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**Press Release**

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**New High-Performance Circle for Cat® 24 and 24M Motor Graders increases performance, lowers total cost of ownership and improves drawbar durability**

Caterpillar’s new High-Performance Circle (HPC) for Cat® 24 and 24M Motor Graders improves machine performance, efficiency and uptime availability when maintaining haul roads at large mines. When paired with Cat exclusive extended life blade rail wear strips, the HPC reduces total cost of ownership for the drawbar circle moldboard and downtime by up to 80%.

Providing a 16,000-hour service life, the new HPC eliminates hours of monthly planned maintenance for frequent inspection, wear strip replacement and circle shoe adjustments associated with conventional circles. Industry-leading machining capabilities designed to tight tolerances, help ensure the drawbar, drives and circle perfectly align and require no adjustments for the life of the grader.

Cat proprietary heavy duty planetary gearboxes with integrated forged pinion shaft and gear replace the work drive gearbox and pinion gear system. The gearboxes have sealed-for-life slip clutches that eliminate adjustments and isolate the clutches from the rest of the drive to increase reliability. Significantly reducing maintenance time, the slip clutch assemblies can be changed out in less than an hour and come adjusted from the factory. The brass circle wear strips and shim system is replaced with a sealed roller bearing.

The new fully sealed roller bearing delivers smooth and effortless blade rotation. Fully integrated with standard machine auto lube, the design eliminates daily greasing and can require no maintenance, adjustment or replacement for 16,000 hours, depending on the application.

A new pinion gear shape with increased shaft diameter for improved durability allows drives to be removed vertically without drive adjustments. Dowel locators precisely position motors for easier servicing, optimal tooth contact and longer pinion life. Its new design improves component reliability to reduce downtime and maintenance costs.

Beyond lowering total cost of ownership, less required circle maintenance reduces component handling to properly maintain the machine, which improves safety for service technicians. At 16,000 hours, if the circle teeth have reached their wear limit, they can be rotated 180 degrees to double the component’s service life. The new HPC maintains the same machine connection interface, so it is retrofittable to all Cat 24 and 24M Motor Graders.

**Eliminating a pass with the Cat 24**

Increased power and more robust structures for the new Cat 24 make it an ideal pairing for Caterpillar’s longer 8.5-m (28-ft) moldboard option. The grader’s new Cat C27 engine, up to 37% increase in torque and new HPC are well equipped to accommodate the blade’s increased weight and width without slowing or bogging down the machine.

At 16% longer than the standard 7.3-m (24-ft) blade, it helps improve safety at larger mines by reducing the amount of time spent in the middle lane to clear the windrow. When used for a wider pass, it brings haul roads back to spec in fewer passes, eliminating one pass when supporting ultra-class trucks. Longer moldboard reach places the windrow farther away from the rear tandems to increase traction. It also allows the operator to use a more aggressive blade angle to reduce machine load, increase speed on passes and help improve material handling.

The 8.5-m (28-ft) moldboard option is retrofittable to existing fleet Cat 24 Motor Graders. It can be connected to the machine with Cat extended life blade rail wear strips, available for both standard and high-performance circles, to achieve up to three times longer service life than standard rail wear strips.

A video overview of the new HPC for Cat 24 and 24M Motor Graders can be found at: [New HPC introduction video](https://www.youtube.com/watch?v=Hcy_qHKxb7k).

More information on the Cat HPC and 8.5-m (28-ft) moldboard options can be found by contacting a Cat dealer or visiting: <https://www.cat.com/lmg>.

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