M322D Material Handler

Engine		
Engine Model	Cat® C6.6 ACERT™	
Net Power	123 kW	165 hp
• Maximum power at rated speed of 2,000 rpm		
Weights		
Operating weight	23 550 kg (51,919 lb) to 25 675 kg (56,604 lb)	
Transmission		
Maximum travel speed	25 km/h	16 mph

M322D Material Handler

The D series Material Handlers 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 C6.6 offers increased performance and reliability while reducing fuel consumption and sound levels. **pg. 4**

Hydraulics

The state of the art load-sensing hydraulic system provides you with faster cycle times and increased productivity on any material handling job. **pg. 5**

Operator Comfort

✔The redesigned operator station maximizes comfort and increases safety. The air-suspension seat with heated and cooled ventilated cushions improves operator comfort, while the new color monitor and optional rear-mounted camera enhance visibility. **pg. 6**

Versatility

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

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. 12**

Increased lifting capacity, improved cycle times and ease of operation lead to increased productivity and cost effective solutions.

Courtesy of Crane.Market

Elevated Cab

✔The new D-Series Material Handler elevated cab has been redesigned, focusing on operator safety and comfort while maintaining the fastest solution for maximum visibility. **pg. 8**

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. 9**

Booms and Sticks

Caterpillar® 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. 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. 13**

Serviceability

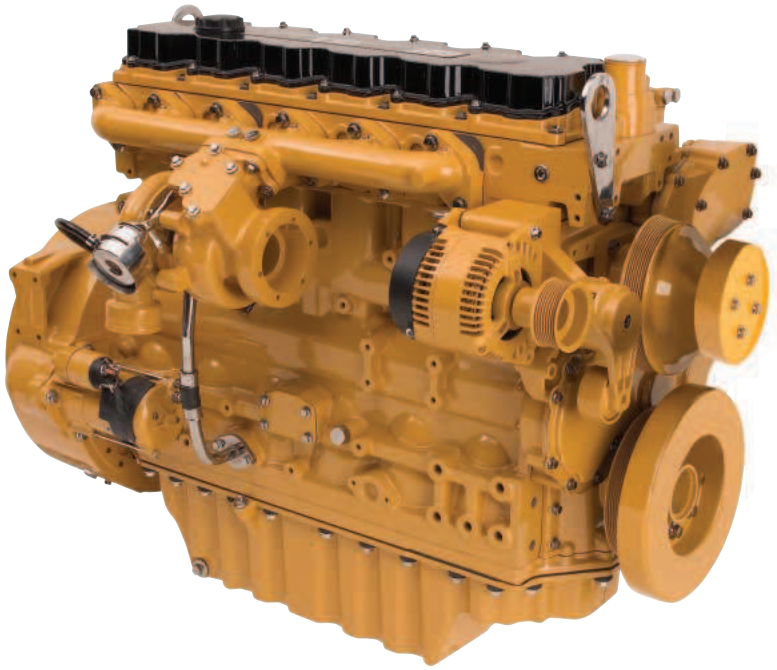
✔For increased safety, all daily maintenance points are accessible from ground level. A centralized greasing system allows lubrication of critical points. **pg. 14**

✔ *New Feature*

Courtesy of Crane.Market

Engine

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



Powerful Performance. The Cat® C6.6 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 C6.6 engine in the M322D MH delivers a maximum gross power of 129 kW (173 hp) at a rated speed of 2,000 rpm. This is 2% more horsepower as compared to the 3056E in the M322C MH.

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

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

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

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

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

- An automatic, hydraulic reversible fan that reverses airflow after a set interval, manually adjustable between 2 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

The state of the art hydraulic system provides you with faster cycle times and increased productivity on any material handling job.

Improved Implement Speed. Due to new spools and increased horsepower, the M322D MH is able to offer even faster stick and swing speeds, leading to more productivity.

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 material handler by 7 percent. Heavy loads can be easily moved in the full working range of the machine, maintaining excellent stability and speed.

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.
- The Medium Pressure Function Valve provides proportional flow that is ideal for rotating tools.
- A new feature for the D-Series Material Handlers 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.

Hydraulic Snubbers. Caterpillar integrates its cylinder snubber technology into all Wheel Material Handler boom, stick and hydraulic cab riser cylinders. These snubbers help cushion shock, 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.

Courtesy of Crane.Market

Operator Comfort

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

Courtesy of Crane.Market

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 windshields meet operator preference and application conditions.

- The fixed front windshield comes with high-impact resistant, laminated glass.
- The 70/30 split front windshield opens with the upper portion able to be stored out of the way above the operator. The lower front windshield features a rounded design to maximize downward visibility and improves wiper coverage. This windshield option also features the one-touch action release system.
- The roof of the cab provides an additional viewing pane by means of a skylight for added upward visibility. Direct sunlight is diverted with the retractable sunshield.

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

- Five programmable “quick access” buttons for one-touch selection of favorite functions.
- Filter and oil change warnings displayed when the number of hours reaches the maintenance interval.
- Tool select functionality, allowing the operator to select up to ten pre-defined hydraulic work tools.
- Travel motor retarder selection to choose between three levels of aggressiveness in braking once the travel pedal is released.
- Rear camera viewing capabilities from the optional camera 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 takes into consideration the driver’s weight, providing a more relaxed environment within the cab.

Heated Mirrors. Heated mirrors provide increased visibility in cold operating conditions as well as offering further safety considerations for those working around the machine.

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.

Courtesy of Crane.Market

Elevated Cab

Fixed and hydraulic cab risers are available to maximize visibility in your material handling work.

