

# M315D

Wheel Excavator



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#### Cat® C4.4 engine with ACERT™ Technology

Net power (ISO 9249) at 2000 rpm	101 kW/137 hp
Operating weight	16 100 to 18 300 kg
Bucket capacities	0.38 to 1.26 m <sup>3</sup>
Maximum reach at ground level	9380 mm
Maximum digging depth	6090 mm
Maximum travel speed	34 km/h

# M315D Wheel Excavator

*The D Series incorporates innovations for improved performance and versatility.*

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## Engine

- ✓ Caterpillar's exclusive ACERT™ Technology surpasses the most stringent emissions requirements in the construction industry. The EU Stage IIIA compliant C4.4 offers increased performance and reliability while reducing fuel consumption and sound levels. **pg. 4**

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## 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**

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## 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**

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## 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**

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## 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*



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### **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**

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### **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. 8**

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### **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. 9**

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### **Versatility**

Caterpillar offers a wide variety of factory-installed attachments that enhance performance and job site management. **pg. 12**

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### **Serviceability**

For increased safety, all daily maintenance points are accessible from ground level. A centralized greasing system allows lubrication of critical points. **pg. 10**

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### **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. 10**

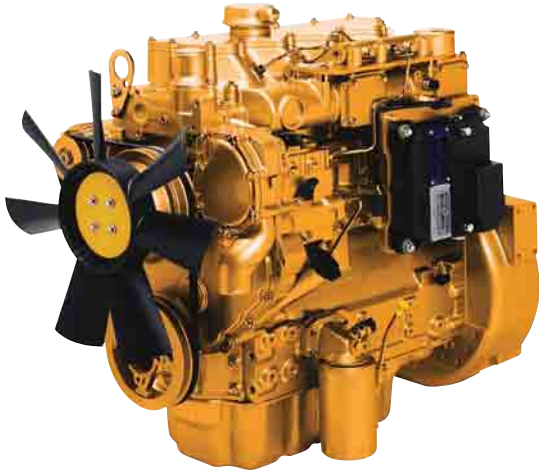


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## Engine

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

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### **Powerful Performance.**

The Cat C4.4 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 C4.4 engine in the M315D delivers a maximum gross power of 108 kW at a rated speed of 2000 rpm. This is 13% more horsepower as compared to the 3054E in the M315C.

### **Low Fuel Consumption.**

The C4.4 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 C4.4 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.

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## Environmentally Responsible Design

*The M315D helps build a better world and preserve the fragile environment.*

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**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 C4.4 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 disposals, 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.*



### Heavy-Duty Axles and Stabilizers.

The D-Series 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 three 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.

**Offset Boom.** The large offset dimensions (left/right 2460/2760 mm) allow you to dig along walls, over obstacles, to grade while driving, and to dig under laid tubes without damaging them. The combination with a tiltable ditch cleaning bucket lets you operate a highly versatile system.

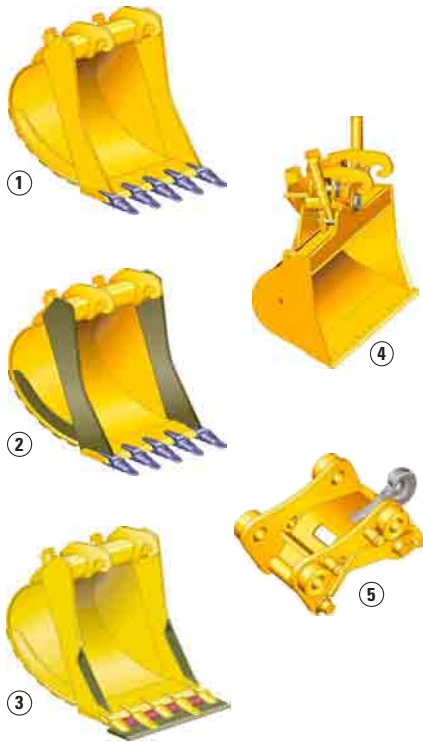
**Sticks.** Four different stick lengths are offered to match different application requirements:

- Short stick (2100 mm) for maximum breakout force and lifting capability.
- Medium stick (2400 mm) for greater crowd force and lift capacity.
- Long stick (2600 mm) for greater depth and reach requirements.
- Industrial stick (3100 mm) for use with free-swinging grapples in material handling and industrial applications.



## 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.



## Versatility

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



**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.

**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.

**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.



## Engine

Cat C4.4 with ACERT Technology	
Ratings	2000 rpm
Gross power	108 kW/147 hp
Net power	
ISO 9249	101 kW/137 hp
80/1269/EEC	101 kW/137 hp
Bore	105 mm
Stroke	127 mm
Displacement	4.4 liters
Cylinders	4
Maximum torque at 1400 rpm	550 Nm

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

## Transmission

	km/h
Forward/reverse	
1st gear	8
2nd gear	34
Creeper speed	
1st gear	3
2nd gear	13
Drawbar pull	97 kN
Maximum Gradeability	69%

## Service Refill Capacities

	Liter
Fuel tank	235
Cooling	30
Engine crankcase	8
Rear axle housing (differential)	14
Front steering axle (differential)	10.5
Final drive	2.5
Powershift transmission	2.5

