CAT® WATER DELIVERY SYSTEM

FOR THE 777, 785 (04), AND 789 (04) BARE CHASSIS



AN EFFICIENT WAY FOR MINING AND QUARRY OPERATIONS TO CONTROL HAUL ROAD DUST.

This automated system controls the amount of water and spray patterns to prevent the hazards common with overwatering. This fully integrated Cat® design employs a self-contained hydraulic system that controls spray patterns and allows for consistent water coverage regardless of engine RPM — capable of spraying up to 0.8 L /m^2 at speeds ranging from 3 to 25 mph (4 to 40 kph), covering an 80 foot (24 m) wide road in one pass. Factory option available for Cat 777, 785 (04), and 789 (04) truck bare chassis. Retrofit kits available for 777F, 777G, 785D, and 789D.

System Features

- Ground speed sensing system delivers a consistent amount of water
- Constant coverage spray regardless of speed
- Totally independent hydraulic system
- Controls integrated with the truck systems
- Automatic start/stop based on ground speed
- Soft pump start and shut down
- Self-cleaning spray heads
- Active system functions displayed on control monitor
- Automatic shut off when water tank is empty
- Remote tank fill controls
- Intermittent spray pattern based on time on and time off or distance
- Hydraulic operated cannon nozzle options
- Hydraulic, electrical and water systems diagnostics
- Control monitor in multiple languages
- Ceramic water pump seal for improved reliability
- Leverages standard tilt system for maintenance
- Stainless steel pump
- Optional Camera System: includes three cameras and cable assemblies
- Proprietary Cat MineStar™ technology integration with telematics for cloud-based data tracking

Technical Specifications

Operator selectable coverage	0.2 - 0.8 L/m^2 (4 kph - 40 kph)	0.05 - 0.2 gal/ft^2 (3 mph - 25 mph)
Maximum water flow	6814 L/min	1,800 gal/min
Water per spray head (minimum)	132.5 L/min	35 gal/min
Water per spray head (maximum)	2271 L/min	600 gal/min
Spray head opening range (minimum)	1 mm	0.04 in
Spray head opening range (maximum)	19 mm	0.75 in
Maximum size debris flushed through spray head	19 mm	0.75 in
Spray width per head (dependent on flow)	4.5-9.1 m	15-30 ft
Spray system hydraulic tank capacity	27.5 L	7.25 gal
Maximum number of rear spray heads		5
Minimum number of rear spray heads (recommended 3)		2
Maximum number of front/side spray heads		2
Minimum number of front/side spray heads		0
Maximum water from cannon (idle)*	2271 L/min	600 gal/min
Maximum water from cannon (high idle)*	6246 L/min	1,650 gal/min
Maximum cannon spray distance	61 m	200 ft
Wet water pump/hydraulic motor coupling		

*Depends on nozzle orifice and pipe size.

- Coverage rates above 0.6 L/m^2 may not be available at higher speeds depending on head count and configuration.
- The Auto Mode setting controls water coverage and automatically adjusts to the number of spray heads being used — independent of ground speed. This is an exclusive feature designed into the Cat® WDS software to help water more efficiently.
- Alternatively, manual mode allows the operator to set a water flow rate that is constant regardless of ground speed. This mode is not recommended for daily operation and will reduce watering efficiency and may increase fuel usage.
- Spray head opening is automatically controlled by the system to achieve Auto Mode Coverage or manual mode flow rate.
- Spray heads on competitive water distribution systems require tools and maintenance to change flow and spray pattern. Caterpillar is the only company to have variable active spray heads to regulate water spray.
- Water flow is continually adjusted during operation to conserve water and achieve desired coverage and flow rate.

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