Hydraulic Cab Riser. The Hydraulic Cab Riser (HCR) design provides the most suitable solution when high flexibility in cab height is needed. Main features of the hydraulic riser include the following:

- Stability – The lift arms on the HCR are a wide and deep box-sectioned design with improved top and bottom links for greater cab stability. Further stability is achieved with the help of the retractable hydraulic cylinders used to raise the cab.
- Speed – Two heavy-duty hydraulic cylinders provide quicker and more controlled up and down travel than seen in the C-Series.
- Comfort – The parallelogram design of the linkage allows the cab to remain level at all ranges of motion. HCR movement is also slowed as the cab reaches the end of the riser stroke, eliminating the effects of a sudden start/stop.
- Safety – In the event of a hydraulic malfunction, the cab can be lowered using either a lever inside the cab or one on the frame at ground level.

Fixed Cab Riser. The fixed cab riser offers a very stable and comfortable method to raise the cab by 1200 mm (47 in) to offer better viewing around the machine. Well, positioned steps lead up to the cab from the ground level. When shipping, the cab is unmounted to meet national road regulations. This option is only available for the M322D MH.

Bottom Position. The bottom position is used for shipping and travel, allowing for safer transporting

Top Position. The top position raises the cab by 2400 mm (94.5 in). This provides optimal viewing for all material handling jobs.

Courtesy of Crane.Market

Undercarriage

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

Undercarriage Options. Effective hydraulic line routing, transmission protection and heavy-duty axles make Caterpillar's undercarriages perfect for material handler applications. The D-Series M322D MH comes with the option of three different undercarriages in order to provide the greatest stability while performing your material handler jobs.

- Material Handling – A new, standard design for the D-Series, the Material Handling Undercarriage with four welded outriggers is ideal for the extra stability needed, especially when using a Hydraulic Cab Riser.
- Material Handling with Dozer Blade – An optional expansion to the Material Handling Undercarriage described above with an additional Dozer Blade mounted ahead of the front stabilizers to be used to push material commonly encountered in waste and mill yard applications.
- Pin-On/Bolt-On – An optional undercarriage, the pin-on/bolt-on option allows for different kinds of stabilizers to be attached to the front and rear of the machine.

Heavy-Duty Axles. 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.

Drive Line Concept. The M322D MH Driveline design effectively utilizes the increases to engine torque and net power to provide a comfortable ride with improved smoothness, hydraulic retarding, and gear shifting commonly used during travel

Ground Clearance. A compact undercarriage design provides the M322D MH with optimum ground clearance during travel.

Courtesy of Crane.Market

Booms and Sticks

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

MH Booms. A specially designed MH boom is available to meet the functionality requirements demanded in material handling applications. The boom arrangements include high pressure hydraulic lines for opening and closing functionality and medium pressure lines for implement rotation.

MH Sticks. Three options of MH sticks are available for the M322D MH, all equipped with high and medium pressure auxiliary lines. The 4900 mm (193 in) Drop Nose Stick offers the reaching and lifting capabilities required for typical MH applications, while the 5900 mm (232 in) Long Drop Nose Stick is ideal when maximum reach is necessary. The 4800 mm (189 in) Straight Stick is the best solution when additional work tool functionality is needed.

Special Applications. The M322D MH can be further outfitted with additional boom and stick options (see Optional Equipment), offering the ability to combine the material handler's hydraulic cab riser with traditional excavator functionality. This combination has been proven in transfer station, mining, and millyard applications.

MH Booms and Sticks. The MH booms have been redesigned to handle increased lifting capacities. The new stick range offers leading side plates to maximize the protection of hydraulic lines. The lines are fitted in between the two side plates offering protection from damage. Multiple boom and stick options allow you to pick the best match for your job.

Versatility

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

Tool Control. Ten hydraulic pump flow and pressure settings can be preset within the monitor, eliminating the need to adjust the hydraulics each time a tool is changed. Selecting the proper setting from the monitor menu instantly provides the operator with the correct amount of flow and pressure for the tool.

Orange Peel Grapple. The most common tool for material handling applications, this grapple is available in a range of sizes and provides a solution for a variety of material types. The grapple is free swinging and has unlimited left and right rotation.

Multi-Grapple. The Multi-Grapple with unlimited left and right rotation is the ideal tool for stripping, sorting, handling and loading. For the best control in forward and backward grapple mobility, pair the Multi-Grapple with the MH Straight Stick and linkage.

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.

Control Settings. Two selectable control settings are available to choose from in order to get the best power output from the engine and hydraulics as well as maintain optimum fuel efficiency.

- Economy Mode – for precise material handling and loading with the added benefit of reduced fuel consumption.
- Power Mode – for applications requiring fast volume loading and material casting.

Automatic Travel Mode. Automatically engaged when the travel pedal is depressed this mode provides maximum speed, drawbar pull and best in class fuel efficiency.

Product Link. Product Link, now standard, can assist with fleet management to keep track of hours, location, security and product health.

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.

Courtesy of Crane.Market

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 and more to make sure you operate your machines at the lowest cost and most effectively.

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

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

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

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

Service Capability. Whether in the dealer's fully equipped shop or in the field, you will get highly trained service technicians using the latest technology and tools.

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 get the best out of your investment.

Environmentally Responsible Design

The M322D MH helps build a better world and preserve the fragile environment.

Fuel Efficiency. The D-Series Wheel Material Handlers 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 C6.6 offers increased performance and reliability while reducing fuel consumption and exhaust emissions.

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 and 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.

Courtesy of Crane.Market

Serviceability

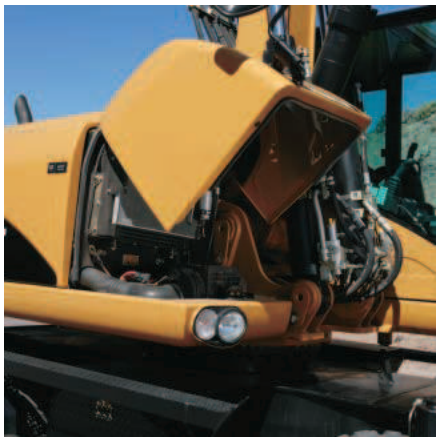
Simplified and easy maintenance save you time and money.

