

# DIESEL SAFETY IN COLD WEATHER



Ralph Seekins

**Question: I've had problems with diesel fuel flow in cold weather. What should I do?**

**Answer:** You've hit on a particularly important question for everyone who drives a diesel powered vehicle in our sub-arctic climate.

A couple years ago, the federal government required that all new diesel engines be designed to run on ultra-low sulfur diesel (ULSD). That meant that fuel stations just about everywhere now sell only ULSD. This new fuel has some unique challenges on the cold flow side as well as on the maintenance side.

Different grades of diesel fuel (i.e., Number 2-D and Number 1-D) are susceptible to gelling at higher or lower temperatures. That gelling can plug fuel filters during cold weather and leave you stranded just about anywhere.

In Interior Alaska, we know that Number 2-D diesel fuel may thicken enough to clog fuel filters at temperatures below 20 degrees F. ULSD seems to thicken more quickly and at warmer temperatures than did the old diesel fuel. As colder weather approaches, fuel stations

commonly switch to Number 1-D diesel which doesn't thicken until much lower temperatures. However, because not all tanks are empty when the fall shipment of Number 1 comes along, you can sometimes get a "blend" of diesel fuel that may cause some gelling problems at higher temperatures. We see a lot of this at our dealership during the winter. And even the so-called Number 1 ULSD seems to have some unusual gelling problems during our winter cold snaps.

I drive a diesel truck myself. Here's how I address the gelling issue and what I recommend others do as well. First, in cold weather, I try to never let the fuel level in my truck fall below half full. Then, I pick up a couple 20 ounce bottles of *Anti-Gel & Performance Improver* and add 4 ounces for every 25 gallons of diesel I put in the tank. This additive changes the way wax crystals form and helps keep gel from plugging the fuel lines or filter. I use a Ford product specifically formulated for my engine, but you can pick up similar additives at just about any auto parts store, at your vehicle's authorized dealer or, in some cases at super stores. Believe me, it is well worth the trouble.

I also add 4 ounces of Cetane Booster to every 25 gallons of diesel fuel all year long. This additive boosts the fuel ignitability for easier starting, increases power, results in smoother operation,

improves fuel economy and adds lubricity to the fuel to reduce engine wear (remember that Number 1-D diesel has less lubricating property and therefore increases wear on pumps and injectors). Again, I use a Ford product specifically designed for my truck's engine but, as I mentioned above, you can get similar products in other places all around town.

No matter what, for your safety and that of your family, review the cold weather operating sections of your vehicle's owner's manual and follow its recommendations religiously. Doing that and adding anti-gel and performance boosting products to your fuel tank will do much to improve your satisfaction with your diesel vehicle and help insure safe operation in our cold climate.

As with all things automotive, if you have questions as to how to best equip or properly operate your vehicle in sub-arctic and arctic environments, it is in your best interest to consult with the local dealer franchised to sell your brand of vehicle.

*Ralph Seekins has more than 42 years' experience in the automotive industry. He started as a mechanic, worked in sales, and for the past 36 years, has been the owner of Seekins Ford Lincoln, Inc. If you have an automotive question you'd like answered, forward it to [ralphs@seekins.com](mailto:ralphs@seekins.com).*