

# M313D

## Wheel Excavator



---

### Engine

Engine Model	Cat <sup>®</sup> C4.4 ACERT™	
Net Power	95 kW	127 hp
• Maximum power at 2,000 rpm		

---

### Weights

Operating Weight	14 000 kg (30,865 lb) to 16 200 kg (35,715 lb)	
------------------	---	--

---

### Transmission

Maximum Travel Speed	37 km/h	23 mph
----------------------	---------	--------

# M313D 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 U.S. EPA Tier 3 compliant C4.4 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**

---

## Versatility

Caterpillar offers a wide variety of factory-installed attachments that enhance performance and job site management. **pg. 11**

---

## Serviceability

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

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



---

### 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. 10**

---

### 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. 14**

---

### Complete Customer Support

Your Cat® dealer offers a wide range of services that can be set up under a customer 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. 15**



✓ *New Feature*

## Engine

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



**Powerful Performance.** The Cat® C4.4 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 U.S. EPA Tier 3 engine emission regulations. The Cat C4.4 engine in the M313D delivers a maximum gross power of 102 kW (136 hp) at a rated speed of 2,000 rpm. This is 12% more horsepower as compared to the 3054E in the M313C.

**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 adjusts to 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.

**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.

## Hydraulics

*Fast cycle times, increased lift capacity, and high bucket and stick forces combine 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 percent. 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 pre-selected.



### **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.

## 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, drink/bottle 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 meets 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 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 2,000 working hours, further reducing owner and operator costs.



**Drive Line Concept.** The rear mounted transmission and robust drive line design, delivers excellent ground clearance for all off-road applications.

**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 wind screen 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.*



### *Industrial Stick*

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

- Short stick (2.0 m/6 ft 6 in) for maximum breakout force and lifting capability.
- Medium stick (2.4 m/7 ft 6 in) for greater crowd force and lift capacity.
- Long stick (2.6 m/8 ft 6 in) for greater depth and reach requirements.
- Industrial stick (3.1 m/10 ft 2 in) for use with free-swinging grapples in material handling and industrial applications.

**Design.** Booms and sticks are welded, box section structures with thick, multi-plate 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.

**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.



### **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.

### **Offset Boom.**

The offset boom adds major advantages as well as a high level of versatility. The large offset dimensions (left 2460 mm (8 ft 1 in) and right 2760 mm (9 ft 1 in)) enable you to dig along walls, over obstacles, grade while driving and dig under laid pipe. This combination coupled with a tiltable ditch cleaning bucket allows you to operate a highly versatile machine.

## 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.

**Hammers.** Cat hammer series deliver very high blow rates, increasing the productivity of your 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.

## Versatility

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

**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.

**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.

**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.



**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.



## Serviceability

*Simplified and easy maintenance save you time and money.*



**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.



**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.

**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 after cooler.

**Air Filter.** 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.

**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<sup>SM</sup> Scheduled Oil Sampling analysis, hydraulic oil change intervals can be extended up to 4,000 hours. Engine coolant change intervals are 12,000 hours with Cat Extended Life Coolant.

**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.

**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.

**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 percent 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.



**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.

**Scheduled Oil Sampling.** Caterpillar has specially developed S•O•S<sup>SM</sup> 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 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.

**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.

**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.

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



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



**Anti-Skid Plate.** They cover the top of the steps and upper structure to help prevent slipping during maintenance. The Anti-Skid plate reduces the accumulation of mud on the upper structure, improving the cleanliness and safety.

## Environmentally Responsible Design

*The M313D 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 U.S. EPA Tier 3 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.

## Complete Customer Support

*Cat dealer services help you operate longer with lower costs.*

**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<sup>SM</sup> 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.

**Services.** Customer Service is critical today in every business. That's why so many people buy Cat equipment. They know they are getting quality, reliability and performance backed-up with the best Customer Service. Your Caterpillar dealer offers a wide range of services that can be set up under a Customer Support Agreement. The dealer will help you choose a plan that can cover the whole machine including work tools, to help you getting the best out of your investment.

## Engine

Engine Model	Cat® C4.4 ACERT™	
Net Power	95 kW	127 hp
Gross Power	102 kW	137 hp
ISO 9249	95 kW	127 hp
EEC 80/1269	95 kW	127 hp
Bore	105 mm	4.13 in
Stroke	127 mm	5 in
Displacement	4.4 L	269 in <sup>3</sup>
Cylinders	4	
Maximum Torque at 1,400 rpm	550 N·m	406 lb ft

- Maximum power at 2,000 rpm

## Weights

Operating Weight	14 000 kg (30,865 lb) to 16 200 kg (35,715 lb)	
VA Boom		
Rear dozer only	13 800 kg	30,424 lb
Rear dozer, front outriggers	14 750 kg	32,518 lb
Front and rear outriggers	15 050 kg	33,180 lb
One-Piece Boom		
Rear dozer only	13 350 kg	29,432 lb
Rear dozer, front outriggers	14 300 kg	31,526 lb
Front and rear outriggers	14 600 kg	32,187 lb
Offset Boom		
Rear dozer only	14 300 kg	31,526 lb
Rear dozer, front outriggers	15 250 kg	33,620 lb
Front and rear outriggers	15 550 kg	34,282 lb
Dozer Blade	750 kg	1,653 lb
Outriggers	960 kg	2,116 lb
Counterweight	2900 kg	6,393 lb
2.0 m (6'6") stick	370 kg	816 lb
2.3 m (7'6") stick	390 kg	860 lb
2.6 m (8'6") stick	440 kg	970 lb
2.9 m (9'6") Industrial stick	380 kg	838 lb

## Swing Mechanism

Swing Speed	10.5 rpm	
Swing Torque	35 kN·m	25,815 lb ft

## Hydraulic System

### Maximum Pressure

Implement circuit		
normal	35 000 kPa	5,076 psi
heavy lift	37 500 kPa	5,439 psi
Travel circuit	35 000 kPa	5,076 psi
Auxiliary circuit		
high pressure	35 000 kPa	5,076 psi
medium pressure	18 500 kPa	2,683 psi
Swing mechanism	35 000 kPa	5,076 psi

### Maximum flow

Implement/travel circuit	190 L/min	50 gal/min
Auxiliary circuit		
high pressure	190 L/min	50 gal/min
medium pressure	50 L/min	13 gal/min
Swing mechanism	80 L/min	21 gal/min

## Transmission

Maximum Travel Speed	37 km/h	23 mph
1st Gear, Forward/Reverse	9 km/h	5.6 mph
2nd Gear, Forward/Reverse	37 km/h	23 mph
Creeper Speed (1st Gear)	3 km/h	2 mph
Creeper Speed (2nd Gear)	13 km/h	8 mph
Drawbar Pull	76 kN	17,085 lb
Maximum Gradeability	58%	

## Service Refill Capacities

Fuel Tank Capacity	235 L	62 gal
Cooling	26 L	7 gal
Engine Crankcase	8 L	2.1 gal
Rear Axle Housing (Differential)	11.2 L	3 gal
Front Steering Axle (Differential)	9 L	2.4 gal
Final Drive		
Final Drive	2.5 L	0.7 gal
Powershift Transmission	2.4 L	0.7 gal
Hydraulic Tank	95 L	25 gal
Hydraulic System (including tank)	180 L	48 gal

## Tires

Optional	See Optional Equipment	
Standard	10.00-20 dual pneumatic	



## Undercarriage

Ground Clearance	370 mm	15 in
Maximum Steering Angle ±	35°	
Oscillating Axle Angle ±	9°	

### Standard Axle

Minimum Turning Radius (Outside of tire)	6.2 m	20 ft
Minimum Turning Radius (End of VA boom)	6.7 m	22 ft
Minimum Turning Radius (End of One-piece boom)	8.1 m	27 ft

## Sound Performance

Performance	Exterior sound power level according to 2000/14/EC is 103 db(A) Interior sound pressure level LpA is 72 db (A)
-------------	---

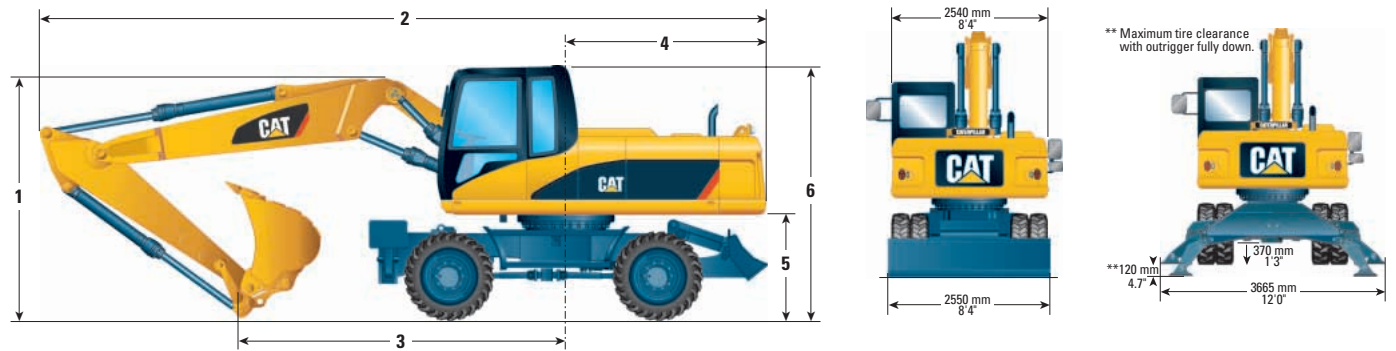
- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166 OCT 98, meets OSHA and MSHA requirements for operator sound exposure limits in effect at time of manufacture.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/windows open) for extended periods or in noisy environment.

## Standards

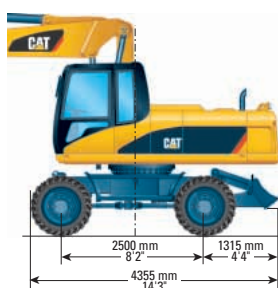
Brakes	SAE J1026 APR 90
Cab/FOGS	ISO 10262

# Dimensions

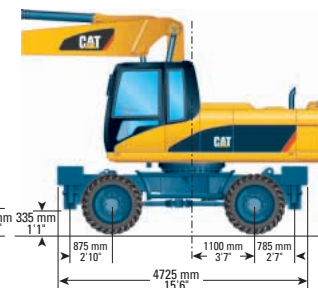
All dimensions are approximate.



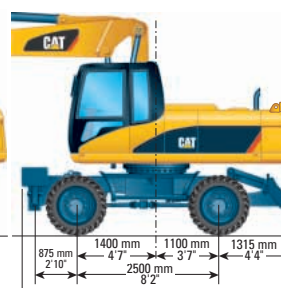
**Undercarriage with dozer only**



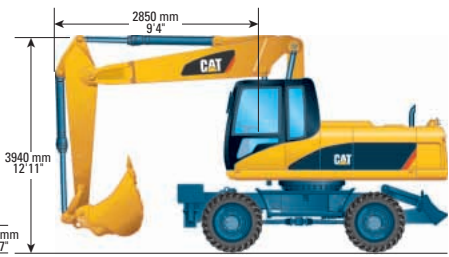
**Undercarriage with 2 sets of outriggers**