## Hydraulic System

Tank capacity	135 liters
System	220 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	370 bar
Maximum flow	
Implement/travel circuit	220 l/min
Auxiliary circuit	
high pressure	220 l/min
medium pressure	50 l/min
Swing mechanism	80 l/min

## Swing Mechanism

Swing speed	10.5 rpm
Swing torque	40 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)

## Weights

VA boom*	kg
rear dozer only	15 700
rear dozer, front outriggers	16 650
front and rear outriggers	16 950
One-piece boom*	
rear dozer only	15 250
rear dozer, front outriggers	16 200
front and rear outriggers	16 500
Offset boom*	
rear dozer only	16 200
rear dozer, front outriggers	17 150
front and rear outriggers	17 450

## 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 102 dB(A).

## Undercarriage

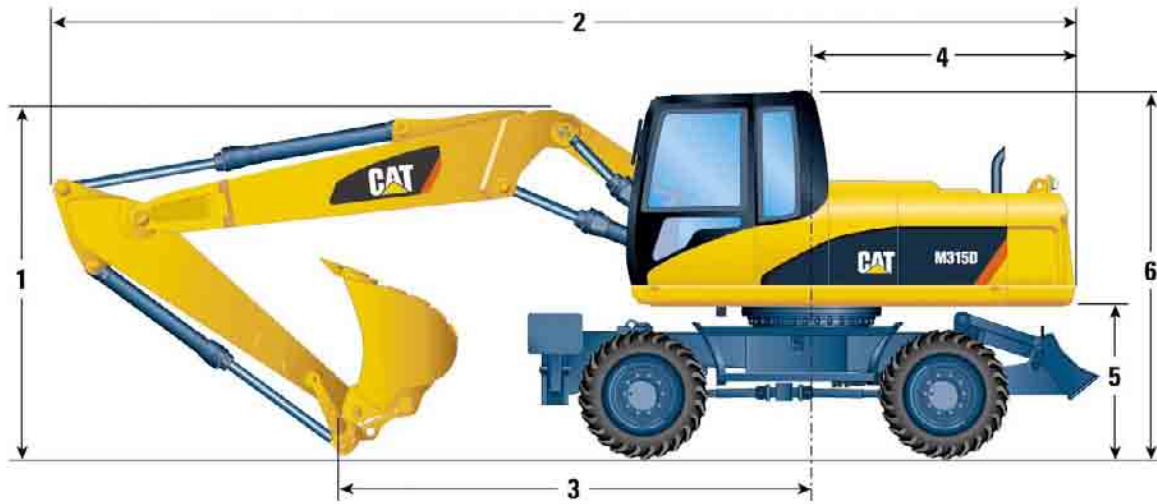
	mm
Ground clearance	370
Maximum steering angle	35°
Oscillation axle angle	± 9°
Minimum turning radius	
Standard axle	
outside of tire	6300
end of VA boom	6900
end of one-piece boom	8300
Wide axle	
outside of tire	6500
end of VA boom	7100
end of one-piece boom	8400

Sticks	kg
short (2100 mm)	470
medium (2400 mm)	514
long (2600 mm)	530
industrial (3100 mm)	450
Dozer blade	750
Outriggers	960
Counterweight	
standard	3500
optional	3900

\* Machine weight with medium stick, 3900 kg counterweight, full fuel tank and operator, without work tool.

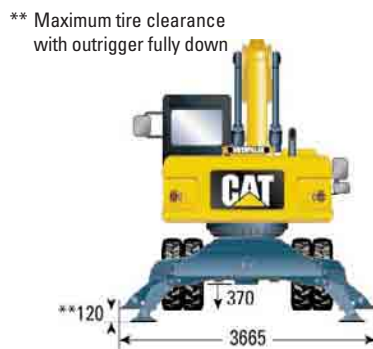
# Dimensions

All dimensions are approximate.



		VA Boom				One-piece Boom				Offset Boom	
		2100	2400	2600	*3100	2100	2400	2600	*3100	2100	2400
Stick length	mm										
<b>1</b> Shipping height	mm	3150	3150	3150	3150	3150	3150	3150	3150	3150	3150
<b>2</b> Shipping length	mm	8480	8480	8470	8450	8320	8330	8330	8350	8480	8470
<b>3</b> Support point	mm	3910	3660	3560	3640	3560	3280	3160	3240	4030	3780
<b>4</b> Tail swing radius	mm		2215				2215				2215
<b>5</b> Counterweight clearance	mm		1260				1260				1260
<b>6</b> Cab height	mm		3150				3150				3150
with 1200 mm fixed cab riser	mm		4350				4350				4350
Overall machine width	mm		2550				2550				2550
Wide gauge axle	mm		2750				2750				2750

