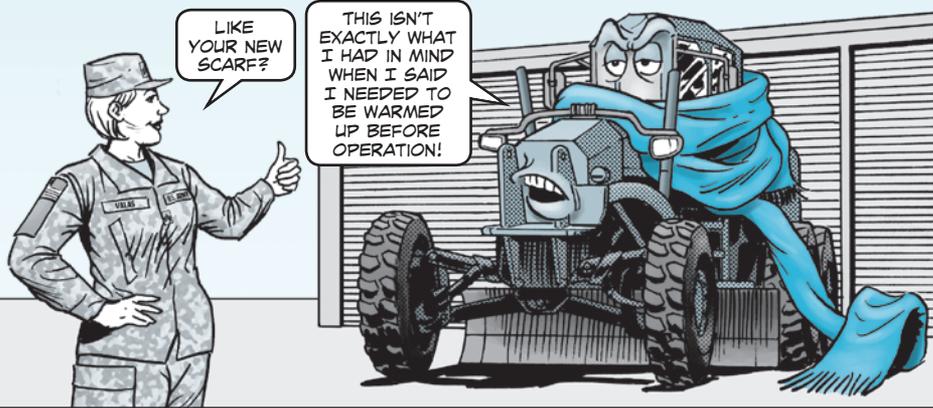


# IDLE FIRST, THEN GO GRADING!

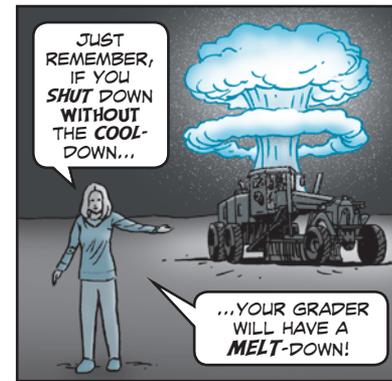


Now that you've started your 120M road grader, you're ready to move out, right? Not so fast, my road-grading friend! Your vehicle needs to warm up a bit before the day's run. If not, moving parts break down. Then your grader is sitting on the side of the road instead of grading it. Here's how to keep your grader on the job: After start-up, run the engine for 3 minutes or so to allow the engine to reach operating temperature. That warm-up lets the engine burn off condensation from normal engine breathing. Unburned condensation will mix with oil to form a sludge that clogs the engine. The 3-minute delay also gives the engine oil time enough to lubricate parts.

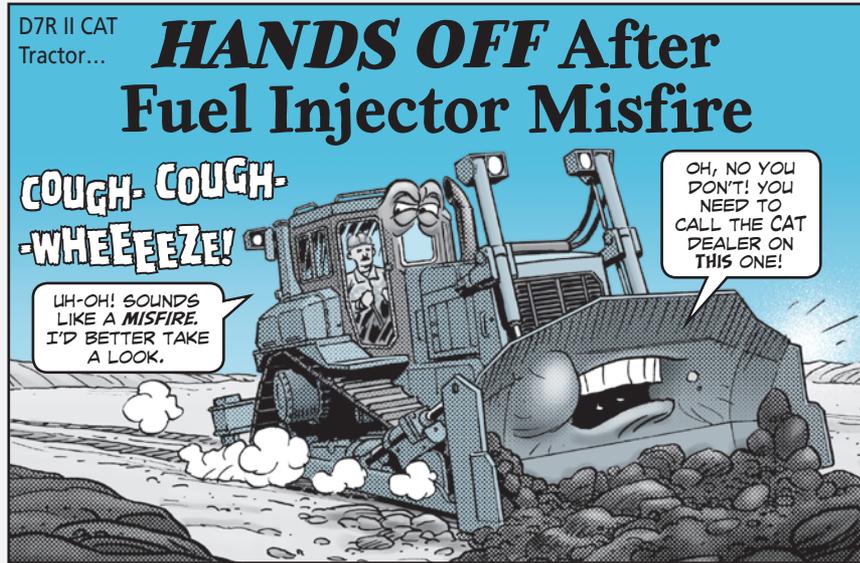


After warm-up, check the messenger display in the vehicle's cab. Pay special attention to the engine system and action light indicators. If either light up, shut down the engine and tell your mechanic.

You also must let the engine cool down for five minutes after operation. The engine needs to keep oil circulating to relieve excessive heat in the engine. Too much heat can crack the block, warp a head or valves, or bake the oil until it's not slick enough to lube the bearings.



**Hydraulic Oil Reminder**  
 With the engine at idle, monitor the hydraulic oil's temperature by keeping an eye on the grader's messenger display. Only operate the grader when the hydraulic oil temperature reaches or exceeds 41°F. If necessary, raise the hydraulic oil temperature by cycling each of the vehicle's implement and steering controls. This allows warm hydraulic oil to circulate through all the grader's hydraulic lines.  
 For more information, check out WP 0005 in TM 5-3805-293-10 (Dec 10).



**F**uel injectors on the new D7R dozer have been known to misfire. That causes the vehicle's engine to run rough and, in some cases, stall out.

A misfire can also make the fuel injectors seize. That brings your construction operations to a screeching halt!

Operators and mechanics, before you try fixing the problem yourselves, eyeball the serial number on the dozer's data plate. If it falls between KNA00214-00217 and KNA00219-781, you'll need to contact your local Caterpillar dealer to schedule a repair. Tell them it's regarding CAT Service Letter #PS44681.

Find your closest dealer at: <http://www.cat.com/dealer-locator>  
 Travel and mileage for the repair are included, so there's no cost for the visit.