M318D

Wheel Excavator

Cat® C6.6 engine with ACERT™ Technology	
Net power (ISO 9249) at 1800 rpm	124 kW/169 hp
Operating weight	18 200 to 20 100 kg
Bucket capacities	0.35 to 1.26 m^3
Maximum reach at ground level	9600 mm
Maximum digging depth	6360 mm
Maximum travel speed	37 km/h

M318D Wheel Excavator

The D Series incorporates innovations for improved performance and versatility.

Engine

✔ Caterpillar's exclusive ACERT™ Technology surpasses the most stringent emissions requirements in the construction industry. The EU Stage IIIA compliant C6.6 offers increased performance and reliability while reducing fuel consumption and sound levels. **pg. 4**

Hydraulics

✔ The state of the art load-sensing hydraulic system combined with a separate dedicated swing pump provides fast cycle times, increased lift capacity and high bucket and stick forces. This combination maximizes your productivity in any job. **pg. 5**

Operator Comfort

✔ The totally redesigned operator station maximizes comfort while increasing safety. The available auto-weight adjusted air-suspension seat with heated and cooled ventilated cushions improves operator comfort. Safety is enhanced by the new color monitor and optional rear-mounted camera. **pg. 6**

Environmentally Responsible Design

✔ Helping to protect our environment, the engine has low operator and spectator sound levels, longer filter change intervals and is more fuel-efficient. **pg. 4**

SmartBoom™

✔ More productive. Faster cycle times for truck loading and rock scraping. Maintains optimum hammering frequency for effective, steady productivity. **pg. 5**

Increased lifting capacity, improved cycle times and ease of operation lead to increased productivity and lower operating costs.

✔ *New Feature*

Undercarriage

Various undercarriage configurations are available to provide the best solution for your work environment; these configurations can include a dozer blade and/or outriggers depending on your needs. **pg. 8**

Booms and Sticks

Caterpillar® excavator booms and sticks are built for performance and long service life. The box section design provides the strength needed for even the toughest applications. Multiple boom and stick options allow you to pick the best match for your job. **pg. 9**

Work Tools

The combination of Caterpillar machines and work tools provide a total solution for any application. A variety of couplers, buckets, hammers, grapples, shears, multi-processors to name a few are offered to optimize your machine's versatility. **pg. 11**

Versatility

Caterpillar offers a wide variety of factory-installed attachments that enhance performance and job site management. **pg. 10**

Serviceability

For increased safety, all daily maintenance points are accessible from ground level. A centralized greasing system allows lubrication of critical points. **pg. 12**

Complete Customer Service

Your Cat® dealer offers a wide range of services that can be set up under a customer support agreement when you purchase your equipment. Your dealer will help you choose a plan that can cover everything from machine and attachment selection to replacement. **pg. 13**

Engine

Built for power, reliability, low maintenance, excellent fuel economy and low emissions.

Powerful Performance. The Cat C6.6 engine with ACERT Technology introduces a series of evolutionary, incremental improvements that provide breakthrough engine performance. The building blocks of ACERT Technology are fuel delivery, air management and electronic control. ACERT Technology optimizes engine performance while meeting EU Stage IIIA engine emission regulations. The Cat C6.6 engine in the M318D delivers a maximum gross power of 130 kW at a rated speed of 1800 rpm. This is 9% more horsepower as compared to the 3056E in the M318C.

Low Fuel Consumption. The C6.6 is electronically controlled and uses the new Cat Common Rail Fuel System and fuel pump. This combination provides outstanding fuel consumption during both production and travel. When the system recognizes roading application the engine will operate at the most efficient system operating point to save fuel without compromising road performance.

Low Noise, Low Vibration. The Cat C6.6 design improves operator comfort by reducing sound and vibration.

Cooling System. An electronically controlled, hydraulic motor drives a variable speed on-demand fan for engine coolant and hydraulic oil. The optimum fan speed is determined based on coolant and hydraulic oil temperature resulting in reduced fuel consumption and lower sound levels. The electronic engine control continuously compensates for the varying fan load, providing consistent net power, regardless of operating conditions.

One-Touch Low Idle Control. The two stage, one-touch Automatic Engine Speed Control reduces engine speed if no operation is performed, maximizing fuel efficiency and reducing sound levels.

Waste Handling Package. The Waste Handling Package has been specifically developed for Cat Wheel Excavators working in waste transfer stations or other extremely dusty applications. This option features the following:

- An automatic, hydraulic reversible fan that reverses airflow after a set interval, manually adjustable between 5 and 60 minutes with a switch located inside the cab.
- A special dense wire mesh cooling system hood further reduces radiator clogging.
- Two cyclone filters provide clean filtered air to the engine compartment, air cleaner, aftercooler and air conditioner condenser.

Environmentally Responsible Design

The M318D helps build a better world and preserve the fragile environment.

Fuel Efficiency. The D-Series Wheel Excavators are designed for outstanding performance with high fuel efficiency. This means more work done in a day, less fuel consumed and minimal impact on our environment.

Low Exhaust Emissions. The EU Stage IIIA compliant Cat C6.6 offers increased performance and reliability while reducing fuel consumption and sound levels.

Quiet Operation. Operator and spectator noise levels are extremely low as a result of the new variable speed fan and remote cooling system.

Biodegradable Hydraulic Oil. The optional biodegradable hydraulic oil (HEES™) is formulated to provide excellent high-pressure and high temperature characteristics, and is fully compatible with all hydraulic components. HEES is fully decomposed by soil or water microorganisms, providing a more environmentally sound alternative to mineral-based oils.

Fewer Leaks and Spills. Lubricant fillers and drains are designed to minimize spills. Cat O-Ring Face Seals, Cat XT™ Hose and hydraulic cylinders are all designed to help prevent fluid leaks that can reduce the machine performance and cause harm to the environment.

Longer Service Intervals. Working closely with your Caterpillar Dealer can help extend service intervals for engine oil, hydraulic oil, axle oil and coolant. Meaning fewer required fluids and fewer disposal, all adding up to lower operating costs.

Hydraulics

Load-sensing hydraulic system provides fast cycle times, increased lift capacity and high bucket and stick forces to maximize your productivity in any job.

Dedicated Swing Pump. A dedicated variable displacement piston pump and fixed displacement piston motor power the swing mechanism. This closed hydraulic circuit maximizes swing performance without reducing power to the other hydraulic functions, resulting in smoother combined movements.

Heavy Lift Mode. This mode maximizes lifting performance by boosting the lifting capability of the excavator by 7%. Heavy loads can be easily moved in the full working range of the machine, maintaining excellent stability.

Adjustable Hydraulic Sensitivity. This function allows the operator to adjust the aggressiveness of the machine according to the application. For precision work, one of four different levels of aggressiveness can be preselected.

Proportional Auxiliary Hydraulics. Versatility of the hydraulic system can be expanded to utilize a wide variety of hydraulic work tools using multiple valve options.

- The Multi-Combined Valve is the core of the Tool Control System, allowing the operator to select up to ten pre-programmed work tools from the monitor. These preset hydraulic parameters support either one-way or two-way flow. The joystick sliding switches allow modulated control of the work tool.

- A dedicated Hammer circuit is the best option for tools that require one-way flow only, and do not require the flexibility provided by the Multi-Combined Valve.
- The Medium Pressure Function Valve provides proportional flow that is ideal for tilting buckets or rotating tools.
- A new feature for the D-Series Wheel Excavators is the optional second High Pressure valve. In combination with the Multi-Combined Valve, it provides the possibility to operate the machine with work tools or in applications requiring a third auxiliary hydraulic function, such as a tilting/rotating quick coupler.

Stick Regeneration Circuit. The stick regeneration circuit increases efficiency and helps increase controllability for higher productivity and lower operating costs.

Quick Coupler. The machine can be optionally equipped with a dedicated hydraulic circuit to operate hydraulic quick couplers.

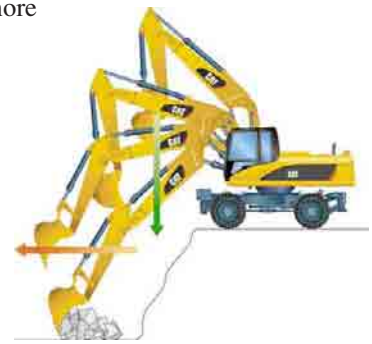
Hydraulic Snubbers. Caterpillar integrates its cylinder snubber technology into all Wheel Excavator boom, stick and bucket cylinders. These snubbers help cushion shocks, reduce sound and increase cylinder life.

Caterpillar XT-6 ES Hoses. Premium quality rubber, precision 4-ply wire reinforcement and exclusive reusable couplings are all unique features that deliver top performance and long life.

SmartBoom. Reduces stress and vibrations transmitted to the machine and provides a more comfortable environment.

Rock Scraping. Scraping rock and finishing work is easy and fast. SmartBoom simplifies the task and allows the operator to concentrate on stick and bucket, while boom freely goes up and down without using pump flow.

Hammer Work. The front parts automatically follow the hammer while penetrating the rock. Blank shots or excessive force on the hammer are avoided resulting in longer life for the hammer and the machine. Similar advantages with vibratory plate compactors.



Truck Loading. Loading trucks from a bench is more productive and fuel efficient as the return cycle is reduced while the boom down function does not require pump flow.

Operator Comfort

The interior layout maximizes operator space, provides exceptional comfort and reduces operator fatigue.