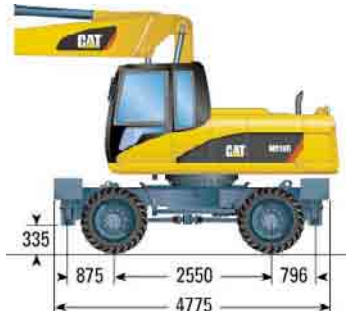
\* Industrial stick



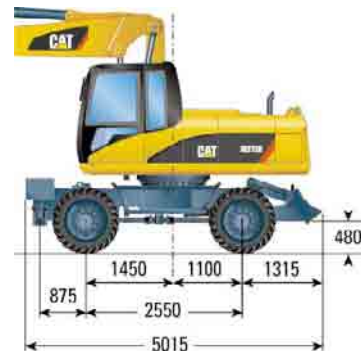
**Undercarriage with dozer only**



**Undercarriage with 2 sets of outriggers**

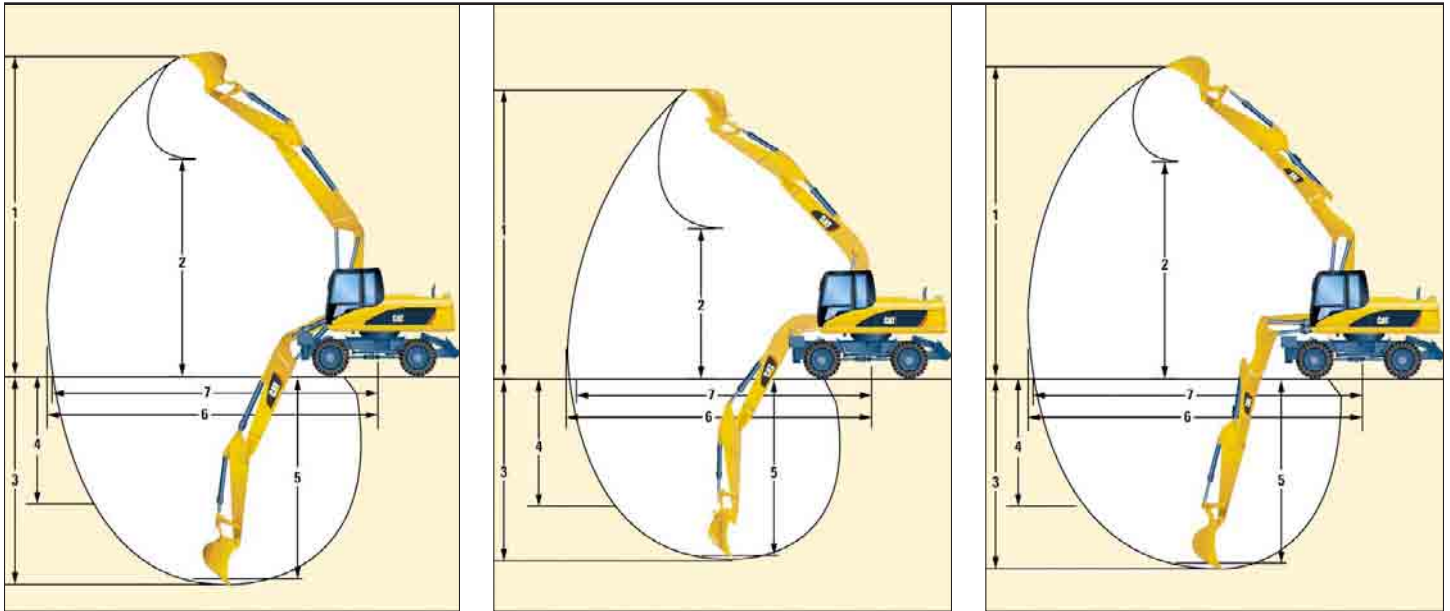


**Undercarriage with 1 set of outriggers and dozer**





# Working Ranges



		VA Boom				One-piece Boom				Offset Boom	
		2100	2400	2600	*3100	2100	2400	2600	*3100	2100	2400
Stick length	mm										
<b>1</b> Digging height	mm	10040	10230	10380	8950	8980	9070	9190	7700	10040	10230
<b>2</b> Dump height	mm	6950	7140	7300	3960	6000	6110	6230	3200	6950	7140
<b>3</b> Digging depth	mm	5590	5890	6090	5040	5390	5690	5890	4840	5590	5890
<b>4</b> Vertical wall digging depth	mm	3720	3920	4090	–	3510	3650	3820	–	3720	3920
<b>5</b> Depth 2.5 m straight clean-up	mm	5370	5690	5900	–	5170	5490	5700	–	5370	5690
<b>6</b> Reach	mm	9100	9360	9560	8370	8900	9160	9350	8130	9100	9360
<b>7</b> Reach at ground level	mm	8910	9190	9380	8170	8710	8970	9170	7920	8910	9190
Bucket forces (ISO 6015)	kN	101	101	101	–	101	101	101	–	101	101
Stick forces (ISO 6015)	kN	81	74	71	–	81	74	71	–	81	74

Values 1-7 are calculated with bucket and quick coupler with a tip radius of 1552 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.

# Bucket Specifications

Contact your Caterpillar dealer for special bucket requirements.