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



**Roading position with 2.3 m/7'6" stick**



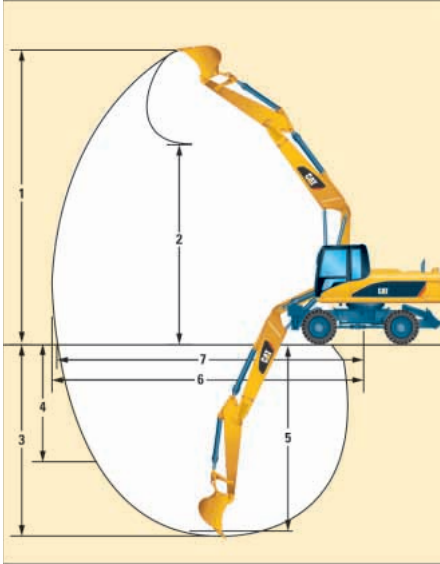
## Stick Options

	2.0 m (6'6")		2.3 m (7'6")		2.6 m (8'6")		Industrial Stick 2.9 m (9'6")	
	mm	ft/in	mm	ft/in	mm	ft/in	mm	ft/in
<b>1</b> Shipping Height								
VA Boom	3120	10'3"	3120	10'3"	3120	10'3"	3120	10'3"
One-piece Boom	3120	10'3"	3120	10'3"	3120	10'3"	3120	10'3"
Offset Boom	3120	10'3"	3120	10'3"				
<b>2</b> Shipping Length								
VA Boom	8310	27'3"	8300	27'3"	8290	27'2"	8130	26'8"
One-piece Boom	8090	26'7"	8080	26'6"	8090	26'7"	7950	26'1"
Offset Boom	8300	27'3"	8300	27'3"				
<b>3</b> Support Point								
VA Boom	3820	12'6"	3470	11'5"	3320	10'11"	3580	11'9"
One-piece Boom	3480	11'5"	3120	10'3"	2950	9'8"	3170	10'5"
Offset Boom	3820	12'6"	3460	11'4"				
<b>4</b> Tail Swing Radius								
VA Boom	2050	6'9"	2050	6'9"	2050	6'9"	2050	6'9"
One-piece Boom	2050	6'9"	2050	6'9"	2050	6'9"	2050	6'9"
Offset Boom	2050	6'9"	2050	6'9"				
<b>5</b> Counterweight Clearance								
VA Boom	1232	4'1"	1232	4'1"	1232	4'1"	1232	4'1"
One-piece Boom	1232	4'1"	1232	4'1"	1232	4'1"	1232	4'1"
Offset Boom	1232	4'1"	1232	4'1"				
<b>6</b> Cab Height								
VA Boom	3120	10'3"	3120	10'3"	3120	10'3"	3120	10'3"
One-piece Boom	3120	10'3"	3120	10'3"	3120	10'3"	3120	10'3"
Offset Boom	3120	10'3"	3120	10'3"				

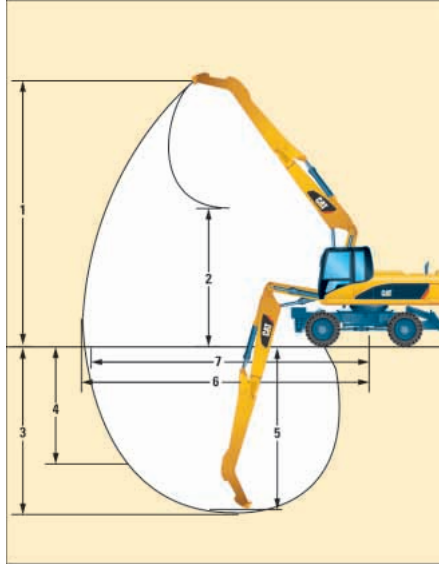
Note: All dimensions are approximate and cab height is without Falling Object Guards.

# VA Boom, One-piece and Offset Boom Working Ranges

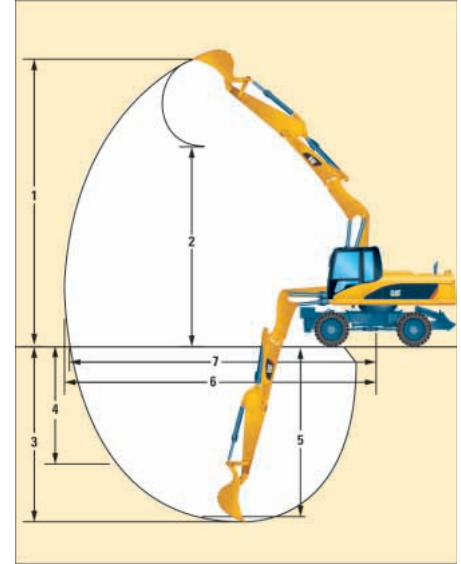
2.0 m (6'6"), 2.3 m (7'6"), 2.6 m (8'6"),  
2.9 m (9'6") Sticks



2.0 m (6'6"), 2.3 m (7'6"), 2.6 m (8'6"),  
2.9 m (9'6") Sticks



2.0 m (6'6"), 2.3 m (7'6") Sticks



	VA Boom				One-piece Boom				Offset Boom	
	2.0 m (6'6")	2.3 m (7'6")	2.6 m (8'6")	Industrial Stick* 2.9 m (9'6")	2.0 m (6'6")	2.3 m (7'6")	2.6 m (8'6")	Industrial Stick* 2.9 m (9'6")	2.0 m (6'6")	2.3 m (7'6")
Stick Length										
<b>1</b> Digging Height	9670 mm (31'9")	9820 mm (32'3")	10 060 mm (32'0")	8500 mm (27'11")	8600 mm (28'3")	8620 mm (28'4")	8790 mm (28'10")	7140 mm (23'5")	9670 mm (31'9")	9820 mm (32'3")
<b>2</b> Dump Height	6900 mm (22'8")	7060 mm (23'2")	7290 mm (23'11")	4020 mm (13'2")	5910 mm (19'5")	5970 mm (19'7")	6140 mm (20'2")	3160 mm (10'5")	6900 mm (22'8")	7060 mm (23'2")
<b>3</b> Digging Depth	5160 mm (16'11")	5450 mm (17'11")	5750 mm (18'11")	4670 mm (15'4")	4990 mm (16'5")	5290 mm (17'4")	5590 mm (18'4")	4500 mm (14'9")	5160 mm (16'11")	5450 mm (17'11")
<b>4</b> Vertical Wall Digging Depth	3500 mm (11'6")	3600 mm (11'10")	3890 mm (12'9")	N/A	3410 mm (11'2")	3370 mm (11'1")	3670 mm (12'1")	N/A	3500 mm (11'6")	3600 mm (11'10")
<b>5</b> Depth 2.5 m (8'2") Straight Clean-up	4920 mm (16'2")	5230 mm (17'2")	5550 mm (18'3")	N/A	4750 mm (15'7")	5070 mm (16'8")	5390 mm (17'8")	N/A	4920 mm (16'2")	5230 mm (17'2")
<b>6</b> Reach	8670 mm (28'6")	8920 mm (29'3")	9210 mm (30'3")	7910 mm (26'0")	8420 mm (27'8")	8660 mm (28'5")	8950 mm (29'5")	7610 mm (25'0")	8670 mm (28'6")	8920 mm (29'3")
<b>7</b> Reach at Ground Level	8490 mm (27'11")	8740 mm (28'8")	9030 mm (29'8")	7710 mm (25'4")	8230 mm (26'0")	8480 mm (27'10")	8770 mm (28'10")	7400 mm (24'4")	8490 mm (27'11")	8740 mm (28'8")
Bucket Forces (ISO 6015)	93 kN (20,906 lbf)	93 kN (20,906 lbf)	93 kN (20,906 lbf)	N/A	93 kN (20,906 lbf)	93 kN (20,906 lbf)	93 kN (20,906 lbf)	N/A	93 kN (20,906 lbf)	93 kN (20,906 lbf)
Stick Forces (ISO 6015)	73 kN (16,410 lbf)	67 kN (15,062 lbf)	62 kN (13,938 lbf)	N/A	73 kN (16,410 lbf)	67 kN (15,062 lbf)	62 kN (13,938 lbf)	N/A	73 kN (16,410 lbf)	67 kN (15,062 lbf)

\* Industrial Stick has no bucket linkage. All dimensions refer to stick-nose.

Values 1-7 are calculated with bucket and quick coupler with a tip radius of 1552 mm (5'1").

Breakout force values are calculated with heavy lift on (no quick coupler) and a tip radius of 1405 mm (4'7").

# 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.

			Variable adjustable boom 5020 mm (16'6")									One-piece boom 4815 mm (15'10")								
			Dozer lowered			2 sets of stabilizer lowered			Dozer and stabilizer lowered			Dozer lowered			2 sets of stabilizer lowered			Dozer and stabilizer lowered		
			2000 6'6"	2300 7'6"	2600 8'6"	2000 6'6"	2300 7'6"	2600 8'6"	2000 6'6"	2300 7'6"	2600 8'6"	2000 6'6"	2300 7'6"	2600 8'6"	2000 6'6"	2300 7'6"	2600 8'6"	2000 6'6"	2300 7'6"	2600 8'6"
<b>Without quick coupler</b>		(mm) Stick length (ft/in)																		
Hammers	H100																			
	H115 s				×			×			×			×			×			×
Multiprocessors	MP15	CC, PS	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
		CR, S	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
360° rotatable Shears (boom mounted)	S320		×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	
	S325		×	×	×								×	×	×					
Sorting & Demo Grapple		D			×															
		R		×	×									×	×	×				
	G315B	D	×	×	×				×			×	×	×	×			×		×
		R	×	×	×			×			×	×	×	×			×	×		×
Compactors	CVP75																			
Orange Peel Grapples (4 tines)	GSH9	300 L (0.39 yd³)																		
		400 L (0.5 yd³)																		

• Not all work tools are available in all areas.

360° Working Range

Over the front only

Maximum Material density 1800 kg/m³ (3,000 lb/yd³)

Maximum Material density 1200 kg/m³ (2,000 lb/yd³)

× Not Compatible

# Bucket Specifications


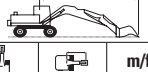











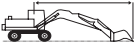
Contact your Caterpillar dealer for special bucket requirements.

## Pin-on Buckets

Bucket Type	Width		Weight		Capacity (SAE)		No. of Teeth
	mm	in	kg	lb	m <sup>3</sup>	yd <sup>3</sup>	
General Purpose	610	24	384	847	0.34	0.45	3
	762	30	436	963	0.47	0.62	4
	914	36	489	1080	0.61	0.8	5
	991	39	411	908	0.54	0.7	5
	1067	42	534	1179	0.78	1.02	5
	1219	48	586	1294	0.88	1.15	6
General Purpose Wide Tip	610	24	445	983	0.44	0.58	3
	762	30	506	1116	0.58	0.76	4
	914	36	577	1274	0.76	0.99	5
	1067	42	581	1282	0.92	1.2	6
	1219	48	704	1554	1.07	1.4	7
Heavy Duty Rock	610	24	464	1025	0.34	0.45	3
	762	30	539	1190	0.47	0.62	4
	914	36	614	1355	0.61	0.8	5
	1067	42	668	1474	0.78	1.02	5
	1219.2	48	743	1640	0.88	1.15	6
Ditch Cleaning	1524	60	572	1263	0.96	1.25	0
	1676	66	606	1338	1.06	1.38	0
	2007	79	424	935	0.54	0.7	0
Ditch Cleaning Tilt	1524	60	634	1400	0.67	0.87	0
	1803	71	362	800	0.48	0.63	0
	2007	79	380	838	0.40	0.52	0

- All bucket recommendations are subject to material density.
- All data is subject to change without notice.
- Contact your Caterpillar dealer for bucket availability and specifications.