Ground Level Maintenance. Caterpillar designed its D-Series Material Handlers 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 Material Handlers service and maintenance intervals have been extended to reduce machine service time, increase machine availability and reduce operating costs. Using S•O•S℠ Scheduled Oil Sampling analysis, hydraulic oil change intervals can be extended up to 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 easily.



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.

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. The configurable lubrication interval and system status messages can be accessed via the in-cab monitor.

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

Engine 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 safely.

Storage Boxes. There are two storage toolboxes integrated in the steps of the undercarriage. The fixed cab riser option provides an additional storage location with one integrated into the upper structure steps.

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

Courtesy of Crane.Market

Engine

Engine Model	Cat® C6.6 ACERT™	
Gross Power	129 kW	173 hp
Net Power	123 kW	165 hp
ISO 9249	123 kW	165 hp
EEC 80/1269	123 kW	165 hp
Bore	105 mm	4 in
Stroke	127 mm	5 in
Displacement	6.6 L	403 in^3
Max Torque at 1,400 rpm	750 N·m	553 ft-lb

- Maximum power at rated speed of 2,000 rpm

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	20 000 kPa	2,900 psi
Swing Mechanism	34 000 kPa	4,931 psi
Maximum Flow		
Implement/Travel Circuit	350 L/min	92 gal/min
Auxiliary Circuit		
High Pressure	250 L/min	66 gal/min
Medium Pressure	50 L/min	13 gal/min
Swing Mechanism	112 L/min	30 gal/min

Weights

Operating weight	23 550 kg (51,919 lb) to 25 675 kg (56,604 lb)	
Material Handling Boom		
MH undercarriage 4 welded outriggers	23 700 kg	52,250 lb
MH undercarriage 4 welded outriggers, push blade	24 375 kg	53,738 lb
Rear dozer only	22 550 kg	49,714 lb
Rear dozer, front outriggers	23 750 kg	52,360 lb
Front and rear outriggers	24 100 kg	53,131 lb
VA Boom		
MH undercarriage 4 welded outriggers	24 050 kg	53,021 lb
MH undercarriage 4 welded outriggers, push blade	24 725 kg	54,509 lb
Rear dozer only	22 900 kg	50,486 lb
Rear dozer, front outriggers	24 100 kg	53,131 lb
Front and rear outriggers	24 450 kg	53,903 lb
One-Piece Boom		
MH undercarriage 4 welded outriggers	23 450 kg	51,698 lb
MH undercarriage 4 welded outriggers, push blade	24 125 kg	53,187 lb
Rear dozer only	22 300 kg	49,163 lb
Rear dozer, front outriggers	23 500 kg	51,809 lb
Front and rear outriggers	23 850 kg	52,580 lb
MH Push Blade	675 kg	1,488 lb
Dozer blade	920 kg	2,029 lb
Outriggers	1260 kg	2,778 lb
Counterweight	5400 kg	11,905 lb
4.8 m (15'8") MH Straight Stick	1100 kg	2,425 lb
4.9 m (16'1") MH Drop Nose Stick	910 kg	2,006 lb
5.9 m (19'4") MH Drop Nose Stick	1080 kg	2,381 lb
2.2 m (7'3") Digging Stick	650 kg	1,433 lb
2.5 m (8'3") Digging Stick	700 kg	1,543 lb
2.9 m (9'6") Digging Stick	780 kg	1,720 lb

Swing Mechanism

Swing Torque	56.3 kN·m	41,525 lb ft
Swing Speed	9 rpm	

Service Refill Capacities

Fuel Tank	385 L	101 gal
Cooling System	33 L	8.7 gal
Engine crankcase with filter	15 L	4 gal
Rear Axle	14.5 L	3.8 gal
Front Steering Axle	11 L	3 gal
Final Drive (each)	2.5 L	0.66 gal
Powershift Transmission	2.5 L	0.66 gal
Hydraulic Tank	220 L	58 gal
Hydraulic System (including tank)	335 L	88 gal

Transmission

Maximum travel speed	25 km/h	16 mph
1st Gear – Forward/Reverse	7 km/h	4.7 mph
2nd Gear – Forward/Reverse	25 km/h	16 mph
Creeper Speed (1st)	3 km/h	2 mph
Creeper Speed (2nd)	11 km/h	6.8 mph
Drawbar pull	121 kN	27,202 lb
Maximum Gradeability	52%	

Undercarriage

Ground clearance	380 mm	15 in
Maximum Steering Angle	35°	
Oscillating Axle Angle	± 6°	
Standard Axle Turning Radius		
Outside of Tire	6.8 m	22 ft
End of VA Boom	7.8 m	25 ft 6 in
End of One-Piece Boom	9.3 m	30 ft 6 in

Sound

Interior sound	72 db(A)
Exterior sound	103 db(A)
Performance	ANSI/SAE J1166 OCT 98

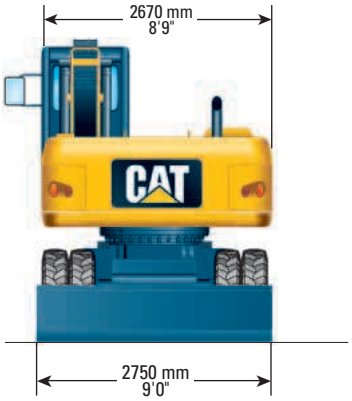
- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166 OCT 98, meets OSHA and MSHA requirements for operator sound exposure limits in effect at time of manufacture.
- Hearing protection may by needed when operating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