Interior Operator Station. Improved visibility and ergonomics are some of the many new features of the D-Series Wheel Excavators. The pressurized operator station provides maximum space and is designed for simplicity and functionality. Frequently used switches are centralized and are situated on the right-hand switch console. The left-hand seat console controls dozer blade and/or outriggers, and is tiltable for easy access to the cab. The fully automatic climate control adjusts temperature and air flow for exceptional operator comfort. Other comfort features include a cigar lighter, ashtray, cup/can holder, magazine rack and integrated mobile phone holder.

Cab Construction. The exterior design uses thick steel tubing along the bottom perimeter of the cab, improving the resistance to fatigue and vibration. This design allows the falling object guards to be bolted directly to the cab. The cab shell is attached to the frame with rubber mounts that limit vibration and sound transmitted from the frame, substantially reducing interior noise levels.

Viewing Area. To maximize visibility, all glass is affixed directly to the cab, eliminating the use of window frames. Choice of fixed or easy-to-open split front windshield meet operator preference and application conditions.

- The 50/50 split front windshield allows both upper and lower portions to be stored in an overhead position and features the one-touch action release system.
- The 70/30 split front windshield stores the upper portion above the operator. The lower front windshield features a rounded design to maximize downward visibility and improves wiper coverage. Also features the one-touch action release system.
- The fixed front windshield comes with high impact resistant laminated glass.
- A unique large skylight without cross bar provides superb upward visibility. The retractable sunscreen blocks direct sunlight.

Monitor. The new compact color monitor displays information in local language that is easy to read and understanding. Functions include:

- 5 programmable “Quick Access” buttons for one-touch selection of favorite functions.
- Filter and oil change warnings are displayed when the number of hours reaches the maintenance interval.
- Tool select function allows the operator to select up to 10 pre-defined hydraulic work tools.
- Adjustable braking characteristics enable the operator to select three levels of travel motor retarder aggressiveness when releasing the travel pedal.
- Provides a rear camera view that is activated through the monitor menu. The optional camera is mounted on the counterweight.

New Deluxe Seat. The new optional deluxe seat, equipped with an active seat climate system, improves operator comfort. Cooled air flows through the seat cushions to reduce body perspiration. On cold days, a two-step seat heater keeps the operator warm and comfortable. The fully adjustable seat with adjustable lumbar support automatically adjusts to the driver’s weight providing a more relaxed and comfortable environment.

Heated Mirrors. Another new feature is electrically heated mirrors, increasing safety and visibility in cold conditions.

Wipers. The parallel wiper system maximizes visibility in poor weather conditions. The wiper virtually covers the entire front windshield, cleaning the operator’s immediate line of sight.

Lunch Box. A large, cooled storage compartment is located behind the operator’s seat. The compartment provides sufficient room to store items such as a lunch box. An optional cover secures the contents during machine operation.

Foot Pedals. Two-way pedals for travel and auxiliary circuits provide increased floor space, reducing the need to change positions. The foot pedal for auxiliary high-pressure circuit can be locked in the off position and used as a footrest for greater operator comfort.

Undercarriage

Undercarriage and axle design provides maximum strength, flexibility and mobility on wheels.

Increased Travel Speed. The maximum travel speed for the D-Series excavators has been increased from 34 to 37 km/h, reducing travel time between sites and increasing productivity.

Heavy-Duty Axles and Stabilizers. The D-Series Wheel Excavator undercarriage with pin on/bolt on design provides excellent flexibility, rigidity and long life. Effective hydraulic line routing, transmission protection and heavy-duty axles make the undercarriage perfect for wheel excavator applications. The front axle offers wide oscillating and steering angles. The transmission is mounted directly on the rear axle for protection and optimum ground clearance.

Advanced Disc Brake System. The disc brake system acts directly on the hub instead of the drive shaft to avoid planetary gear backlash. This solution eliminates the rocking effect associated with working free on wheels. The axle design lowers maintenance and lifetime costs. Oil change intervals are at 2000 working hours, further reducing owning and operating costs.

Fenders. The optional fenders provide excellent coverage of the front and rear tires, protecting the machine from mud and dirt. Water cannot splash up on the windscreen or cooler. The fenders further protect the machine from stones and debris being thrown up by the tires, providing additional safety for the machine, other vehicles and personnel working close to the excavator.

Adjustable Travel Alarm. An adjustable travel alarm is available to warn people when the machine is moving. Three settings can be selected through the monitor:

- Auto mode – alarm will stop sounding immediately when the machine is no longer traveling, or has been sounding for an uninterrupted 10-second interval.
- Standard mode – alarm operates constantly during moving, with only manual cancellation.
- Off mode – travel alarm is disabled.

Booms and Sticks

Designed for maximum flexibility to keep production high on all jobs.

Design. Booms and sticks are welded, box section structures with thick, multiplate fabrications in high stress areas, for rugged performance and long service life.

Flexibility. The choice of two booms and four sticks provides the right balance of reach and digging forces for all applications.

Variable Adjustable (VA) Boom. The VA boom offers improved right side visibility and machine roading balance. When working in tight quarters or lifting heavy loads, the VA boom offers the best flexibility.

One-Piece Boom. The one-piece boom fits best for all standard applications such as truck loading and digging. A unique straight section in the curve of the side plate reduces stress flow and helps increase boom life.

Sticks. Four different stick lengths are offered to match different application requirements:

- Short stick (2200 mm) for maximum breakout force and lifting capability.
- Medium stick (2500 mm) for greater crowd force and lift capacity.
- Long stick (2800 mm) for greater depth and reach requirements.
- Industrial stick (3300 mm) for use with free-swinging grapples in material handling and industrial applications.

Versatility

A wide variety of optional factory-installed attachments are available to enhance performance and improve job site management.

Control Settings. There are 2 selectable control settings and one automatic travel setting. The new automatic travel mode is activated with a button in the right hand console. In this setting, the transmission will automatically shift up or down, depending on the speed conditions. The operator can choose the best power setting for both engine and hydraulic power versus fuel efficiency.

- Economy Mode – used for lifting, pipe setting, grading, slope finishing and precise work while reducing fuel consumption.
- Power Mode – used for normal truck loading and digging applications, trenching or hammer use.
- Travel Mode – automatically set when the travel pedal is actuated. It provides maximum speed and drawbar pull.

Tool Control. The integrated Tool Control system allows the operator to select up to 10 pre-set combinations. This eliminates the need to re-set the hydraulic parameters each time a tool is changed. Individual flow and pressure can be programmed easily as well as one-way/two-way hydraulic functions. Each of the ten-programmed tools can even be given a specific name. The unique Cat proportional sliding switches and optional auxiliary pedal provide modulation to the tool to make precision work easy.

Joystick Steering. The unique joystick steering option enables an operator to reposition the machine while traveling in first gear by the use of the slider switch on the right joystick. This enables the operator to keep both hands on the joysticks while simultaneously moving the implements and traveling. The operator can do more precise work faster with increased safety around the machine.

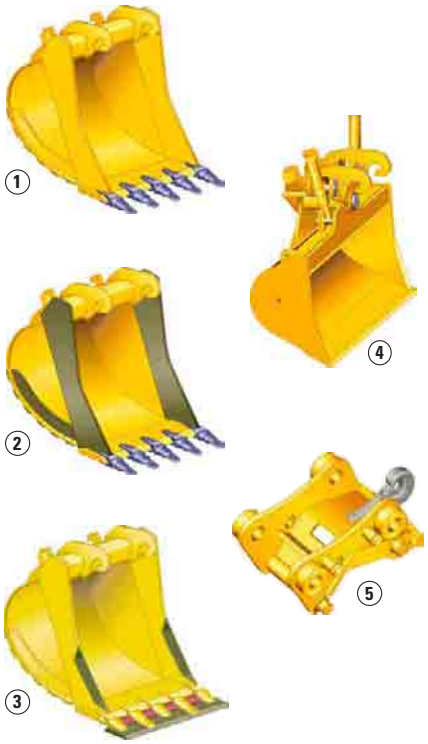
Product Link. Product Link can assist with Fleet Management to keep track of hours, location, security and product health. The machine is pre-wired to accept Product Link systems to be installed in the field. Product Link is also available as a factory installed attachment.

Machine Security. An optional Machine Security System is available from the factory. This system controls who can operate the machine when, and utilizes specific keys to prevent unauthorized machine use.

Ride Control. New for the D Series, the ride control system improves operator comfort and allows the machine to travel faster over rough terrain with improved ride quality for the operator. The ride control system features accumulators acting as shock absorbers to dampen the front part motion. Ride control can be activated through a button located on the soft switch panel in the cab.

Work Tools

A wide variety of Work Tools help optimize machine performance. Purpose designed and built to Caterpillar's high durability standards.



Work Tools. Caterpillar work tools are designed to function as an integral part of your excavator and to provide the best possible performance in your particular application. All work tools are performance-matched to Cat machines.

Quick Couplers. Quick Couplers enable the operator to simply release one work tool and connect to another, making your hydraulic excavator highly versatile. Productivity also increases, as a carrier no longer needs to be idle between jobs. Caterpillar offers hydraulic and spindle quick coupler versions.

Buckets. Caterpillar offers a wide range of specialized buckets, each designed and tested to function as an integral part of your excavator. Buckets feature the new Caterpillar K Series™ Ground Engaging Tools.

1 Excavation (X)

2 Extreme Excavation (EX)

3 Excavation Leveling

4 Ditch Cleaning

5 Quick Coupler

Hammers. Cat hammer series deliver very high blow rates, increasing the productivity of your tool carriers in demolition and construction applications. Wide oil flow acceptance ranges make the Caterpillar hammers suitable for a wide range of carriers and provide a system solution from one safe source.

