M313D
Wheel Excavator

Engine	
Engine Model	Cat® C4.4 with ACERT™ Technology
Emissions	EU Stage IIIB
Net Power (ISO 9249) at 2,000 rpm (DIN)	95 kW (129 hp)

Weights	
Operating Weight	14 000 to 16 200 kg

Bucket Specifications	
Bucket Capacities	0.18 to 0.92 m^3

Working Ranges	
Maximum Reach at Ground Level	8770 mm
Maximum Digging Depth	5750 mm

Drive	
Maximum Travel Speed	37 km/h

Features

Performance
Provides fast cycle times, increased lift capacity and high bucket and stick forces. This combination maximizes your productivity in any job.

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

Operator Comfort
The 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 color monitor and standard rear-mounted camera.

Undercarriage
Various undercarriage configurations with blade and outriggers are available to provide the best solution for you.

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CAT

Responsible Design

Thinking Generations Ahead

Fuel Efficiency and Reduced Exhaust Emissions

The engine meets EU Stage IIIB emission standards with the same performance, reducing particulate matters and NO_x emissions.

Quiet Operation

Low sound levels, as a result of the variable fan speed and remote cooling system.

Technologies and Longer Service Intervals

Product Link allows remote monitoring of the machine and helps improve your fleet efficiency as well as reduce your costs. Your Cat dealer can help extend service intervals, meaning fewer required fluids and disposals, all adding up to lower operating costs.

Biodiesel and Biodegradable Hydraulic Oil

The optional Cat BIO HYDO™ Advanced HEES™ as well as Biodiesels (20% maximum, mixed with Ultra Low Sulfur Diesel Fuel) can be used without reducing the life of the systems.

Fewer Leaks and Spills

Lubricant filters and various drains are designed to minimize spills. Cat O-Ring Face Seals, XT Hoses and cylinders help prevent leaks that can reduce performance and cause harm to the environment.

Cat Certified Used

This program is a key element in the range of solutions offered by Caterpillar and Cat dealers throughout the world to help customers achieve growth at the lowest cost while eliminating waste. Used equipment is inspected, guaranteed and ready for work and customers will benefit from a Caterpillar warranty.

Engine
Power, Reliability, and Fuel Economy

The Power and Performance You Need

Constant Power Strategy
Responding quickly to changing loads, the constant power strategy delivers the same amount of power regardless of operating conditions.

Transparent Active Regeneration
The engine meets EU Stage IIIB emission standards using the Active Regeneration system.

- **Transparent:** no operator intervention
- **Simple:** Long-life Diesel Particulate Filter
- **Efficient:** no work interruption, even in case of extended idling time

Fuel Efficiency

Common Rail Fuel System and Fuel Pump
This combination provides outstandingly low fuel consumption during both working and traveling applications.

Demand Fan Cooling System
The electronically controlled hydraulic motor drives a variable speed on-demand fan, resulting in optimized fuel consumption.

One-Touch Low Idle Control
The Automatic Engine Speed Control reduces engine speed if no operation is performed, reducing fuel consumption and sound levels.

Eco Modes
- Eco Mode can reduce significantly your fuel consumption
- Travel mode optimizes driveline performance while preserving fuel
- Power mode is the best compromise between productivity and fuel efficiency

Premium Comfort

Keeps Operators Productive All Shift Long

Comfort and Deluxe Seat

Several seat options give your operators all the comfort they need for a long day of work. Full adjustment of all parts of the seat, including lumbar support and automatic weight adjustment, is available as an option. Heated and ventilated seat cushions are also available.

Low Vibration/Sound Levels

The rubber-mounted cab includes thick steel tubing. Associated with the comfortable air-suspended seat, it helps reduce vibrations and sound levels.

Comfortable Operation

Two-way pedals for travel and auxiliary circuits provide increased floor space, reducing the need to change positions. The auxiliary high-pressure pedal can be locked in the off position and used as a footrest. The steering column is easily tiltable thanks to a large pedal at its base.

Automatic Climate Control

Easy adjustment of the cab temperature with filtered ventilation to make your operators comfortable in all climates.

Storage Compartments

A large compartment behind the seat provides sufficient room to store a large lunch box or a hard hat. A cover secures the contents during machine operation. Several other dedicated spaces can hold large mugs, MP3 players or a cell phone.

Power Supply and MP3 Radio

The cab includes a 12V-7A power supply socket for charging electronic devices such as MP3 players, laptops and cell phones. A CD/MP3 radio is available.

Simplicity and Functionality

For Ease of Operation

Ergonomic Layout and Smart Controls

Frequently used switches are centralized and your operator can adjust the hydraulic sensitivity directly through the monitor. Features like the heavy lift mode, ride control, SmartBoom or Joystick Steering will not only be precious to increase your productivity but also help reduce fatigue for your operators.

Large Color Monitor

Easy to read and in local language, you can rely on the high-resolution LCD monitor, which will keep you aware of any important information. “Quick Access” buttons allow a quick selection of favorite functions. The tool select function lets you preset up to ten different hydraulic attachments for quick tool changes.

Optimized Visibility

All glass is affixed directly to the cab, eliminating the use of window frames. The 70/30 split front windshield stores the upper portion above the operator and is easy to release. The fixed front windshield comes with high impact resistant laminated glass. A large skylight provides upward visibility and includes a retractable sunscreen. The parallel wiper system covers the entire front windshield.

Standard Rearview Camera

Together with the best in class visibility to all sides, the rear view displayed on the monitor helps ensure a safe operation.

Optional Electrically Heated Mirrors

They provide increased visibility in cold conditions.

Undercarriage

Strength and Versatility on Wheels

High Travel Speed (Maximum 37 km/h)

Reduces travel time between sites.

Heavy Duty Axles

Rigidity and long life with effective transmission protection and heavy-duty axles. The transmission is mounted directly on the rear axle for protection and optimum ground clearance. The front axle offers wide oscillating and steering angles.

Fenders (optional)

Fenders provide excellent coverage of all tires, protecting the windshield from mud and stones being thrown up.

Smart Travel Alarm (Adjustable)

The alarm sounds when the machine starts moving. The Auto Mode stops the alarm when it has been sounding for an uninterrupted 10-second interval. It can also be disabled.

Joystick Steering

Keep both hands on the joysticks even when simultaneously moving the implements and repositioning the machine, by the use of the slider switch on the right joystick.

Advanced Disc Brake System

Minimizes the rocking effect when working free on wheels.
The disc brake system acts directly on the hub instead of the drive shaft to avoid planetary gear backlash. The axle design lowers life costs. Oil change intervals are at 2,000 working hours.

Hydraulics

Fast Cycle Times, Heavy Lift Capacity

Dedicated Swing Pump

This closed hydraulic circuit maximizes swing performance without reducing power to the other hydraulic functions, resulting in smoother combined movements.

Proportional Auxiliary Hydraulics, Tremendous Versatility

The Medium Pressure Function valve provides proportional flow, ideal for tilting buckets or rotating tools. High Pressure and optional second High Pressure valve for applications requiring a third auxiliary hydraulic function, such as tilting/rotating work tools.

Heavy Lift Mode

Maximizes your lifting performance by boosting the lifting capacity of the machine up to 7%.

Adjustable Hydraulic Sensitivity

Allows you to adjust the aggressiveness of the machine according to the application.

Stick Regeneration Circuit

Increases efficiency and helps enhance controllability for higher productivity.

Booms and Sticks

Maximum Flexibility – High Productivity

Rugged Performance

Booms and sticks are welded, box section structures with thick, multiplate fabrications in high stress areas for the tough work you do.

Flexibility

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

Sticks

- **Short stick (2000 mm)** for maximum breakout force and lifting capability
- **Medium stick (2300 mm)** for greater crowd force and lift capacity
- **Long stick (2600 mm)** for greater depth and reach
- **Industrial stick (2900 mm)** for use with free swinging grapples in material handling and industrial applications

Booms

- **Variable Adjustable (VA)** – improved right side visibility and roading balance. When working in tight quarters or lifting heavy loads, the VA boom offers the best flexibility.
- **One-Piece Boom** – Fits best for all standard applications such as truck loading and digging. A unique straight section in the curve of the side plate reduces stress flow and helps increase boom life.
- **Offset Boom** – The large offset dimensions (left/right 2480/2760 mm) allow you to dig along walls, over obstacles, to grade while driving, and to dig under laid tubes without damaging them. The combination with a tiltable ditch cleaning bucket lets you operate a highly versatile system.

SmartBoom
Reduces Stress and Vibration

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

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

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

Ride Control
Fast Travel Speed with More Comfort

The ride control system lets you travel faster over rough terrain with improved ride quality for the operator. Accumulators are acting as shock absorbers to dampen the front part motion. It can be activated through a button located on the soft switch panel in the cab.

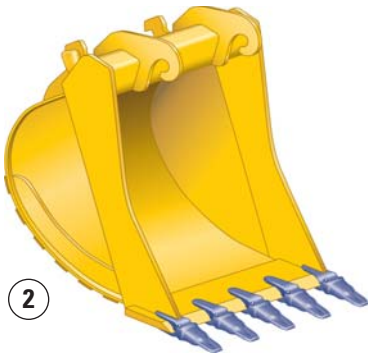
Work Tools

Optimizes Your Performance

Save Time with Every Tool Change

Perform tool changes in seconds … Combine a quick coupler with common work tools that can be shared between the same size machines and you'll get flexibility on every job. The hydraulic quick coupler automates tool exchange, so operators can change work tools quickly, from the safety and comfort of their cabs. Make your operators more efficient and productive.