# VA Boom – 2.0 m (6'6") stick




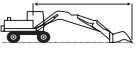
Stick 2.0 m (6'6")		Undercarriage configuration	3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)				m/ft		
													
 Load Point Height  Load Radius Over Front or Rear  Load Radius Over Side  Load at Maximum Reach	6.0 m (20.0 ft)	Rear dozer up (Load over front)	kg			*4400	3600	3400	2100				
		Rear dozer down (Load over front)	lb			*9,700	7,940	7,500	4,630				
		Rear dozer up (Load over rear)	kg			*4400	4100	*3600					
		Rear dozer down (Load over rear)	lb			*9,700	9,040	*7,940					
		Rear stab down (Load over rear)	kg			*4400	*4400	*3600	3000				
		Rear stab down (Load over front)	lb			*9,700	*9,700	*7,940	6,610				
		2 sets stab down (Load over front)	kg			*4400	*4400	*3600	*3600				
2 sets stab down (Load over rear)	lb			*9,700	*9,700	*7,940	*7,940						
Dozer and stab down (Load over front)	kg			*4400	*4400	*3600	*3600						
Dozer and stab down (Load over rear)	lb			*9,700	*9,700	*7,940	*7,940						
4.5 m (15.0 ft)	Rear dozer up (Load over front)	kg		*4900	*4900	*5200	3500	3500	2200	*2300	1500	7.37 m (24'2")	
	Rear dozer down (Load over front)	lb		*10,800	*10,800	*11,460	7,720	7,720	4,850	*5,070	3,310		
	Rear dozer up (Load over rear)	kg		*4900	*4900	*5200	4000	*4300	2500	*2300	1800		
	Rear dozer down (Load over rear)	lb		*10,800	*10,800	*11,460	8,820	*9,480	5,510	*5,070	3,970		
	Rear stab down (Load over rear)	kg		*4900	*4900	*5200	4900	*4300	3100	*2300	2200		
	Rear stab down (Load over front)	lb		*10,800	*10,800	*11,460	10,800	*9,480	6,830	*5,070	4,850		
	2 sets stab down (Load over front)	kg		*4900	*4900	*5200	*5200	*4300	*4300	*2300	*2300		
2 sets stab down (Load over rear)	lb		*10,800	*10,800	*11,460	*11,460	*9,480	*9,480	*5,070	*5,070			
Dozer and stab down (Load over front)	kg		*4900	*4900	*5200	*5200	*4300	3800	*2300	*2300			
Dozer and stab down (Load over rear)	lb		*10,800	*10,800	*11,460	*11,460	*9,480	8,380	*5,070	*5,070			
3.0 m (10.0 ft)	Rear dozer up (Load over front)	kg		*7400	6200	5300	3400	3500	2200	*2200	1300	7.83 m (25'8")	
	Rear dozer down (Load over front)	lb		*16,310	13,670	11,690	7,500	7,720	4,850	*4,850	2,870		
	Rear dozer up (Load over rear)	kg		*7400	7200	*6000	3900	*4500	2500	*2200	1600		
	Rear dozer down (Load over rear)	lb		*16,310	15,870	*13,230	8,600	*9,920	5,510	*4,850	3,530		
	Rear stab down (Load over rear)	kg		*7400	*7400	*6000	4700	*4500	3100	*2200	1900		
	Rear stab down (Load over front)	lb		*16,310	*16,310	*13,230	10,360	*9,920	6,830	*4,850	4,190		
	2 sets stab down (Load over front)	kg		*7400	*7400	*6000	*6000	*4500	4400	*2200	*2200		
2 sets stab down (Load over rear)	lb		*16,310	*16,310	*13,230	*13,230	*9,920	9,700	*4,850	*4,850			
Dozer and stab down (Load over front)	kg		*7400	*7400	*6000	5700	*4500	*3700	*2200	*2200			
Dozer and stab down (Load over rear)	lb		*16,310	*16,310	*13,230	12,570	*9,920	*8,160	*4,850	*4,850			
1.5 m (5.0 ft)	Rear dozer up (Load over front)	kg		*8600	6100	5300	3400	3500	2100	2200	1300	7.94 m (26'1")	
	Rear dozer down (Load over front)	lb		*18,960	13,450	11,690	7,500	7,500	4,630	4,630	2,870		
	Rear dozer up (Load over rear)	kg		*8600	7100	*6600	3900	*4700	2500	*2300	1500		
	Rear dozer down (Load over rear)	lb		*18,960	15,650	*14,550	8,600	*10,360	5,510	*5,070	3,310		
	Rear stab down (Load over rear)	kg		*8600	*8600	*6600	4700	4600	3000	*2300	1900		
	Rear stab down (Load over front)	lb		*18,960	*18,960	*14,550	10,360	10,140	6,610	*5,070	4,190		
	2 sets stab down (Load over front)	kg		*8600	*8600	*6600	*6600	*4700	4400	*2300	*2300		
2 sets stab down (Load over rear)	lb		*18,960	*18,960	*14,550	*14,550	*10,360	9,700	*5,070	*5,070			
Dozer and stab down (Load over front)	kg		*8600	*8600	*6600	5600	*4700	3700	*2300	*2300			
Dozer and stab down (Load over rear)	lb		*18,960	*18,960	*14,550	12,350	*10,360	8,160	*5,070	*5,070			
Ground	Rear dozer up (Load over front)	kg		*10,200	5900	5300	3300	3200	2000	2200	1300	7.73 m (25'4")	
	Rear dozer down (Load over front)	lb		*22,490	13,010	11,690	7,280	7,280	4,410	4,850	2,870		
	Rear dozer up (Load over rear)	kg		*10,200	7000	*6600	3800	*4800	2400	*2500	1500		
	Rear dozer down (Load over rear)	lb		*22,490	15,430	*14,550	8,380	*10,580	5,290	*5,510	3,310		
	Rear stab down (Load over rear)	kg		*10,200	8900	*6600	4700	4700	2900	*2500	1900		
	Rear stab down (Load over front)	lb		*22,490	19,620	*14,550	10,360	10,360	6,390	*5,510	4,190		
	2 sets stab down (Load over front)	kg		*10,200	*10,200	*6600	*6600	*4800	4300	*2500	*2500		
2 sets stab down (Load over rear)	lb		*22,490	*22,490	*14,550	*14,550	*10,580	9,480	*5,510	*5,510			
Dozer and stab down (Load over front)	kg		*10,200	*10,200	*6600	5700	*4800	3600	*2500	2400			
Dozer and stab down (Load over rear)	lb		*22,490	*22,490	*14,550	12,570	*10,580	7,940	*5,510	5,290			
-1.5 m (-5.0 ft)	Rear dozer up (Load over front)	kg		10,400	5800	5200	3100	3200	1900	2500	1500	7.15 m (23'5")	
	Rear dozer down (Load over front)	lb		22,930	12,790	11,460	6,830	7,060	4,190	5,510	3,310		
	Rear dozer up (Load over rear)	kg		*10,800	6800	*6800	3600	*4500	2300	*2800	1700		
	Rear dozer down (Load over rear)	lb		*23,810	14,990	*14,990	7,940	*9,920	5,070	*6,170	3,750		
	Rear stab down (Load over rear)	kg		*10,800	8900	*6800	4500	*4500	2800	*2800	2200		
	Rear stab down (Load over front)	lb		*23,810	19,620	*14,990	9,920	*9,920	6,170	*6,170	4,850		
	2 sets stab down (Load over front)	kg		*10,800	*10,800	*6800	*6800	*4500	*4200	*2800	*2800		
2 sets stab down (Load over rear)	lb		*23,810	*23,810	*14,990	*14,990	*9,920	*9,260	*6,170	*6,170			
Dozer and stab down (Load over front)	kg		*10,800	*10,800	*6800	5600	*4500	3500	*2800	2700			
Dozer and stab down (Load over rear)	lb		*23,810	*23,810	*14,990	12,350	*9,920	7,720	*6,170	5,950			
-3.0 m (-10.0 ft)	Rear dozer up (Load over front)	kg		10,400	5700	5000	3000						
	Rear dozer down (Load over front)	lb		22,930	12,570	11,020	6,610						
	Rear dozer up (Load over rear)	kg		*10,500	6800	*5600	3500						
	Rear dozer down (Load over rear)	lb		*23,150	14,990	*12,350	7,720						
	Rear stab down (Load over rear)	kg		*10,500	8800	*5600	4400						
	Rear stab down (Load over front)	lb		*23,150	19,400	*12,350	9,700						
	2 sets stab down (Load over front)	kg		*10,500	*10,500	*5600	*5600						
2 sets stab down (Load over rear)	lb		*23,150	*23,150	*12,350	*12,350							
Dozer and stab down (Load over front)	kg		*10,500	*10,500	*5600	5500							
Dozer and stab down (Load over rear)	lb		*23,150	*23,150	*12,350	12,130							

\* Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard JISO 10567. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.

- All lift capacities are calculated with Heavy Lift on.
- Oscillating axle must be locked.
- All values are calculated at the stick-nose.

# VA Boom – 2.3 m (7'6") stick


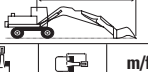












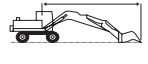
**Stick**  
2.3 m (7'6")

Stick 2.3 m (7'6")	Undercarriage configuration	3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		m/ft			
		kg	lb	kg	lb	kg	lb	kg	lb	kg	lb		
		kg		lb		kg		lb		kg		lb	
 Load Point Height   Load Radius Over Front or Rear   Load Radius Over Side   Load at Maximum Reach	6.0 m (20.0 ft)	Rear dozer up (Load over front)	kg	*4000	3600	3500	2200						
		Rear dozer up (Load over front)	lb	*8,820	7,940	7,720	4,850						
		Rear dozer down (Load over rear)	kg	*4000	4000	*3600	2500						
		Rear dozer down (Load over rear)	lb	*8,820	8,820	*7,940	5,510						
		Rear stab down (Load over rear)	kg	*4000	*4000	*3600	3100						
		Rear stab down (Load over rear)	lb	*8,820	*8,820	*7,940	6,830						
		2 sets stab down (Load over front)	kg	*4000	*4000	*3600	*3600						
		2 sets stab down (Load over front)	lb	*8,820	*8,820	*7,940	*7,940						
Dozer and stab down (Load over front)	kg	*4000	*4000	*3600	*3600								
Dozer and stab down (Load over front)	lb	*8,820	*8,820	*7,940	*7,940								
4.5 m (15.0 ft)	Rear dozer up (Load over front)	kg	*4000	*4000	3500	3500	2200			*2000	1400	7.65 m (25'1")	
	Rear dozer up (Load over front)	lb	*8,820	*8,820	7,720	7,720	4,850			*4,410	3,090		
	Rear dozer down (Load over rear)	kg	*4000	*4000	*4600	4000	*4100	2600		*2000	1700		
	Rear dozer down (Load over rear)	lb	*8,820	*8,820	*10,140	8,820	*9,040	5,730		*4,410	3,750		
	Rear stab down (Load over rear)	kg	*4000	*4000	*4600	*4600	*4100	3100		*2000	*2000		
	Rear stab down (Load over rear)	lb	*8,820	*8,820	*10,140	*10,140	*9,040	6,830		*4,410	*4,410		
	2 sets stab down (Load over front)	kg	*4000	*4000	*4600	*4600	*4100	*4100		*2000	*2000		
	2 sets stab down (Load over front)	lb	*8,820	*8,820	*10,140	*10,140	*9,040	*9,040		*4,410	*4,410		
Dozer and stab down (Load over front)	kg	*4000	*4000	*4600	*4600	*4100	3800		*2000	*2000			
Dozer and stab down (Load over front)	lb	*8,820	*8,820	*10,140	*10,140	*9,040	8,380		*4,410	*4,410			
3.0 m (10.0 ft)	Rear dozer up (Load over front)	kg	*7900	6300	5300	3500	3500	2200	2300	1400	2000	1300	
	Rear dozer up (Load over front)	lb	*17,420	13,890	11,680	7,720	7,720	4,850	5,070	3,090	2,000	1,200	
	Rear dozer down (Load over rear)	kg	*7900	7200	*5800	4000	*4400	2600	3100	1600	*2000	1500	
	Rear dozer down (Load over rear)	lb	*17,420	15,870	*12,790	8,820	*9,700	5,730	6,830	3,530	*4,410	3,310	
	Rear stab down (Load over rear)	kg	*7900	*7900	*5800	4800	*4400	3100	3100	2000	*2000	1800	
	Rear stab down (Load over rear)	lb	*17,420	*17,420	*12,790	10,580	*9,700	6,830	6,830	4,410	*4,410	3,970	
	2 sets stab down (Load over front)	kg	*7900	*7900	*5800	*5800	*4400	*4400	3100	3100	*2000	*2000	
	2 sets stab down (Load over front)	lb	*17,420	*17,420	*12,790	*12,790	*9,700	*9,700	6,830	6,830	*4,410	*4,410	
Dozer and stab down (Load over front)	kg	*7900	*7900	*5800	5700	*4400	3700	*3100	2500	*2000	*2000		
Dozer and stab down (Load over front)	lb	*17,420	*17,420	*12,790	12,570	*9,700	8,160	*6,830	5,510	*4,410	*4,410		
1.5 m (5.0 ft)	Rear dozer up (Load over front)	kg	*8800	6200	5200	3400	3500	2200	2300	1400	2000	1200	
	Rear dozer up (Load over front)	lb	*19,400	13,670	11,460	7,500	7,720	4,850	5,070	3,090	2,000	1,200	
	Rear dozer down (Load over rear)	kg	*8800	7100	*6500	3900	*4700	2500	3600	1600	*2000	1400	
	Rear dozer down (Load over rear)	lb	*19,400	15,650	*14,330	8,600	*10,360	5,510	7,940	3,530	*4,410	3,090	
	Rear stab down (Load over rear)	kg	*8800	*8800	*6500	4700	4600	3100	3200	2000	*2000	1800	
	Rear stab down (Load over rear)	lb	*19,400	*19,400	*14,330	10,360	10,140	6,830	7,050	4,410	*4,410	3,970	
	2 sets stab down (Load over front)	kg	*8800	*8800	*6500	*6500	*4700	4400	*3700	3000	*2000	*2000	
	2 sets stab down (Load over front)	lb	*19,400	*19,400	*14,330	*14,330	*10,360	9,700	*8,160	6,610	*4,410	*4,410	
Dozer and stab down (Load over front)	kg	*8800	*8800	*6500	5600	*4700	3700	*3700	2500	*2000	*2000		
Dozer and stab down (Load over front)	lb	*19,400	*19,400	*14,330	12,350	*10,360	8,160	*8,160	5,510	*4,410	*4,410		
Ground	Rear dozer up (Load over front)	kg	*10 000	6000	5300	3300	3300	2100	2300	1300	2100	1200	
	Rear dozer up (Load over front)	lb	*22,050	13,230	11,680	7,280	7,280	4,630	5,070	2,870	4,630	2,850	
	Rear dozer down (Load over rear)	kg	*10 000	7100	*6600	3800	*4800	2400	*3000	1600	*2200	1400	
	Rear dozer down (Load over rear)	lb	*22,050	15,650	*14,550	8,380	*10,580	5,290	*6,610	3,530	*4,850	3,090	
	Rear stab down (Load over rear)	kg	*10 000	8900	*6600	4700	*4600	3300	*3000	2000	*2200	1800	
	Rear stab down (Load over rear)	lb	*22,050	19,620	*14,550	10,360	*10,140	7,280	*6,610	4,410	*4,850	3,970	
	2 sets stab down (Load over front)	kg	*10 000	*10 000	*6600	*6600	*4800	4400	*3000	3000	*2200	*2200	
	2 sets stab down (Load over front)	lb	*22,050	*22,050	*14,550	*14,550	*10,580	9,700	*6,610	6,610	*4,850	*4,850	
Dozer and stab down (Load over front)	kg	*10 000	*10 000	*6600	5700	*4800	3600	*3000	2500	*2200	*2200		
Dozer and stab down (Load over front)	lb	*22,050	*22,050	*14,550	12,570	*10,580	7,940	*6,610	5,510	*4,850	*4,850		
-1.5 m (-5.0 ft)	Rear dozer up (Load over front)	kg	10 400	5800	5200	3200	3200	1900			2300	1400	
	Rear dozer up (Load over front)	lb	22,930	12,790	11,460	7,050	7,050	4,190			5,070	3,090	
	Rear dozer down (Load over rear)	kg	*10 700	6900	*6700	3700	*4700	2300			*2500	1600	
	Rear dozer down (Load over rear)	lb	*23,590	15,210	*14,770	8,160	*10,360	5,070			*5,510	3,530	
	Rear stab down (Load over rear)	kg	*10 700	8900	*6700	4600	4600	2800			*2500	2000	
	Rear stab down (Load over rear)	lb	*23,590	19,620	*14,770	10,140	10,140	6,170			*5,510	4,410	
	2 sets stab down (Load over front)	kg	*10 700	*10 700	*6700	*6700	*4700	4300			*2500	*2500	
	2 sets stab down (Load over front)	lb	*23,590	*23,590	*14,770	*14,770	*10,360	9,480			*5,510	*5,510	
Dozer and stab down (Load over front)	kg	*10 700	*10 700	*6700	5700	*4700	3500			*2500	*2500		
Dozer and stab down (Load over front)	lb	*23,590	*23,590	*14,770	12,570	*10,360	7,720			*5,510	*5,510		
-3.0 m (-10.0 ft)	Rear dozer up (Load over front)	kg	10 400	5800	5000	3000							
	Rear dozer up (Load over front)	lb	22,930	12,790	11,020	6,610							
	Rear dozer down (Load over rear)	kg	*10 900	6900	*6200	3500							
	Rear dozer down (Load over rear)	lb	*24,030	15,210	*13,670	7,720							
	Rear stab down (Load over rear)	kg	*10 900	8900	*6200	4400							
	Rear stab down (Load over rear)	lb	*24,030	19,620	*13,670	9,700							
	2 sets stab down (Load over front)	kg	*10 900	*10 900	*6200	*6200							
	2 sets stab down (Load over front)	lb	*24,030	*24,030	*13,670	*13,670							
Dozer and stab down (Load over front)	kg	*10 900	*10 900	*6200	5500								
Dozer and stab down (Load over front)	lb	*24,030	*24,030	*13,670	12,130								

\* Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard JISO 10567. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.

- All lift capacities are calculated with Heavy Lift on.
- Oscillating axle must be locked.
- All values are calculated at the stick-nose.

# VA Boom – 2.6 m (8'6") stick

Stick 2.6 m (8'6")		Undercarriage configuration	3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)				m/ft
													
			kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	
	6.0 m (20.0 ft)	Rear dozer up (Load over front)	kg		*3500	3500	*3400	2200					
		Rear dozer down (Load over rear)	kg		*7,720	7,720	*7,500	4,850					
		Rear stab down (Load over rear)	kg		*3500	*3500	*3400	2600					
		2 sets stab down (Load over front)	kg		*7,720	*7,720	*7,500	5,730					
		Dozer and stab down (Load over front)	kg		*3500	*3500	*3400	3100					
			kg		*7,720	*7,720	*7,500	6,830					
			kg		*3500	*3500	*3400	*3400					
	4.5 m (15.0 ft)	Rear dozer up (Load over front)	kg		3900	3500	3500	2300	*2100	1400	*1700	1300	
		Rear dozer down (Load over rear)	kg		8,600	7,720	7,720	5,070	*4,630	3,090	*3,750	2,870	
		Rear stab down (Load over rear)	kg		*3900	3900	*3900	2600	*2100	1700	*1700	1500	
		2 sets stab down (Load over front)	kg		*8,600	8,600	*8,600	5,730	*4,630	3,750	*3,750	3,310	
		Dozer and stab down (Load over front)	kg		*3900	*3900	*3900	3100	*2100	2100	*1700	*1700	7.96 m (26'1")
			kg		*8,600	*8,600	*8,600	6,830	*4,630	4,630	*3,750	*3,750	
			kg		*3900	*3900	*3900	*3900	*2100	*2100	*1700	*1700	
	3.0 m (10.0 ft)	Rear dozer up (Load over front)	kg	*7600	6300	5300	3400	3500	2300	2300	1400	*1700	1200
		Rear dozer down (Load over rear)	kg	*16,760	13,890	11,680	7,500	7,720	5,070	5,070	3,090	*3,750	2,850
		Rear stab down (Load over rear)	kg	*7600	7200	*5600	3900	*4300	2600	*3500	1700	*1700	1400
		2 sets stab down (Load over front)	kg	*16,760	15,870	*12,350	8,600	*9,480	5,730	*7,720	3,750	*3,750	3,090
		Dozer and stab down (Load over front)	kg	*7600	*7600	*5600	4700	*4300	3100	3300	2100	*1700	*1700
			kg	*16,760	*16,760	*12,350	10,360	*9,480	6,830	7,280	4,630	*3,750	*3,750
			kg	*7600	*7600	*5600	*5600	*4300	*4300	*3500	3100	*1700	*1700
	1.5 m (5.0 ft)	Rear dozer up (Load over front)	kg	*8600	6100	5200	3400	3500	2200	2300	1400	*1800	1100
		Rear dozer down (Load over rear)	kg	*18,960	13,450	11,460	7,500	7,720	4,850	5,070	3,090	*3,970	2,430
		Rear stab down (Load over rear)	kg	*8600	7100	*6300	3900	*4600	2500	3600	1600	*1800	1300
		2 sets stab down (Load over front)	kg	*18,960	15,650	*13,890	8,600	*10,140	5,510	7,940	3,530	*3,970	2,870
		Dozer and stab down (Load over front)	kg	*8600	*8600	*6300	4700	*4600	3100	3200	2000	*1800	1700
			kg	*18,960	*18,960	*13,890	10,360	*10,140	6,830	7,050	4,410	*3,970	3,750
			kg	*8600	*8600	*6300	*6300	*4600	*4300	*3600	3000	*1800	*1800
	Ground	Rear dozer up (Load over front)	kg	*9800	6000	5200	3300	3400	2100	2300	1300	*1900	1100
		Rear dozer down (Load over rear)	kg	*21,610	13,230	11,460	7,280	7,500	4,630	5,070	2,870	*4,190	2,430
		Rear stab down (Load over rear)	kg	*9800	7100	*6500	3800	*4700	2400	*3500	1600	*1900	1300
		2 sets stab down (Load over front)	kg	*21,610	15,650	*14,330	8,380	*10,360	5,290	*7,720	3,530	*4,190	2,870
		Dozer and stab down (Load over front)	kg	*9800	8800	*6500	4700	4600	3000	3200	2000	*1900	1700
			kg	*21,610	19,400	*14,330	10,360	10,140	6,610	7,050	4,000	*4,190	3,750
			kg	*9800	*9800	*6500	*6500	*4700	4400	*3500	3000	*1900	*1900
	-1.5 m (-5.0 ft)	Rear dozer up (Load over front)	kg	10 200	5700	5000	3100	3200	2000			2100	1300
		Rear dozer down (Load over rear)	kg	22,490	12,570	11,460	6,830	7,050	4,410			4,630	2,870
		Rear stab down (Load over rear)	kg	*10 600	6800	*6600	3700	*4800	2300			*2200	1500
		2 sets stab down (Load over front)	kg	*23,370	14,990	*14,550	8,160	*10,580	5,070			*4,850	3,310
		Dozer and stab down (Load over front)	kg	*10 600	8900	*6600	4600	4600	2800			*2200	1900
			kg	*23,370	19,620	*14,550	10,140	10,140	6,170			*4,850	4,190
			kg	*10 600	*10 600	*6600	*6600	*4800	4300			*2200	*2200
	-3.0 m (-10.0 ft)	Rear dozer up (Load over front)	kg	10 400	5700	5000	3000	3100	1900				
		Rear dozer down (Load over rear)	kg	22,930	12,570	11,020	6,610	6,830	4,190				
		Rear stab down (Load over rear)	kg	*11 000	6800	*6600	3500	*3500	2200				
		2 sets stab down (Load over front)	kg	*24,250	14,990	*14,550	7,720	*7,720	4,850				
		Dozer and stab down (Load over front)	kg	*11 000	8800	*6600	4400	*3500	2800				
			kg	*24,250	19,400	*14,550	9,700	*7,720	6,170				
			kg	*11 000	*11 000	*6600	*6600	*3500	*3500				
	-4.5 m (-15.0 ft)	Rear dozer up (Load over front)	kg	*6600	5600								
		Rear dozer down (Load over rear)	kg	*14,550	12,350								
		Rear stab down (Load over rear)	kg	*6600	*6600								
		2 sets stab down (Load over front)	kg	*14,550	*14,550								
		Dozer and stab down (Load over front)	kg	*6600	*6600								

\* Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard JISO 10567. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.

- All lift capacities are calculated with Heavy Lift on.
- Oscillating axle must be locked.
- All values are calculated at the stick-nose.