Orange Peel Grapples. The Orange Peel Grapple is constructed of high-strength, wear-resistant steel, with a low and compact design that makes it ideal for dump clearance. There are several choices of tine and shell versions.

Multi-Grapples. The Multi-Grapple with unlimited left and right rotation is the ideal tool for stripping, sorting, handling and loading. The powerful closing force of the grab shells combined with fast opening/closing time ensures rapid cycle time which translates to more tons per hour.

Multi-Processors. Thanks to its single basic housing design, the Multi-Processor series of hydraulic demolition equipment makes it possible to use a range of jaw sets that can handle any demolition job. The Multi-Processor is the most versatile demolition tool on the market.

Vibratory Plate Compactors. Cat compactors are performance-matched to Cat machines, and integrate perfectly with the Cat hammer line – brackets and hydraulic kits are fully interchangeable between hammers and compactors.

Shears. Cat shears provide superior and effective scrap processing, and are highly productive in demolition environments. Shears are compatible with a matching Cat excavator, and bolt-on brackets are available for either stick or boom-mounted options.

Serviceability and Complete Customer Support

Simplified and easy maintenance save you time and money.
Cat dealer services help you operating longer with lower costs.

Ground Level Maintenance. Caterpillar designed its D-Series Wheel Excavators with the operator and service technician in mind. Gull-wing doors, with pneumatically-assisted lift cylinders, effortlessly lift up to allow critical maintenance to be performed quickly and efficiently while maintaining operator safety.

Extended Service Intervals. The D Series Wheel Excavator service and maintenance intervals have been extended to reduce machine service time, increase machine availability and reduce operating costs. Using S•O•S Scheduled Oil Sampling analysis, hydraulic oil change intervals can be extended up to 4000 hours. Engine coolant change intervals are 12 000 hours with Cat Extended Life Coolant.

Engine Oil. Caterpillar engine oil is formulated to optimize engine life and performance. The specially formulated oil is more cost effective and increases engine oil change interval to 500 hours, providing industry leading performance and savings.

Self-Monitoring System with Auto-Diagnostics. The electronic engine and machine controllers provide detailed diagnostic capability for the service technicians. The ability to store active and intermittent indicators simplifies problem diagnosis and reduces total repair time, resulting in improved machine availability and lower operating cost.

Air Filters. Caterpillar air filters eliminate the use of service tools, reducing maintenance time.The air filter features a double-element construction with wall flow filtration in the main element and built-in mini-cyclone precleaners for superior cleaning efficiency. The air filters are constantly monitored for optimum performance. If airflow becomes restricted, a warning is displayed by the way of the in-cab monitor.

Capsule Filter. The hydraulic return filter, a capsule filter, prevents contaminants from entering the system when the hydraulic oil is changed.

Fuel Filters. Cat high efficiency fuel filters with a Stay-Clean Valve™ features a special media that removes more than 98% of particles, increasing fuel injector life. Both the primary and secondary fuel filters are located in the engine compartment and can be easily changed from ground level.

Water Separator. The D Series is equipped with a primary fuel filter with water separator located in the engine compartment. For ease of service, the water separator can be easily accessed from ground level.

Fuel Tank Drain. The durable, corrosion-free tank has a remote drain located at the bottom of the upper frame to remove water and sediment. The tank drain with hose connection allows simple, spill-free fluid draining.

Front Compartment. The front compartment hood can be opened vertically, providing outstanding ground level access to the batteries, air-to-air after cooler, air conditioner condenser and the air cleaner filter.

Swing-out Air Conditioner Condenser. The Air Conditioning condenser swings out horizontally to allow complete cleaning on both sides as well as excellent access to the air-to-air aftercooler.

Scheduled Oil Sampling. Caterpillar has specially developed S•O•S Oil Sampling Analysis to help ensure better performance, longer life and increased customer satisfaction. This thorough and reliable early warning system detects traces of metals, dirt and other contaminants in your engine, axle and hydraulic oil. It can predict potential trouble avoiding costly failures. Your Caterpillar dealer can give you results and specific recommendations shortly after receiving your sample.

Engine Inspection. The engine can be accessed from both ground level and the upper structure. The longitudinal layout ensures that all daily inspection items can be accessed from ground level.

Anti-Skid Plates. They cover the top of the steps and upper structure to help prevent slipping during maintenance. The Anti-Skid plates reduce the accumulation of mud on the upper structure, improving the cleanliness and safety.

Easy to Clean Coolers. Flat fins on all coolers reduce clogging, making it easier to remove debris. The main cooling fan and air conditioner condenser are both hinged for easier cleaning.

Remote Greasing Blocks. For those hard to reach locations, greasing blocks have been provided to reduce maintenance time. One block is located in the engine compartment with two grease points for the swing bearing and front-end attachment. For the undercarriage, two remote blocks provide easy access for greasing the oscillating axle and, as an option, the dozer blade.

New LED Rear Lights. Optional Light Emitting Diode (LED) rear lights replace the standard lights, for increased visibility on the job site, higher durability and longer life.

New Auto-Lube System. The new automatic lubrication system provides the optimal amount of grease to all the main lubrication points, including the bucket linkage. The lubrication interval can be adjusted through the monitor, and status messages for the auto-lube system are displayed.

Handrails and Steps. Large handrails and steps assist the operator in climbing on and off the machine.

Storage Box. There are two tool boxes integrated in the steps of the undercarriage. Additionally, there is a waterproof storage box integrated into the upper structure steps.

Product Support. You will find nearly all parts requirements at your local Caterpillar dealer parts counter. Cat dealers utilize a world-wide network to find in-stock parts to minimize your downtime. To save money use genuine Cat Reman parts. You will receive the same warranty and reliability as new products at a substantial cost savings.

Selection. Make detailed comparisons of the machines you are considering before you buy. How long do components last? What is the cost of preventive

maintenance? Your Cat dealer can give you precise answers to these questions to make sure you operate your machines at the lowest cost.

Purchase. Consider the financing options available as well as day-to-day operating costs. This is also the time to look at dealer services that can be included in the cost of the machine to yield lower equipment and owning and operating costs over the long run.

Operation. Improving operating techniques can boost your profits. Your Cat dealer has videotapes, literature and other ideas to help you increase productivity, and Caterpillar offers certified operator training classes to help maximize the return on your machine investment.

Maintenance. More and more equipment buyers are planning for effective maintenance before buying equipment. Choose from your dealer's wide range of maintenance services at the time you purchase your machine. Repair option programs guarantee the cost of repairs up front. Diagnostic programs such as S•O•S Fluid Analysis and Technical Analysis help you avoid unscheduled repairs.

Replacement. Repair, rebuild or replace? Your Cat dealer can help you evaluate the cost involved so you can make the right choice.

Engine

Cat C6.6 with ACERT Technology	
Ratings	1800 rpm
Gross power	130 kW/177 hp
Net power	
ISO 9249	124 kW/169 hp
80/1269/EEC	124 kW/169 hp
Bore	105 mm
Stroke	127 mm
Displacement	6.6 liters
Cylinders	6
Maximum torque at 1400 rpm	805 Nm

- All engine horsepower (hp) are metric including front page.
- EU Stage IIIA compliant.
- Full engine net power up to 3000 m altitude.

Hydraulic System

Tank capacity	170 liters
System	270 liters
Maximum pressure	
Implement circuit	
normal	350 bar
heavy lift	375 bar
Travel circuit	350 bar
Auxiliary circuit	
high pressure	350 bar
medium pressure	185 bar
Swing mechanism	310 bar
Maximum flow	
Implement/travel circuit	290 l/min
Auxiliary circuit	
high pressure	250 l/min
medium pressure	50 l/min
Swing mechanism	112 l/min

Cab

FOGS meets ISO 10262.

Sound Levels

Operator Sound

The operator sound level measured according to the procedures specified in ISO 6394:1998 is 72 dB(A), for cab offered by Caterpillar, when properly installed and maintained and tested with the doors and windows closed.

Exterior Sound

The labeled spectator sound power level measured according to the test procedures and conditions specified in 2000/14/EC is 103 dB(A).