1



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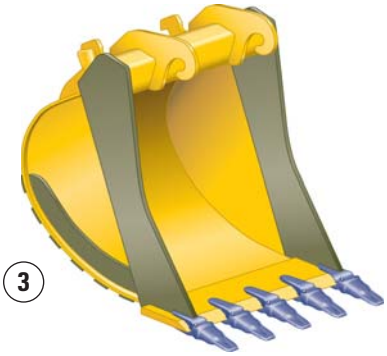

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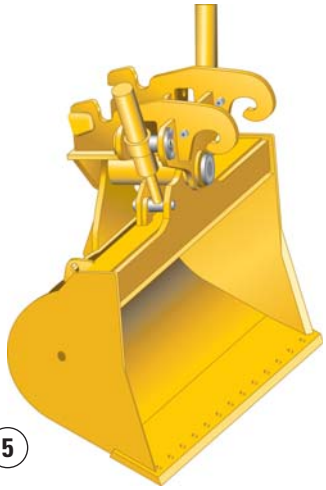

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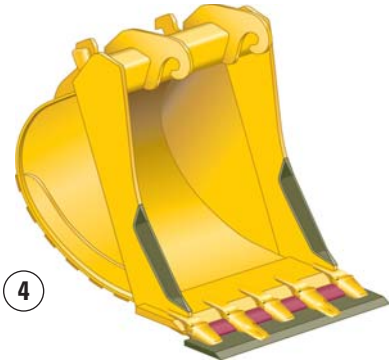

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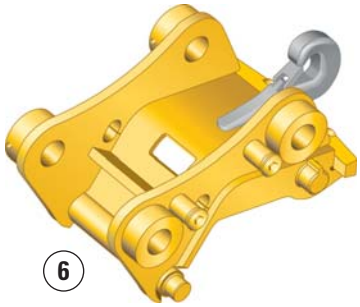

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7

1 **Compactors**

2 **Excavation (X)**

3 **Extreme Excavation (EX)**

4 **Excavation Leveling**

5 **Ditch Cleaning**

6 **Quick Coupler**

7 **Shears**

Cat Work Tools are designed to function as an integral part of your excavator and are performance-matched to Cat machines.

Quick Couplers

Hydraulic quick couplers enable to simply release one attachment and connect to another without the need to leave the cab, making your excavator highly versatile and productive. Spindle quick couplers are also available.

Buckets

A wide range of specialized buckets including the Cat K Series™ Ground Engaging Tools is available to match all application requirements.

Hammers

Cat hammer series deliver very high blow rates, increasing the productivity of your tool carriers in demolition and construction applications.

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.

Vibratory Plate Compactors

Cat compactors 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. Bolt-on brackets are available for boom-mounted options.

Complete Customer Support

Your Cat Dealer Will Support You Like No Other

From helping you to choose the right machine to knowledgeable on-going support, Cat dealers provide the best-in-sales and services.

- **Best long-term investment** with financing options and services
- **Productive operation** with training programs
- **Preventive Maintenance** and guaranteed maintenance contracts
- **Uptime**, with best-in-class parts availability
- **Repair, rebuild, or replace?** Your dealer can help evaluate the best option.

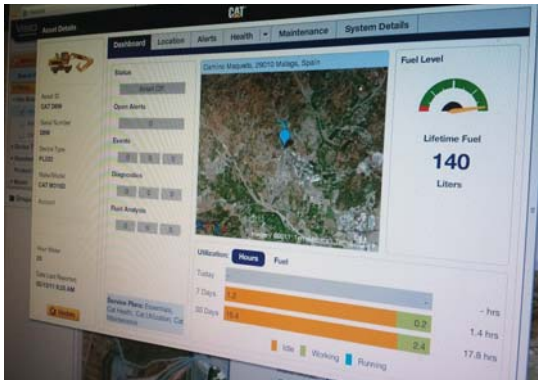
Cat Product Link

It Pays to Know

Product Link helps you take the guesswork out of equipment management.

With timely, useful information, you can better manage your assets and costs. Just a few clicks give you access to comprehensive remote monitoring, asset tracking and maintenance management. The powerful, web-based VisionLink® application allows you to see information from all your assets – working time vs. idle time, fuel usage, diagnostic fault codes, security alerts and more.

When you know where your equipment is, what it's doing and how it's performing, you can maximize your efficiency and lower your operating costs. It pays to know Cat Product Link.



Serviceability
When Uptime Counts

Extended Service Intervals to Reduce Costs

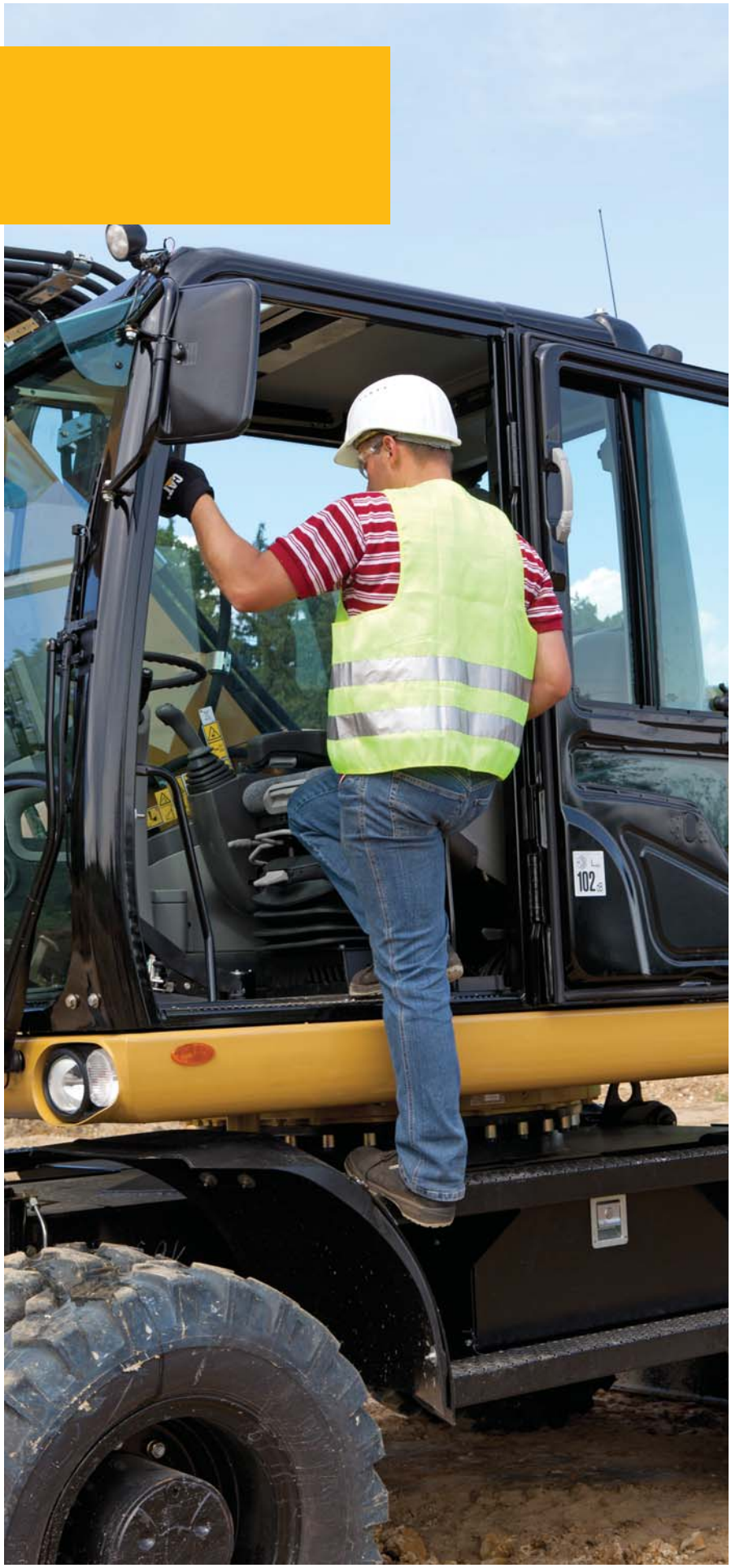
- **S·O·S℠ Oil Sampling Analysis** – Enhances performance and durability. This system can predict potential failures and can extend hydraulic oil change intervals up to 6,000 hours.
- **Engine Oil (low ash oil)** – Cat engine oil is more cost effective and provides industry-leading performance. Engine oil change interval can be extended up to 500 hours.
- **Capsule Filter** – The hydraulic return filter prevents from contamination when the hydraulic oil is changed.
- **Fuel Filters and Water Separator** – High efficiency fuel filters with a Stay-Clean Valve™ can remove more than 98% of particles, increasing fuel injector life.
- **Remote Greasing** – Centralized or grouped points for hard to reach locations.
- **Refueling Pump** (optional).

Easy Ground Level Maintenance

Our excavators are designed with the operator and technician in mind. Door opening is assisted with gaz springs.

- **Front Compartment** – Ground level access to the batteries, air-to-air aftercooler, air conditioner condenser and the air cleaner filter.
- **Swing-out Air Conditioner Condenser** allows cleaning on both sides and access to the air-to-air aftercooler.
- **Engine Compartment** – The longitudinal layout ensures accessibility from ground level.