# One-piece Boom – 2.0 m (6'6") stick

**Stick**  
2.0 m (6'6")



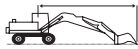
Load Point  
Height



Load Radius  
Over Front  
or Rear



Load Radius  
Over Side



Load at  
Maximum Reach














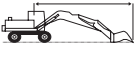






Undercarriage configuration	3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		m/ft				
	kg	lb	kg	lb	kg	lb	kg	lb			
4.5 m (15.0 ft)	Rear dozer up (Load over front)	kg			*4800	3400	3400	2200	*2100	1700	7.11 m (23'4")
	Rear dozer down (Load over rear)	lb			*10,580	7,500	7,500	4,850	*4,630	3,750	
	Rear dozer up (Load over front)	kg			*4800	3900	*4200	2500	*2100	1900	
	Rear dozer down (Load over rear)	lb			*10,580	8,600	*9,260	5,510	*4,630	4,190	
	Rear stab down (Load over rear)	kg			*4800	*4800	*4200	3000	*2100	*2100	
	2 sets stab down (Load over front)	lb			*10,580	*10,580	*9,260	6,610	*4,630	*4,630	
	Dozer and stab down (Load over front)	kg			*4800	*4800	*4200	*4200	*2100	*2100	
3.0 m (10.0 ft)	Rear dozer up (Load over front)	kg			5200	3200	3300	2100	*2100	1500	7.58 m (24'10")
	Rear dozer down (Load over rear)	lb			11,460	7,060	7,280	4,630	*4,630	3,310	
	Rear dozer up (Load over front)	kg			*5700	3700	*4500	2400	*2100	1700	
	Rear dozer down (Load over rear)	lb			*12,570	8,160	*9,920	5,290	*4,630	3,750	
	Rear stab down (Load over rear)	kg			*5700	4600	*4500	3000	*2100	*2100	
	2 sets stab down (Load over front)	lb			*12,570	10,140	*9,920	6,610	*4,630	*4,630	
	Dozer and stab down (Load over front)	kg			*5700	*5700	*4500	4400	*2100	*2100	
1.5 m (5.0 ft)	Rear dozer up (Load over front)	kg			5000	3000	3200	2000	*2100	1400	7.70 m (25'3")
	Rear dozer down (Load over rear)	lb			11,020	6,610	7,060	4,410	*4,630	3,090	
	Rear dozer up (Load over front)	kg			*6500	3500	*4800	2300	*2100	1600	
	Rear dozer down (Load over rear)	lb			*14,330	7,720	*10,580	5,070	*4,630	3,530	
	Rear stab down (Load over rear)	kg			*6500	4400	4600	2900	*2100	2000	
	2 sets stab down (Load over front)	lb			*14,330	9,700	10,140	6,390	*4,630	4,410	
	Dozer and stab down (Load over front)	kg			*14,330	*14,330	*10,580	9,480	*4,630	*4,630	
Ground	Rear dozer up (Load over front)	kg			4900	2900	3200	1900	*2300	1400	7.47 m (24'6")
	Rear dozer down (Load over rear)	lb			10,800	6,390	7,060	4,190	*5,070	3,090	
	Rear dozer up (Load over front)	kg			*6700	3400	*4800	2200	*2300	1700	
	Rear dozer down (Load over rear)	lb			*14,770	7,500	*10,580	4,850	*5,070	3,750	
	Rear stab down (Load over rear)	kg			*6700	4200	4500	2800	*2300	2000	
	2 sets stab down (Load over front)	lb			*14,770	9,260	9,920	6,170	*5,070	4,410	
	Dozer and stab down (Load over front)	kg			*14,770	14,550	*10,580	9,260	*5,070	*5,070	
-1.5 m (-5.0 ft)	Rear dozer up (Load over front)	kg			*7900	5300	4800	2900	1900	2600	6.87 m (22'6")
	Rear dozer down (Load over rear)	lb			*17,420	11,690	10,580	6,390	4,190	5,730	
	Rear dozer up (Load over front)	kg			*7900	6300	*6100	3300	*4300	2200	
	Rear dozer down (Load over rear)	lb			*17,420	13,890	*13,450	7,280	*9,480	4,850	
	Rear stab down (Load over rear)	kg			*7900	*7900	*6100	4200	*4300	2800	
	2 sets stab down (Load over front)	lb			*17,420	*17,420	*13,450	9,260	*9,480	6,170	
	Dozer and stab down (Load over front)	kg			*17,420	*17,420	*13,450	*13,450	*9,480	9,260	
-3.0 m (-10.0 ft)	Rear dozer up (Load over front)	kg			*6200	5400	*4500	2900			
	Rear dozer down (Load over rear)	lb			*13,670	11,910	*9,920	6,390			
	Rear dozer up (Load over front)	kg			*6200	*6200	*4500	3400			
	Rear dozer down (Load over rear)	lb			*13,670	*13,670	*9,920	7,500			
	Rear stab down (Load over rear)	kg			*6200	*6200	*4500	4300			
	2 sets stab down (Load over front)	lb			*13,670	*13,670	*9,920	9,480			
	Dozer and stab down (Load over front)	kg			*13,670	*13,670	*9,920	*9,920			

\* Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard JISO 10567. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.

- All lift capacities are calculated with Heavy Lift on.
- Oscillating axle must be locked.
- All values are calculated at the stick-nose.

# One-piece Boom – 2.3 m (7'6") stick

**Stick**  
2.3 m (7'6")

Stick 2.3 m (7'6")		Undercarriage configuration	3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)				m/ft		
													
 Load Point Height   Load Radius Over Front or Rear   Load Radius Over Side   Load at Maximum Reach		Rear dozer up (Load over front)	kg					*2600	2200				
		Rear dozer down (Load over front)	lb					*5,730	4,850				
		Rear dozer down (Load over rear)	kg					*2600	2500				
		Rear dozer down (Load over rear)	lb					*5,730	5,510				
		Rear stab down (Load over rear)	kg					*2600	*2600				
		Rear stab down (Load over rear)	lb					*5,730	*5,730				
		2 sets stab down (Load over front)	kg					*2600	*2600				
2 sets stab down (Load over front)	lb					*5,730	*5,730						
Dozer and stab down (Load over front)	kg					*2600	*2600						
Dozer and stab down (Load over front)	lb					*5,730	*5,730						
	Rear dozer up (Load over front)	kg						3400	2200	*1800	1600		
	Rear dozer up (Load over front)	lb						7,500	4,850	*3,970	3,530		
	Rear dozer down (Load over rear)	kg						*4000	2500	*1800	*1800		
	Rear dozer down (Load over rear)	lb						*8,820	5,510	*3,970	*3,970		
	Rear stab down (Load over rear)	kg						*4000	3100	*1800	*1800		
	Rear stab down (Load over rear)	lb						*8,820	6,830	*3,970	*3,970		
	2 sets stab down (Load over front)	kg						*4000	*4000	*1800	*1800		
2 sets stab down (Load over front)	lb						*8,820	*8,820	*3,970	*3,970			
Dozer and stab down (Load over front)	kg						*4000	3700	*1800	*1800			
Dozer and stab down (Load over front)	lb						*8,820	8,160	*3,970	*3,970			
	Rear dozer up (Load over front)	kg			5300	3300		3400	2100	*1800	1400		
	Rear dozer up (Load over front)	lb			11,690	7,280		7,500	4,630	*3,970	3,090		
	Rear dozer down (Load over rear)	kg			*5500	3800		*4300	2400	*1800	1600		
	Rear dozer down (Load over rear)	lb			*12,130	8,380		*9,480	5,290	*3,970	3,530		
	Rear stab down (Load over rear)	kg			*5500	4700		*4300	3000	*1800	*1800		
	Rear stab down (Load over rear)	lb			*12,130	10,360		*9,480	6,610	*3,970	*3,970		
	2 sets stab down (Load over front)	kg			*5500	*5500		*4300	*4300	*1800	*1800		
2 sets stab down (Load over front)	lb			*12,130	*12,130		*9,480	*9,480	*3,970	*3,970			
Dozer and stab down (Load over front)	kg			*5500	*5500		*4300	3600	*1800	*1800			
Dozer and stab down (Load over front)	lb			*12,130	*12,130		*9,480	7,940	*3,970	*3,970			
	Rear dozer up (Load over front)	kg			5000	3000		3200	2000	*1900	1300		
	Rear dozer up (Load over front)	lb			11,020	6,610		7,060	4,410	*4,190	2,870		
	Rear dozer down (Load over rear)	kg			*6400	3500		*4700	2300	*1900	1500		
	Rear dozer down (Load over rear)	lb			*14,110	7,720		*10,360	5,070	*4,190	3,310		
	Rear stab down (Load over rear)	kg			*6400	4400		4600	2900	*1900	*1900		
	Rear stab down (Load over rear)	lb			*14,110	9,700		10,140	6,390	*4,190	*4,190		
	2 sets stab down (Load over front)	kg			*6400	*6400		*4700	4300	*1900	*1900		
2 sets stab down (Load over front)	lb			*14,110	*14,110		*10,360	9,480	*4,190	*4,190			
Dozer and stab down (Load over front)	kg			*6400	5500		*4700	3500	*1900	*1900			
Dozer and stab down (Load over front)	lb			*14,110	12,130		*10,360	7,720	*4,190	*4,190			
Ground	Rear dozer up (Load over front)	kg	*4300	*4300	4900	2900		3200	1900	*2100	1300		
	Rear dozer up (Load over front)	lb	*9,480	*9,480	10,800	6,390		7,060	4,190	*4,630	2,870		
	Rear dozer down (Load over rear)	kg	*4300	*4300	*6700	3400		*4800	2200	*2100	1600		
	Rear dozer down (Load over rear)	lb	*9,480	*9,480	*14,770	7,500		*10,580	4,850	*4,630	3,530		
	Rear stab down (Load over rear)	kg	*4300	*4300	*6700	4200		4500	2800	*2100	1900		
	Rear stab down (Load over rear)	lb	*9,480	*9,480	*14,770	9,260		9,920	6,170	*4,630	4,190		
	2 sets stab down (Load over front)	kg	*4300	*4300	*6700	6600		*4800	4200	*2100	*2100		
2 sets stab down (Load over front)	lb	*9,480	*9,480	*14,770	14,550		*10,580	9,260	*4,630	*4,630			
Dozer and stab down (Load over front)	kg	*4300	*4300	*6700	5300		*4800	3400	*2100	*2100			
Dozer and stab down (Load over front)	lb	*9,480	*9,480	*14,770	11,690		*10,580	7,500	*4,630	*4,630			
	Rear dozer up (Load over front)	kg	*7900	5200	4800	2800		3100	1900	*2400	1500		
	Rear dozer up (Load over front)	lb	*17,420	11,460	10,580	6,170		6,830	4,190	*5,290	3,310		
	Rear dozer down (Load over rear)	kg	*7900	6200	*6300	3300		*4400	2200	*2400	1700		
	Rear dozer down (Load over rear)	lb	*17,420	13,670	*13,890	7,280		*9,700	4,850	*5,290	3,750		
	Rear stab down (Load over rear)	kg	*7900	*7900	*6300	4200		*4400	2800	*2400	2200		
	Rear stab down (Load over rear)	lb	*17,420	*17,420	*13,890	9,260		*9,700	6,170	*5,290	4,850		
	2 sets stab down (Load over front)	kg	*7900	*7900	*6300	*6300		*4400	4200	*2400	*2400		
2 sets stab down (Load over front)	lb	*17,420	*17,420	*13,890	*13,890		*9,700	9,260	*5,290	*5,290			
Dozer and stab down (Load over front)	kg	*7900	*7900	*6300	5300		*4400	3400	*2400	*2400			
Dozer and stab down (Load over front)	lb	*17,420	*17,420	*13,890	11,690		*9,700	7,500	*5,290	*5,290			
	Rear dozer up (Load over front)	kg	*6900	5300	4900	2900							
	Rear dozer up (Load over front)	lb	*15,210	11,690	10,800	6,390							
	Rear dozer down (Load over rear)	kg	*6900	6400	*4900	3400							
	Rear dozer down (Load over rear)	lb	*15,210	14,110	*10,800	7,500							
	Rear stab down (Load over rear)	kg	*6900	*6900	*4900	4200							
	Rear stab down (Load over rear)	lb	*15,210	*15,210	*10,800	9,260							
	2 sets stab down (Load over front)	kg	*6900	*6900	*4900	*4900							
2 sets stab down (Load over front)	lb	*15,210	*15,210	*10,800	*10,800								
Dozer and stab down (Load over front)	kg	*6900	*6900	*4900	*4900								
Dozer and stab down (Load over front)	lb	*15,210	*15,210	*10,800	*10,800								

\* Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard JISO 10567. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.

- All lift capacities are calculated with Heavy Lift on.
- Oscillating axle must be locked.
- All values are calculated at the stick-nose.