Transmission

	km/h
Forward/reverse	
1st gear	8
2nd gear	37
Creeper speed	
1st gear	3
2nd gear	13
Drawbar pull	99 kN
Maximum Gradeability	60%

Swing Mechanism

Swing speed	10.5 rpm
Swing torque	46 kNm

Tires

Standard
- 10.00-20 (dual pneumatic)

Optional
- 11.00-20 (dual pneumatic)
- 18 R 19.5 XF (single pneumatic)
- 600/40-22.5 (single pneumatic)
- 10.00-20 (dual solid rubber)

Undercarriage

	mm
Ground clearance	370
Maximum steering angle	35°
Oscillation axle angle	± 9°
Minimum turning radius	
Standard axle	
outside of tire	6400
end of VA boom	7000
end of one-piece boom	8300
Wide axle	
outside of tire	6500
end of VA boom	7100
end of one-piece boom	8500

Service Refill Capacities

	Liter
Fuel tank	385
Cooling	32
Engine crankcase	15
Rear axle housing (differential)	14
Front steering axle (differential)	10.5
Final drive	2.5
Powershift transmission	2.5

Weights

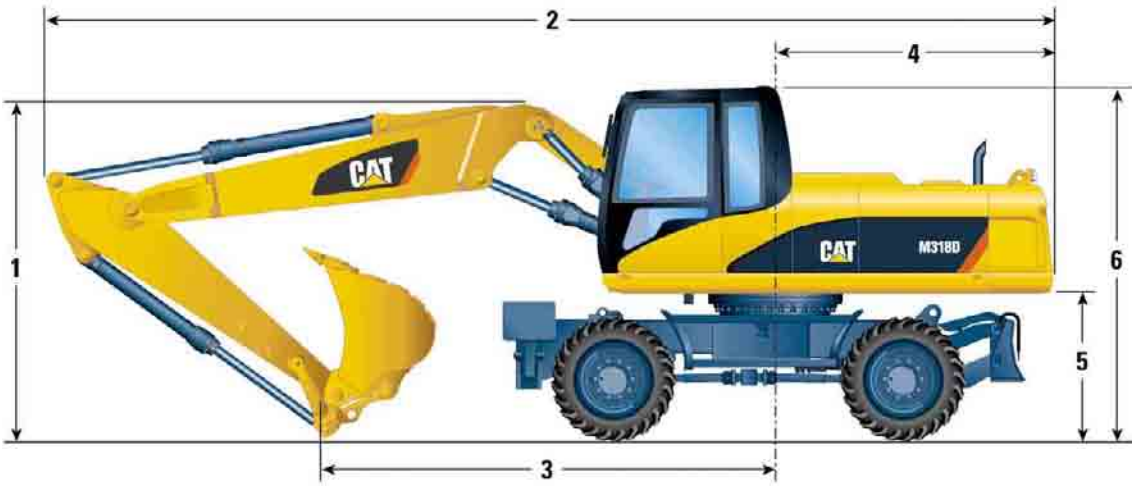
VA boom*	kg
rear dozer only	17 800
rear dozer, front outriggers	18 950
front and rear outriggers	19 150
One-piece boom*	
rear dozer only	17 250
rear dozer, front outriggers	18 400
front and rear outriggers	18 600

Sticks	kg
short (2200 mm)	550
medium (2500 mm)	580
long (2800 mm)	600
industrial (3300 mm)	520
Dozer blade	740
Outriggers	1030
Counterweight	4000

* Machine weight with medium stick, counterweight, full fuel tank and operator, without work tool.

Dimensions

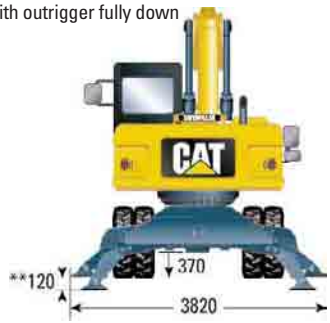
All dimensions are approximate.



		VA Boom				One-piece Boom			
Stick length	mm	**2200**	**2500**	**2800**	***3300**	**2200**	**2500**	**2800**	***3300**
1 Shipping height	mm	3170	3170	3300	3330	3190	3210	3330	3290
2 Shipping length	mm	8870	8850	8820	8850	8870	8960	8950	9000
3 Support point	mm	3920	3650	3510	3270	3810	3490	3310	3080
4 Tail swing radius	mm	2500				2500			
5 Counterweight clearance	mm	1275				1275			
6 Cab height	mm	3170				3170			
with 1200 mm fixed cab riser	mm	4370				4370			
Overall machine width	mm	2550				2550			
Wide gauge axle	mm	2750				2750			

* Industrial stick

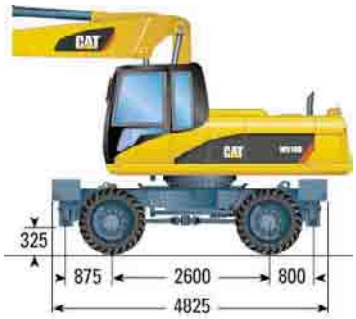
** Maximum tire clearance with outrigger fully down



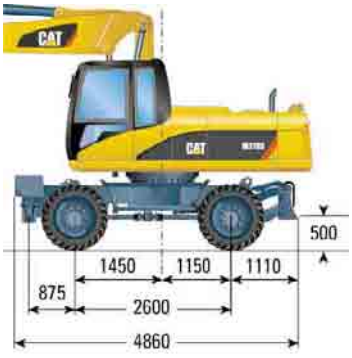
Roading position with 2500 mm stick

Undercarriage with dozer only

Undercarriage with 2 sets of outriggers



Undercarriage with 1 set of outriggers and dozer



Bucket Specifications

Contact your Caterpillar dealer for special bucket requirements.

Pin-on Buckets	Width	Weight*	Capacity (ISO)	Adapters	Variable Adjustable Boom 5260 mm												One-piece Boom 5350 mm											
Stick length					2200 mm				2500 mm				2800 mm				2200 mm				2500 mm				2800 mm			
					Free on wheels	Dozer lowered	1 set of stabilizer lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizer lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizer lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizer lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizer lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizer lowered	Fully stabilized
	mm	kg	m^3																									
Excavation	600	478	0.38	3																								
	750	507	0.52	3																								
	900	568	0.65	4																								
	1000	602	0.75	4																								
	1100	634	0.84	4																								
	1200	678	0.94	5																								
	1300	710	1.03	5																								
	1400	744	1.13	5																								
Extreme Excavation	1200	712	0.94	5																								
	1300	745	1.03	5																								
Excavation (leveling)	600	514	0.41	3																								
	750	544	0.56	3																								
	800	582	0.61	4																								
	900	611	0.70	4																								
	1000	651	0.82	4																								
	1100	687	0.92	4																								
	1200	740	1.04	5																								
	1300	777	1.14	5																								
	1400	813	1.26	5																								
Extreme Excavation (leveling)	1200	772	1.04	5																								
	1300	809	1.14	5																								
Ditch Cleaning	1800	630	0.90																									
	2000	685	1.00																									
Tiltable Ditch Cleaning	1800	875	0.75																									
	2000	912	0.84																									
CW Quick Coupler Buckets																												
Excavation	600	465	0.38	3																								
	750	501	0.52	3																								
	900	530	0.65	4																								
	1000	564	0.75	4																								
	1100	596	0.84	4																								
	1200	640	0.94	5																								
	1300	671	1.03	5																								
	1400	703	1.13	5																								
Extreme Excavation	1200	674	0.94	5																								
	1300	707	1.03	5																								
Excavation (leveling)	600	498	0.41	3																								
	750	547	0.56	3																								
	800	526	0.61	4																								
	900	575	0.70	4																								
	1000	614	0.82	4																								
	1100	651	0.92	4																								
	1200	704	1.04	5																								
	1300	741	1.14	5																								
	1400	777	1.26	5																								
Extreme Excavation (leveling)	600	523	0.41	3																								
	800	555	0.61	4																								
	1000	644	0.82	4																								
	1200	736	1.04	5																								
	1300	773	1.26	5																								
Ditch Cleaning	1800	592	0.90																									
	2000	645	1.00																									
Tiltable Ditch Cleaning	1800	835	0.75																									
	2000	875	0.84																									

* Bucket weight includes Ground Engaging Tools

Maximum material density 1800 kg/m³

Maximum material density 1500 kg/m³

Maximum material density 1200 kg/m³

Not recommended

Work Tools Matching Guide

When choosing between various work tool models that can be installed onto the same machine configuration, consider work tool application, productivity requirements, and durability. Refer to work tool specifications for application recommendations and productivity information.

Without Quick Coupler			Variable Adjustable Boom 5260 mm												One-piece Boom 5350 mm											
			Dozer lowered				2 sets of stabilizer lowered				Dozer and stabilizer lowered				Dozer lowered				2 sets of stabilizer lowered				Dozer and stabilizer lowered			
	Stick length (mm)		2200	2500	2800	3300	2200	2500	2800	3300	2200	2500	2800	3300	2200	2500	2800	3300	2200	2500	2800	3300	2200	2500	2800	3300
Hammers	H115 S, H120C S																									
Multiprocessors	MP15	CC, CR																								
	MP15	PP, PS																								
	MP15	S																								
	MP20	CC, CR																								
	MP20	PP, PS, S																								
Mechanical Pulverizer	P115																									
Hydraulic Shears (* boom mounted)	S320																									
	S320*																									
	S325*																									
Multi-Grapples	G315B	D																								
		R																								
	G320B	D, R																								
Mechanical Grapples	G112																									
	G115																									
Compactor	CVP75																									
Orange Peel Grapples	GSH15B 5 tines	400																								
		500																								
		600																								
		800																								
	GSH15B 4 tines	400																								
		500																								
		600																								
		800																								
	GSH20B 5 tines	600																								
		800																								
		1000																								
	GSH20B 4 tines	600																								
		800																								
		1000																								
With Quick Coupler (CW-30, CW-30S)																										
Multiprocessors	MP15	CC, CR																								
	MP15	PP, PS																								
	MP15	S																								
	MP20	CC, CR																								
	MP20	PP, PS, S																								
Hydraulic Shear	S320																									
Multi-Grapples	G315B	D																								
	G315B	R																								
	G320B	D, R																								
Mechanical Grapples	G112																									
	G115																									
Compactor	CVP75																									

360° Working Range
Over the front only
Maximum material density 3000 kg/m³
Maximum material density 1800 kg/m³
Maximum material density 1200 kg/m³

Lift Capacities – Variable Adjustable Boom (5260 mm)

All values are in kg, without bucket, with CW quick coupler (219 kg), heavy lift on.