Pin-on Buckets					Variable Adjustable Boom 5200 mm								One-piece Boom 5050 mm																
Stick length					2100 mm				2400 mm				2600 mm				2100 mm				2400 mm				2600 mm				
	Width	Weight*	Capacity (ISO)	Adapters	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 <sup>3</sup>																						
Excavation	600	459	0.38	3																									
	750	495	0.52	3																									
	900	557	0.65	4																									
	1000	591	0.75	4																									
	1100	622	0.84	4																									
	1200	668	0.94	5																									
	1300	699	1.03	5																									
	1400	731	1.13	5																									
Extreme Excavation	1200	702	0.94	5																									
	1300	735	1.03	5																									
Excavation (leveling)	600	485	0.41	3																									
	750	529	0.56	3																									
	800	547	0.61	3																									
	900	596	0.70	4																									
	1000	636	0.82	4																									
	1100	672	0.92	4																									
	1200	725	1.04	5																									
	1300	762	1.14	5																									
1400	798	1.26	5																										
Extreme Excavation (leveling)	1200	757	1.04	5																									
Ditch Cleaning	1800	505	0.73																										
	2000	540	0.83																										
Tiltable Ditch Cleaning	1800	815	0.61																										
	2000	855	0.68																										

## CW Quick Coupler Buckets

Excavation	600	468	0.38	3																									
	750	504	0.52	3																									
	900	534	0.65	4																									
	1000	568	0.75	4																									
	1100	600	0.84	4																									
	1200	645	0.94	5																									
	1300	676	1.03	5																									
	1400	708	1.13	5																									
Extreme Excavation	1200	679	0.94	5																									
	1300	712	1.03	5																									
Excavation (leveling)	600	498	0.41	3																									
	750	547	0.56	3																									
	800	526	0.61	3																									
	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	3																									
	1000	644	0.82	4																									
Ditch Cleaning	1200	736	1.04	5																									
	1800	470	0.73																										
Tiltable Ditch Cleaning	2000	505	0.83																										
	1800	775	0.61																										
Ditch Cleaning	2000	815	0.68																										

\* Bucket weight includes Ground Engaging Tools

Maximum material density 1800 kg/m<sup>3</sup>
 Maximum material density 1500 kg/m<sup>3</sup>
 Maximum material density 1200 kg/m<sup>3</sup>
 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 5200 mm												One-piece Boom 5050 mm												Offset Boom 5200 mm																	
		(1)				(2)				(3)				(1)				(2)				(3)				(1)		(2)		(3)													
		Stick length (mm)				2100	2400	2600	3100	2100	2400	2600	3100	2100	2400	2600	3100	2100	2400	2600	3100	2100	2400	2600	3100	2100	2400	2100	2400	2100	2400												
Hammers	H100, H100 S		[Green]																																								
	H115 S, H120C S		[Green]																																								
Multiprocessors	MP15	CC, CR	[Green]																																								
	MP15	PP	[Green]																																								
	MP15	PS	[Green]																																								
	MP15	S	[Green]																																								
Mechanical Pulverizer	P115		[Green]																																								
Hydraulic Shears (* boom mounted)	S115		[Green]																																								
	S320		[Green]																																								
	S320*		[Green]																																								
	S325*		[Green]																																								
Multi-Grapples	G310B	D, R	[Green]																																								
	G315B	D	[Green]																																								
		R	[Green]																																								
Mechanical Grapple	G112		[Green]																																								
Compactor	CVP75		[Green]																																								
Orange Peel Grapples	GSH15B 5 tines	400	[Blue]												[Orange]		[Blue]												[Blue]		[Blue]												
		500	[Blue]																																								
		600	[Blue]																																								
		800	[Blue]												[Orange]		[Blue]												[Orange]		[Blue]												
	GSH15B 4 tines	400	[Orange]				[Blue]												[Orange]				[Blue]												[Blue]		[Blue]						
		500	[Orange]		[Blue]												[Orange]		[Blue]												[Blue]		[Blue]										
		600	[Blue]																																								
		800	[Blue]												[Orange]		[Blue]												[Orange]		[Blue]												
		<b>(1)</b> Dozer lowered <b>(2)</b> 2 sets of stabilizer lowered <b>(3)</b> Dozer and stabilizer lowered																																									
<b>With Quick Coupler (CW-20, CW-20S)</b>																																											
Hammers	H100, H100 S		[Green]																																								
	H115 S, H120C S		[Green]																																								
Multiprocessors	MP15	CC, CR, PS	[Green]																																								
	MP15	S	[Green]																																								
Multi-Grapples	G310B	D	[Red]		[Green]												[Red]		[Green]												[Green]		[Green]										
	G310B	R	[Red]		[Green]												[Red]		[Green]												[Green]		[Green]										
	G315B	D, R	[Green]																																								
Mechanical Grapple	G112		[Green]																																								
Compactor	CVP75		[Green]																																								
		[Green] 360° Working Range												[Blue] Maximum material density 3000 kg/m³												[Red] Over the front only						[Light Blue] Maximum material density 1800 kg/m³						[Orange] Maximum material density 1200 kg/m³					



















# Lift Capacities – Variable Adjustable Boom (5200 mm)

All values are in kg, without bucket, with counterweight (3900 kg) and CW quick coupler (204 kg), heavy lift on.