# One-piece Boom – 2.6 m (8'6") stick

Stick  
2.6 m (8'6")



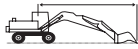
Load Point  
Height



Load Radius  
Over Front  
or Rear



Load Radius  
Over Side


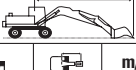














Load at  
Maximum Reach

Stick 2.6 m (8'6")	Undercarriage configuration	3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		m/ft			
		kg	lb	kg	lb	kg	lb	kg	lb	kg	lb		
6.0 m (20.0 ft)	Rear dozer up (Load over front)	kg				*3000	2200						
	Rear dozer down (Load over rear)	kg				*6,610	4,850						
	Rear stab down (Load over rear)	kg				*3000	2500						
	2 sets stab down (Load over front)	kg				*6,610	5,510						
	Dozer and stab down (Load over front)	kg				*3000	*3000						
		lb				*6,610	*6,610						
		lb				*3000	*3000						
4.5 m (15.0 ft)	Rear dozer up (Load over front)	kg				3500	2200			*1600	1500		
	Rear dozer down (Load over rear)	kg				7,720	4,850			*3,530	3,310		
	Rear stab down (Load over rear)	kg				*3800	2500			*1600	*1600		
	2 sets stab down (Load over front)	kg				*8,380	5,510			*3,530	*3,530		
	Dozer and stab down (Load over front)	kg				*3800	3100			*1600	*1600		
		lb				*8,380	6,830			*3,530	*3,530		
		lb				*3800	*3800			*1600	*1600		
3.0 m (10.0 ft)	Rear dozer up (Load over front)	kg	*7800	6100	*5200	3300	3400	2100	2300	1400	*1600	1300	
	Rear dozer down (Load over rear)	kg	*17,800	13,450	*11,460	7,280	7,500	4,630	5,070	3,090	*3,530	2,870	
	Rear stab down (Load over rear)	kg	*7800	7200	*5200	3800	*4200	2400	*2600	1700	*1600	1500	
	2 sets stab down (Load over front)	kg	*17,800	15,870	*11,460	8,380	*9,260	5,290	*5,730	3,750	*3,530	3,310	
	Dozer and stab down (Load over front)	kg	*7800	*7800	*5200	4700	*4200	3000	*2600	2100	*1600	*1600	
		lb	*17,800	*17,800	*11,460	10,360	*9,260	6,610	*5,730	4,630	*3,530	*3,530	
		lb	*7800	*7800	*5200	*5200	*4200	*4200	*2600	*2600	*1600	*1600	
1.5 m (5.0 ft)	Rear dozer up (Load over front)	kg				3000	3200	2000	2300	1400	*1600	1200	
	Rear dozer down (Load over rear)	kg				11,020	6,610	7,060	4,410	5,070	3,090	*3,530	2,650
	Rear stab down (Load over rear)	kg				*6200	3500	*4600	2300	*3200	1600	*1600	1400
	2 sets stab down (Load over front)	kg				*13,670	7,720	*10,140	5,070	*7,060	3,530	*3,530	3,090
	Dozer and stab down (Load over front)	kg				*6200	4400	*4600	2900	*3200	2000	*1600	*1600
		lb				*13,670	9,700	*10,140	6,390	*7,060	4,410	*3,530	*3,530
		lb				*6200	*6200	*4600	4300	*3200	3000	*1600	*1600
Ground	Rear dozer up (Load over front)	kg	*4600	*4600	4800	2900	3100	1900	2300	1400	*1800	1200	
	Rear dozer down (Load over rear)	kg	*10,140	*10,140	10,580	6,390	6,830	4,190	5,070	3,090	*3,970	2,650	
	Rear stab down (Load over rear)	kg	*4600	*4600	*6700	3400	*4800	2200	*2600	1600	*1800	1500	
	2 sets stab down (Load over front)	kg	*10,140	*10,140	*14,770	7,500	*10,580	4,850	*5,730	3,530	*3,970	3,310	
	Dozer and stab down (Load over front)	kg	*4600	*4600	*6700	4200	4500	2800	*2600	2000	*1800	*1800	
		lb	*10,140	*10,140	*14,770	9,260	9,920	6,170	*5,730	4,410	*3,970	*3,970	
		lb	*4600	*4600	*6700	6600	*4800	4200	*2600	*2600	*1800	*1800	
-1.5 m (-5.0 ft)	Rear dozer up (Load over front)	kg	*7400	5200	4800	2800	3100	1900			*2100	1400	
	Rear dozer down (Load over rear)	kg	*16,310	11,460	10,580	6,170	6,830	4,190			*4,630	3,090	
	Rear stab down (Load over rear)	kg	*7400	6200	*6400	3300	*4500	2200			*2100	1600	
	2 sets stab down (Load over front)	kg	*16,310	13,670	*14,110	7,280	*9,920	4,850			*4,630	3,530	
	Dozer and stab down (Load over front)	kg	*7400	*7400	*6400	4200	4400	2700			*2100	2000	
		lb	*16,310	*16,310	*14,110	9,260	9,700	5,950			*4,630	4,410	
		lb	*7400	*7400	*6400	5200	*4500	3400			*2100	*2100	
-3.0 m (-10.0 ft)	Rear dozer up (Load over front)	kg	*7500	5200	4800	2800	3100	1900					
	Rear dozer down (Load over rear)	kg	*16,540	11,460	10,580	6,170	6,830	4,190					
	Rear stab down (Load over rear)	kg	*7500	6300	*5200	3300	*3300	2200					
	2 sets stab down (Load over front)	kg	*16,540	13,890	*11,460	7,280	*7,280	4,850					
	Dozer and stab down (Load over front)	kg	*7500	*7500	*5200	4200	*3300	2800					
		lb	*16,540	*16,540	*11,460	9,260	*7,280	6,170					
		lb	*7500	*7500	*5200	*5200	*3300	*3300					

- \* Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard JISO 10567. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.
- All lift capacities are calculated with Heavy Lift on.
  - Oscillating axle must be locked.
  - All values are calculated at the stick-nose.

# Offset Boom – 2.0 m (6'6") stick




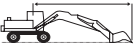
Stick 2.0 m (6'6")		Undercarriage configuration		3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)					
												m/ft	
 Load Point Height  Load Radius Over Front or Rear  Load Radius Over Side  Load at Maximum Reach	6.0 m (20.0 ft)	Rear dozer up (Load over front)	kg			*4400	3600	3300	2000				
		Rear dozer down (Load over front)	kg			*9,700	7,940	7,280	4,410				
		Rear dozer down (Load over rear)	kg			*4400	4100	*3400	2300				
		Rear stab down (Load over rear)	kg			*9,700	9,040	*7,500	5,070				
		Rear stab down (Load over front)	kg			*4400	*4400	*3400	2900				
		2 sets stab down (Load over rear)	kg			*9,700	*9,700	*7,500	6,390				
		2 sets stab down (Load over front)	kg			*4400	*4400	*3400	*3400				
Dozer and stab down (Load over front)	kg			*9,700	*9,700	*7,500	*7,500						
		lb				*9,700	*9,700	*7,500	*7,500				
4.5 m (15.0 ft)	Rear dozer up (Load over front)	kg		*5100	5100	*5000	3500	3400	2100	*2200	1400	7.37 m (24'2")	
	Rear dozer down (Load over front)	kg		*11,240	11,240	*11,020	7,720	7,500	4,630	*4,850	3,090		
	Rear dozer down (Load over rear)	kg		*5100	5100	*5000	4000	*4100	2400	*2200	1600		
	Rear stab down (Load over rear)	kg		*11,240	11,240	*11,020	8,820	*9,040	5,290	*4,850	3,530		
	Rear stab down (Load over front)	kg		*5100	*5100	*5000	4800	*4100	3000	*2200	2100		
	2 sets stab down (Load over rear)	kg		*11,240	*11,240	*11,020	10,580	*9,040	6,610	*4,850	4,630		
	2 sets stab down (Load over front)	kg		*5100	*5100	*5000	*5000	*4100	*4100	*2200	*2200		
Dozer and stab down (Load over front)	kg		*11,240	*11,240	*11,020	*11,020	*9,040	*9,040	*4,850	*4,850			
		lb		*5100	*5100	*5000	*5000	*4100	*4100	*2200	*2200		
		lb		*11,240	*11,240	*11,020	*11,020	*9,040	8,160	*4,850	*4,850		
3.0 m (10.0 ft)	Rear dozer up (Load over front)	kg		*7200	6100	5200	3400	3400	2100	2100	1200	7.83 m (25'8")	
	Rear dozer down (Load over front)	kg		*15,870	13,450	11,460	7,500	7,500	4,630	4,630	2,650		
	Rear dozer down (Load over rear)	kg		*7200	7100	*5700	3900	*4300	2400	*2100	1400		
	Rear stab down (Load over rear)	kg		*15,870	15,650	*12,570	8,600	*9,480	5,290	*4,630	3,090		
	Rear stab down (Load over front)	kg		*7200	*7200	*5700	4700	*4300	3000	*2100	1800		
	2 sets stab down (Load over rear)	kg		*15,870	*15,870	*12,570	10,360	*9,480	6,610	*4,630	3,970		
	2 sets stab down (Load over front)	kg		*7200	*7200	*5700	*5700	*4300	*4300	*2100	*2100		
Dozer and stab down (Load over front)	kg		*15,870	*15,870	*12,570	*12,570	*9,480	*9,480	*4,630	*4,630			
		lb		*7200	*7200	*5700	5500	*4300	3600	*2100	*2100		
		lb		*15,870	*15,870	*12,570	12,130	*9,480	7,490	*4,630	*4,630		
1.5 m (5.0 ft)	Rear dozer up (Load over front)	kg		*8400	6000	5100	3300	3300	2000	2000	1100	7.94 m (26'1")	
	Rear dozer down (Load over front)	kg		*18,520	13,230	11,240	7,280	7,280	4,410	4,410	2,430		
	Rear dozer down (Load over rear)	kg		*8400	*6900	*6200	3800	*4500	2400	*2200	1300		
	Rear stab down (Load over rear)	kg		*18,520	*15,210	*13,670	8,380	*9,920	5,290	*4,850	2,870		
	Rear stab down (Load over front)	kg		*8400	8400	*6200	4600	*4500	2900	*2200	1700		
	2 sets stab down (Load over rear)	kg		*18,520	18,520	*13,670	10,140	*9,920	6,390	*4,850	3,750		
	2 sets stab down (Load over front)	kg		*8400	8400	*6200	*6200	*4500	*4200	*2200	*2200		
Dozer and stab down (Load over front)	kg		*18,520	18,520	*13,670	*13,670	*9,920	*9,260	*4,850	*4,850			
		lb		*8400	8400	*6200	5500	*4500	3600	*2200	*2200		
		lb		*18,520	18,520	*13,670	12,130	*9,920	7,940	*4,850	*4,850		
Ground	Rear dozer up (Load over front)	kg		9800	5600	5200	3100	3200	1900	2000	1100	7.72 m (25'4")	
	Rear dozer down (Load over front)	kg		21,610	12,350	11,460	6,830	7,060	4,190	4,410	2,430		
	Rear dozer down (Load over rear)	kg		*9900	6700	*6300	3700	*4500	2200	*2400	1400		
	Rear stab down (Load over rear)	kg		*21,830	14,770	*13,890	8,160	*9,920	4,850	*5,290	3,090		
	Rear stab down (Load over front)	kg		*9900	8700	*6300	4600	*4500	2800	*2400	1800		
	2 sets stab down (Load over rear)	kg		*21,830	19,180	*13,890	10,140	*9,920	6,170	*5,290	3,970		
	2 sets stab down (Load over front)	kg		*9900	*9900	*6300	*6300	*4500	4200	*2400	*2400		
Dozer and stab down (Load over front)	kg		*21,830	*21,830	*13,890	*13,890	*9,920	9,260	*5,290	*5,290			
		lb		*9900	*9900	*6300	5500	*4500	3500	*2400	*2200		
		lb		*21,830	*21,830	*13,890	12,130	*9,920	7,720	*5,290	4,850		
-1.5 m (-5.0 ft)	Rear dozer up (Load over front)	kg		10 200	5500	5000	3000	3000	1700	2300	1300	7.14 m (23'5")	
	Rear dozer down (Load over front)	kg		22,490	12,130	11,020	6,610	6,610	3,750	5,070	2,870		
	Rear dozer down (Load over rear)	kg		*10 400	6600	*6500	3500	*4300	2100	*2600	1600		
	Rear stab down (Load over rear)	kg		*22,930	14,550	*14,330	7,720	*9,480	4,630	*5,730	3,530		
	Rear stab down (Load over front)	kg		*10 400	8600	*6500	4400	*4300	2600	*2600	2000		
	2 sets stab down (Load over rear)	kg		*22,930	18,960	*14,330	9,700	*9,480	5,730	*5,730	4,410		
	2 sets stab down (Load over front)	kg		*10 400	*10 400	*6500	*6500	*4300	4100	*2600	*2600		
Dozer and stab down (Load over front)	kg		*22,930	*22,930	*14,330	*14,330	*9,480	9,040	*5,730	*5,730			
		lb		*10 400	*10 400	*6500	5500	*4300	3300	*2600	2500		
		lb		*22,930	*22,930	*14,330	12,130	*9,480	7,280	*5,730	5,510		
-3.0 m (-10.0 ft)	Rear dozer up (Load over front)	kg		*10 100	5400	4800	2800						
	Rear dozer down (Load over front)	kg		*22,270	11,910	10,580	6,170						
	Rear dozer down (Load over rear)	kg		*10 100	6500	*5300	3300						
	Rear stab down (Load over rear)	kg		*22,270	14,330	*11,690	7,280						
	Rear stab down (Load over front)	kg		*10 100	8600	*5300	4200						
	2 sets stab down (Load over rear)	kg		*22,270	18,960	*11,690	9,260						
	2 sets stab down (Load over front)	kg		*10 100	*10 100	*5300	*5300						
Dozer and stab down (Load over front)	kg		*22,270	*22,270	*11,690	*11,690							
		lb		*10 100	*10 100	*5300	*5300						
		lb		*22,270	*22,270	*11,690	*11,690						

\* Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard JISO 10567. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.