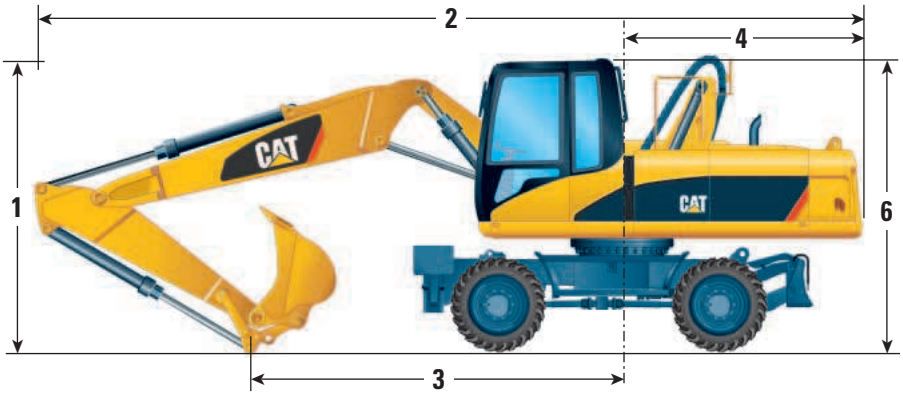
Standards

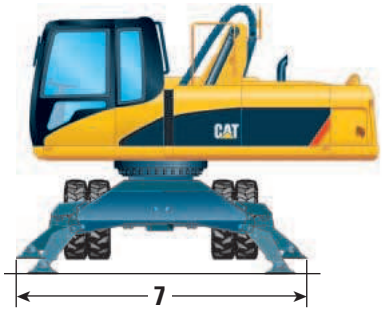
Brakes	SAE J1026 APR 90
Cab/FOGS	ISO 10262

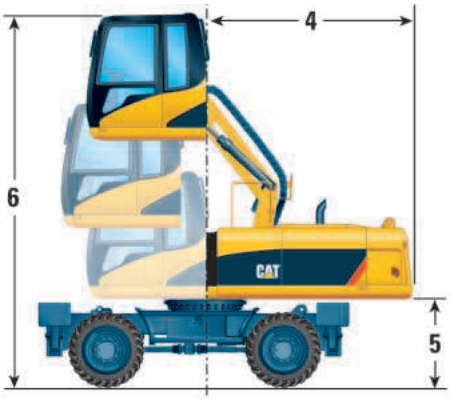
Dimensions with Standard Undercarriage

All dimensions are approximate.



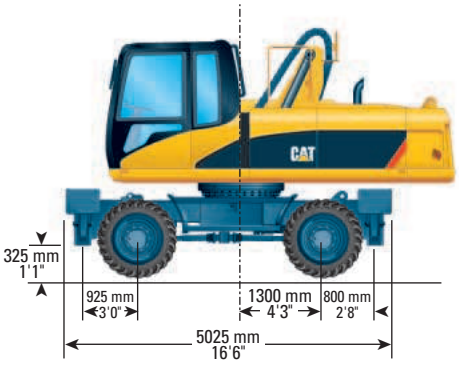




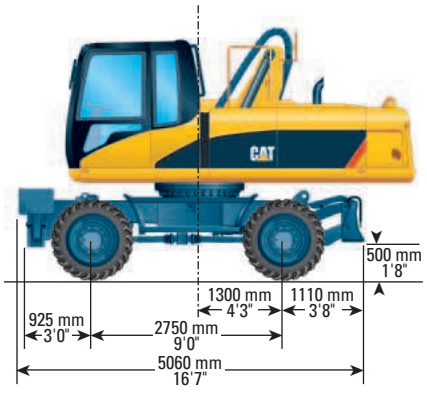


		M322D MH VA boom		M322D MH One-piece boom	
		mm	ft/in	mm	ft/in
1	Shipping height				
	2.2 m (7'3") Stick	3350	11'0"	3350	11'0"
	2.5 m (8'2") Stick	3350	11'0"	3350	11'0"
	2.9 m (9'6") Stick	3350	11'0"	3350	11'0"
2	Shipping length				
	2.2 m (7'3") Stick	9550	31'4"	9720	31'11"
	2.5 m (8'2") Stick	9550	31'4"	9720	31'11"
	2.9 m (9'6") Stick	9540	31'4"	9720	31'11"
3	Support point				
	2.2 m (7'3") Stick	4380	14'4"	4270	14'0"
	2.5 m (8'2") Stick	3830	12'7"	3810	12'6"
	2.9 m (9'6") Stick	3530	11'7"	3440	11'3"
4	Tail swing radius	2820	9'3"	2820	9'3"
5	Counterweight clearance	1310	4'4"	1310	4'4"
6	Cab height				
	with hydraulic cab riser (lowered)	3240	10'8"	3240	10'8"
	with hydraulic cab riser (raised)	5640	18'6"	5640	18'6"
	with 1200 mm (3'11") fixed cab riser	4440	14'7"	4440	14'7"
7	Stabilizer width on ground	3960	13'0"	3960	13'0"