Short Stick 2100 mm		Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
																		
6.0 m	Rear dozer up				*5300		4200	4100		2500								
	Rear dozer down					*5300	4800		*4800	2900								
	Rear stab down					*5300	*5300		*4800	3500								
	2 sets stab down Dozer and stab down				*5300 *5300		*5300 *5300	*4800 *4800		*4800 4300								
4.5 m	Rear dozer up	*6700		*6700	*6000		4100	4100		2600					*2600		1600	7.67
	Rear dozer down		*6700	*6700		*6000	4700		*4900	3000					*2600	*2600	1900	
	Rear stab down		*6700	*6700		*6000	5600		*4900	3600					*2600	*2600	2300	
	2 sets stab down Dozer and stab down	*6700 *6700		*6700 *6700	*6000 *6000		*6000 *6000	*4900 *4900		*4900 4300					*2600 *2600		*2600 *2600	
3.0 m	Rear dozer up	*7800		7200	6300		4000	4100		2600	2700		1600	2400			1400	8.11
	Rear dozer down		*7800	*7800		*7100	4600		*5300	3000		4200	1900		*2600		1700	
	Rear stab down		*7800	*7800		*7100	5500		*5300	3600		3700	2300		*2600	*2600	2100	
	2 sets stab down Dozer and stab down	*7800 *7800		*7800 *7800	*7100 *7100		*7100 6500	*5300 *5300		5000 4200	*4400 *4400		3400 2800	*2600 *2600		*2600 *2600	*2600 2500	
1.5 m	Rear dozer up	*10000		7000	6200		3900	4100		2500	2700		1600	2300			1400	8.21
	Rear dozer down		*10000	8200		*7800	4500		*5600	2900		4100	1800		*2700		1600	
	Rear stab down		*10000	*10000		*7800	5400		5300	3500		3700	2300		*2700	*2700	2000	
	2 sets stab down Dozer and stab down	*10000 *10000		*10000 *10000	*7800 *7800		7500 6400	*5600 *5600		*4900 4200	*4400 *4400		3400 2800	*2700 *2700		*2700 *2700	*2700 2500	
0 m	Rear dozer up	*11800		6600	6300		3800	3900		2400	2600		1500	2400			1400	7.99
	Rear dozer down		*11800	7900		*7900	4400		*5700	2700		*4000	1800		*2900		1700	
	Rear stab down		*11800	10200		*7900	5400		5400	3400		3600	2200		*2900	*2900	2100	
	2 sets stab down Dozer and stab down	*11800 *11800		*11800 *11800	*7900 *7900		7600 6400	*5700 *5700		4900 4100	*4000 *4000		3300 2800	*2900 *2900		*2900 *2900	*2900 2500	
-1.5 m	Rear dozer up	12400		6600	6200		3600	3800		2200				2700			1600	7.43
	Rear dozer down		*12800	7800		*8000	4200		*5700	2600					*3200		1800	
	Rear stab down		*12800	10100		*8000	5200		5200	3200					*3200	*3200	2300	
	2 sets stab down Dozer and stab down	*12800 *12800		*12800 *12600	*8000 *8000		*7800 6400	*5700 *5700		4800 3900					*3200 *3200		*3200 2800	
-3.0 m	Rear dozer up	12500		6700	5900		3400											
	Rear dozer down		*13100	7900		*7400	4000											
	Rear stab down		*13100	10200		*7400	5000											
	2 sets stab down Dozer and stab down	*13100 *13100		*13100 13000	*7400 *7400		*7400 6200											

## Medium Stick 2400 mm

Medium Stick 2400 mm		Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
																		
6.0 m	Rear dozer up				*4800		4200	4200		2600								
	Rear dozer down					*4800	*4800		*4600	3000								
	Rear stab down					*4800	*4800		*4600	3600								
	2 sets stab down Dozer and stab down				*4800 *4800		*4800 *4800	*4600 *4600		*4600 4300								
4.5 m	Rear dozer up	*5000		*5000	*5500		4100	4100		2700	2800		1600	*2300			1500	7.96
	Rear dozer down		*5000	*5000		*5500	4700		*4800	3000		*2900	1900	*2300		*2300	1800	
	Rear stab down		*5000	*5000		*5500	5500		*4800	*3600		*2900	2400	*2300		*2300	2200	
	2 sets stab down Dozer and stab down	*5000 *5000		*5000 *5000	*5500 *5500		*5500 *5500	*4800 *4800		*4800 *4300	*2900 *2900		*2900 2900	*2300 *2300		*2300 *2300	*2300 *2300	
3.0 m	Rear dozer up	*8400		7300	6200		4000	*4100		2600	2800		1600	*2300			1400	8.38
	Rear dozer down		*8400	8400		*6800	4600		*5200	3000		4200	1900		*2300		1600	
	Rear stab down		*8400	*8400		*6800	5500		*5200	*3600		3700	2400		*2300	*2300	2000	
	2 sets stab down Dozer and stab down	*8400 *8400		*8400 *8400	*6800 *6800		*6800 6400	*5200 *5200		5000 *4200	*4300 *4300		3500 2900	*2300 *2300		*2300 *2300	*2300 *2300	
1.5 m	Rear dozer up	*9700		7100	6200		3900	4100		2600	2700		1600	2200			1300	8.48
	Rear dozer down		*9700	8100		*7700	4500		*5500	2900		4200	1900		*2400		1500	
	Rear stab down		*9700	*9700		*7700	5400		5300	3600		3700	2300		*2400	*2400	1900	
	2 sets stab down Dozer and stab down	*9700 *9700		*9700 *9700	*7700 *7700		7500 6400	*5500 *5500		4900 4200	*4400 *4400		3400 2800	*2400 *2400		*2400 *2400	*2400 2300	
0 m	Rear dozer up	*11600		6900	6200		3800	4000		2400	2600		1500	2300			1300	8.27
	Rear dozer down		*11600	8100		*7800	4400		*5600	2800		4100	1800		*2500		1500	
	Rear stab down		*11600	10100		*7800	5400		5300	3400		3600	2300		*2500	*2500	1900	
	2 sets stab down Dozer and stab down	*11600 *11600		*11600 *11600	*7800 *7800		*7500 *6400	*5600 *5600		5000 4100	*4300 *4300		3300 2800	*2500 *2500		*2500 *2500	*2500 2400	
-1.5 m	Rear dozer up	12300		6600	6100		3600	3800		2300				2500			1500	7.73
	Rear dozer down		*12700	7800		*7900	4200		*5800	2600					*2900		1700	
	Rear stab down		*12700	10100		*7900	5200		5300	3200					*2900	*2900	2100	
	2 sets stab down Dozer and stab down	*12700 *12700		*12700 12500	*7900 *7900		7700 6400	*5800 *5800		4800 4000					*2900 *2900		*2900 2600	
-3.0 m	Rear dozer up	12400		6600	6000		3500	3700		2200								
	Rear dozer down		*13100	7800		*7900	4000		*4100	2500								
	Rear stab down		*13100	10100		*7900	5000		*4100	3100								
	2 sets stab down Dozer and stab down	*13100 *13100		*13100 12900	*7900 *7900		7700 6200	*4100 *4100		*4100 3800								