- All lift capacities are calculated with additional 400 kg (882 lb) counterweight, Heavy Lift on.
- Oscillating axle must be locked.
- All values are calculated at the stick-nose.

# Offset Boom – 2.3 m (7'6") stick

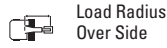
**Stick**  
2.3 m (7'6")

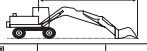










Stick 2.3 m (7'6")	Undercarriage configuration	3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)		m/ft		
		kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	
		Load Point Height		Load Radius Over Front or Rear		Load Radius Over Side		Load at Maximum Reach				
 Load Point Height   Load Radius Over Front or Rear   Load Radius Over Side   Load at Maximum Reach	6.0 m (20.0 ft)	Rear dozer up (Load over front)	kg			*4100	3600	3400	2100			
		Rear dozer down (Load over front)	kg			*9,040	7,940	7,500	4,630			
		Rear dozer down (Load over rear)	kg			*4100	*4100	*3500	2400			
		Rear stab down (Load over rear)	kg			*9,040	*9,040	*7,720	5,290			
		2 sets stab down (Load over front)	kg			*4100	*4100	*3500	3000			
		2 sets stab down (Load over rear)	kg			*9,040	*9,040	*7,720	6,610			
		Dozer and stab down (Load over front)	kg			*4100	*4100	*3500	*3500			
		Dozer and stab down (Load over rear)	kg			*9,040	*9,040	*7,720	*7,720			
4.5 m (15.0 ft)	Rear dozer up (Load over front)	kg	*4200	*4200	*4700	3500	3400	2200			*1900	1300
	Rear dozer down (Load over front)	kg	*9,260	*9,260	*10,360	7,720	7,500	4,850			*4,190	2,870
	Rear dozer down (Load over rear)	kg	*4200	*4200	*4700	4000	*3900	2500			*1900	1500
	Rear stab down (Load over rear)	kg	*9,260	*9,260	*10,360	8,820	*8,600	5,510			*4,190	3,310
	2 sets stab down (Load over front)	kg	*4200	*4200	*4700	*4700	*3900	3100			*1900	*1900
	2 sets stab down (Load over rear)	kg	*9,260	*9,260	*10,360	*10,360	*8,600	6,830			*4,190	*4,190
	Dozer and stab down (Load over front)	kg	*4200	*4200	*4700	*4700	*3900	*3900			*1900	*1900
	Dozer and stab down (Load over rear)	kg	*9,260	*9,260	*10,360	*10,360	*8,600	*8,600			*4,190	*4,190
3.0 m (10.0 ft)	Rear dozer up (Load over front)	kg	*7600	6100	5200	3400	3400	2200	1300		*1900	1100
	Rear dozer down (Load over front)	kg	*16,760	13,450	11,460	7,500	7,500	4,850	2,870		*4,190	2,430
	Rear dozer down (Load over rear)	kg	*7600	7100	*5600	3900	*4200	2500	*3000	1500	*1900	1300
	Rear stab down (Load over rear)	kg	*16,760	15,650	*12,350	8,600	*9,260	5,510	*6,610	3,310	*4,190	2,870
	2 sets stab down (Load over front)	kg	*7600	*7600	*5600	4600	*4200	3100	*3000	1900	*1900	1700
	2 sets stab down (Load over rear)	kg	*16,760	*16,760	*12,350	10,140	*9,260	6,830	*6,610	4,190	*4,190	3,750
	Dozer and stab down (Load over front)	kg	*7600	*7600	*5600	*5600	*4200	*4200	*3000	2900	*1900	*1900
	Dozer and stab down (Load over rear)	kg	*16,760	*16,760	*12,350	*12,350	*9,260	*9,260	*6,610	6,390	*4,190	*4,190
1.5 m (5.0 ft)	Rear dozer up (Load over front)	kg	*8500	6000	5100	3300	3400	2100	1200		1900	1100
	Rear dozer down (Load over front)	kg	*18,740	13,230	11,240	7,280	7,500	4,630	2,650		4,190	2,430
	Rear dozer down (Load over rear)	kg	*8500	6900	*6200	3800	*4500	2400	*3400	1500	*1900	1300
	Rear stab down (Load over rear)	kg	*18,740	15,210	*13,670	8,380	*9,920	5,290	*7,500	3,310	*4,190	2,870
	2 sets stab down (Load over front)	kg	*8500	*8500	*6200	4600	*4500	3000	3100	1900	*1900	1600
	2 sets stab down (Load over rear)	kg	*18,740	*18,740	*13,670	10,140	9,920	6,610	6,830	4,190	*4,190	3,530
	Dozer and stab down (Load over front)	kg	*8500	*8500	*6200	*6200	*4500	*4200	*3400	2900	*1900	*1900
	Dozer and stab down (Load over rear)	kg	*18,740	*18,740	*13,670	*13,670	*9,920	*9,260	*7,500	6,390	*4,190	*4,190
Ground	Rear dozer up (Load over front)	kg	9700	5800	5200	3200	3200	1900	1200		1900	1100
	Rear dozer down (Load over front)	kg	21,390	12,790	11,460	7,060	7,060	4,190	4,630	2,650	4,190	2,430
	Rear dozer down (Load over rear)	kg	*9800	6900	*6300	3700	*4500	2300	2900	1400	*2100	1300
	Rear stab down (Load over rear)	kg	*21,610	15,210	*13,890	8,160	*9,920	5,070	6,390	3,090	*4,630	2,870
	2 sets stab down (Load over front)	kg	*9800	8700	*6300	4600	*4500	2800	*2900	1800	*2100	1700
	2 sets stab down (Load over rear)	kg	*21,610	19,180	*13,890	10,140	*9,920	6,170	*6,390	3,970	*4,630	3,750
	Dozer and stab down (Load over front)	kg	*9800	*9800	*6300	*6300	*4500	4300	*2900	2800	*2100	*2100
	Dozer and stab down (Load over rear)	kg	*21,610	*21,610	*13,890	*13,890	*9,920	9,480	*6,390	6,170	*4,630	*4,630
-1.5 m (-5.0 ft)	Rear dozer up (Load over front)	kg	10 000	5500	5100	3000	3100	1800			2200	1200
	Rear dozer down (Load over front)	kg	22,050	12,130	11,240	6,610	6,830	3,970			4,850	2,650
	Rear dozer down (Load over rear)	kg	*10 300	6600	*6400	3500	*4500	2100			*2400	1500
	Rear stab down (Load over rear)	kg	*22,710	14,550	*14,110	7,720	*9,920	4,630			*5,290	3,310
	2 sets stab down (Load over front)	kg	*10 300	8600	*6400	4400	*4500	2700			*2400	1900
	2 sets stab down (Load over rear)	kg	*22,710	18,960	*14,110	9,700	9,700	5,950			*5,290	4,190
	Dozer and stab down (Load over front)	kg	*10 300	*10 300	*6400	*6400	*4500	*4100			*2400	*2400
	Dozer and stab down (Load over rear)	kg	*22,710	*22,710	*14,110	*14,110	*9,920	*9,040			*5,290	*5,290
-3.0 m (-10.0 ft)	Rear dozer up (Load over front)	kg	10 200	5500	4800	2800						
	Rear dozer down (Load over front)	kg	22,490	12,130	10,580	6,170						
	Rear dozer down (Load over rear)	kg	*10 600	6600	*5900	3300						
	Rear stab down (Load over rear)	kg	*23,370	14,550	*13,010	7,280						
	2 sets stab down (Load over front)	kg	*10 600	8700	*5900	4200						
	2 sets stab down (Load over rear)	kg	*23,370	19,180	*13,010	9,260						
	Dozer and stab down (Load over front)	kg	*10 600	*10 600	*5900	*5900						
	Dozer and stab down (Load over rear)	kg	*23,370	*23,370	*13,010	*13,010						

- \* Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard JISO 10567. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.
- All lift capacities are calculated with additional 400 kg (882 lb) counterweight, Heavy Lift on.
- Oscillating axle must be locked.
- All values are calculated at the stick-nose.

# VA Boom Industrial Stick – 2.9 m (9'6") stick

## Industrial Stick 2.9 m (9'6")



Industrial Stick 2.9 m (9'6")	Undercarriage configuration	3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)				m/ft
												
