

CATERPILLAR ANNOUNCES D-SERIES WHEEL EXCAVATORS FEATURING MORE POWER, GREATER LIFT CAPACITY AND FASTER CYCLE TIMES



The Caterpillar® D-Series wheel excavators—M313D, M315D, M316D, M318D and M322D—deliver increased lift capacity and faster cycle times through changes in engines and hydraulics as compared to the C-Series machines they replace. The new D-Series also features expanded versatility and enhanced operator control as well as fuel efficiency that is 7 to 8 percent greater than the previous models.

Each of the new D-Series wheel excavators achieves greater performance and reduced operating costs primarily through the use of a powerful Cat® engine with ACERT™ Technology, the addition of a dedicated hydraulic pump for the excavator swing function, and the addition of a heavy lift mode—for boosting lift capability by 7 percent at the touch of a button. The new systems accelerate essentially all excavator functions and

produce power that the operator can feel and put to work. Each of the D-Series machines has greater drawbar pull, increased bucket and stick force, greater dig depth and longer reach than the equivalent C-Series machine.

The D-Series wheel excavators range in size from 127 net horsepower (95 kW) and operating weight of about 31,000 pounds (14 000 kg) to 166 net horsepower (124 kW) and operating weight of about 48,000 pounds (22 000 kg). The highly mobile machines perform well on paved and unpaved surfaces and offer the ability to travel significant distances quickly. The wheel excavator's high mobility on the jobsite is what makes it such a valuable and versatile tool.

Powerful, fuel efficient engines

The M313D and M315D use the Cat C4.4 ACERT™ engine, and the M316D, M318D and M322D use the Cat C6.6 ACERT™ engine. The engines deliver increased horsepower and torque in each of the D-Series wheel excavators. Electronic control and precise management of fuel and intake air optimize engine performance while meeting U.S. EPA Tier 3 engine emissions regulations.

The engines employ the Cat Common Rail Fuel System for efficient fuel usage during production and travel. The wheel excavator system recognizes roading applications and adjusts the engine to the most efficient operating point to save fuel without compromising road performance. A demand fan also reduces fuel consumption and sound levels. An electronically controlled hydraulic motor drives the variable-speed cooling fan.

Greater hydraulic performance and versatility

Each of the D-Series wheel excavators has a dedicated hydraulic pump to power the swing mechanism. The new hydraulic circuit maximizes swing performance without reducing power to the other hydraulic functions. The result is smoother combined movements and more hydraulic power delivered where it's needed most. The improved hydraulics, power and engine torque also deliver faster travel performance, faster stick speeds and faster swing acceleration.

The heavy lift mode is standard on D-Series excavators. The system enables the operator to push a button to boost lift force by 7 percent through the entire working range of the machine.

The versatility of any of the wheel excavators can be expanded with a variety of auxiliary hydraulic circuit options. The multi-combined valve is the core of the Tool Control System and allows the operator to use the monitor in the cab for selecting from as many as 10 pre-programmed work tools. Additionally, a hammer circuit is available, and a medium pressure function valve is available for controlling tilting buckets or rotating tools. A new option is a second high pressure valve that works in combination with the multi-combined valve to control devices such as a tilting/rotating quick coupler.

Boosting operator efficiency

The totally redesigned operator station maximizes comfort while promoting safe and efficient operation. New on the D-Series machines is a color monitor that is easy to read and understand. The new, optional rear view camera is accessed via the monitor. Another new option is a deluxe seat that is ventilated, heated and cooled. The fully adjustable seat automatically adjusts suspension to the operator weight. Another new option is electrically heated mirrors, which eliminate the need for the operator to clean off fog and frost.

The cab and operator station also feature enhanced visibility and ergonomic layout. The sealed and pressurized operator space is designed for simplicity and functionality. All glass is affixed directly to the cab, which eliminates the need for window frames and opens up sight lines to the work area. The fully automatic climate control adjusts temperature and air flow, and it also determines which air outlet is best in each situation.

Easier service

The D-Series machines are designed for reduced maintenance and good access to maintenance points. The new engines have been designed to maintain a 500-hour engine oil change interval, and other service and maintenance intervals have been extended to reduce machine service time, increase machine availability and reduce operating costs. Using scheduled oil sampling analysis, hydraulic oil change intervals can be extended to 4,000 hours. Engine coolant change intervals are 12,000 hours with Cat extended life coolant.

The optional, new, fully automatic lubrication system lubricates all upper frame and front parts bearings. The system is fully integrated in the machine with operator control, warnings and information messages displayed on the machine monitor.

For more information about the new D-Series wheel excavators, customers should contact their Cat dealer or visit the Caterpillar web site at www.cat.com.

Brief Specifications for D-Series Wheel Excavators

	<u>M313D</u>	<u>M315D</u>	<u>M316D</u>	<u>M318D</u>	<u>M322D</u>
Engine	C4.4 ACERT	C4.4 ACERT	C6.6 ACERT	C6.6 ACERT	C6.6 ACERT
Net power	127 hp 95 kW	135 hp 101 kW	158 hp 118 kW	166 hp 124 kW	165 hp 123 kW
Operating weight	30,865- 35,715 lb 14000- 16200 kg	35,494- 40,345 lb 16100- 18300 kg	38,800- 43,651 lb 17600- 19800 kg	40,124- 44,313 lb 18,200- 20,100 kg	44,092- 48,502 lb 20,000- 22,000 kg
Max travel speed	23 mph 37 kph	21 mph 34 kph	23 mph 37 kph	23 mph 37 kph	16 mph 25 kph

Max dig depth	18 ft 11 in. 5750 mm	20 ft 0 in. 6090 mm	19 ft 11 in. 6070 mm	20 ft 11 in. 6360 mm	21 ft 11 in. 6680 mm
Max reach horiz.	30 ft 3 in. 9210 mm	31 ft 5 in. 9560 mm	31 ft 5 in. 9560 mm	32 ft 1 in. 9760 mm	34 ft 1 in. 10390