### Long Stick 2600 mm

Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m			m			
6.0 m Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down						*4300	*4300	*4300	*4200	*4400	*4400					
4.5 m Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down						*5000	*5000	*5000	*4100	*4700	*4700	2800		1700	*2100	*2100
3.0 m Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down						*8400	*8400	*8400	4100	*5100	*5100	2800		1700	*2100	*2100
1.5 m Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down						*9900	*9900	*9900	4100	*5500	5300	2700	4200	1600	2100	*2200
0 m Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down						*11200	*11200	*11200	4000	*5600	5300	2700	4100	1600	2200	*2300
-1.5 m Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down						12200	*12700	*12700	3800	*5700	5300	2600	*3400	1500	2400	*2600
-3.0 m Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down						12400	*13100	*13100	3700	*4700	*4700					
-4.5 m Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down						9200	*9200	*9200								

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

























### Industrial Stick 3100 mm

Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m			m			
6.0 m Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down									*4600	*4600	*4600					
4.5 m Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down						5100	*5100	*5100	4500	*4900	*4900	3200	*4200	2100	2900	*3200
3.0 m Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down						*8000	*8000	*8000	4500	*5400	*5400	3200	*4600	2100	2700	*3200
1.5 m Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down						*10600	*10600	*10600	4400	*5900	5700	3100	4600	2000	2600	*3400
0 m Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down						*11900	*11900	*11900	4400	*6100	5700	3100	4500	2000	2700	*3700
-1.5 m Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down						12600	*13200	*13200	4200	*6100	5700	3000	*4300	1900	2900	*4100
-3.0 m Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down						12800	*13400	*13400	4100	*5600	5500					
-4.5 m Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down						*11000	*11000	*11000								

























\* 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 (5050 mm)

All values are in kg, without bucket, with counterweight (3900 kg) and CW quick coupler (204 kg), heavy lift on.

Short Stick 2100 mm		Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
																		
6.0 m		Rear dozer up							4100		2500							
		Rear dozer down							*4400		2900							
4.5 m		Rear dozer up				*5700		4000		2500					*2600		1800	7.46
		Rear dozer down				*5700		4600		2900					*2600		2000	
3.0 m		Rear dozer up				6100		3700	3900	2400					*2600		1600	7.90
		Rear dozer down				*6900		4300		2800					*2600		1800	
1.5 m		Rear dozer up				5800		3400	3800	2300	2700	1600	2500		*2700		1500	8.01
		Rear dozer down				*7800		4000		2600		*3900	1900		*2700		1700	
0 m		Rear dozer up				5700		3300	3700	2200					2500		1500	7.79
		Rear dozer down				*7900		3800		2500					*2900		1800	
-1.5 m		Rear dozer up	*7900		6000	5600		3200	3700	2200					2800		1700	7.21
		Rear dozer down		*7900	7100		*7300		3800		2500					*3400		
-3.0 m		Rear dozer up	*7500		6100	*5600		3300										
		Rear dozer down		*7500	7300	*5600		3900										

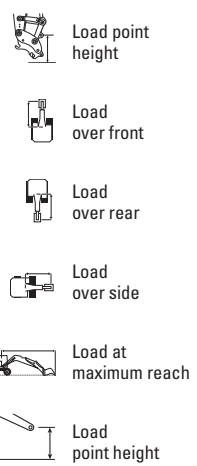
## Medium Stick 2400 mm

Medium Stick 2400 mm		Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
																		
6.0 m		Rear dozer up							4100		2600							
		Rear dozer down							*4300		2900							
4.5 m		Rear dozer up							4100		2500				*2300		1700	7.74
		Rear dozer down							*4600		2900				*2300		1900	
3.0 m		Rear dozer up																8.16
		Rear dozer down																
1.5 m		Rear dozer up				5800		3400	3800	2300	2700	1600	2300		*2400		1400	8.27
		Rear dozer down				*7600		4000		2600		4100	1900		*2400		1600	
0 m		Rear dozer up	*4000		*4000	5600		3200	3700	2200	2600	1600	2400		*2600		1400	8.05
		Rear dozer down		*4000	*4000	*7900		3800		2500		4000	1800		*2600		1700	
-1.5 m		Rear dozer up	*7700		5900	5600		3200	3600	2100					2700		1600	7.50
		Rear dozer down		*7700	7000		*7400		3700		2500					*3000		
-3.0 m		Rear dozer up	*8300		6000	5600		3300	3700	2200								
		Rear dozer down		*8300	7200	*6000		3800		2500								