6.0 m (20.0 ft)	Rear dozer up (Load over front)	kg			*4100	3900	3800	2600				
	Rear dozer down (Load over rear)	lb			*9,040	8,600	8,380	5,730				
	Rear dozer up (Load over rear)	kg			*4100	*4100	*4000	2900				
	Rear dozer down (Load over rear)	lb			*9,040	*9,040	*8,820	6,400				
	Rear stab down (Load over rear)	kg			*4100	*4100	*4000	3400				
	2 sets stab down (Load over front)	lb			*9,040	*9,040	*8,820	7,500				
	Dozer and stab down (Load over front)	kg			*4100	*4100	*4000	*4000				
4.5 m (15.0 ft)	Rear dozer up (Load over front)	kg			*4600	3800	3800	2600			2700	1800
	Rear dozer down (Load over rear)	lb			*10,140	8,380	8,380	5,730			5,950	3,970
	Rear dozer up (Load over rear)	kg			*4600	4300	*4300	2900			*3100	2000
	Rear dozer down (Load over rear)	lb			*10,140	9,480	*9,480	6,390			*6,840	4,410
	Rear stab down (Load over rear)	kg			*4600	*4600	*4300	3400			*3100	2500
	2 sets stab down (Load over front)	lb			*10,140	*10,140	*9,480	7,500			*6,840	5,510
	Dozer and stab down (Load over front)	kg			*4600	*4600	*4300	*4300			*3100	*3100
3.0 m (10.0 ft)	Rear dozer up (Load over front)	kg	*7300	6600	5600	3700	3800	2600	2700	1700	2500	1600
	Rear dozer down (Load over rear)	lb	*16,100	14,550	12,350	8,160	8,380	5,730	5,950	3,750	5,510	3,530
	Rear dozer up (Load over rear)	kg	*7300	*7300	*5900	4300	*4600	2900	*3900	2000	*3200	1800
	Rear dozer down (Load over rear)	lb	*16,100	*16,100	*13,000	9,480	*10,140	6,400	*8,600	4,410	*7,050	3,970
	Rear stab down (Load over rear)	kg	*7300	*7300	*5900	5100	*4600	3400	3600	2400	*3200	2200
	2 sets stab down (Load over front)	lb	*16,100	*16,100	*13,000	11,240	*10,140	7,500	7,940	5,290	*7,050	4,850
	Dozer and stab down (Load over front)	kg	*7300	*7300	*5900	*5900	*4600	*4600	*3900	3400	*3200	*3200
1.5 m (5.0 ft)	Rear dozer up (Load over front)	kg	*9400	6500	5500	3700	3800	2500	2600	1700	2400	1600
	Rear dozer down (Load over rear)	lb	*20,720	14,330	12,130	8,160	8,380	5,510	5,730	3,750	5,290	3,530
	Rear dozer up (Load over rear)	kg	*9400	7400	*6700	4200	*5000	2800	4000	1900	*3400	1800
	Rear dozer down (Load over rear)	lb	*20,720	16,310	*14,770	9,260	*11,020	6,170	8,820	4,190	*7,500	3,970
	Rear stab down (Load over rear)	kg	*9400	9100	*6700	5000	4900	3400	3500	2300	3300	2100
	2 sets stab down (Load over front)	lb	*20,720	20,060	*14,770	11,020	10,800	7,500	7,720	5,070	7,280	4,630
	Dozer and stab down (Load over front)	kg	*9400	*9400	*6700	*6700	*5000	*4600	*4000	3400	*3400	3100
Ground	Rear dozer up (Load over front)	kg	*10,400	6400	5600	3600	3700	2400	2600	1600	2500	1600
	Rear dozer down (Load over rear)	lb	*22,930	14,110	12,350	7,940	8,160	5,290	5,730	3,530	5,290	3,530
	Rear dozer up (Load over rear)	kg	*10,400	7400	*6900	4100	*5100	2700	3900	1900	*3700	1800
	Rear dozer down (Load over rear)	lb	*22,930	16,310	*15,210	9,040	*11,240	5,950	8,600	4,190	*8,160	3,970
	Rear stab down (Load over rear)	kg	*10,400	9200	*6900	5000	4900	3300	3500	2300	3300	2200
	2 sets stab down (Load over front)	lb	*22,930	20,280	*15,210	11,020	10,800	7,280	7,720	5,070	7,280	4,850
	Dozer and stab down (Load over front)	kg	*10,400	*10,400	*6900	*6900	*5100	4700	*3900	3300	*3700	3200
-1.5 m (-5.0 ft)	Rear dozer up (Load over front)	kg	10,600	6100	5500	3500	3500	2200			2700	1700
	Rear dozer down (Load over rear)	lb	23,370	13,450	12,130	7,720	7,720	4,850			5,950	3,750
	Rear dozer up (Load over rear)	kg	*11,100	7200	*7000	4000	*5200	2600			*3600	2000
	Rear dozer down (Load over rear)	lb	*24,470	15,870	*15,430	8,820	*11,460	5,730			*7,940	4,410
	Rear stab down (Load over rear)	kg	*11,100	9200	*7000	4900	4900	3100			*3600	2400
	2 sets stab down (Load over front)	lb	*24,470	20,280	*15,430	10,800	10,800	6,840			*7,940	5,290
	Dozer and stab down (Load over front)	kg	*11,100	*11,100	*7000	*7000	*5200	4600			*3600	3500
-3.0 m (-10.0 ft)	Rear dozer up (Load over front)	kg	10,700	6000	5300	3300	3400	2200				
	Rear dozer down (Load over rear)	lb	23,590	13,230	11,680	7,280	7,500	4,850				
	Rear dozer up (Load over rear)	kg	*11,300	7100	*6900	3800	*3900	2500				
	Rear dozer down (Load over rear)	lb	*24,910	15,650	*15,210	8,380	*8,600	5,510				
	Rear stab down (Load over rear)	kg	*11,300	9100	*6900	4700	*3900	3000				
	2 sets stab down (Load over front)	lb	*24,910	20,060	*15,210	10,360	*8,600	6,610				
	Dozer and stab down (Load over front)	kg	*11,300	*11,300	*6900	*6900	*3900	*3900				
-4.5 m (-15.0 ft)	Rear dozer up (Load over front)	kg	*6900	5800								
	Rear dozer down (Load over rear)	lb	*15,210	12,790								
	Rear dozer up (Load over rear)	kg	*6900	6900								
	Rear dozer down (Load over rear)	lb	*15,210	15,210								
	Dozer and stab down (Load over front)	kg	*6900	6900								

\* Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard JISO 10567. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.

- All lift capacities are calculated with Heavy Lift on.
- Oscillating axle must be locked.
- All values are calculated at the stick-nose.

# One-piece Boom Industrial Stick – 2.9 m (9'6") stick

## Industrial Stick 2.9 m (9'6")



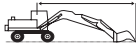
Load Point  
Height



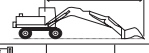











Load Radius  
Over Front  
or Rear



Load Radius  
Over Side



Load at  
Maximum Reach

Undercarriage configuration			3.0 m (10.0 ft)		4.5 m (15.0 ft)		6.0 m (20.0 ft)		7.5 m (25.0 ft)				m/ft
													
6.0 m (20.0 ft)	Rear dozer up (Load over front)	kg					*3500	2500					
	Rear dozer down (Load over rear)	kg					*7,720	5,510					
	Rear stab down (Load over rear)	kg					*3500	2900					
	2 sets stab down (Load over front)	kg					*7,720	6,390					
	Dozer and stab down (Load over front)	kg					*3500	3400					
	Dozer and stab down (Load over front)	kg					*7,720	*7,720					
4.5 m (15.0 ft)	Rear dozer up (Load over front)	kg					3800	2500				2900	2000
	Rear dozer down (Load over rear)	kg					8,380	5,510				6,390	4,410
	Rear stab down (Load over rear)	kg					*4100	2800				*3000	2200
	2 sets stab down (Load over front)	kg					*9,040	6,170				*6,610	4,850
	Dozer and stab down (Load over front)	kg					*4100	3400				*3000	2600
	Dozer and stab down (Load over front)	kg					*9,040	*9,040				*6,610	*3000
3.0 m (10.0 ft)	Rear dozer up (Load over front)	kg					*5500	3600				2700	1800
	Rear dozer down (Load over rear)	kg					*12,130	7,940				5,950	3,970
	Rear stab down (Load over rear)	kg					*5500	4100				*3100	2000
	2 sets stab down (Load over front)	kg					*12,130	9,040				*6,830	4,410
	Dozer and stab down (Load over front)	kg					*5500	5000				*3100	2400
	Dozer and stab down (Load over front)	kg					*12,130	*12,130				*6,830	*6,830
1.5 m (5.0 ft)	Rear dozer up (Load over front)	kg					3400	2300				2600	1700
	Rear dozer down (Load over rear)	kg					11,910	7,500				5,730	3,750
	Rear stab down (Load over rear)	kg					*6600	3900				*3800	1900
	2 sets stab down (Load over front)	kg					*14,550	8,600				*8,380	4,190
	Dozer and stab down (Load over front)	kg					*6600	4800				*3400	2300
	Dozer and stab down (Load over front)	kg					*14,550	*14,550				*7,500	*7,500
Ground	Rear dozer up (Load over front)	kg	*6300	5600	5100	3200	3500	2200				2600	1700
	Rear dozer down (Load over rear)	kg	*13,890	12,350	11,460	7,060	7,720	4,850				5,730	3,750
	Rear stab down (Load over rear)	kg	*6300	*6300	*7100	3700	5200	2500				*3900	1900
	2 sets stab down (Load over front)	kg	*13,890	*13,890	*15,650	8,160	*11,460	5,510				*8,600	4,190
	Dozer and stab down (Load over front)	kg	*6300	*6300	*7100	4600	4800	3100				3500	2300
	Dozer and stab down (Load over front)	kg	*13,890	*13,890	*15,650	10,140	10,580	6,830				7,720	5,070
-1.5 m (-5.0 ft)	Rear dozer up (Load over front)	kg	*9100	5600	5100	3200	3400	2200				2900	1900
	Rear dozer down (Load over rear)	kg	*20,060	12,350	11,240	7,060	7,500	4,850				6,390	4,190
	Rear stab down (Load over rear)	kg	*9100	6600	*6800	3600	5000	2500				*4100	2100
	2 sets stab down (Load over front)	kg	*20,060	14,550	*14,990	7,940	*11,020	5,510				*9,040	4,630
	Dozer and stab down (Load over front)	kg	*9100	8500	*6800	4500	4800	3100				3900	2600
	Dozer and stab down (Load over front)	kg	*20,060	18,740	*14,990	9,920	10,580	6,830				8,600	5,730
-3.0 m (-10.0 ft)	Rear dozer up (Load over front)	kg	*8100	5600	5100	3200	3400	2200				2900	1900
	Rear dozer down (Load over rear)	kg	*17,860	12,350	11,240	7,060	7,500	4,850				6,390	4,190
	Rear stab down (Load over rear)	kg	*8100	6700	*5700	3700	5000	2500				*4100	2100
	2 sets stab down (Load over front)	kg	*17,860	14,770	*12,570	8,160	*11,020	5,510				*9,040	4,630
	Dozer and stab down (Load over front)	kg	*8100	*8100	*5700	4500	4800	3100				3900	2600
	Dozer and stab down (Load over front)	kg	*17,860	*17,860	*12,570	9,920	10,580	6,830				8,600	5,730

\* Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard JISO 10567. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping load.

- All lift capacities are calculated with Heavy Lift on.
- Oscillating axle must be locked.
- All values are calculated at the stick-nose.

## Standard Equipment

*Standard equipment may vary. Consult your Caterpillar dealer for details.*

### 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
- Joysticks
- 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
- Monitor and gauges with full color graphical display
  - 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
- 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
- Seat with adjustable mechanical suspension
- Skylight
- Sliding door windows
- Steering column, tiltable
- Storage area suitable for a lunch box
- Sunshade for windshield and skylight

### Electrical

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

### Engine

- Automatic engine speed control
- Automatic starting aid
- Cat C4.4 with ACERT™ Technology U.S. EPA Tier 3
- Fuel filter
- Fuel/water separator with level indicator
- Muffler

### Hydraulics

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

### Undercarriage

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

### Other Equipment

- Automatic swing brake
- Caterpillar Datalink and Electronic Technician capability
- Caterpillar Product Link
- Counterweight 2900 kg (6,393 lb)
- Door locks and caps locks with Caterpillar one-key security system
- Mirrors, frame and cab
- S•O•S<sup>SM</sup> quick sampling valves for engine oil, hydraulic oil and coolant



## Optional Equipment

*Optional equipment may vary. Consult your Caterpillar dealer for details.*

### 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

### Front Linkage

#### Booms

- One-piece boom, 4.82 m (15 ft 10 in)

- Offset boom, 5.02 m (16 ft 6 in)

- Variable adjustable boom (two piece), 5.02 m (16 ft 6 in)

- Bucket linkage with diverter valve

#### Sticks

- 2.0 m (6 ft 6 in) stick

- 2.3 m (7 ft 6 in) stick

- 2.6 m (8 ft 6 in) stick

- 2.9 m (9 ft 6 in) Industrial stick with drop nose

### Electrical

- Back-up alarm with three selectable modes

- Heavy-duty maintenance free batteries

- Refueling pump

- Roading lights, rear consisting of long life LED modules

- 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 (4 ft)

- Lid for storage compartment

#### Radio

- Radio, AM/FM stereo (24V)

- Radio ready mounting (12 V or 24 V) at rear location including speakers and 12 V converter

#### Seat

- Adjustable high-back seat with mechanical suspension

- Adjustable high-back seat with air suspension (vertical)

- Adjustable high-back deluxe seat 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, with remote greasing

#### Optional tires

##### Dual tires

- 10.00-20 dual solid rubber

##### Single tires

- 18-R 19.5 XF single

- 600/40-22.5 single

- Outriggers, front and/or rear mounted

- Second tool box for undercarriage

- Spacer rings for tires

### Other Equipment

- Auto-lube system for the implements and swing gear

- Cat Machine Security System

- Counterweight 3300 kg (7,275 lb)

- Custom paint

- Heated mirrors, frame and cab

- Joystick steering

- Enables steering of the machine in first gear using the sliding switch on joystick

- Lockable tool box in upper frame

- Ride control, for increased comfort while traveling and working

- Waste package with cyclone air pre-cleaner, reversible fan with programmable time



---

## Notes

# M313D 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)

© 2006 Caterpillar  
All Rights Reserved  
Printed in U.S.A.

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

CAT, CATERPILLAR, ACERT, HEES, their respective logos, "Caterpillar Yellow" and the  
POWER EDGE trade dress, as well as corporate and product identity used herein,  
are trademarks of Caterpillar and may not be used without permission.

AEHQ5753 (12-06)

**CATERPILLAR®**