Undercarriage with 2 sets of outriggers

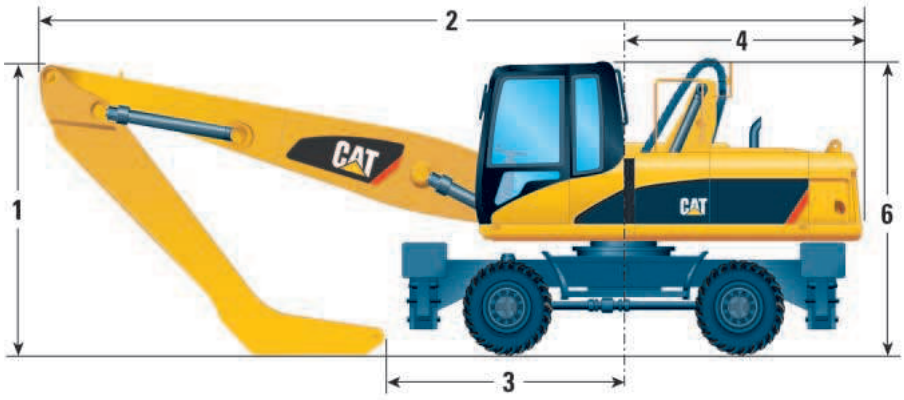


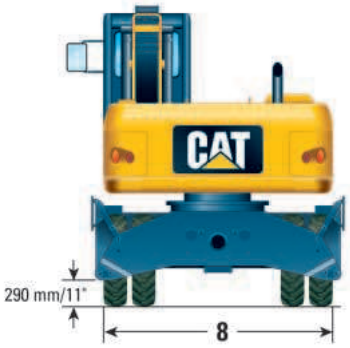
Undercarriage with 1 set of outriggers and dozer

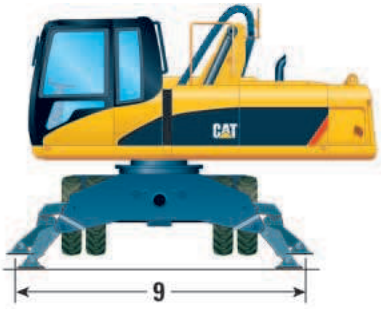


Dimensions with MH Undercarriage

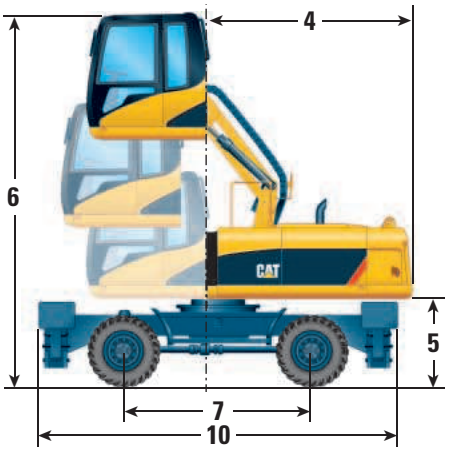
All dimensions are approximate.