Safety
Make Sure You're Safe



- **ROPS/FOPS Certified** for added protection
- **Falling Object Guards** can be bolted directly on the cab
- **Anti-drift Valve bucket and Lowering Control Devices** for booms and sticks
- **Sound Proofing** for a quiet operation
- **Ground Level Maintenance**, reducing falling hazards
- **Anti-Skid Plates** on top of the steps and upper structure to reduce slipping hazards
- **Handrails and Steps** make climbing on and off the machine easy with three points of contact
- **Several Halogen Lights** for proper visibility all shift long
- **Rotating Beacon**, standard
- **Excellent Visibility** – overhead visibility is enhanced with a large skylight
- **Standard Rearview Camera** – clear view behind the machine through the monitor
- **Implement Lock-out** prevents from moving the machine unintentionally
- **Smart Travel Alarm** to enhance safety on your job site
- **Heated Mirror**, for enhanced visibility without the need to climb off the cab

Engine

Engine Model	Cat C4.4
Emissions	EU Stage IIIB
Ratings	2,000 rpm
Gross Power	102 kW (139 hp)
Net Power	
ISO 9249	95 kW (129 hp)
80/1269/EEC	95 kW (129 hp)
Bore	105 mm
Stroke	127 mm
Displacement	4.4 L
Cylinders	4
Maximum Torque at 1,400 rpm	550 N·m

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

Hydraulic System

Tank Capacity	95 L
System	180 L
Maximum Pressure	
Implement Circuit	
Normal	350 bar
Heavy Lift	375 bar
Travel Circuit	350 bar
Auxiliary Circuit	
High Pressure	350 bar
Medium Pressure	185 bar
Swing Mechanism	350 bar
Maximum Flow	
Implement/Travel Circuit	190 L/min
Auxiliary Circuit	
High Pressure	190 L/min
Medium Pressure	40 L/min
Swing Mechanism	80 L/min

Weights

VA Boom*	
Rear Dozer Only	13 800 kg
Rear Dozer, Front Outriggers	14 750 kg
Front and Rear Outriggers	15 050 kg
One-Piece Boom*	
Rear Dozer Only	13 500 kg
Rear Dozer, Front Outriggers	14 450 kg
Front and Rear Outriggers	14 750 kg
Offset Boom*	
Rear Dozer Only	14 350 kg
Rear Dozer, Front Outriggers	15 300 kg
Front and Rear Outriggers	15 600 kg
Sticks	
Short (2000 mm)	370 kg
Medium (2300 mm)	390 kg
Long (2600 mm)	440 kg
Industrial (2900 mm)	380 kg
Dozer Blade	750 kg
Outriggers	960 kg
Counterweight	
Standard	2900 kg
Optional	3300 kg

- Machine weight with medium stick, 3300 kg counterweight, with operator and full fuel tank, without work tool. Weight varies depending on configuration.

Transmission

Forward/Reverse	
1st Gear	9 km/h
2nd Gear	37 km/h
Creeper Speed	
1st Gear	3 km/h
2nd Gear	13 km/h
Drawbar Pull	76 kN
Maximum Gradeability	58%

M313D Wheel Excavator Specifications

Swing Mechanism

Swing Speed	10.5 rpm
Swing Torque	35 kN·m

Tires

Standard

- 10.00-20 (dual pneumatic)

Optional

- 11.00-20 (dual pneumatic)
- 18 R 19.5 XF (single pneumatic)
- 10.00-20 (dual solid rubber)

Undercarriage

Ground Clearance	370 mm
Maximum Steering Angle	35°
Oscillation Axle Angle	± 9°
Minimum Turning Radius	
Outside of Tire	6200 mm
End of VA Boom	6700 mm
End of One-Piece Boom	8100 mm

Service Refill Capacities

Fuel Tank	235 L
Cooling	31 L
Engine Crankcase	8 L
Diesel Exhaust Fluid (DEF)	8.3 L
Rear Axle Housing (differential)	11.2 L
Front Steering Axle (differential)	9 L
Final Drive	2.4 L
Powershift Transmission	2.5 L

Sound Levels

Exterior Sound

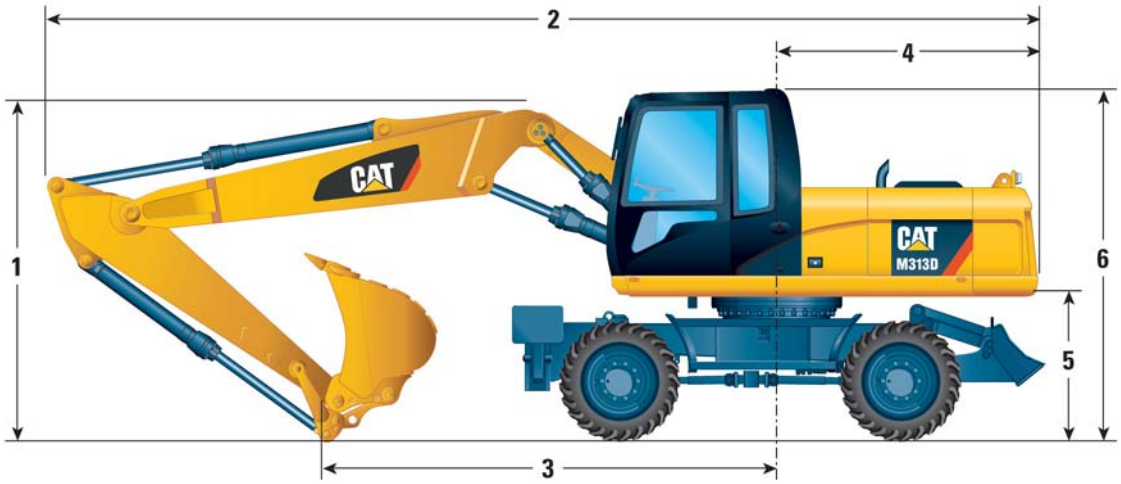
- The labeled spectator sound power level measured according to the test procedures and conditions specified in 2000/14/EC is 102 dB(A).

Cab/ROPS/FOGS

- Cat cab with integrated Roll Over Protective Structure (ROPS) meets ISO 12117-2:2008 criteria.
- Cab with Falling Object Guard Structure (FOGS) meets ISO 10262.

Dimensions

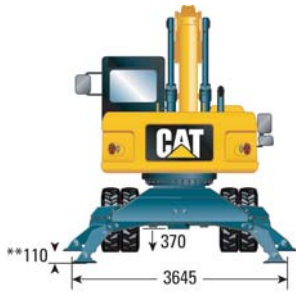
All dimensions are approximate.



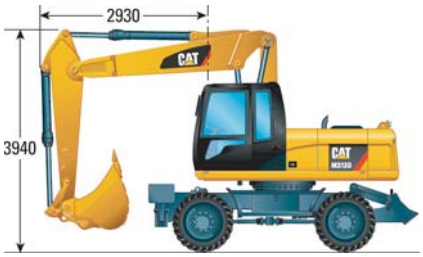
		VA Boom				One-Piece Boom				Offset Boom	
Stick Length	mm	2000	2300	2600	*2900	2000	2300	2600	*2900	2000	2300
1 Shipping Height	mm	3120	3120	3120	3120	3120	3120	3120	3120	3120	3120
2 Shipping Length	mm	8310	8300	8290	8130	8090	8080	8090	7950	8300	8300
3 Support Point	mm	3820	3470	3320	3580	3480	3120	2950	3170	3820	3460
4 Tail Swing Radius	mm	2060				2060				2060	
5 Counterweight Clearance	mm	1230				1230				1230	
6 Cab Height	mm	3120				3120				3120	

* Industrial stick

** Maximum tire clearance with outrigger fully down

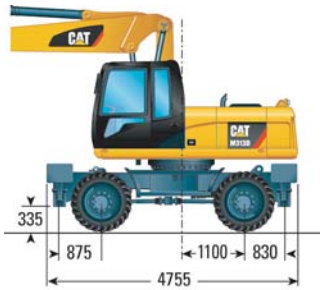


Roading position with 2300 mm stick

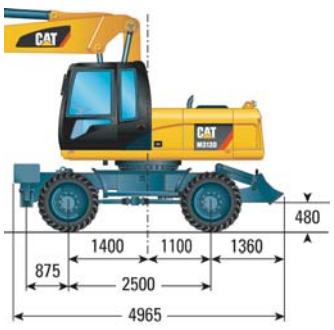


Undercarriage with dozer only

Undercarriage with 2 sets of outriggers

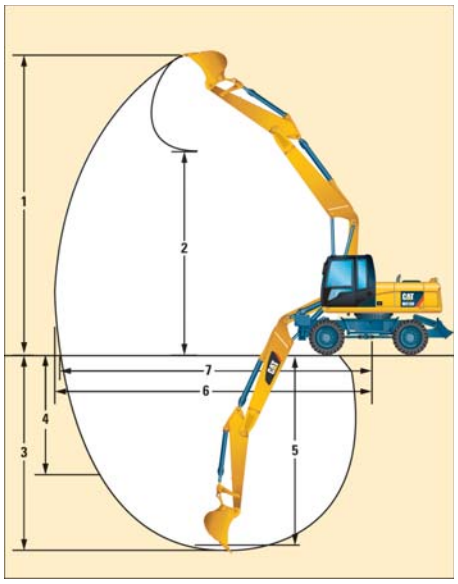


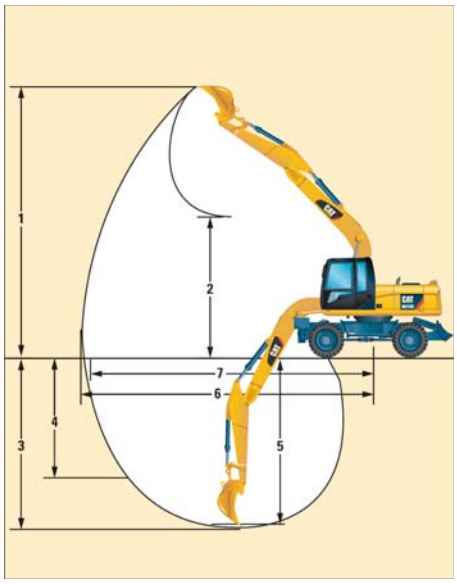
Undercarriage with 1 set of outriggers and dozer

