

# The new Cat<sup>®</sup> 777 (05) Water Truck delivers an integrated solution for maintaining haul roads using advanced technology

- Provides an integrated solution to help reduce haul road dust caused by underwatering and minimizes risks caused by overwatering that may lead to slippery road conditions
- Variable water flow, based on the truck's speed, automatically starts and stops when the truck slows or comes to a halt
- Flexible levels of cloud-based Cat<sup>®</sup> MineStar<sup>™</sup> technology connects with the Cat Water Delivery System to collect and communicate machine data

IRVING, Texas, January 31, 2025 – Properly watered haul roads directly impact fleet cycle times and the ability to meet production targets. As haul road dust takes a toll on safety and productivity at mines and quarries, a water truck may be one of the most important pieces of support equipment at the site. The new Cat<sup>®</sup> 777 (05) Water Truck provides an efficient solution to help reduce haul road dust by addressing overwatering and underwatering issues using advanced technology.

The new 777 (05) is built on the Cat 777E truck platform, proven at mine, quarry and construction sites globally. The Cat C32B engine delivers durable and reliable performance with 765 kW (1,026 hp). The Advanced Productivity Electronic Control Strategy (APECS) features transmission and engine coordination to efficiently utilize available engine power. Optimized fuel mapping of the engine and adaptive economy mode determine the most efficient operating point for fuel efficiency.

An innovative truck for controlling haul road dust, the design integrates the truck, tank, and water delivery system, connected with technology. The Cat Water Delivery System (WDS) connects with Cat MineStar telematics to help operations manage the site more safely and productively with scalable technology packages to meet site needs. Customers can choose from two options: the Basic package which includes Equipment Tracking or the Premium package which includes both Equipment Tracking and Production Recording.

Factory-installed, ergonomic water controls are integrated into the truck's design for convenient system operation. Operators can use the high-definition touchscreen to view important data about the water delivery system, such as water tank level, spray head selection and water displacement rate. An easy-to-reach keypad inside the cab, allows the operator to select and control the spray heads. The water delivery system is also equipped with a front cannon, controlled by a joystick to easily select between a fan spray or jet stream, with a

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maximum spray distance of 61 m (200 feet). The cab is also ROPS certified for additional operator safety in water-specific applications.

### **Cat Water Delivery System**

The new water truck's exclusive Cat WDS features a self-contained hydraulic system that controls spray patterns independent of engine RPM for consistent watering. Variable water flow, based on the truck's speed, automatically starts and stops when the truck slows or comes to a halt, addressing overwatering and subsequent poor traction at road intersections. The pump features soft startups and automatically shuts off when the tank is empty to minimize system damage.

Covering up to a 24-m (80-ft) wide road in a single pass, the system sprays at rates reaching 0.8 l/m<sup>2</sup> (0.2 gal/ft<sup>2</sup>) at speeds of 4 to 40 kph (3 to 25 mph). Complete with auto shut-off to prevent overfilling, the water tank can be filled remotely, allowing the operator to remain inside the cab during the cycle to reduce potential operator slips and falls.

The innovative automated water delivery feature, called Auto Mode, enables the operator to remain focused on driving and site traffic to enhance safety. Auto Mode operation is an exclusive feature to Cat WDS and is recommended for most field applications to help place the correct amount of water on the haul road, reducing overwatering at intersections and corners as the truck slows down.

When connected to MineStar Production Recording, customers can collect data to measure Key Performance Indicators (KPIs) like operator watering procedures, fuel utilization and water usage. Field testing data from an open pit coal mine in a tropical environment has shown customer improvements in fuel efficiency when the water delivery system runs in Auto Mode versus manual mode operation. Results may vary depending on site operations and conditions.

### **Scalable technology with Cat MineStar**

The cloud-based MineStar application is designed to work with the Cat WDS to collect and communicate machine data, allowing site supervisors to monitor the water truck to know where and when it's spraying water. Asset management options include productivity, water usage, fuel and water tank levels, when and where to apply water, and asset location.

Providing tracking capabilities without the need for infrastructure investment, MineStar Equipment Tracking delivers basic connectivity without interfering with existing fleet management systems. Helping to achieve a lower total cost of ownership, Equipment Tracking provides insights to help mines better manage their assets. It features service meter readings, fueling and recording data, location accuracy and replay, time utilization tracking with downtime and operator tracking, and automatic stoppage measurement.

Paired with Equipment Tracking, Production Recording delivers premium connectivity with an accurate and automated near-real-time measurement solution that reports on critical aspects of the watering cycle without



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requiring operator input. Giving visibility to the entire operation, it helps to discover opportunities for improving productivity. This premium package also includes water usage by truck/fill station, volume and rate of water put down over time and area covered, water delivery system setting by location, truck, and conditions, activity breakdown with time and distance – watering, not watering and stopped.

## **Supported by Cat dealers**

This integrated solution is fully supported by the Cat dealer and parts network. Covered by a Caterpillar factory standard warranty, the water truck is eligible for Cat equipment protection plans (EPP) and customer value agreements (CVAs). Retrofit kits on older Cat 777 truck platforms are also available with the option to add MineStar hardware, connected with cloud-based software, for an individual truck or an entire fleet.

**More information on the new Cat 777 (05) Water Truck from Caterpillar OEM Solutions can be found by contacting a Cat dealer or visiting [www.cat.com/watersolutions](http://www.cat.com/watersolutions).**

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