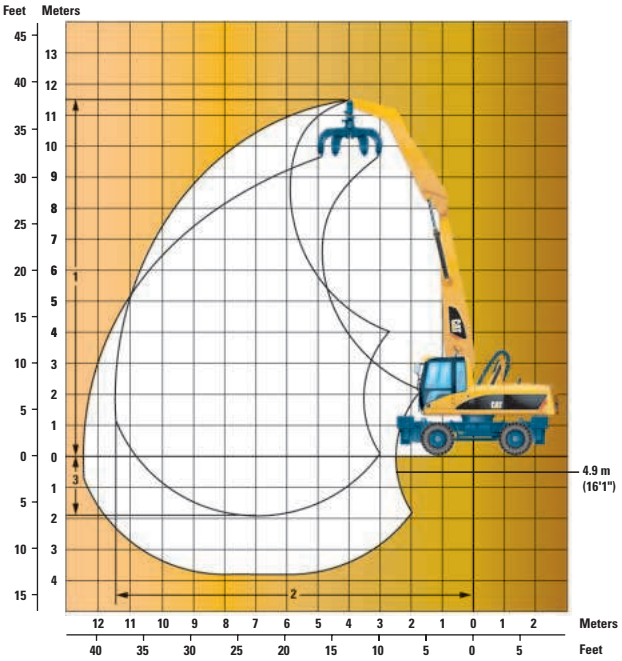


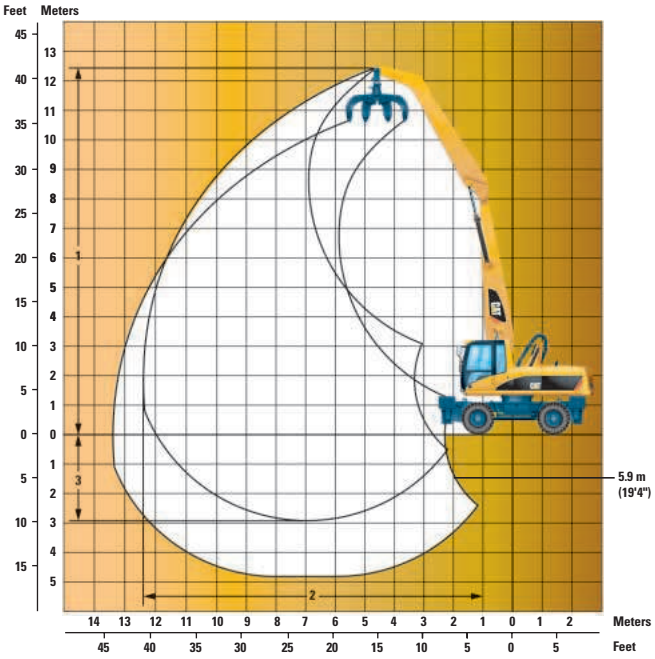


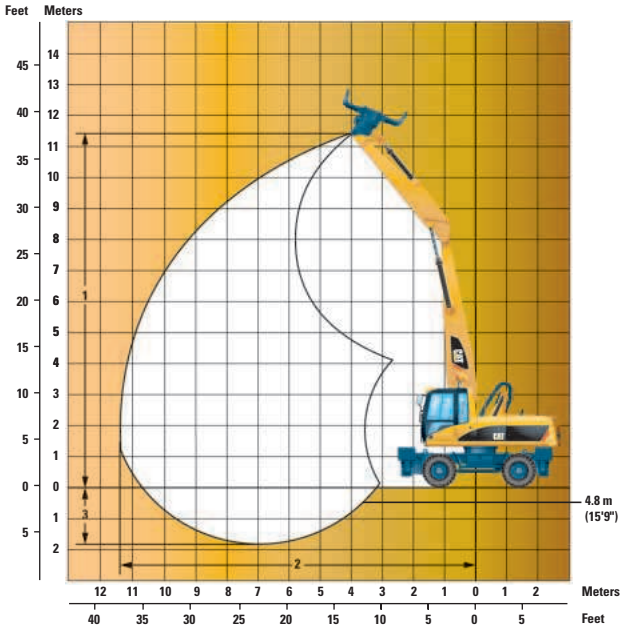
		M322D MH MH boom	
		mm	ft/in
1	Shipping height		
	4.8 m (15'9") straight stick	3410	11'2"
	4.9 m (16'1") drop nose	3410	11'2"
	5.9 m (19'4") drop nose	3350	11'0"
	5.9 m (19'4") drop nose removed	3350	11'0"
2	Shipping length		
	4.8 m (15'9") straight stick	9870	32'5"
	4.9 m (16'1") drop nose	9870	32'5"
	5.9 m (19'4") drop nose	15 130	49'8"
	5.9 m (19'4") drop nose removed	9930	32'7"
3	Support point		
	4.8 m (15'9") straight stick	3250	10'8"
	4.9 m (16'1") drop nose	3250	10'8"
	5.9 m (19'4") drop nose	15 010	49'3"
4	Tail swing radius	2820	9'3"
5	Counterweight clearance	1310	4'4"
6	Cab height		
	with hydraulic cab riser (lowered)	3240	10'8"
	with hydraulic cab riser (raised)	5640	18'6"
	with 1200 mm (3'11") fixed cab riser	4440	14'7"
7	Wheel base	2750	9'0"
8	Undercarriage width	2990	9'10"
9	Stabilizer width on ground	4360	14'4"
10	Undercarriage length	5250	17'3"



Working Ranges – M322D MH







Undercarriage		Material Handling	Material Handling	Material Handling
Boom Length		**6.8 m (22'4")**	**6.8 m (22'4")**	**6.8 m (22'4")**
Stick Length		**MH drop nose 4.9 m (16'1")**	**MH drop nose 5.9 m (19'4")**	**MH straight stick 4.8 m (15'9")**
	Maximum Height	12 500 mm (41'0")	13 300 mm (43'8")	12 430 mm (40'10")
	Minimum Dump Height	4030 mm (13'3")	3090 mm (10'2")	4120 mm (13'6")
1	Maximum Reach	11 530 mm (37'10")	12 480 mm (41'0")	11 430 mm (37'6")
2	Maximum Reach at Ground Level	10 850 mm (35'7")	12 050 mm (39'7")	11 280 mm (36'0")
3	Maximum Depth	1920 mm (6'4")	2920 mm (9'7")	1820 mm (6'0")

Lift Capacities – M322D MH

 Load Point Height
 Load at Maximum Reach
 Load Radius Over Front
 Load Radius Over Side

UNDERCARRIAGE – Material Handling **BOOM** – 6.8 m (22'4") **STICK** – 4.9 m (16'1") Drop Nose

English Units/all weights are in lb

	Undercarriage configuration		15.0 ft		20.0 ft		25.0 ft		30.0 ft		35.0 ft				
35.0 ft	2 sets of stabilizers raised	lb			15,322	11,795	10,582	8,157							
	2 sets of stabilizers lowered	lb			*20,283	*20,283	*13,999	*13,999							
30.0 ft	2 sets of stabilizers raised	lb			15,432	12,015	10,803	8,378							
	2 sets of stabilizers lowered	lb			*20,503	*20,503	*17,857	16,535							
25.0 ft	2 sets of stabilizers raised	lb			15,432	11,905	10,803	8,378	8,047	6,173			6,724	5,071	32'10"
	2 sets of stabilizers lowered	lb			*20,723	*20,723	*17,857	16,535	14,991	12,236			*12,015	10,251	
20.0 ft	2 sets of stabilizers raised	lb			14,991	11,574	10,692	8,157	8,047	6,173	6,173	4,740	5,952	4,519	35'3"
	2 sets of stabilizers lowered	lb			*21,495	*21,495	*18,188	16,314	14,881	12,236	11,574	9,480	11,133	9,149	
15.0 ft	2 sets of stabilizers raised	lb	22,597	16,865	14,440	11,023	10,251	7,937	7,826	5,952	6,173	4,630	5,512	4,079	36'10"
	2 sets of stabilizers lowered	lb	*29,101	*29,101	*22,708	*22,708	*18,739	15,873	14,661	12,015	11,464	9,480	10,362	8,488	
10.0 ft	2 sets of stabilizers raised	lb	20,834	15,432	13,669	10,251	9,921	7,496	7,606	5,732	6,063	4,519	5,291	3,858	37'8"
	2 sets of stabilizers lowered	lb	*32,077	*32,077	*24,030	21,826	19,070	15,432	14,330	11,685	11,354	9,370	9,921	8,157	
5.0 ft	2 sets of stabilizers raised	lb	19,290	13,889	12,787	9,480	9,480	7,055	7,275	5,512	5,842	4,409	5,181	3,858	37'10"
	2 sets of stabilizers lowered	lb	*33,290	*33,290	*24,471	20,944	18,629	14,991	14,110	11,464	11,244	9,149	9,811	8,047	
Ground	2 sets of stabilizers raised	lb	18,188	13,007	12,236	8,929	9,039	6,724	7,165	5,291	5,732	4,299			
	2 sets of stabilizers lowered	lb	*22,597	*22,597	*23,369	20,283	18,188	14,551	13,889	11,244	*11,133	9,039			
–5.0 ft	2 sets of stabilizers raised	lb			11,905	8,708	8,818	6,504							
	2 sets of stabilizers lowered	lb			*20,283	19,842	*15,984	14,330							