Short Stick
2200 mm

	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
6.0 m	Rear dozer up				*6200		5000	5000		3100							
	Rear dozer down					*6200	5700		*5800	3500							
	Rear stab down					*6200	*6200		*5800	4200							
	2 sets stab down				*6200		*6200	*5800		*5800							
	Dozer and stab down				*6200		*6200	*5800		5100							
4.5 m	Rear dozer up				*7200		4800	5000		3100				*3000		1900	7.77
	Rear dozer down					*7200	5500		*6000	3600					*3000	2200	
	Rear stab down					*7200	6600		*6000	4300					*3000	2700	
	2 sets stab down				*7200		*7200	*6000		5900				*3000		*3000	
	Dozer and stab down				*7200		*7200	*6000		5100				*3000		*3000	
3.0 m	Rear dozer up	*9500		8500	7400		4700	4900		3100	3300		1900	2900		1700	8.19
	Rear dozer down		*9500	*9500		*8700	5400		*6600	3600		5200	2200		*3000	2000	
	Rear stab down		*9500	*9500		*8700	6400		*6600	4300		4500	2800		*3000	2400	
	2 sets stab down	*9500		*9500	*8700		*8700	*6600		5800	*5500		4000	*3000		*3000	
	Dozer and stab down	*9500		*9500	*8700		7700	*6600		5000	*5500		3400	*3000		*3000	
1.5 m	Rear dozer up	*12 700		8200	7400		4600	4900		3000	3200		1900	2800		1600	8.29
	Rear dozer down		*12 700	9700		*9900	5300		*7100	3500		5100	2200		*3200	1900	
	Rear stab down		*12 700	11 900		*9900	6400		6500	4200		4500	2700		*3200	2300	
	2 sets stab down	*12 700		*12 700	*9900		8900	*7100		5800	*5700		3900	*3200		*3200	
	Dozer and stab down	*12 700		*12 700	*9900		7600	*7100		5000	*5700		3300	*3200		2800	
0 m	Rear dozer up	14 500		8000	7500		4400	4700		2800	3100		1800	2800		1600	8.07
	Rear dozer down		*15 000	9500		*10 100	5100		*7300	3300		5000	2100		*3500	1900	
	Rear stab down		*15 000	12 100		*10 100	6300		6600	4000		4400	2600		*3500	2400	
	2 sets stab down	*15 000		*15 000	*10 100		8900	*7300		5700	*5500		3900	*3500		*3500	
	Dozer and stab down	*15 000		14 800	*10 100		7600	*7300		4900	*5500		3200	*3500		2900	
-1.5 m	Rear dozer up	14 700		7700	7300		4300	4500		2600				3100		1800	7.51
	Rear dozer down		*16 400	9100		*10 300	4900		7400	3100					*4000	2100	
	Rear stab down		*16 400	11 800		*10 300	6100		6400	3800					*4000	2600	
	2 sets stab down	*16 400		*16 400	*10 300		9100	*7500		5500				*4000		3900	
	Dozer and stab down	*16 400		15 100	*10 300		7500	*7500		4600				*4000		3200	
-3.0 m	Rear dozer up	14 800		7700	7000		4000	4400		2500							
	Rear dozer down		*16 900	9200		*10 100	4700		*5200	2900							
	Rear stab down		*16 900	11 800		*10 100	5800		*5200	3600							
	2 sets stab down	*16 900		*16 900	*10 100		8800	*5200		*5200							
	Dozer and stab down	*16 900		15 100	*10 100		7200	*5200		4500							

Medium Stick
2500 mm

	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
6.0 m	Rear dozer up							5000		3200							
	Rear dozer down								*5200	3600							
	Rear stab down								*5200	4300							
	2 sets stab down							*5200		*5200							
	Dozer and stab down							*5200		5100							
4.5 m	Rear dozer up				*6600		4900	5000		3200	3400		2000	*2300		1800	8.10
	Rear dozer down					*6600	5600		*5800	3600		*3800	2300		*2300	2100	
	Rear stab down					*6600	*6600		*5800	4300		*3800	2800		*2300	*2300	
	2 sets stab down				*6600		*6600	*5800		*5800	*3800		*3800	*2300		*2300	
	Dozer and stab down				*6600		*6600	*5800		5100	*3800		3500	*2300		*2300	
3.0 m	Rear dozer up	*10 000		8500	7600		4700	4900		3100	3400		2000	*2300		1600	8.51
	Rear dozer down		*10 000	*10 000		*8400	5400		*6500	3600		5200	2300		*2300	1900	
	Rear stab down		*10 000	*10 000		*8400	6500		*6500	4300		4600	2800		*2300	*2300	
	2 sets stab down	*10 000		*10 000	*8400		*8400	*6500		5900	*5500		4100	*2300		*2300	
	Dozer and stab down	*10 000		*10 000	*8400		7700	*6500		5100	*5500		3500	*2300		*2300	
1.5 m	Rear dozer up	*12 600		8300	7400		4600	4900		3100	3300		2000	*2400		1500	8.60
	Rear dozer down		*12 600	9700		*9700	5300		*7100	3500		5200	2300		*2400	1800	
	Rear stab down		*12 600	12 000		*9700	6400		6500	4300		4500	2800		*2400	2200	
	2 sets stab down	*12 600		*12 600	*9700		8900	*7100		5800	*5700		4000	*2400		*2400	
	Dozer and stab down	*12 600		*12 600	*9700		7600	*7100		5000	*5700		3400	*2400		*2400	
0 m	Rear dozer up	14 500		8100	7500		4500	4800		2900	3200		1900	*2700		1500	8.39
	Rear dozer down		*14 600	9600		*10 100	5200		*7300	3400		5100	2200		*2700	1800	
	Rear stab down		*14 600	12 100		*10 100	6400		6600	4100		4400	2700		*2700	2200	
	2 sets stab down	*14 600		*14 600	*10 100		8900	*7300		5800	*5700		3900	*2700		*2700	
	Dozer and stab down	*14 600		*14 600	*10 100		7600	*7300		4900	*5700		3300	*2700		*2700	
-1.5 m	Rear dozer up	14 800		7800	7300		4300	4600		2700				2900		1700	7.86
	Rear dozer down		*16 400	9200		*10 200	5000		7400	3100					*3000	2000	
	Rear stab down		*16 400	11 900		*10 200	6100		6400	3800					*3000	2500	
	2 sets stab down	*16 400		*16 400	*10 200		9100	*7400		5600				*3000		*3000	
	Dozer and stab down	*16 400		15 100	*10 200		7500	*7400		4700				*3000		*3000	
-3.0 m	Rear dozer up	14 700		7700	7100		4100	4400		2600							
	Rear dozer down		*16 900	9200		*10 500	4800		*6300	3000							
	Rear stab down		*16 900	11 800		*10 500	5900		6300	3700							
	2 sets stab down	*16 900		*16 900	*10 500		8900	*6300		5400							
	Dozer and stab down	*16 900		15 100	*10 500		7300	*6300		4500							
-4.5 m	Rear dozer up	*12 500		7600													
	Rear dozer down		*12 500	9000													
	Rear stab down		*12 500	11 600													
	2 sets stab down	*12 500		*12 500													
	Dozer and stab down	*12 500		*12 500													

Long Stick
2800 mm

Load point height	Load over front	Load over rear	Load over side	Load at maximum reach	Load point height

	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
6.0 m	Rear dozer up							*4800		3200							
	Rear dozer down								*4800	3700							
	Rear stab down								*4800	4400							
	2 sets stab down							*4800		*4800							
	Dozer and stab down							*4800		*4800							
4.5 m	Rear dozer up				*5600		4900	*5000		3200	3400		2100	*2100		1700	8.41
	Rear dozer down					*5600	*5600		*5500	3600		*4200	2400		*2100	1900	
	Rear stab down					*5600	*5600		*5500	4300		*4200	2900		*2100	*2100	
	2 sets stab down				*5600		*5600	*5500		*5500	*4200		4100	*2100		*2100	
	Dozer and stab down				*5600		*5600	*5500		5100	*4200		3500	*2100		*2100	
3.0 m	Rear dozer up	*9800		8600	7600		4700	4900		3100	3400		2100	*2100		1500	8.80
	Rear dozer down		*9800	*9800		*8000	5400		*6200	3600		5200	2400		*2100	1700	
	Rear stab down		*9800	*9800		*8000	6500		*6200	4300		4600	2900		*2100	*2100	
	2 sets stab down	*9800		*9800	*8000		*8000	*6200		5900	*5300		*4100	*2100		*2100	
	Dozer and stab down	*9800		*9800	*8000		7700	*6200		5000	*5300		3500	*2100		*2100	
1.5 m	Rear dozer up	*12 600		8300	7400		4600	4900		3100	3300		2000	*2200		1400	8.89
	Rear dozer down		*12 600	9700		*9500	5300		*6900	3500		5200	2300		*2200	1700	
	Rear stab down		*12 600	12 000		*9500	6300		6900	4200		4600	2800		*2200	*2100	
	2 sets stab down	*12 600		*12 600	*9500		8900	*6900		5800	*5600		4000	*2200		*2200	
	Dozer and stab down	*12 600		*12 600	*9500		7600	*6900		5000	*5600		3400	*2200		*2200	
0 m	Rear dozer up	14 100		8200	7400		4500	4900		3000	3200		1900	*2300		1400	8.69
	Rear dozer down		*14 100	9700		*10 100	5200		7200	3400		5100	2200		*2300	1700	
	Rear stab down		*14 100	12 000		*10 100	6400		6500	4100		4500	2700		*2300	2100	
	2 sets stab down	*14 100		*14 100	*10 100		8900	*7300		5800	*5700		3900	*2300		*2300	
	Dozer and stab down	*14 100		*14 100	*10 100		7600	*7300		5000	*5700		3300	*2300		*2300	
-1.5 m	Rear dozer up	14 600		7800	7300		4300	4600		2800	3100		1800	*2700		1600	8.17
	Rear dozer down		*16 200	9200		*10 200	5000		7300	3200		5000	2100		*2700	1800	
	Rear stab down		*16 200	11 900		*10 200	6100		6500	3900		4400	2600		*2700	2300	
	2 sets stab down	*16 200		*16 200	*10 200		9000	*7400		5600	*5200		3800	*2700		*2700	
	Dozer and stab down	*16 200		15 000	*10 200		7500	*7400		4800	*5200		3200	*2700		*2700	
-3.0 m	Rear dozer up	14 700		7700	7200		4200	4400		2600							
	Rear dozer down		*16 600	9100		*10 500	4800		*6900	3000							
	Rear stab down		*16 600	11 700		*10 500	6000		6300	3700							
	2 sets stab down	*16 600		*16 600	*10 500		9000	*6900		5500							
	Dozer and stab down	*16 600		15 100	*10 500		7400	*6900		4600							
-4.5 m	Rear dozer up	*14 400		7600	7000		4000										
	Rear dozer down		*14 400	9000		*7400	4600										
	Rear stab down		*14 400	11 600		*7400	5800										
	2 sets stab down	*14 400		*14 400	*7400		*7400										
	Dozer and stab down	*14 400		*14 400	*7400		7200										

