

### Engine Warm-Up

Avoid full-throttle operation when the engine is cold. When starting a cold engine, bring the engine up to operating speed slowly to allow the oil pressure to stabilize as the engine warms up.

**NOTE:** High-speed, no-load running of a cold engine can result in excessive white smoke and poor engine performance. No-load engine speeds should be kept under 1,200 RPM during the warm-up period, especially in cold ambient temperature conditions.

If temperatures are below 32°F (0°C), operate the engine at moderate speeds for five minutes before full loads are applied.

### Engine Idling

Avoid prolonged idling. Long periods of idling may be harmful to your engine because combustion chamber temperatures can drop so low that the fuel may not burn completely. Incomplete combustion allows carbon and

varnish to form on piston rings and injector nozzles. Also, the unburned fuel can enter the crankcase, diluting the oil and causing rapid wear to the engine.

### CAUTION!

Extended periods of idle time may not allow the vehicle's exhaust after-treatment system to properly regenerate. This can lead to the illumination of the Malfunction Indicator Light (MIL) or an Electronic Vehicle Information Center (EVIC) warning message. Operating the engine for extended periods with the MIL illuminated or an EVIC warning message displayed can cause extensive engine and exhaust system damage.

**NOTE:** Your vehicle is equipped with a turbo speed limiter. This feature limits the engine speed to 1,200 RPM when engine coolant temperatures are below 70°F (21°C).