

# Considerations for New Engine Technologies

*Fleet operators with newer engine technology (2007-2010) for their vehicles should take note of the following key factors when operating their fleets during the cold winter weather season.*



## 2010 Engine Technology

A new feature of 2010 engine technology is the presence of Diesel Exhaust Fuel (DEF). DEF is an ammonia-based fluid that cycles through the engine to remove waste particles from the emission system.

Many fleet operators don't realize that DEF begins to freeze below 32 degrees Fahrenheit / 0 degree Celsius. If the engine is not warm enough to keep DEF flowing through the system, you could experience issues with the engine that could ultimately cause a vehicle breakdown.

During the cold weather, be sure to keep your truck warm by:

- Driving it immediately once you start the vehicle – do not let it idle.
- Plugging in the engine block heater whenever the truck is turned off in temperatures that dip below freezing.

Finally, it's important that you do not overfill or put any other fluid inside the designated DEF tank.

## 2007 Engine Technology

Historically, fleet operators start their vehicles and let them idle as a means of heating up the engine and truck prior to departure. With new engine technology, you should never let your vehicles idle in this way.

Low vehicle temperatures and in general, engine temperatures when idling, can prevent the Diesel Particulate Filters (DPF) from reaching appropriate temperatures to convert soot to ash. As soot builds up, it could require a more frequent regeneration process for the vehicle and eventually clog the filter.

Finally, be sure to **plug in your vehicles overnight to keep the engine warm.**

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More information available at:  
[campaigns.ryder.com/WinterDriving](http://campaigns.ryder.com/WinterDriving)

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