Industrial Stick
3300 mm

	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
6.0 m	Rear dozer up							*5000		3600							
	Rear dozer down								*5000	4100							
	Rear stab down								*5000	4800							
	2 sets stab down							*5000		*5000							
	Dozer and stab down							*5000		*5000							
4.5 m	Rear dozer up				*5900		5300	5400		3600	3800		2500	*3100		2200	8.02
	Rear dozer down					*5900	*5900		*5800	4000		*4500	2800		*3100	2500	
	Rear stab down					*5900	*5900		*5800	4700		*4500	3300		*3100	2900	
	2 sets stab down				*5900		*5900	*5800		*5800	*4500		*4500	*3100		*3100	
	Dozer and stab down				*5900		*5900	*5800		5500	*4500		3900	*3100		*3100	
3.0 m	Rear dozer up	*10900		9100	8000		5100	5300		3500	3800		2500	3100		2000	8.4
	Rear dozer down		*10900	10500		*8200	5800		*6500	3900		*5600	2800	*3200		2300	
	Rear stab down		*10900	*10900		*8200	6900		*6500	4600		5000	3300		*3200	2700	
	2 sets stab down	*10900		*10900	*8200		*8200	*6500		6200	*5600		4500		*3200	*3200	
	Dozer and stab down	*10900		*10900	*8200		*8200	*6500		5400	*5600		3900	*3200		*3200	
1.5 m	Rear dozer up	*13700		8800	7800		5000	5300		3500	3800		2400	3000		1900	8.48
	Rear dozer down		*13700	10100		*9800	5700		*7300	3900		5600	2700		*3400	2200	
	Rear stab down		*13700	12500		*9800	6800		6900	4600		5000	3200		*3400	2600	
	2 sets stab down	*13700		*13700	*9800		9400	*7300		6200	*6000		4500	*3400		*3400	
	Dozer and stab down	*13700		*13700	*9800		8000	*7300		5400	*6000		3900	*3400		3100	
0 m	Rear dozer up	14900		8700	7800		5000	5300		3400	3600		2300	3100		1900	8.29
	Rear dozer down		*15000	10100		*10600	5700		*7700	3800		5500	2600		*3800	2200	
	Rear stab down		*15000	12500		*10600	6700		6900	4500		4900	3100		*3800	2600	
	2 sets stab down	*15000		*15000	*10600		9300	*7700		6200	*6100		4400	*3800		3700	
	Dozer and stab down	*15000		*15000	*10600		8000	*7700		5400	*6100		3700	*3800		3200	
-1.5 m	Rear dozer up	15100		8300	7800		4700	5000		3100	3500		2200	3300		2100	7.79
	Rear dozer down		*16700	9800		*10700	5400		7700	3600		5400	2500		*4500	2300	
	Rear stab down		*16700	12400		10600	6600		6900	4300		4800	3000		*4500	2800	
	2 sets stab down	*16700		*16700	*10700		9400	*7800		6100	*5900		4200	*4500		4000	
	Dozer and stab down	*16700		15400	*10700		8000	*7800		5200	*5900		3600	*4500		3400	
-3.0 m	Rear dozer up	15100		8100	7500		4500	4800		2900							
	Rear dozer down		*17100	9500		*10900	5200		*7600	3400							
	Rear stab down		*17100	12200		*10900	6300		6700	4100							
	2 sets stab down	*17100		*17100	*10900		9300	*7600		5800							
	Dozer and stab down	*17100		15500	*10900		7700	*7600		4900							
-4.5 m	Rear dozer up	14900		7900	7300		4300										
	Rear dozer down		*15600	9300		*8500	5000										
	Rear stab down		*15600	11900		*8500	6100										
	2 sets stab down	*15600		*15600	*8500		*8500										
	Dozer and stab down	*15600		15200	*8500		7500										

* Limited by hydraulic rather than tipping load. Lift capacity ratings are based on ISO 10567, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Oscillating axle must be locked.

Lift Capacities – One-piece Boom (5350 mm)

All values are in kg, without bucket, with CW quick coupler (219 kg), heavy lift on.

Short Stick
2200 mm

	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
6.0 m	Rear dozer up							4900		3000							
	Rear dozer down								*5600	3500							
	Rear stab down								*5600	4200							
	2 sets stab down							*5600		*5600							
	Dozer and stab down							*5600		5000							
4.5 m	Rear dozer up				*7000		4700	4800		3000				*3100		1900	7.79
	Rear dozer down					*7000	5300		*5900	3400					*3100	2200	
	Rear stab down					*7000	6500		*5900	4100					*3100	2700	
	2 sets stab down				*7000		*7000	*5900		5800				*3100		*3100	
	Dozer and stab down				*7000		*7000	*5900		5000				*3100		*3100	
3.0 m	Rear dozer up				7200		4300	4600		2800	3300		1900	2900		1700	8.22
	Rear dozer down					*8600	4900		*6600	3200		5100	2200		*3200	2000	
	Rear stab down					*8600	6100		6500	3900		4500	2700		*3200	2400	
	2 sets stab down				*8600		*8600	*6600		5700	*5500		4000	*3200		*3200	
	Dozer and stab down				*8600		7400	*6600		4800	*5500		3400	*3200		3000	
1.5 m	Rear dozer up				6800		3900	4400		2600	3200		1900	2700		1600	8.31
	Rear dozer down					*9900	4500		*7200	3000		5000	2200		*3400	1900	
	Rear stab down					*9900	5600		6300	3700		4400	2700		*3400	2300	
	2 sets stab down				*9900		8500	*7200		5500	*5700		3900	*3400		*3400	
	Dozer and stab down				*9900		7000	*7200		4600	*5700		3300	*3400		2800	
0 m	Rear dozer up				6600		3700	4300		2500	3100		1800	2800		1600	8.09
	Rear dozer down					*10200	4300		7100	2900		5000	2100		*3800	1900	
	Rear stab down					9900	5400		6100	3600		4300	2600		*3800	2400	
	2 sets stab down				*10200		8300	*7400		5300	*5700		3800	*3800		3500	
	Dozer and stab down				*10200		6800	*7400		4400	*5700		3200	*3800		2900	
-1.5 m	Rear dozer up	*9200		6800	6500		3700	4300		2500				3100		1800	7.53
	Rear dozer down		*9200	8100		*9600	4300		*7000	2900					*4400	2100	
	Rear stab down		*9200	*9200		*9600	5400		6100	3600					4300	2600	
	2 sets stab down	*9200		*9200	*9600		8300	*7000		5300				*4400		3800	
	Dozer and stab down	*9200		*9200	*9600		6800	*7000		4400				*4400		3200	
-3.0 m	Rear dozer up	*10700		6900	6600		3700	4300		2500							
	Rear dozer down		*10700	8300		*8000	4400		*5600	2900							
	Rear stab down		*10700	*10700		*8000	5500		*5600	3600							
	2 sets stab down	*10700		*10700	*8000		*8000	*5600		5300							
	Dozer and stab down	*10700		*10700	*8000		6800	*5600		4500							