UNDERCARRIAGE – Material Handling **BOOM** – 6.8 m (22'4") **STICK** – 4.9 m (16'1") Drop Nose

Metric Units/all weights are in kg

	Undercarriage configuration		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				
10.5 m	2 sets of stabilizers raised	kg			6950	5350	4800	3700							
	2 sets of stabilizers lowered	kg			*9200	*9200	*6350	*6350							
9.0 m	2 sets of stabilizers raised	kg			7000	5450	4900	3800							
	2 sets of stabilizers lowered	kg			*9300	*9300	*8100	7500							
7.5 m	2 sets of stabilizers raised	kg			7000	5400	4900	3800	3650	2800			3050	2300	10.02 m
	2 sets of stabilizers lowered	kg			*9400	*9400	*8100	7500	6800	5550			*5450	4650	
6.0 m	2 sets of stabilizers raised	kg			6800	5250	4850	3700	3650	2800	2800	2150	2700	2050	10.74 m
	2 sets of stabilizers lowered	kg			*9750	*9750	*8250	7400	6750	5550	5250	4300	5050	4150	
4.5 m	2 sets of stabilizers raised	kg	10 250	7650	6550	5000	4650	3600	3550	2700	2800	2100	2500	1850	11.22 m
	2 sets of stabilizers lowered	kg	*13 200	*13 200	*10 300	*10 300	*8500	7200	6650	5450	5200	4300	4700	3850	
3.0 m	2 sets of stabilizers raised	kg	9450	7000	6200	4650	4500	3400	3450	2600	2750	2050	2400	1750	11.47 m
	2 sets of stabilizers lowered	kg	*14 550	*14 550	*10 900	9900	8650	7000	6500	5300	5150	4250	4500	3700	
1.5 m	2 sets of stabilizers raised	kg	8750	6300	5800	4300	4300	3200	3300	2500	2650	2000	2350	1750	11.52 m
	2 sets of stabilizers lowered	kg	*15 100	*15 100	*11 100	9500	8450	6800	6400	5200	5100	4150	4450	3650	
Ground	2 sets of stabilizers raised	kg	8250	5900	5550	4050	4100	3050	3250	2400	2600	1950			
	2 sets of stabilizers lowered	kg	*10 250	*10 250	*10 600	9200	8250	6600	6300	5100	*5050	4100			
–1.5 m	2 sets of stabilizers raised	kg			5400	3950	4000	2950							
	2 sets of stabilizers lowered	kg			*9200	9000	*7250	6500							

* Indicates the load is hydraulically limited.

- Lift capacity ratings are based on ISO 10567 standards.
- Rated loads do not exceed 87% of the hydraulic lifting capacity or 75% of tipping.
- All weights are calculated at stick nose and without work tool installed.
- Oscillating axle must be locked.

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

Lift Capacities – M322D MH

 Load Point Height

 Load at Maximum Reach

 Load Radius Over Front

 Load Radius Over Side

UNDERCARRIAGE – Standard **BOOM** – 6.8 m (22'4") **STICK** – 4.9 m (16'1") Drop Nose