**Long Stick**  
2600 mm

	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m			m			
6.0 m	Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down							4100	*4200	2600							
4.5 m	Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down							4100	*4500	2500	*2500	1700	*2100	*2100	1600	7.94	
3.0 m	Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down				6200	*6400	3800	3900	*5000	2400	2700	4200	*2100	*2100	1400	8.36	
1.5 m	Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down				5900	*7500	3500	3800	*5500	2300	2700	4100	*2200	*2200	1300	8.46	
0 m	Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*4200	*4200	*4200	5700	*7900	3300	3700	*5700	2200	2600	4000	*2400	*2400	1400	8.25	
-1.5 m	Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*7500	*7500	*7500	5900	*7600	3200	3600	*5500	2100	2500		2500	*2800	1500	7.7	
-3.0 m	Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*8800	*8800	*8800	6000	*6300	3200	3700	*4300	2200	2600						




















**Industrial Stick**  
3100 mm

	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m			m		
6.0 m	Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down							*4500	*4500	3000						
4.5 m	Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down							4500	*4700	2900	3200	*3600	2100	3100	*3200	2000
3.0 m	Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down				*6500	*6500	4200	4300	*5300	2800	3100	*4600	2300	2800	*3200	1900
1.5 m	Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down				6300	*7800	3900	4200	*5800	2700	3100	4500	2000	2700	*3400	1800
0 m	Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*5800	*5800	*5800	6100	*8400	3700	4100	*6200	2600	3000	4400	1900	2800	*3800	1800
-1.5 m	Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*8500	*8500	*8500	6000	*8200	3600	4000	*6000	2500	2900		3000	4500	2000	
-3.0 m	Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*10000	*10000	*10000	6500	*7100	3600	4000	*5100	2500	2900					
-4.5 m	Rear dozer up Rear dozer down Rear stab down 2 sets stab down Dozer and stab down	*6500	*6500	*6500	*4600	*4600	3800	4300								


















\* 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 – Offset Boom (5200 mm)

All values are in kg, without bucket, with counterweight (3900 kg) and CW quick coupler (204 kg), heavy lift on.

Short Stick 2100 mm	 Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
																	
		6.0 m	Rear dozer up				*5300		4200	4100		2500					
	Rear dozer down					*5300	4800		*4700	2800							
	Rear stab down						*5300		*4700	3500							
	2 sets stab down						*5300		*4700	*4700							
	Dozer and stab down				*5300		*5300		*4700	4200							
4.5 m	Rear dozer up	*6800		6800	*5900		4100	4100		2500				*2300		1500	7.69
	Rear dozer down		*6800	*6800		*5900	4700		*4800	2900					*2300	1800	
	Rear stab down		*6800	*6800		*5900	5600		*4800	3600					*2300	2200	
	2 sets stab down	*6800		*6800	*5900		*5900	*4800		*4800					*2300	*2300	
	Dozer and stab down	*6800		*6800	*5900		*5900	*4800		4200				*2300		*2300	
3.0 m	Rear dozer up	*7600		7100	*6100		3900	4000		2500	2600		1500	*2300		1300	8.12
	Rear dozer down		*7600	7600		*6800	4500		*5100	2900		1800			*2300	1600	
	Rear stab down		*7600	*7600		*6800	5400		*5100	3600	4100	1800			*2300	2000	
	2 sets stab down	*7600		*7600	*6800		*6800	*5100		4900	*4200	3300	*2300			*2300	
	Dozer and stab down	*7600		*7600	*6800		6300	*5100		4200	*4200	2700	*2300			*2300	
1.5 m	Rear dozer up	*9700		6900	6100		3900	4000		2400	2600		1400	2200		1200	8.22
	Rear dozer down		*9700	8100		*7500	4500		*5400	2800		1700			*2300	1500	
	Rear stab down		*9700	*9700		*7500	5300		5200	3500	4000	2200			*2300	1900	
	2 sets stab down	*9700		*9700	*7500		7300	*5400		4900	*4200	3300	*2300			*2300	
	Dozer and stab down	*9700		*9700	*7500		6300	*5400		4200	*4200	2700	*2300			2300	
0 m	Rear dozer up	*11500		6400	6200		3700	3800		2300	2500		1400	2300		1300	8.01
	Rear dozer down		*11500	7700		*7600	4300		*5500	2600		1600			*2500	1500	
	Rear stab down		*11500	10000		*7600	5300		5300	3300	*3800	2100			*2500	1900	
	2 sets stab down	*11500		*11500	*7600		7400	*5500		4800	*3800	3200	*2500			*2500	
	Dozer and stab down	*11500		*11500	*7600		6300	*5500		4000	*3800	2600	*2500			2400	
-1.5 m	Rear dozer up	12100		6400	6000		3500	3600		2100				2600		1400	7.45
	Rear dozer down		*12400	7600		*7700	4100		*5500	2400					*2800	1700	
	Rear stab down		*12400	9900		*7700	5100		5100	3100					*2800	2200	
	2 sets stab down	*12400		*12400	*7700		7700	*5500		4600					*2800	*2800	
	Dozer and stab down	*12400		*12300	*7700		6300	*5500		3800					*2800	2700	
-3.0 m	Rear dozer up	12300		6400	5800		3300										
	Rear dozer down		*12700	7700		*7200	3900										
	Rear stab down		*12700	10000		*7200	4900										
	2 sets stab down	*12700		*12700	*7200		*7200										
	Dozer and stab down	*12700		*12700	*7200		6000										