Medium Stick
2500 mm

	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
6.0 m	Rear dozer up							5000		3100							
	Rear dozer down								*5200	3500							
	Rear stab down								*5200	4200							
	2 sets stab down							*5200		*5200							
	Dozer and stab down							*5200		5100							
4.5 m	Rear dozer up							4900		3000	3400		2000	*2500		1800	8.13
	Rear dozer down								*5700	3400		*4000	2300		*2500	2100	
	Rear stab down								*5700	4100		*4000	2800		*2500	2500	
	2 sets stab down							*5700		*5700	*4000		*4000	*2500		*2500	
	Dozer and stab down							*5700		5000	*4000		3500	*2500		*2500	
3.0 m	Rear dozer up				7300		4400	4700		2800	3300		2000	*2500		1600	8.53
	Rear dozer down					*8300	500		*6400	3300		5200	2300		*2500	1900	
	Rear stab down					*8300	6200		*6400	4000		4500	2800		*2500	2300	
	2 sets stab down				*8300		*8300	*6400		5700	*5400		4000	*2500		*2500	
	Dozer and stab down				*8300		7500	*6400		4800	*5400		3400	*2500		*2500	
1.5 m	Rear dozer up				6900		4000	4500		2700	3200		1900	2600		1500	8.62
	Rear dozer down					*9700	4600		*7100	3100		5100	2200		*2700	1800	
	Rear stab down					*9700	5700		6300	3800		4400	2700		*2700	2200	
	2 sets stab down				*9700		8600	*7100		5500	*5700		3900	*2700		*2700	
	Dozer and stab down				*9700		7100	*7100		4600	*5700		3300	*2700		*2700	
0 m	Rear dozer up				6700		3800	4300		2500	3100		1800	2700		1600	8.41
	Rear dozer down					*10200	4400		7100	2900		5000	2100		*2900	1800	
	Rear stab down					10000	5500		6200	3600		4400	2600		*2900	2002	
	2 sets stab down				*10200		8400	*7400		5400	*5700		3800	*2900		*2900	
	Dozer and stab down				*10200		6900	*7400		4500	*5700		3200	*2900		2800	
-1.5 m	Rear dozer up	*8600		6800	6600		3700	4300		2500				2900		1700	7.88
	Rear dozer down		*8600	8100		*9800	4300		7100	2900					*3400	2000	
	Rear stab down		*8600	*8600		*9800	5400		6100	3600					*3400	2500	
	2 sets stab down	*8600		*8600	*9800		8300	*7200		5300				*3400		*3400	
	Dozer and stab down	*8600		*8600	*9800		6800	*7200		4400				*3400		3000	
-3.0 m	Rear dozer up	*11600		6900	6600		3700	4300		2500							
	Rear dozer down		*11600	8300		*8400	4400		*6100	2900							
	Rear stab down		*11600	10800		*8400	5500		*6100	3600							
	2 sets stab down	*11600		*11600	*8400		8300	*6100		5300							
	Dozer and stab down	*11600		*11600	*8400		6800	*6100		4400							
-4.5 m	Rear dozer up				*5400		3900										
	Rear dozer down					*5400	4600										
	Rear stab down					*5400	*5400										
	2 sets stab down				*5400		*5400										
	Dozer and stab down				*5400		*5400										

Long Stick
2800 mm

Load point height	Load over front	Load over rear	Load over side	Load at maximum reach	Load point height

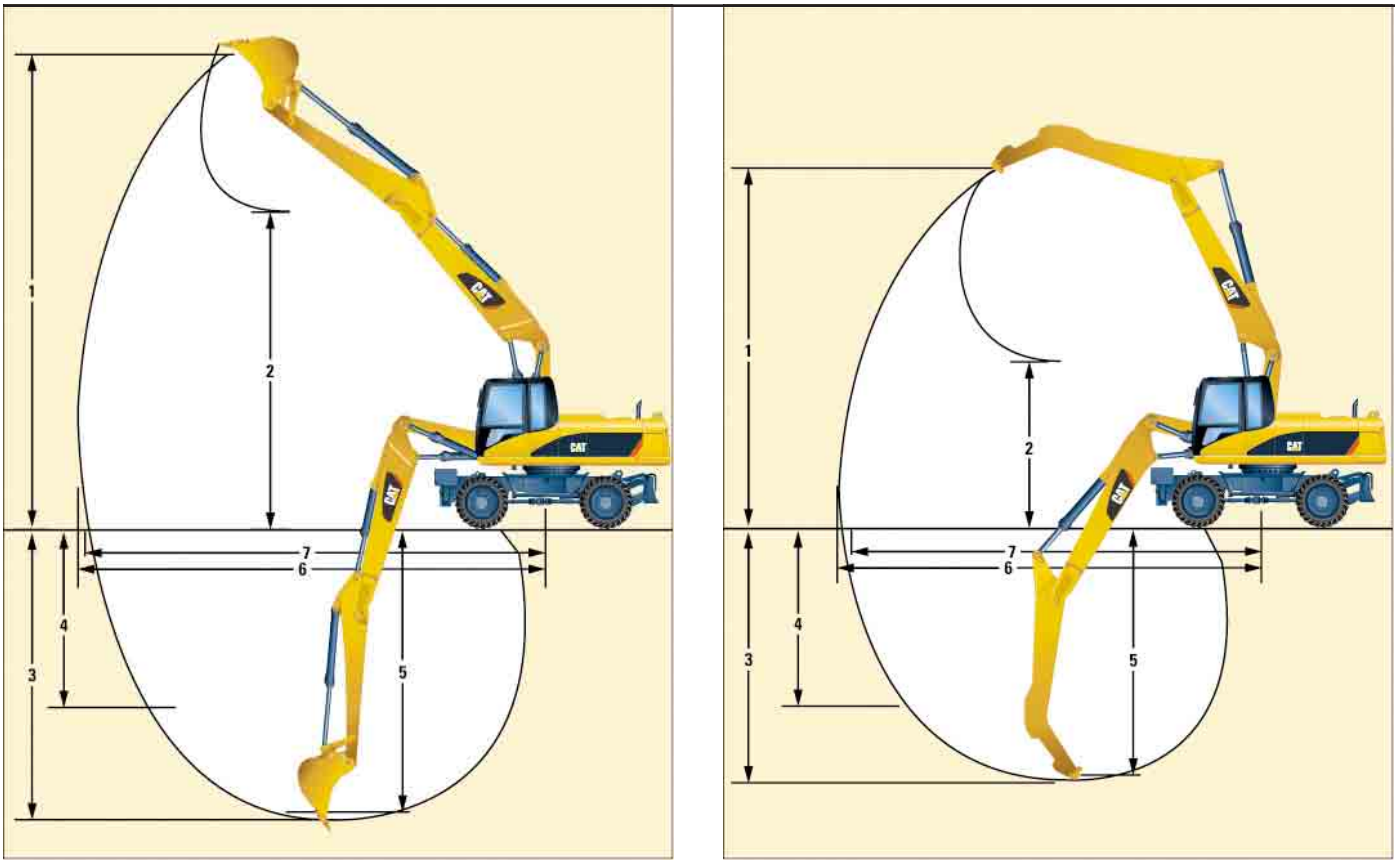
Load point height	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
6.0 m	Rear dozer up							*4800		3100							
	Rear dozer down								*4800	3600							
	Rear stab down								*4800	4300							
	2 sets stab down							*4800		*4800							
	Dozer and stab down							*4800		*4800							
4.5 m	Rear dozer up							4900		3000	3400		2100	*2200		1700	8.46
	Rear dozer down								*5400	3500		*4200	2400		*2200	2000	
	Rear stab down								*5400	4200		*4200	2900		*2200	*2200	
	2 sets stab down							*5400		*5400	*4200		4100	*2200		*2200	
	Dozer and stab down							*5400		5000	*4200		3500	*2200		*2200	
3.0 m	Rear dozer up				7400		4400	4700		2900	3300		2000	*2200		1500	8.81
	Rear dozer down					*7900	5100		*6200	3300		5200	2300		*2200	1800	
	Rear stab down					*7900	6200		*6200	4000		4500	2800		*2200	*2200	
	2 sets stab down				*7900		*7900	*6200		5700	*5300		4000	*2200		*2200	
	Dozer and stab down				*7900		7600	*6200		4800	*5300		3400	*2200		*2200	
1.5 m	Rear dozer up				6900		4000	4500		2700	3200		1900	*2400		1400	8.90
	Rear dozer down					*9500	4700		*6900	3100		5100	2200		*2400	1700	
	Rear stab down					*9500	5800		6300	3800		4400	2700		*2400	2100	
	2 sets stab down				*9500		8700	*6900		5500	*5600		3900	*2400		*2400	
	Dozer and stab down				*9500		7100	*6900		4600	*5600		3300	*2400		*2400	
0 m	Rear dozer up	*5000		*5000	6600		3800	4300		2500	3100		1800	2500		1500	8.70
	Rear dozer down		*5000	*5000		*10200	4400		7100	2900		5000	2100		*2600	1700	
	Rear stab down		*5000	*5000		10000	5500		6200	3600		4300	2600		*2600	2100	
	2 sets stab down	*5000		*5000	*10200		8400	*7300		5300	*5700		3800	*2600		*2600	
	Dozer and stab down	*5000		*5000	*10200		6900	*7300		4500	*5700		3200	*2600		*2600	
-1.5 m	Rear dozer up	*8300		6700	6500		3700	4200		2400	3100		1800	2700		1600	8.19
	Rear dozer down		*8300	8100		*9900	4300		7000	2900		4900	2100		*3000	1900	
	Rear stab down		*8300	*8300		9900	5400		6100	3500		4300	2600		*3000	2300	
	2 sets stab down	*8300		*8300	*9900		8300	*7200		5300	*5400		3800	*3000		*3000	
	Dozer and stab down	*8300		*8300	*9900		6700	*7200		4400	*5400		3200	*3000		2800	
-3.0 m	Rear dozer up	*12400		6800	6600		3700	4300		2500							
	Rear dozer down		*12400	8200		*8800	4300		*6400	2900							
	Rear stab down		*12400	10700		*8800	5400		6100	3600							
	2 sets stab down	*12400		*12400	*8800		8300	*6400		5300							
	Dozer and stab down	*12400		*12400	*8800		6800	*6400		4400							
-4.5 m	Rear dozer up	*8600		7100	*6200		3800										
	Rear dozer down		*8600	8500		*6200	4500										
	Rear stab down		*8600	*8600		*6200	5600										
	2 sets stab down	*8600		*8600	*6200		*6200										
	Dozer and stab down	*8600		*8600	*6200		*6200										