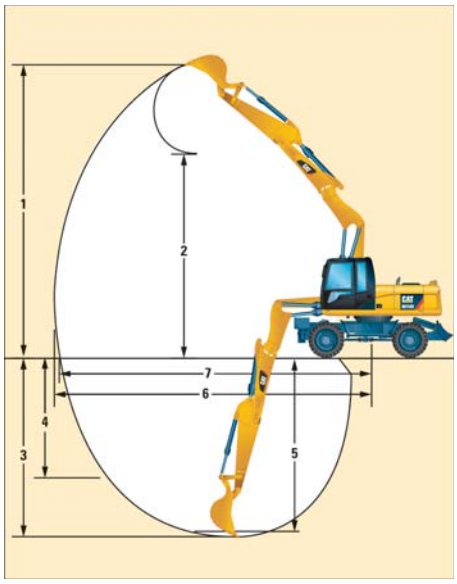


M313D Wheel Excavator Specifications

Working Ranges







		VA Boom				One-Piece Boom				Offset Boom	
Stick Length	mm	**2000**	**2300**	**2600**	***2900**	**2000**	**2300**	**2600**	***2900**	**2000**	**2300**
1 Digging Height	mm	9670	9820	10 060	8500	8600	8620	8790	7140	9670	9820
2 Dump Height	mm	6900	7060	7290	4020	5910	5970	6140	3160	6900	7060
3 Digging Depth	mm	5160	5450	5750	4670	4990	5290	5590	4500	5160	5450
4 Vertical Wall Digging Depth	mm	3500	3600	3890	–	3410	3370	3670	–	3500	3600
5 Depth 2.5 m Straight Clean-Up	mm	4920	5230	5550	–	4750	5070	5390	–	4920	5230
6 Reach	mm	8670	8920	9210	7910	8420	8660	8950	7610	8670	8920
7 Reach at Ground Level	mm	8490	8740	9030	7710	8230	8480	8770	7400	8490	8740
Bucket Forces (ISO 6015)	kN	93	93	93	–	93	93	93	–	93	93
Stick Forces (ISO 6015)	kN	73	67	62	–	73	67	62	–	73	67

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

Values 1-7 are calculated with bucket and quick coupler with a tip radius of 1400 mm.

Breakout force values are calculated with heavy lift on (no quick coupler) and a tip radius of 1236 mm.

Bucket Specifications**

Contact your Cat dealer for special bucket requirements.

Pin-On Buckets					Variable Adjustable Boom 5020 mm												One-Piece Boom 4815 mm												Offset Boom 5020 mm											
Stick Length					2000 mm				2300 mm				2600 mm				2000 mm				2300 mm				2600 mm				2000 mm				2300 mm				2600 mm			
	Width	Weight*	Capacity (ISO)	Adapters	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized
	mm	kg	m³																																					
General Duty	450	302	0.20	3	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	600	349	0.31	3	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	900	431	0.53	5	⊙	●	●	●	⊖	●	●	●	⊖	⊙	●	●	●	●	●	●	⊙	●	●	●	⊙	●	●	●	○	⊙	●	●	○	⊖	●	●	X	⊖	●	●
	1000	456	0.60	5	⊖	⊙	●	●	⊖	⊙	●	●	○	⊖	●	●	⊙	●	●	●	⊖	●	●	●	⊖	⊙	●	●	○	⊖	●	●	X	⊖	●	●	X	○	●	●
	1100	490	0.68	6	○	⊖	●	●	○	⊖	●	●	X	○	⊙	●	⊖	⊙	●	●	⊖	⊙	●	●	○	⊖	●	●	X	○	●	●	X	○	⊙	●	X	X	⊙	●
	1200	519	0.76	6	○	⊖	●	●	X	○	●	●	X	○	⊙	●	○	⊖	●	●	○	⊖	●	●	X	○	⊙	●	X	○	⊙	●	X	X	⊖	●	X	X	⊖	●
Heavy Duty	1200	528	0.76	6	○	⊖	●	●	X	○	●	●	X	○	⊙	●	○	⊖	●	●	○	⊖	●	●	X	○	⊙	●	X	X	⊙	●	X	X	⊖	●	X	X	⊖	●
Ditch Cleaning	1800	465	0.73		⊙	⊙	⊙	⊙	⊖	⊙	⊙	⊙	⊖	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙												
	2000	495	0.83		⊖	⊙	⊙	⊙	⊖	⊙	⊙	⊙	○	⊖	⊙	⊙	⊙	⊙	⊙	⊙	⊖	⊙	⊙	⊙	⊖	⊙	⊙	⊙												
Tiltable Ditch Cleaning	1800	690	0.61		⊙	⊙	⊙	⊙	⊖	⊙	⊙	⊙	⊖	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊖	⊙	⊙	⊙												
	2000	720	0.68		⊖	⊙	⊙	⊙	⊖	⊙	⊙	⊙	○	⊖	⊙	⊙	⊙	⊙	⊙	⊙	⊖	⊙	⊙	⊙	⊖	⊙	⊙	⊙												

*Bucket weight includes Ground Engaging Tools

**Other buckets, such as ditch cleaning/tilt buckets with an offset boom and skeleton buckets are available. Please contact your Cat dealer for more information.

Maximum Material Density

- ● 2100 kg/m³
- ⊙ 1800 kg/m³
- ⊖ 1500 kg/m³
- ○ 1200 kg/m³
- X Not recommended

The above loads are in compliance with hydraulic excavator standard EN474, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.

Capacity based on ISO 7451.

Bucket weight with Long tips.

Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of a work tool resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.

M313D Wheel Excavator Specifications

Bucket Specifications**

Contact your Cat dealer for special bucket requirements.

With Quick Coupler (CW20/CW20s)					Variable Adjustable Boom 5020 mm												One-Piece Boom 4815 mm												Offset Boom 5020 mm											
Stick Length					2000 mm				2300 mm				2600 mm				2000 mm				2300 mm				2600 mm				2000 mm				2300 mm				2600 mm			
	Width	Weight*	Capacity (ISO)	Adapters	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized	Free on wheels	Dozer lowered	1 set of stabilizers lowered	Fully stabilized
	mm	kg	m³																																					
General Duty	450	300	0.20	3	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	500	309	0.24	3	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	600	328	0.31	3	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	⦿	●	●	●	⊖	●	●	●
	750	374	0.41	4	⦿	●	●	●	⦿	●	●	●	⊖	●	●	●	●	●	●	●	●	●	●	●	⦿	●	●	●	○	⦿	●	●	○	⦿	●	●	X	⊖	●	●
	900	423	0.53	5	⊖	⦿	●	●	○	⦿	●	●	X	⊖	●	●	⦿	●	●	●	⊖	●	●	●	○	⦿	●	●	X	⊖	●	●	X	○	●	●	X	X	⦿	●
	1000	452	0.60	5	○	⊖	●	●	X	⊖	●	●	X	○	⦿	●	⊖	⦿	●	●	○	⦿	●	●	○	⊖	●	●	X	○	●	●	X	X	⦿	●	X	X	⊖	●
	1100	482	0.68	6	X	○	●	●	X	○	●	●	X	X	⊖	●	○	⊖	●	●	X	⊖	●	●	X	○	⦿	●	X	X	⦿	●	X	X	⊖	●	X	X	⊖	●
	1200	511	0.76	6	X	○	⦿	●	X	X	⦿	●	X	X	⊖	●	X	○	●	●	X	○	⦿	●	X	X	⊖	●	X	X	⊖	●	X	X	⊖	●	X	X	○	●
Heavy Duty	500	319	0.24	3	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	⦿	●	●	●
	1200	511	0.76	3	X	○	⦿	●	X	X	⦿	●	X	X	⊖	●	X	○	●	●	X	○	⦿	●	X	X	⊖	●	X	X	⊖	●	X	X	⊖	●	X	X	○	●
Ditch Cleaning	1800	430	0.73		⊖	⦿	⦿	⦿	⊖	⦿	⦿	⦿	○	⊖	⦿	⦿	⦿	⦿	⦿	⦿	⊖	⦿	⦿	⦿	⊖	⦿	⦿	⦿												
	2000	460	0.83		○	⊖	⦿	⦿	○	⊖	⦿	⦿	X	○	⦿	⦿	⊖	⦿	⦿	⦿	⊖	⦿	⦿	⦿	○	⊖	⦿	⦿												
Tiltable Ditch Cleaning	1800	650	0.61		⊖	⦿	⦿	⦿	○	⦿	⦿	⦿	○	⊖	⦿	⦿	⦿	⦿	⦿	⦿	⊖	⦿	⦿	⦿	○	⦿	⦿	⦿												
	2000	680	0.68		○	⦿	⦿	⦿	○	⊖	⦿	⦿	X	○	⦿	⦿	⊖	⦿	⦿	⦿	○	⦿	⦿	⦿	○	⊖	⦿	⦿												

*Bucket weight includes Ground Engaging Tools

**Other buckets, such as ditch cleaning/tilt buckets with an offset boom and skeleton buckets are available. Please contact your Cat dealer for more information.

