



## Avoid Unplanned Maintenance on your M-Series Motor Grader with Training on Cat® Simulators Systems

When you're busy running a construction job or a mine operation, the last thing you need is one of your motor graders in the shop because an operator misused it. Unplanned maintenance can be avoided with proper training. Cat® Simulators M-Series Motor Grader system allows operators to learn and make mistakes, or break bad habits, in the safety of the virtual environment. No need to take a Grader out of production for training; Cat Simulators features the same controls found in the actual Grader. Doug Bohnker, Installation and Training Instructor, shares his favorite tips to avoid unplanned maintenance.

- When operating the Motor Grader in straight frame mode and the rear differential lock is engaged, it must be disengaged before turning the machine or severe damage can occur to the rear differential.
- Be aware of the moldboard angle position before beginning an articulated turn. If the moldboard angle is too sharp, and positioned too close to the rear wheels, just the use of articulation alone can cause the tip end of the moldboard to interfere with the tire and possibly cut it beyond repair. This can happen very easily and be very expensive to replace a tire, plus the inevitable downtime to have the machine out of production.
- The use of the ripper on the rear of the machine can cause the rear to be lifted slightly if the ground is hard to penetrate, or too much down pressure is applied. This scenario will cause instant wheel spin and potentially cut the tires and shorten their life.
- Be careful when working with the moldboard at full back tilt. Damage can occur to the moldboard tip pivots, cutting edge attachment bolts and support area for the cutting edge.
- Finally, conduct a machine inspection before beginning operations. Machine operators should know how to conduct an inspection of the machine and identify any faults. For example, leaking oil can lead to an engine problem, which could directly relate to the safety of the vehicle's operator and ground personnel around the machine. The Cat Simulators M-Series Motor Grader contains an exclusive machine walkaround that teaches user how to conduct a proper inspection. The module features 195 different inspection points so users can learn how to identify machine parts and conclude whether they are faulty or not. Faults are randomly changed from one time to the next so the operator cannot memorize the order.

Unplanned maintenance costs will eat away at a project's profit margins. Training operators on a simulator can help avoid unplanned maintenance costs and downtime. To find out other tips to help operators avoid unplanned maintenance on your machine fleet, contact [tips@catsimulators.com](mailto:tips@catsimulators.com).