Industrial Stick
3300 mm

Load point height	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
4.5 m	Rear dozer up							5300		3500	3800		2500	*3200		2200	8.01
	Rear dozer down								*5700	3900		*4500	2800		*3200	2500	
	Rear stab down								*5700	4600		*4500	3300		*3200	3000	
	2 sets stab down							*5700		*5700	*4500		*4500	*3200		*3200	
	Dozer and stab down							*5700		5500	*4500		3900	*3200		*3200	
3.0 m	Rear dozer up				7900		4900	5100		3300	3700		2400	*3200		2000	8.38
	Rear dozer down					8000	5600		*6500	3700		5600	2700		*3400	2300	
	Rear stab down					*8000	6700		*6500	4400		5000	3200		*3400	2700	
	2 sets stab down				*8000		*8000	*6500		6200	5600		4400	*3400		*3400	
	Dozer and stab down				*8000		*8000	*6500		5300	5600		3800	*3400		3300	
1.5 m	Rear dozer up				7500		4500	4900		3100	3600		2300	3100		2000	8.47
	Rear dozer down					*9800	5200		*7300	3500		5500	2600		*3600	2200	
	Rear stab down					*9800	6300		6800	4200		4800	3100		*3600	2600	
	2 sets stab down				*9800		9200	*7300		6000	*6000		4300	*3600		*3600	
	Dozer and stab down				*9800		7700	*7300		5100	*6000		3700	*3600		3100	
0 m	Rear dozer up	*7000		*7000	7200		4300	4800		3000	3500		2200	3100		2000	8.27
	Rear dozer down		*7000	*7000		*10 700	4900		7600	3400		5400	2500		*4100	2200	
	Rear stab down		*7000	*7000		10 500	6000		6600	4100		4800	3000		*4100	2700	
	2 sets stab down	*7000		*7000	*10 700		8900	*7800		5800	*6200		4200	*4100		3700	
	Dozer and stab down	*7000		*7000	*10 700		7400	*7800		4900	*6200		3600	*4100		3200	
-1.5 m	Rear dozer up	*9700		7300	7000		4100	4700		2900	3500		2200	3300		2100	7.78
	Rear dozer down		*9700	8600		*10 600	4800		7500	3300		5300	2500		*4900	2400	
	Rear stab down		*9700	*9700		10 400	5900		6500	4000		4700	3000		4500	2900	
	2 sets stab down	*9700		*9700	10 600		8700	*7800		5700	*6000		4200	*4900		4000	
	Dozer and stab down	*9700		*9700	*10 600		7200	*7800		4800	*6000		3600	*4900		3400	
-3.0 m	Rear dozer up	*13 600		7400	7000		4100	4700		2900							
	Rear dozer down		*13 600	8700		*9600	4800		*7100	3300							
	Rear stab down		*13 600	11 200		*9600	5900		6500	4000							
	2 sets stab down	*13 600		*13 600	*9600		8700	*7100		5700							
	Dozer and stab down	*13 600		*13 600	*9600		7200	*7100		4800							
-4.5 m	Rear dozer up	*10 100		7500	7100		4200										
	Rear dozer down		*10 100	8900		*7300	4900										
	Rear stab down		*10 100	*10 100		*7300	6000										
	2 sets stab down	*10 100		*10 100	*7300		7300										
	Dozer and stab down	*10 100		*10 100	*7300		*7300										

* Limited by hydraulic rather than tipping load. Lift capacity ratings are based on ISO 10567, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Oscillating axle must be locked.

Working Ranges



		VA Boom				One-piece Boom			
Stick length	mm	**2200**	**2500**	**2800**	***3300**	**2200**	**2500**	**2800**	***3300**
1 Digging height	mm	9710	10 000	10 210	8620	8760	9010	9170	8620
2 Dump height	mm	6700	6970	7190	3550	5900	6110	6270	3140
3 Digging depth	mm	5750	6060	6360	5320	5700	6000	6300	5250
4 Vertical wall digging depth	mm	3220	3680	3960	–	2880	3340	3620	–
5 Depth 2.5 m straight clean-up	mm	5538	5865	6179	–	5488	5805	6119	–
6 Reach	mm	9180	9470	9760	8490	9180	9490	9770	8470
7 Reach at ground level	mm	8970	9300	9590	8290	9000	9320	9600	8270
Bucket forces (ISO 6015)	kN	126	126	126	–	126	126	126	–
Stick forces (ISO 6015)	kN	102	91	85	–	102	91	85	–

Values 1-7 are calculated with bucket and quick coupler with a tip radius of 1599 mm.
Breakout force values are calculated with heavy lift on (no quick coupler) and a tip radius of 1405 mm.

* Industrial stick has no bucket linkage.
All dimensions refer to sticknose.

Standard Equipment

Standard equipment may vary. Consult your Caterpillar dealer for specifics.

Electrical
Alternator, 75 A
Maintenance free batteries
Lights
  Boom working light
  Cab interior light
  Roading lights (two front, two rear)
Main shut-off switch
Signal/warning horn

Engine
Automatic engine speed control
Automatic starting aid
Cat C6.6 with ACERT Technology
  EU Stage IIIA compliant
Fuel/water separator with level indicator

Hydraulics
Cat XT-6 ES hoses
Heavy lift mode
Load-sensing Plus hydraulic system
Manual work modes (economy, power)
Separate swing pump
Stick regeneration circuit

Operator Station
Adjustable armrests
Ash tray with cigarette lighter (24 volt)
Beverage cup/can holder
Bolt-on FOGS capability
Bottle holder
Coat hook
Floor mat, washable, with storage compartment
Fully adjustable suspension seat
Heater and defroster
Instrument panel and gauges
  Information and warning messages in local language
  Gauges for fuel level, engine coolant and hydraulic oil temperature
  Filters/fluids change interval, working hour
  Indicators for headlights, turning signal, low fuel, engine dial setting
  Clock with 10-day backup battery
Laminated front windshield
Left side console, tiltable, with lock out for all controls
Literature compartment behind seat
Literature holder in right console
Mobile phone holder
Parking brake
Parallel mounted top and bottom wiper and washer
Positive filtered ventilation, pressurized cab
Power supply, 12V-7A
Rear window, emergency exit
Retractable seat belt
Skylight
Sliding door windows
Steering column, tiltable
Storage area suitable for a lunch box
Sunshade for windshield and skylight

Undercarriage
Heavy-duty axles, advanced travel motor, adjustable braking force
Oscillating front axle with remote greasing
Pin-on design for dozer blade and outriggers
Tool box in undercarriage
Tires, 10.00-20 16 PR, dual
Two-piece drive shaft
Two-speed transmission, manual and automatic gear shifting

Other Equipment
Automatic swing brake
Mirrors, frame and cab
Product Link ready
Upper structure storage box

Optional Equipment

Optional equipment may vary. Consult your Caterpillar dealer for specifics.

Auxiliary Controls and Lines
Auxiliary boom and stick lines
Anti-drift valves for bucket, stick, VA boom and tool control/multi-function circuits
Basic control circuits:
  Single action
    One-way, high pressure circuit, for hammering application
  Medium pressure
    Two-way, medium pressure circuit, for rotating or tilting of work tools
  Tool control/multi function
    One/two-way high pressure for hammer application or opening and closing of a work tool
    Programmable flow and pressure for up to 10 work tools - selection via monitor
  Second high pressure
    Additional two-way, high pressure circuit, for tools requiring a second high or medium pressure function
  Quick coupler control
Biodegradable hydraulic oil (synthetic ester based)
Generator with valve and priority function
Lowering control devices for boom and stick
SmartBoom

Front Linkage
Booms
  One-piece boom, 5350 mm
  VA boom (two piece), 5260 mm
Bucket linkage with diverter valve
Sticks
  2200, 2500, 2800 mm
  3300 mm industrial with drop nose

Electrical
Refueling pump
Rotating beacon on cab
Working lights, cab mounted (front and rear)
Back-up alarm with three selectable modes
Heavy-duty maintenance free batteries
Roading lights, rear (LED modules)

Operator Station
Adjustable hydraulic sensitivity
Air conditioner, heater and defroster with automatic climate control
Camera mounted on counterweight, displays through cab monitor
Falling objects guard
Fixed cab riser, 1200 mm
Joystick steering
Lid for storage compartment
Radio ready mounting (12 V or 24 V) at rear location including speakers and 12 V converter
Seat, adjustable high-back
  – mechanical suspension
  – air suspension (vertical)
  – deluxe with headrest, air suspension (horizontal and vertical), two-step seat heater, automatic weight adjustments, ventilated seat cushions, pneumatically adjustable lumbar support
  Headrest
Travel speed lock
Vandalism guards
Visor for rain protection
Windshield
  One-piece high impact resistant
  50/50 split, openable; 70/30 split, openable

Undercarriage
Dozer blade, front and/or rear mounted
Outriggers, front and/or rear mounted
Second tool box for undercarriage
Spacer rings for tires
Wide axles

Other Equipment
Auto-lube system (implements and swing gear)
Cat Machine Security System
Cat Product Link
Custom paint
Mirrors heated, frame and cab
Ride Control
Tool box in upperframe, lockable
Waste Handling Package

M318D Wheel Excavator

HEHH3569 (11/2006) hr

CATERPILLAR®