Maximum Material Density

- ● 2100 kg/m³
- ⦿ 1800 kg/m³
- ⊖ 1500 kg/m³
- ○ 1200 kg/m³
- X Not recommended

The above loads are in compliance with hydraulic excavator standard EN474, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.

Capacity based on ISO 7451.

Bucket weight with Long tips.

Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of a work tool resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.

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												One-Piece Boom 4815 mm												Offset Boom 5020 mm					
			(1)				(2)				(3)				(1)				(2)				(3)				(1)		(2)		(3)	
Without Quick Coupler		Stick Length (mm)	2000	2300	2600	2900	2000	2300	2600	2900	2000	2300	2600	2900	2000	2300	2600	2900	2000	2300	2600	2900	2000	2300	2600	2900	2000	2300	2000	2300	2000	2300
Hammers	H110E, H115E																															
Hydraulic Shears (* boom mounted)	S320B*																															
Multi-Grapples	G310B	D																														
		R																														
Compactor	CVP75																															
With Quick Coupler (CW-20, CW-20S)															**(1) Dozer lowered** **(2) 2 sets of stabilizers lowered** **(3) Dozer and stabilizer lowered**																		
Hammers	H110E																															
	H115E																															
Multi-Grapples	G310B	D																														
		R																														
Compactor	CVP75																															

360° Working Range

Over the front only

M313D Wheel Excavator Specifications

Lift Capacities – Variable Adjustable Boom (5020 mm)

All values are in kg, without bucket and without QC, with counterweight (3300 kg), heavy lift on.

Load at maximum reach (sticknose/bucket pin) | Load over front | Load over rear | Load over side | Load point height

Short Stick 2000 mm

	Undercarriage configuration	3.0 m			4.5 m			6.0 m						m
6.0 m	Rear dozer up				*5000	3900	3550				*3550	2550	2300	5.82
	Rear dozer down					*5000	4100					*3550	2650	
	Dozer and stabilizer down					*5000	*5000					*3550	*3550	
	2 sets of stabilizers down				*5000	*5000	*5000				*3550	*3550	*3550	
4.5 m	Rear dozer up				*5450	3750	3400	3500	2400	2200	2900	2000	1800	6.71
	Rear dozer down					*5450	3950		*4500	2550		*3250	2100	
	Dozer and stabilizer down					*5450	*5450		*4500	3850		*3250	3200	
	2 sets of stabilizers down				*5450	*5450	*5450	*4500	*4500	4500	*3250	*3250	*3250	
3.0 m	Rear dozer up				5250	3500	3200	3400	2300	2100	2600	1750	1600	7.16
	Rear dozer down					*6250	3700		*4750	2450		*3200	1850	
	Dozer and stabilizer down					*6250	5850		*4750	3750		*3200	2850	
	2 sets of stabilizers down				*6250	*6250	*6250	*4750	*4750	4400	*3200	*3200	*3200	
1.5 m	Rear dozer up				5000	3300	2950	3300	2200	2000	2500	1700	1550	7.28
	Rear dozer down					*6750	3450		*4900	2350		*3300	1800	
	Dozer and stabilizer down					*6750	5600		*4900	3650		*3300	2750	
	2 sets of stabilizers down				*6750	*6750	6650	*4900	*4900	4250	*3300	*3300	3200	
0.0 m	Rear dozer up				4900	3200	2850	3250	2150	1950	2600	1750	1600	7.06
	Rear dozer down					*6500	3350		*4750	2250		*3600	1850	
	Dozer and stabilizer down					*6500	5450		*4750	3600		*3600	2850	
	2 sets of stabilizers down				*6500	*6500	6500	*4750	*4750	4200	*3600	*3600	3350	
–1.5 m	Rear dozer up	*6700	5950	5200	4900	3150	2850	3250	2150	1950	2950	1950	1800	6.48
	Rear dozer down		*6700	6250		*5550	3350		*4000	2250		*3300	2050	
	Dozer and stabilizer down		*6700	*6700		*5550	5450		*4000	3600		*3300	3250	
	2 sets of stabilizers down	*6700	*6700	*6700	*5550	*5550	*5550	*4000	*4000	*4000	*3300	*3300	*3300	

Medium Stick 2300 mm

	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
6.0 m	Rear dozer up				*4600	3950	3600	*3500	2450	2250				*2900	2350	2150	6.13
	Rear dozer down					*4600	4150		*3500	2550					*2900	2450	
	Dozer and stabilizer down					*4600	*4600		*3500	*3500					*2900	*2900	
	2 sets of stabilizers down				*4600	*4600	*4600	*3500	*3500	*3500				*2900	*2900	*2900	
4.5 m	Rear dozer up				*5200	3800	3450	3550	2450	2200				*2750	1900	1700	6.98
	Rear dozer down					*5200	4000		*4350	2550					*2750	2000	
	Dozer and stabilizer down					*5200	*5200		*4350	3900					*2750	*2750	
	2 sets of stabilizers down				*5200	*5200	*5200	*4350	*4350	*4350				*2750	*2750	*2750	
3.0 m	Rear dozer up				5300	3550	3200	3400	2350	2100				2450	1650	1500	7.42
	Rear dozer down					*6050	3750		*4650	2450					*2700	1750	
	Dozer and stabilizer down					*6050	5900		*4650	3800					*2700	*2700	
	2 sets of stabilizers down				*6050	*6050	*6050	*4650	*4650	4400				*2700	*2700	*2700	
1.5 m	Rear dozer up				5000	3300	3000	3300	2200	2000	2400	1600	1450	2400	1600	1450	7.52
	Rear dozer down					*6700	3500		*4900	2350		*3050	1700		*2850	1700	
	Dozer and stabilizer down					*6700	5600		*4900	3650		*3050	2650		*2850	2650	
	2 sets of stabilizers down				*6700	*6700	6650	*4900	*4900	4300	*3050	*3050	*3050	*2850	*2850	*2850	
0.0 m	Rear dozer up				4900	3150	2850	3200	2150	1950				2450	1650	1500	7.32
	Rear dozer down					*6600	3350		*4800	2250					*3150	1750	
	Dozer and stabilizer down					*6600	5450		*4800	3600					*3150	2700	
	2 sets of stabilizers down				*6600	*6600	6500	*4800	*4800	4200				*3150	*3150	*3150	
–1.5 m	Rear dozer up	*6800	5850	5150	4850	3150	2850	3200	2100	1950				2750	1850	1650	6.76
	Rear dozer down		*6800	6200		*5800	3350		*4200	2250					*3300	1950	
	Dozer and stabilizer down		*6800	*6800		*5800	5450		*4200	3550					*3300	3050	
	2 sets of stabilizers down	*6800	*6800	*6800	*5800	*5800	*5800	*4200	*4200	4150				*3300	*3300	*3300	
–3.0 m	Rear dozer up				*4150	3200	2900										
	Rear dozer down					*4150	3400										
	Dozer and stabilizer down					*4150	*4150										
	2 sets of stabilizers down				*4150	*4150	*4150										

*Limited by hydraulic rather than tipping load.

Lift capacity ratings are based on ISO 10567:2007, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. The load point is the center line of the bucket pivot mounting pin on the stick. The oscillating axle must be locked. Lifting capacities are based on the machine standing on a firm uniform supporting surface and the Variable Boom Cylinder adjusted to the maximum length. For lifting capacity including bucket and/or quick coupler, the respective weight has to be subtracted from above values. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

Lift Capacities – Variable Adjustable Boom (5020 mm)

All values are in kg, without bucket and without QC, with counterweight (3300 kg), heavy lift on.

Load at maximum reach (sticknose/bucket pin) | Load over front | Load over rear | Load over side | Load point height

