 25 HP or less. The rule applies to all small engines produced after

September 1, 1997—with some earlier and a few later. Allowable emission levels vary depending on engine size and use.

EPA works directly with the engine manufacturers to assure they comply with the regulations. Before an engine manufacturer can sell a regulated engine model in the U.S., it must obtain a certificate of conformity from EPA. To obtain a certificate of conformity, the engine manufacturer must provide test data along with other information demonstrating that the engine model meets the applicable emission standards.

The Agency requires that the engine manufacturer label each certified engine to indicate compliance with the small spark-ignition engine rule. The language may read “this engine conforms to Phase 1 U.S. EPA regulations for small nonroad engines.” Some engine labels, however, will feature language indicating compliance with both EPA and California regulations. Emission labels will be found on the engine, or if the engine label is obscured, on the piece of equipment itself.

Responsibilities for Dealers Performing Maintenance

What are my liabilities as a dealer? Tampering with a certified small engine is against the law. Having knowledge of the rules regarding tampering is important. You

may be tampering (and consequently subject to civil penalties) if you knowingly disable an emission control system component or element of design of a certified engine. This could include adjusting the engine's fuel or exhaust system or changing the engine's performance so it no longer meets the manufacturer's specifications. It could also include the improper venting of crankcase emissions. You may also be tampering by installing a part that is not the same in design and function as the part originally installed, or adding a new part not originally certified with the engine.

Will I be required to use manufacturers' parts when servicing? No. You can also use new or rebuilt parts made by an independent parts manufacturer as long as they conform with the original parts in design and function. Some part manufacturers provide a list of engine models that the part can be used on—you will most likely see this list somewhere on the part's packaging. If the manufacturer does not provide this list, you can still use the part as long as a person familiar with the design and function of small engines would reasonably believe that the part is designed to perform the same functions as the original part. However, using an aftermarket part that does not conform with the original part in design and function may void a customer's emissions warranty.



Do the regulations affect older equipment? No. The regulations only affect new engines produced for the 1997 model year and later. For example, if an owner brings in a piece of equipment containing an engine manufactured in 1994 for servicing, EPA does not require that the repair technician alter the engine so that it meets Phase 1 standards since the engine was produced before the rule took effect.

What should I do if a unit comes in for repair that has evidence of tampering?

EPA encourages repair technicians to restore a tampered engine to its original certified configuration. However, repair technicians are not required to restore tampered products to their originally certified and functioning configuration, unless the repair is to the tampered system. In such a case, the repair technician should restore the system to a certified and properly functioning condition. Basically, if a repair facility completes, assists, or participates in any way to tampering begun by someone else, they may be subject to civil penalties. In order to protect yourself and your repair facility, you should always document pre-existing tampering in writing on the service order. You are not required to notify EPA about the noncompliance, but you can help raise customer awareness by informing your customers that tampering is illegal and that it may reduce the life span and performance of the engine.

Customers Questions

Will emissions regulations result in a higher cost for equipment? According to EPA analysis, the small engine regulation will increase the cost of equipment by an average of \$5-7 per unit, but durability will improve and fuel efficiency will increase for most small engines. These improvements in engine technology may offset the increase in cost.

Can I make adjustments to the new engines at home?

Consumers should perform routine use and care maintenance as recommended in the operator's manual. However, owners should contact a qualified engine technician for adjustments not listed in the operator's manual. Owners should also be aware that it is against the law to tamper with an EPA-certified small engine. Tampering with a certified engine may involve adjusting the fuel or exhaust system, or changing the engine's performance so that it no longer meets the manufacturer's specifications. Tampering may increase an engine's exhaust emissions, contributing to our air pollution problems. To stop customers and repair facilities from tampering, manufacturers have equipped many engines with special caps or plugs that limit or prevent adjusting the fuel mixture or engine timing. Removal of these special caps or plugs and adjustments beyond the manufacturers specified limits are considered tampering and may subject the violator to a fine.

What is an emission warranty? Manufacturers are required by Federal law to provide emission warranty coverage for small spark-ignition engines. Basically, this warranty covers repair of emission control related parts that are determined to be defective during the first two years of engine use. Emission control related parts include 1) any part whose primary purpose is to control emissions, such as a catalytic converter, and 2) any part that has an effect on emissions, such as a carburetor. Owners will find that small engine manufacturers have established procedures to provide owners with this warranty coverage. If an owner or repair technician suspects that an emission control related part is defective, they should contact the person identified by the manufacturer in the owner's manual or warranty book. Owners of small spark-ignition engines are responsible for the proper maintenance of their engine. They can either perform scheduled maintenance themselves or have a repair technician perform it for them. Written instructions that describe an engine's proper maintenance, will be found in the owner's manual. If a part failure is a direct result of the engine not being maintained or used according to the manufacturer's recommendations, the manufacturer may not be required to cover the repair or replacement of the failed part.

What else can I do to reduce emissions?

One of the most simple and effective ways to reduce emissions is to avoid spilling gasoline when refilling gas cans and equipment tanks. When gasoline is spilled, hydrocarbons are released into the air, contributing to our air pollution problem. Owners can also help cut emissions while improving their engine performance by regularly maintaining their engines. When owners fail to do this, fuel efficiency drops while pollution rises.

For More Information

For more information about EPA efforts to reduce emissions from small spark-ignition engines, you can contact the U.S. EPA Engine Compliance Group, 401 M St. SW, (6403J) Washington, DC 20460—(202) 564-9261—or check the website at www.epa.gov/oms.

For additional copies of this brochure, please call the National Center for Environmental Publications and Information (NCEPI) at (800) 490-9198.