# Medium Stick 2400 mm

Medium Stick 2400 mm	 Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
																	
		6.0 m	Rear dozer up				*4800		4200	4100		2500					
	Rear dozer down					*4800	4800		*4400	2900							
	Rear stab down						*4800		*4400	3600							
	2 sets stab down						*4800		*4400	*4400							
	Dozer and stab down				*4800		*4800		*4400	4300							
4.5 m	Rear dozer up	*5200		*5200	*5600		4100	4100		2600	2700		1500	*2000		1400	7.98
	Rear dozer down		*5200	*5200		*5600	4700		*4600	3000		1800			*2000	1700	
	Rear stab down		*5200	*5200		*5600	5600		*4600	3600	*2800	2300			*2000	*2000	
	2 sets stab down	*5200		*5200	*5600		*5600	*4600		*4600	*2800	*2800	*2000			*2000	
	Dozer and stab down	*5200		*5200	*5600		*5600	*4600		4200	*2800	2800	*2000			*2000	
3.0 m	Rear dozer up	*7700		7200	6200		3900	4000		2600	2700		1500	*2000		1200	8.40
	Rear dozer down		*7700	*7700		*6600	4500		*5000	3000		1800			*2000	1500	
	Rear stab down		*7700	*7700		*6600	5400		*5000	3500	*4100	2300			*2000	1900	
	2 sets stab down	*7700		*7700	*6600		*6600	*5000		4900	*4100	3400	*2000			*2000	
	Dozer and stab down	*7700		*7700	*6600		6400	*5000		4200	*4100	2800	*2000			*2000	
1.5 m	Rear dozer up	*9800		7000	6000		3900	4000		2500	2600		1500	*2100		1200	8.49
	Rear dozer down		*9800	8000		*7400	4400		*5300	2900		1700			*2100	1400	
	Rear stab down		*9800	*9800		*7400	5300		5200	3500	4100	2200			*2100	1800	
	2 sets stab down	*9800		*9800	*7400		7300	*5300		4800	*4200	3300	*2100			*2100	
	Dozer and stab down	*9800		*9800	*7400		6200	*5300		4200	*4200	2700	*2100			*2100	
0 m	Rear dozer up	*11200		6700	6100		3700	3900		2300	2500		1400	2200		1200	8.29
	Rear dozer down		*11200	8000		*7500	4300		*5400	2700		1700			*2200	1400	
	Rear stab down		*11200	9900		*7500	5300		5200	3300	4000	2100			*2200	1800	
	2 sets stab down	*11200		*11200	*7500		7300	*5400		4900	*4100	3200	*2200			*2200	
	Dozer and stab down	*11200		*11200	*7500		6300	*5400		4100	*4100	2600	*2200			*2200	
-1.5 m	Rear dozer up	12000		6400	6000		3500	3700		2100				2400		1300	7.75
	Rear dozer down		*12300	7600		*7600	4100		*5500	2500					*2500	1600	
	Rear stab down		*12300	9900		*7600	5100		5200	3100					*2500	2000	
	2 sets stab down	*12300		*12300	*7600		7500	*5500		4700					*2500	*2500	
	Dozer and stab down	*12300		12200	*7600		6300	*5500		3800					*2500	2500	
-3.0 m	Rear dozer up	12200		6300	5800		3300	3600		2000							
	Rear dozer down		*12800	7600		*7600	3900		*4000	2400							
	Rear stab down		*12800	9900		*7600	4900		*4000	3000							
	2 sets stab down	*12800		*12800	*7600		7500	*4000		*4000							
	Dozer and stab down	*12800		12700	*7600		6000	*4000		3700							

## Standard Equipment

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

### Electrical

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

### Engine

Automatic engine speed control  
Automatic starting aid  
Cat C4.4 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

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

### Other Equipment

Automatic swing brake  
Counterweight, 3500 kg  
Mirrors, frame and cab  
Product Link ready

## 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)  
Lowering control devices for boom and stick  
SmartBoom

### Front Linkage

Booms  
  One-piece boom, 5050 mm  
  VA boom (two piece), 5200 mm  
  Offset boom, 5200 mm  
Bucket linkage  
Bucket linkage with diverter valve  
Sticks  
  2100, 2400, 2600 mm  
  3100 mm industrial with drop nose

### Electrical

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

### 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  
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 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  
Counterweight, 3900 kg  
Custom paint  
Mirrors heated, frame and cab  
Ride Control  
Tires (see pg.13)  
Tool box in upperframe, lockable



# M315D Wheel Excavator

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at [www.cat.com](http://www.cat.com)

Materials and specifications are subject to change without notice. Featured machines in photos may include additional equipment. See your Caterpillar dealer for available options.

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