Long Stick 2600 mm

	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
6.0 m	Rear dozer up				*4000	*4000	3650	3600	2500	2250				*2500	2150	1950	6.49
	Rear dozer down					*4000	*4000		*3650	2600					*2500	2250	
	Dozer and stabilizer down					*4000	*4000		*3650	*3650					*2500	*2500	
	2 sets of stabilizers down				*4000	*4000	*4000	*3650	*3650	*3650				*2500	*2500	*2500	
4.5 m	Rear dozer up				*4500	3850	3500	3550	2450	2250				*2350	1750	1600	7.29
	Rear dozer down					*4500	4000		*4200	2550					*2350	1850	
	Dozer and stabilizer down					*4500	*4500		*4200	3900					*2350	*2350	
	2 sets of stabilizers down				*4500	*4500	*4500	*4200	*4200	*4200				*2350	*2350	*2350	
3.0 m	Rear dozer up				5300	3550	3250	3400	2350	2100	2450	1650	1500	2300	1550	1400	7.71
	Rear dozer down					*5850	3750		*4500	2450		*3350	1750		*2350	1650	
	Dozer and stabilizer down					*5850	*5850		*4500	3800		*3350	2700		*2350	*2350	
	2 sets of stabilizers down				*5850	*5850	*5850	*4500	*4500	4400	*3350	*3350	3100	*2350	*2350	*2350	
1.5 m	Rear dozer up				5050	3300	3000	3300	2200	2000	2400	1600	1450	2250	1500	1350	7.81
	Rear dozer down					*6550	3500		*4800	2350		3750	1700		*2450	1600	
	Dozer and stabilizer down					*6550	5600		*4800	3650		3750	2650		*2450	*2450	
	2 sets of stabilizers down				*6550	*6550	*6550	*4800	*4800	4250	*3800	*3800	3050	*2450	*2450	*2450	
0.0 m	Rear dozer up				4850	3150	2850	3200	2100	1900	2350	1550	1400	2300	1500	1400	7.61
	Rear dozer down					*6650	3350		*4800	2250		*3550	1650		*2700	1600	
	Dozer and stabilizer down					*6650	5450		*4800	3550		*3550	2600		*2700	2550	
	2 sets of stabilizers down				*6650	*6650	6500	*4800	*4800	4150	*3550	*3550	3050	*2700	*2700	*2700	
–1.5 m	Rear dozer up	*6400	5800	5050	4800	3100	2800	3150	2100	1900				2550	1700	1550	7.08
	Rear dozer down		*6400	6100		*6000	3300		*4350	2200					*3150	1800	
	Dozer and stabilizer down		*6400	*6400		*6000	5400		*4350	3500					*3150	2800	
	2 sets of stabilizers down	*6400	*6400	*6400	*6000	*6000	*6000	*4350	*4350	4150				*3150	*3150	*3150	
–3.0 m	Rear dozer up				*4550	3150	2850	*2900	2150	1950							
	Rear dozer down					*4550	3350		*2900	2250							
	Dozer and stabilizer down					*4550	*4550		*2900	*2900							
	2 sets of stabilizers down				*4550	*4550	*4550	*2900	*2900	*2900							

Industrial Stick 2900 mm

	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
6.0 m	Rear dozer up				*4150	*4150	3850	3800	2700	2500				*3150	2300	2150	6.60
	Rear dozer down					*4150	*4150		*4000	2800					*3150	2400	
	Dozer and stabilizer down					*4150	*4150		*4000	*4000					*3150	*3150	
	2 sets of stabilizers down				*4150	*4150	*4150	*4000	*4000	*4000				*3150	*3150	*3150	
4.5 m	Rear dozer up				*4600	4050	3700	3750	2650	2450				2700	1900	1750	7.39
	Rear dozer down					*4600	4250		*4250	2750					*3100	2000	
	Dozer and stabilizer down					*4600	*4600		*4250	4100					*3100	3000	
	2 sets of stabilizers down				*4600	*4600	*4600	*4250	*4250	*4250				*3100	*3100	*3100	
3.0 m	Rear dozer up				5550	3800	3500	3650	2550	2350	2600	1850	1700	2450	1700	1600	7.80
	Rear dozer down					*5850	4000		*4650	2650		*3800	1950		*3200	1800	
	Dozer and stabilizer down					*5850	*5850		*4650	4000		*3800	2900		*3200	2700	
	2 sets of stabilizers down				*5850	*5850	*5850	*4650	*4650	4600	*3800	*3800	3300	*3200	*3200	3100	
1.5 m	Rear dozer up				5300	3550	3250	3500	2400	2200	2550	1800	1650	2400	1650	1500	7.90
	Rear dozer down					*6700	3750		*5000	2550		3900	1850		*3400	1750	
	Dozer and stabilizer down					*6700	5850		*5000	3850		3950	2800		*3400	2600	
	2 sets of stabilizers down				*6700	*6700	*6700	*5000	*5000	4500	*4000	*4000	3250	*3400	*3400	3000	
0.0 m	Rear dozer up				5100	3400	3050	3400	2300	2150	2550	1750	1600	2450	1700	1550	7.71
	Rear dozer down					*6950	3550		*5100	2450		3850	1850		3700	1750	
	Dozer and stabilizer down					*6950	5700		*5100	3750		*3900	2800		*3700	2700	
	2 sets of stabilizers down				*6950	*6950	6750	*5100	*5100	4400	*3900	*3900	3200	*3700	*3700	3100	
–1.5 m	Rear dozer up	*7400	6050	5300	5050	3350	3000	3350	2300	2100				2650	1800	1650	7.18
	Rear dozer down		*7400	6350		*6450	3500		*4750	2400					*3600	1900	
	Dozer and stabilizer down		*7400	*7400		*6450	5600		*4750	3700					*3600	2950	
	2 sets of stabilizers down	*7400	*7400	*7400	*6450	*6450	*6450	*4750	*4750	4350				*3600	*3600	3400	
–3.0 m	Rear dozer up	*6950	6150	5400	5050	3350	3050	3400	2300	2100				3200	2200	2000	6.25
	Rear dozer down		*6950	6450		*5150	3550		*3600	2450					*3300	2300	
	Dozer and stabilizer down		*6950	*6950		*5150	*5150		*3600	*3600					*3300	*3300	
	2 sets of stabilizers down	*6950	*6950	*6950	*5150	*5150	*5150	*3600	*3600	*3600				*3300	*3300	*3300	

*Limited by hydraulic rather than tipping load.

Lift capacity ratings are based on ISO 10567:2007, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. The load point is the center line of the bucket pivot mounting pin on the stick. The oscillating axle must be locked. Lifting capacities are based on the machine standing on a firm uniform supporting surface and the Variable Boom Cylinder adjusted to the maximum length. For lifting capacity including bucket and/or quick coupler, the respective weight has to be subtracted from above values. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

M313D Wheel Excavator Specifications

Lift Capacities – One-Piece Boom (4815 mm)

All values are in kg, without bucket and without QC, with counterweight (3300 kg), heavy lift on.

Load at maximum reach (sticknose/bucket pin) | Load over front | Load over rear | Load over side | Load point height

Short Stick 2000 mm

Load point height	Undercarriage configuration	3.0 m			4.5 m			6.0 m						m
4.5 m	Rear dozer up				*5100	3800	3450	3500	2400	2250	*3000	2150	2000	6.44
	Rear dozer down					*5100	3950		*4450	2550		*3000	2250	
	Dozer and stabilizer down					*5100	*5100		*4450	3850		*3000	*3000	
	2 sets of stabilizers down				*5100	*5100	*5100	*4450	*4450	*4450	*3000	*3000	*3000	
3.0 m	Rear dozer up				5300	3600	3250	3450	2350	2150	2750	1900	1750	6.91
	Rear dozer down					*6000	3750		*4700	2450		*2950	2000	
	Dozer and stabilizer down					*6000	5900		*4700	3800		*2950	*2950	
	2 sets of stabilizers down				*6000	*6000	*6000	*4700	*4700	4400	*2950	*2950	*2950	
1.5 m	Rear dozer up				5050	3350	3050	3350	2250	2050	2650	1800	1650	7.03
	Rear dozer down					*6750	3550		*4950	2400		*3100	1900	
	Dozer and stabilizer down					*6750	5650		*4950	3700		*3100	2900	
	2 sets of stabilizers down				*6750	*6750	6700	*4950	*4950	4300	*3100	*3100	*3100	
0.0 m	Rear dozer up				4950	3250	2950	3250	2200	2000	2750	1850	1700	6.80
	Rear dozer down					*6800	3450		*4950	2300		*3450	1950	
	Dozer and stabilizer down					*6800	5500		*4950	3600		*3450	3050	
	2 sets of stabilizers down				*6800	*6800	6550	*4950	*4950	4200	*3450	*3450	*3450	
–1.5 m	Rear dozer up	*8300	6000	5300	4900	3250	2950	3250	2200	2000	3150	2100	1950	6.20
	Rear dozer down		*8300	6350		*6100	3400		*4250	2300		*3900	2250	
	Dozer and stabilizer down		*8300	*8300		*6100	5500		*4250	3600		*3900	3450	
	2 sets of stabilizers down	*8300	*8300	*8300	*6100	*6100	*6100	*4250	*4250	4200	*3900	*3900	*3900	
–3.0 m	Rear dozer up	*5800	*5800	5400	*4250	3300	3000				*3300	2850	2600	5.07
	Rear dozer down		*5800	*5800		*4250	3500					*3300	3000	
	Dozer and stabilizer down		*5800	*5800		*4250	*4250					*3300	*3300	
	2 sets of stabilizers down	*5800	*5800	*5800	*4250	*4250	*4250				*3300	*3300	*3300	

