

APRIL 2002

SAVE MONEY AND  
REDUCE POLLUTION

WHAT YOU SHOULD KNOW ABOUT

# TRUCK ENGINE IDLING

## WHAT CAN YOU DO?

Turn off your engine when your vehicle is not in motion.

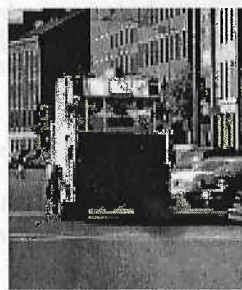
Use electric engine heaters to minimize warm-up time.

Use auxiliary power units instead of the engine to provide electric power.



For more information:  
Visit [www.epa.gov/ne/eco/diesel/](http://www.epa.gov/ne/eco/diesel/), or call the  
EPA Air Quality Hotline at  
1-800-821-1237

**D**iesel engines play an important role in the transport of goods and services nationwide. They are a durable and economical source of power. However, there is growing concern about the health effects associated with exposure to diesel exhaust. Diesel exhaust affects everyone, but people with existing heart or lung disease, asthma, or other respiratory problems are most sensitive to the small particles in diesel exhaust. Fortunately, new emission standards and new technology are helping to ensure that the cleaner diesel engines of the future will dramatically reduce these health risks. If you drive a truck, there are several things that you can do now to save money and reduce pollution.



## WHAT ARE SOME OF THE PROBLEMS ASSOCIATED WITH IDLING?

### IDLING WASTES FUEL AND MONEY

- A typical truck burns approximately one gallon of diesel fuel for each hour it idles.
- If this truck idles for 6 hours per day and operates 300 days a year, it would consume 1,800 gallons of fuel per year, simply idling.
- At a price of \$1.25 per gallon of diesel, this idling comes with a price tag of \$2,250 per truck.

### IDLING CAUSES EXCESSIVE ENGINE WEAR

- Running an engine at low speed (idling) causes twice the wear on internal parts compared to driving at regular speeds. According to the American Trucking Association, such wear can increase maintenance costs by almost \$2,000 per year and shorten the life of the engine.

### UNNECESSARY IDLING CAUSES POLLUTION

- Idling vehicles can emit significant amounts of pollution including: carbon dioxide, which contributes to global climate change; nitrogen oxides and volatile organic compounds, both of which contribute to the formation of ozone smog; poisonous carbon monoxide; and particulate matter.

### IDLING POSES HEALTH RISKS TO DRIVERS

- While sitting in an idling vehicle, drivers are exposed to the vehicle's pollution more so than when the vehicle is in motion since there is no air flow to vent the emissions.

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## SOME PROBLEMS ASSOCIATED WITH IDLING

- 1 Idling wastes fuel and money.
- 2 Idling causes excessive engine wear.
- 3 Unnecessary idling causes pollution.
- 4 Idling pollution poses health risks to drivers.

## **SAVE MONEY AND REDUCE UNNECESSARY IDLING—STEPS YOU CAN TAKE:**

- Turn off your engine when your vehicle is not in motion. (Follow manufacturers recommendations for cool-down – usually 3-5 minutes after full load operation.)
- Follow manufacturers recommendations for minimum warm-up time – usually 3 to 5 minutes depending on the vehicle.
- Use electric engine heaters (such as block heaters) to minimize idling time during warm-up, especially in cold weather.
- Install a small generator or auxiliary power unit specifically designed for a truck that provides heat, air conditioning, and/or electrical power while the vehicle is not in motion. These devices are a better, more efficient alternative to idling as they use substantially less fuel and emit less pollution. Depending on the amount of time spent idling each year, the payback on these devices can be one to two years.
- When buying new equipment, purchase engines already equipped with devices that minimize idling and warm-up time automatically.
- Follow anti-idling laws and guidelines in your state. Currently, three New England states have anti-idling laws: Connecticut, Massachusetts, and New Hampshire.

## **FACTS ABOUT DIESEL ENGINES AND IDLING**

Although there are some legitimate reasons why trucks and buses idle (e.g., to bring the engine to proper operating temperature), there are also some misconceptions.

### **INITIAL STARTING / WARM-UP TIME**

Most engine manufacturers recommend that newer engines run for roughly 3-5 minutes before driving. In colder climates, block heaters are a good alternative to excessive idling. They plug into electrical outlets and help warm the engine to avoid starting difficulties and reduce idling time during engine warm-up.

### **RESTARTING**

Although engine manufacturers recommend that you let your engine idle for a few minutes after you stop, most newer diesel engines will stay warm for several hours after they have been running, retaining more than enough heat to keep the engine warm and avoid starting difficulties. Older vehicles may have more difficulty restarting, but don't assume new engines should be operated like older ones. Check the manufacturer's recommendations.

### **FUEL GELLING**

Gelling of diesel fuel used to be a problem years ago, but refiners have worked to resolve that issue by creating winter blends that better withstand colder temperatures.

### **ENGINE WEAR AND TEAR**

Letting an engine idle actually does more damage to the engine than starting and stopping. Running an engine at low speed (idling) causes twice the wear on internal parts compared to driving at regular speeds, which can increase maintenance costs and shorten the life of the engine. Generally, fuel consumption during engine start-up is equivalent to about 30 seconds of engine idling.

Most engine manufacturers recommend that newer engines run for roughly 3-5 minutes before and after driving.

Today's winter blends of diesel fuel are much less likely to gel in cold weather.

Letting an engine idle actually does more damage to the engine than starting and stopping.



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