Medium Stick 2300 mm

Load point height	Undercarriage configuration	3.0 m			4.5 m			6.0 m						m
6.0 m	Rear dozer up										*2700	2600	2350	5.81
	Rear dozer down											*2700	*2700	
	Dozer and stabilizer down											*2700	*2700	
	2 sets of stabilizers down										*2700	*2700	*2700	
4.5 m	Rear dozer up				*4850	3850	3500	3550	2450	2250	*2500	2050	1850	6.70
	Rear dozer down					*4850	4000		*4250	2550		*2500	2150	
	Dozer and stabilizer down					*4850	*4850		*4250	3900		*2500	*2500	
	2 sets of stabilizers down				*4850	*4850	*4850	*4250	*4250	*4250	*2500	*2500	*2500	
3.0 m	Rear dozer up				5350	3600	3300	3450	2350	2150	*2500	1800	1650	7.16
	Rear dozer down					*5800	3800		*4550	2500		*2500	1900	
	Dozer and stabilizer down					*5800	*5800		*4550	3800		*2500	*2500	
	2 sets of stabilizers down				*5800	*5800	*5800	*4550	*4550	4400	*2500	*2500	*2500	
1.5 m	Rear dozer up				5100	3400	3050	3350	2250	2050	2500	1700	1550	7.27
	Rear dozer down					*6650	3550		*4900	2400		*2650	1800	
	Dozer and stabilizer down					*6650	5650		*4900	3700		*2650	*2650	
	2 sets of stabilizers down				*6650	*6650	*6650	*4900	*4900	4300	*2650	*2650	*2650	
0.0 m	Rear dozer up	*4500	*4500	*4500	4950	3250	2950	3250	2200	2000	2600	1750	1600	7.05
	Rear dozer down		*4500	*4500		*6850	3450		*4950	2300		*3000	1850	
	Dozer and stabilizer down		*4500	*4500		*6850	5500		*4950	3600		*3000	2850	
	2 sets of stabilizers down	*4500	*4500	*4500	*6850	*6850	6550	*4950	*4950	4200	*3000	*3000	*3000	
–1.5 m	Rear dozer up	*8650	5950	5250	4900	3200	2900	3250	2150	2000	2950	1950	1800	6.47
	Rear dozer down		*8650	6300		*6300	3400		*4450	2300		*3650	2100	
	Dozer and stabilizer down		*8650	*8650		*6300	5450		*4450	3600		*3650	3250	
	2 sets of stabilizers down	*8650	*8650	*8650	*6300	*6300	*6300	*4450	*4450	4200	*3650	*3650	*3650	
–3.0 m	Rear dozer up	*6550	6100	5350	*4750	3300	2950				*3450	2550	2350	5.40
	Rear dozer down		*6550	6400		*4750	3450					*3450	2700	
	Dozer and stabilizer down		*6550	*6550		*4750	*4750					*3450	*3450	
	2 sets of stabilizers down	*6550	*6550	*6550	*4750	*4750	*4750				*3450	*3450	*3450	

*Limited by hydraulic rather than tipping load.

Lift capacity ratings are based on ISO 10567:2007, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. The load point is the center line of the bucket pivot mounting pin on the stick. The oscillating axle must be locked. Lifting capacities are based on the machine standing on a firm uniform supporting surface. For lifting capacity including bucket and/or quick coupler, the respective weight has to be subtracted from above values. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

Lift Capacities – One-Piece Boom (4815 mm)

All values are in kg, without bucket and without QC, with counterweight (3300 kg), heavy lift on.

 Load at maximum reach (sticknose/bucket pin)
 Load over front
 Load over rear
 Load over side
 Load point height

Long Stick 2600 mm

	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
7.5 m	Rear dozer up													*2750	*2750	*2750	4.69
	Rear dozer down														*2750	*2750	
	Dozer and stabilizer down														*2750	*2750	
	2 sets of stabilizers down													*2750	*2750	*2750	
6.0 m	Rear dozer up							*2900	2450	2250				*2300	*2300	2150	6.17
	Rear dozer down								*2900	2600					*2300	*2300	
	Dozer and stabilizer down								*2900	*2900					*2300	*2300	
	2 sets of stabilizers down							*2900	*2900	*2900				*2300	*2300	*2300	
4.5 m	Rear dozer up							3550	2450	2250				*2150	1900	1750	7.01
	Rear dozer down								*4050	2550					*2150	2000	
	Dozer and stabilizer down								*4050	3900					*2150	*2150	
	2 sets of stabilizers down							*4050	*4050	*4050				*2150	*2150	*2150	
3.0 m	Rear dozer up				5350	3650	3300	3450	2350	2150				*2200	1700	1550	7.45
	Rear dozer down					*5500	3800		*4400	2500					*2200	1750	
	Dozer and stabilizer down					*5500	*5500		*4400	3800					*2200	*2200	
	2 sets of stabilizers down				*5500	*5500	*5500	*4400	*4400	*4400				*2200	*2200	*2200	
1.5 m	Rear dozer up				5100	3400	3050	3350	2250	2050	2400	1600	1500	*2300	1600	1450	7.55
	Rear dozer down					*6450	3550		*4800	2400		*2650	1700		*2300	1700	
	Dozer and stabilizer down					*6450	5650		*4800	3700		*2650	*2650		*2300	*2300	
	2 sets of stabilizers down				*6450	*6450	*6450	*4800	*4800	4300	*2650	*2650	*2650	*2300	*2300	*2300	
0.0 m	Rear dozer up	*4800	*4800	*4800	4900	3250	2900	3250	2150	2000				2450	1650	1500	7.35
	Rear dozer down		*4800	*4800		*6800	3400		*4950	2300					*2550	1750	
	Dozer and stabilizer down		*4800	*4800		*6800	5500		*4950	3600					*2550	*2550	
	2 sets of stabilizers down	*4800	*4800	*4800	*6800	*6800	6550	*4950	*4950	4200				*2550	*2550	*2550	
–1.5 m	Rear dozer up	*8050	5900	5200	4850	3200	2850	3200	2150	1950				2700	1800	1650	6.79
	Rear dozer down		*8050	6200		*6400	3350		*4600	2250					*3100	1900	
	Dozer and stabilizer down		*8050	*8050		*6400	5450		*4600	3550					*3100	3000	
	2 sets of stabilizers down	*8050	*8050	*8050	*6400	*6400	*6400	*4600	*4600	4150				*3100	*3100	*3100	
–3.0 m	Rear dozer up	*7200	6000	5250	4900	3200	2900							3400	2300	2100	5.79
	Rear dozer down		*7200	6300		*5100	3400								*3450	2400	
	Dozer and stabilizer down		*7200	*7200		*5100	*5100								*3450	*3450	
	2 sets of stabilizers down	*7200	*7200	*7200	*5100	*5100	*5100							*3450	*3450	*3450	

Industrial Stick 2900 mm

	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
6.0 m	Rear dozer up							*3500	2700	2500				*3050	2550	2350	6.23
	Rear dozer down								*3500	2800					*3050	2650	
	Dozer and stabilizer down								*3500	*3500					*3050	*3050	
	2 sets of stabilizers down							*3500	*3500	*3500				*3050	*3050	*3050	
4.5 m	Rear dozer up							3750	2650	2450				2900	2050	1900	7.06
	Rear dozer down								*4100	2800					*3000	2150	
	Dozer and stabilizer down								*4100	*4100					*3000	*3000	
	2 sets of stabilizers down							*4100	*4100	*4100				*3000	*3000	*3000	
3.0 m	Rear dozer up				*5500	3850	3550	3650	2550	2350				2650	1850	1700	7.50
	Rear dozer down					*5500	4050		*4500	2700					*3100	1950	
	Dozer and stabilizer down					*5500	*5500		*4500	4000					*3100	2900	
	2 sets of stabilizers down				*5500	*5500	*5500	*4500	*4500	*4500				*3100	*3100	*3100	
1.5 m	Rear dozer up				5350	3650	3300	3550	2450	2250	2600	1800	1650	2550	1800	1650	7.60
	Rear dozer down					*6550	3800		*4900	2600		*3800	1900		*3350	1850	
	Dozer and stabilizer down					*6550	5900		*4900	3900		*3800	2850		*3350	2800	
	2 sets of stabilizers down				*6550	*6550	*6550	*4900	*4900	4500	*3800	*3800	3250	*3350	*3350	3200	
0.0 m	Rear dozer up	*6350	6200	5450	5150	3450	3150	3450	2350	2200				2600	1800	1650	7.40
	Rear dozer down		*6350	*6350		*7050	3650		*5150	2500					*3850	1900	
	Dozer and stabilizer down		*6350	*6350		*7050	5750		*5150	3800					*3850	2850	
	2 sets of stabilizers down	*6350	*6350	*6350	*7050	*7050	6750	*5150	*5150	4400				*3850	*3850	3300	
–1.5 m	Rear dozer up	*9100	6150	5450	5100	3400	3100	3400	2350	2150				2850	1950	1800	6.85
	Rear dozer down		*9100	6450		*6800	3550		*4950	2450					*4150	2100	
	Dozer and stabilizer down		*9100	*9100		*6800	5650		*4950	3750					*4150	3150	
	2 sets of stabilizers down	*9100	*9100	*9100	*6800	*6800	6700	*4950	*4950	4350				*4150	*4150	3600	
–3.0 m	Rear dozer up	*8100	6200	5500	5100	3400	3100							3550	2400	2200	5.86
	Rear dozer down		*8100	6550		*5700	3600								*4050	2550	
	Dozer and stabilizer down		*8100	*8100		*5700	5650								*4050	3900	
	2 sets of stabilizers down	*8100	*8100	*8100	*5700	*5700	*5700							*4050	*4050	*4050	

*Limited by hydraulic rather than tipping load.

Lift capacity ratings are based on ISO 10567:2007, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. The load point is the center line of the bucket pivot mounting pin on the stick. The oscillating axle must be locked. Lifting capacities are based on the machine standing on a firm uniform supporting surface and the Variable Boom Cylinder adjusted to the maximum length. For lifting capacity including bucket and/or quick coupler, the respective weight has to be subtracted from above values. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

M313D Wheel Excavator Specifications

Lift Capacities – Offset Boom (5020 mm)

All values are in kg, without bucket and without QC, with counterweight (3300 kg), heavy lift on.

Load at maximum reach (sticknose/bucket pin) | Load over front | Load over rear | Load over side | Load point height

Short Stick 2000 mm

	Undercarriage configuration	3.0 m			4.5 m			6.0 m						m
6.0 m	Rear dozer up				*4850	3850	3500				*3400	2400	2200	5.81
	Rear dozer down					*4850	4050					*3400	2550	
	Dozer and stabilizer down					*4850	*4850					*3400	*3400	
	2 sets of stabilizers down				*4850	*4850	*4850				*3400	*3400	*3400	
4.5 m	Rear dozer up				*5250	3650	3300	3400	2300	2050	2800	1850	1650	6.70
	Rear dozer down					*5250	3850		*4300	2400		*3100	1950	
	Dozer and stabilizer down					*5250	*5250		*4300	3750		*3100	3100	
	2 sets of stabilizers down				*5250	*5250	*5250	*4300	*4300	*4300	*3100	*3100	*3100	
3.0 m	Rear dozer up				5100	3300	3000	3250	2150	1950	2450	1600	1450	7.16
	Rear dozer down					*6000	3500		*4550	2300		*3050	1700	
	Dozer and stabilizer down					*6000	5700		*4550	3650		*3050	2750	
	2 sets of stabilizers down				*6000	*6000	*6000	*4550	*4550	4250	*3050	*3050	*3050	
1.5 m	Rear dozer up				4750	3000	2700	3100	2000	1800	2350	1500	1350	7.27
	Rear dozer down					*6400	3200		*4650	2150		*3200	1600	
	Dozer and stabilizer down					*6400	5350		*4650	3500		*3200	2600	
	2 sets of stabilizers down				*6400	*6400	6400	*4650	*4650	4100	*3200	*3200	3100	
0.0 m	Rear dozer up				4600	2850	2550	3050	1950	1750	2450	1550	1400	7.05
	Rear dozer down					*6150	3050		*4500	2050		*3450	1650	
	Dozer and stabilizer down					*6150	5150		*4500	3400		*3450	2700	
	2 sets of stabilizers down				*6150	*6150	*6150	*4500	*4500	4000	*3450	*3450	3200	
–1.5 m	Rear dozer up	*6400	5450	4700	4600	2850	2550	3050	1950	1750	2750	1750	1600	6.47
	Rear dozer down		*6400	5750		*5200	3050		*3700	2050		*3050	1900	
	Dozer and stabilizer down		*6400	*6400		*5200	5150		*3700	3400		*3050	*3050	
	2 sets of stabilizers down	*6400	*6400	*6400	*5200	*5200	*5200	*3700	*3700	*3700	*3050	*3050	*3050	

Medium Stick 2300 mm

	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m						m
6.0 m	Rear dozer up				*4600	3950	3550	*3350	2350	2150				*2800	2250	2050	6.12
	Rear dozer down					*4600	4100		*3350	2450					*2800	2350	
	Dozer and stabilizer down					*4600	*4600		*3350	*3350					*2800	*2800	
	2 sets of stabilizers down				*4600	*4600	*4600	*3350	*3350	*3350				*2800	*2800	*2800	
4.5 m	Rear dozer up				*5050	3750	3400	3450	2300	2100				*2650	1750	1600	6.97
	Rear dozer down					*5050	3900		*4200	2450					*2650	1850	
	Dozer and stabilizer down					*5050	*5050		*4200	3800					*2650	*2650	
	2 sets of stabilizers down				*5050	*5050	*5050	*4200	*4200	*4200				*2650	*2650	*2650	
3.0 m	Rear dozer up				5150	3400	3050	3300	2200	1950				2350	1500	1350	7.41
	Rear dozer down					*5800	3550		*4450	2300					*2600	1600	
	Dozer and stabilizer down					*5800	5750		*4450	3650					*2600	2600	
	2 sets of stabilizers down				*5800	*5800	*5800	*4450	*4450	4300				*2600	*2600	*2600	
1.5 m	Rear dozer up				4800	3050	2700	3150	2050	1850	2250	1450	1300	2250	1450	1300	7.52
	Rear dozer down					*6350	3200		*4650	2150		*2900	1550		*2750	1550	
	Dozer and stabilizer down					*6350	5350		*4650	3500		*2900	2500		*2750	2500	
	2 sets of stabilizers down				*6350	*6350	*6350	*4650	*4650	4100	*2900	*2900	*2900	*2750	*2750	*2750	
0.0 m	Rear dozer up				4600	2850	2550	3050	1950	1750				2300	1450	1300	7.31
	Rear dozer down					*6250	3050		*4550	2050					*3050	1550	
	Dozer and stabilizer down					*6250	5150		*4550	3400					*3050	2550	
	2 sets of stabilizers down				*6250	*6250	6200	*4550	*4550	4000				*3050	*3050	3000	
–1.5 m	Rear dozer up	*7000	5350	4650	4550	2850	2500	3000	1900	1700				2550	1650	1500	6.75
	Rear dozer down		*7000	5650		*5450	3000		*3950	2050					*3100	1750	
	Dozer and stabilizer down		*7000	*7000		*5450	5150		*3950	3350					*3100	2850	
	2 sets of stabilizers down	*7000	*7000	*7000	*5450	*5450	*5450	*3950	*3950	*3950				*3100	*3100	*3100	
–3.0 m	Rear dozer up				*3800	2950	2600										
	Rear dozer down					*3800	3100										
	Dozer and stabilizer down					*3800	*3800										
	2 sets of stabilizers down				*3800	*3800	*3800										

*Limited by hydraulic rather than tipping load.

Lift capacity ratings are based on ISO 10567:2007, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. The load point is the center line of the bucket pivot mounting pin on the stick. The oscillating axle must be locked. Lifting capacities are based on the machine standing on a firm uniform supporting surface and the Variable Boom Cylinder adjusted to the maximum length. For lifting capacity including bucket and/or quick coupler, the respective weight has to be subtracted from above values. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

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Standard Equipment

Standard equipment may vary. Consult your Cat dealer for details.

ELECTRICAL

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

ENGINE

- Automatic engine speed control
- Automatic starting aid
- Cat C4.4 EU Stage IIIB certified
- Fuel/water separator with level indicator

HYDRAULICS

- Heavy lift mode
- Load-sensing plus hydraulic system
- Lowering control devices for boom and stick
- Manual work modes (economy, power)
- Separate swing pump
- Stick regeneration circuit

OPERATOR STATION

- ROPS cab structure compliant with 2006/42/EC and tested according to ISO 12117-2:2008
- Adjustable armrests
- Adjustable hydraulic sensitivity
- Air conditioner, heater and defroster with automatic climate control
- Ash tray with cigarette lighter (24 volt)
- Beverage cup/can holder
- Bolt-on FOGS capability
- Bottle holder
- Bottom mounted parallel wiping system that covers the upper and lower windshield glass
- Camera mounted on counterweight displays through cab monitor
- Coat hook
- Floor mat, washable, with storage compartment
- Fully adjustable suspension seat
- Instrument panel and gauges
  - Information and warning messages in local language
  - Gauges for fuel level, engine coolant, Diesel Exhaust Fluid (DEF) and hydraulic oil temperature
  - Filters/fluids change interval
  - Indicators for headlights, turning signal, low fuel, engine dial setting
  - Clock with 10-day backup battery
- Laminated front windshield
- Left side console, tiltable, with lock out for all controls
- Literature compartment behind seat
- Literature holder in right console
- Mobile phone holder
- Parking brake
- Positive filtered ventilation
- Power supply, 12V-7A
- Rear window, emergency exit
- Retractable seat belt
- Skylight
- Sliding door windows
- Steering column, tiltable
- Storage area suitable for a lunch box
- Sunshade for windshield and skylight
- Travel speed lock

UNDERCARRIAGE

- Heavy-duty axles, advanced travel motor, adjustable braking force
- Oscillating front axle with remote greasing
- Tires, 10.00-20 16 PR, dual
- Tool box in undercarriage
- Second tool box for undercarriage
- Two-piece drive shaft

OTHER EQUIPMENT

- Automatic swing brake
- Cat Machine Security System
- Cat Product Link
- Counterweight, 2900 kg
- Mirrors, frame and cab

M313D Wheel Excavator Optional Equipment

Optional Equipment

Optional equipment may vary. Consult your Cat dealer for details.

AUXILIARY CONTROLS AND LINES

- Auxiliary boom and stick lines
- Anti-drift valves for tool control/ multi-function circuits
- Basic control circuits:
  - 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
- Cat BIO HYDO Advanced HEES biodegradable hydraulic oil
- SmartBoom

FRONT LINKAGE

- Booms
  - One-piece boom, 4815 mm
  - VA boom (two piece), 5020 mm
  - Offset boom, 5020 mm
- Bucket linkage with diverter valve
- Sticks
  - 2000, 2300, 2600 mm
  - 2900 mm industrial with drop nose

ELECTRICAL

- Back-up alarm with three selectable modes
- Heavy-duty maintenance free batteries
- Refueling pump

OPERATOR STATION

- Falling object guards
- Joystick steering
- CD/MP3 Radio (12V) at rear location including speakers and 12V converter
- Seat, adjustable high-back
  - mechanical suspension
  - air suspension (vertical)
  - deluxe with headrest, air suspension
- Vandalism guards
- Visor for rain protection
- Windshield
  - One-piece high impact resistant
  - 70/30 split, openable

UNDERCARRIAGE

- Dozer blade, front or rear mounted
- Outriggers, front and/or rear mounted
- Spacer rings for tires

OTHER EQUIPMENT

- Auto-lube system (implements and swing gear)
- Counterweight, 3300 kg
- Mirrors heated, frame and cab
- Ride Control
- Tires (see Tire Specifications)

Notes

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at **www.cat.com**

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