English Units/all weights are in lb

Undercarriage configuration			15.0 ft		20.0 ft		25.0 ft		30.0 ft		35.0 ft				
35.0 ft	2 sets of stabilizers lowered	lb			*20,283	19,952	*13,999	13,669							
	Rear dozer raised	lb			15,543	11,023	10,692	7,496							
	Rear dozer lowered	lb			*20,283	12,236	*13,999	8,378							
	Rear stabilizer lowered	lb			*20,283	14,330	*13,999	9,811							
	F. stabilizer & r. dozer lowered	lb			*20,283	17,306	*13,999	11,905							
30.0 ft	2 sets of stabilizers lowered	lb			*20,503	20,172	*17,857	13,999							
	Rear dozer raised	lb			15,763	11,133	11,023	7,826							
	Rear dozer lowered	lb			*20,503	12,456	17,527	8,708							
	Rear stabilizer lowered	lb			*20,503	14,551	15,653	10,141							
	F. stabilizer & r. dozer lowered	lb			*20,503	17,527	*17,857	12,236							
25.0 ft	2 sets of stabilizers lowered	lb			*20,723	20,062	*17,857	13,889	14,330	10,362			12,015	8,598	32'10"
	Rear dozer raised	lb			15,653	11,133	10,913	7,826	8,157	5,732			6,724	4,630	
	Rear dozer lowered	lb			*20,723	12,346	17,527	8,598	12,897	6,393			10,692	5,181	
	Rear stabilizer lowered	lb			*20,723	14,440	15,653	10,141	11,464	7,496			9,590	6,173	
	F. stabilizer & r. dozer lowered	lb			*20,723	17,417	*17,857	12,236	14,220	9,149			11,905	7,606	
20.0 ft	2 sets of stabilizers lowered	lb			*21,495	19,621	*18,188	13,779	14,330	10,251	11,133	8,047	10,692	7,716	35'3"
	Rear dozer raised	lb			15,322	10,803	10,803	7,606	8,047	5,622	6,283	4,299	5,952	4,079	
	Rear dozer lowered	lb			*21,495	12,015	17,306	8,488	12,787	6,283	9,921	4,850	9,590	4,630	
	Rear stabilizer lowered	lb			*21,495	14,110	15,432	9,921	11,464	7,385	8,818	5,732	8,488	5,512	
	F. stabilizer & r. dozer lowered	lb			*21,495	17,086	*18,188	12,015	14,220	9,039	11,023	7,055	10,582	6,724	
15.0 ft	2 sets of stabilizers lowered	lb	*29,101	*29,101	*22,708	18,960	*18,739	13,338	14,110	10,141	11,023	7,937	9,921	7,165	36'10"
	Rear dozer raised	lb	23,149	15,763	14,661	10,141	10,472	7,275	7,826	5,401	6,173	4,189	5,512	3,748	
	Rear dozer lowered	lb	*29,101	17,747	*22,708	11,354	16,976	8,157	12,566	6,063	9,811	4,740	8,818	4,189	
	Rear stabilizer lowered	lb	*29,101	21,164	21,716	13,448	14,991	9,590	11,244	7,275	8,818	5,622	7,937	5,071	
	F. stabilizer & r. dozer lowered	lb	*29,101	26,125	*22,708	16,424	*18,739	11,685	13,999	8,818	10,913	6,945	9,811	6,283	
10.0 ft	2 sets of stabilizers lowered	lb	*32,077	28,881	*24,030	18,078	18,409	12,897	13,779	9,811	10,913	7,826	9,480	6,834	37'8"
	Rear dozer raised	lb	21,385	14,220	13,889	9,480	10,031	6,834	7,606	5,181	6,063	4,079	5,291	3,527	
	Rear dozer lowered	lb	*32,077	16,094	23,810	10,692	16,424	7,716	12,346	5,842	9,700	4,630	8,488	3,968	
	Rear stabilizer lowered	lb	*32,077	19,511	20,723	12,677	14,551	9,149	10,913	6,945	8,708	5,512	7,496	4,740	
	F. stabilizer & r. dozer lowered	lb	*32,077	24,251	*24,030	15,543	18,188	11,244	13,669	8,598	10,803	6,834	9,480	5,952	
5.0 ft	2 sets of stabilizers lowered	lb	*33,290	27,007	*24,471	17,196	17,857	12,456	13,558	9,590	10,692	7,716	9,370	6,724	37'10"
	Rear dozer raised	lb	19,731	12,677	13,007	8,708	9,590	6,393	7,385	4,960	5,952	3,968	5,181	3,417	
	Rear dozer lowered	lb	*33,290	14,551	22,818	9,921	15,873	7,275	12,015	5,622	9,590	4,519	8,378	3,858	
	Rear stabilizer lowered	lb	32,518	17,857	19,842	11,905	13,999	8,708	10,692	6,724	8,488	5,401	7,385	4,740	
	F. stabilizer & r. dozer lowered	lb	*33,290	22,597	*24,471	14,771	17,747	10,803	13,448	8,378	10,692	6,724	9,259	5,842	
Ground	2 sets of stabilizers lowered	lb	*22,597	*22,597	*23,369	16,535	17,417	12,015	13,228	9,370	10,582	7,606			
	Rear dozer raised	lb	18,629	11,795	12,456	8,157	9,149	6,063	7,165	4,740	5,842	3,858			
	Rear dozer lowered	lb	*22,597	13,669	22,046	9,259	15,543	6,945	11,795	5,401	9,480	4,409			
	Rear stabilizer lowered	lb	*22,597	16,865	19,070	11,244	13,558	8,378	10,472	6,504	8,378	5,291			
	F. stabilizer & r. dozer lowered	lb	*22,597	21,495	*23,369	14,110	17,306	10,362	13,118	8,157	10,582	6,614			
–5.0 ft	2 sets of stabilizers lowered	lb			*20,283	16,204	*15,984	11,795							
	Rear dozer raised	lb			12,125	7,826	8,929	5,842							
	Rear dozer lowered	lb			*20,283	9,039	15,212	6,724							
	Rear stabilizer lowered	lb			18,739	10,913	13,338	8,157							
	F. stabilizer & r. dozer lowered	lb			*20,283	13,779	*15,984	10,141							

* Indicates the load is hydraulically limited.

- Lift capacity ratings are based on ISO 10567 standards.
- Rated loads do not exceed 87% of the hydraulic lifting capacity or 75% of tipping.
- All weights are calculated at stick nose and without work tool installed.
- Oscillating axle must be locked.

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Lift Capacities – M322D MH

 Load Point Height
 Load at Maximum Reach
 Load Radius Over Front
 Load Radius Over Side

UNDERCARRIAGE – Standard **BOOM** – 6.8 m (22'4") **STICK** – 4.9 m (16'1") Drop Nose

Metric Units/all weights are in kg

	Undercarriage configuration		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				
10.5 m	2 sets of stabilizers lowered	kg			*9200	9050	*6350	6200							
	Rear dozer raised	kg			7050	5000	4850	3400							
	Rear dozer lowered	kg			*9200	5550	*6350	3800							
	Rear stabilizer lowered	kg			*9200	6500	*6350	4450							
	F. stabilizer & r. dozer lowered	kg			*9200	7850	*6350	5400							
9.0 m	2 sets of stabilizers lowered	kg			*9300	9150	*8100	6350							
	Rear dozer raised	kg			7150	5050	5000	3550							
	Rear dozer lowered	kg			*9300	5650	7950	3950							
	Rear stabilizer lowered	kg			*9300	6600	7100	4600							
	F. stabilizer & r. dozer lowered	kg			*9300	7950	*8100	5550							
7.5 m	2 sets of stabilizers lowered	kg			*9400	9100	*8100	6300	6500	4700			5450	3900	10.02 m
	Rear dozer raised	kg			7100	5050	4950	3550	3700	2600			3050	2100	
	Rear dozer lowered	kg			*9400	5600	7950	3900	5850	2900			4850	2350	
	Rear stabilizer lowered	kg			*9400	6550	7100	4600	5200	3400			4350	2800	
	F. stabilizer & r. dozer lowered	kg			*9400	7900	*8100	5550	6450	4150			5400	3450	
6.0 m	2 sets of stabilizers lowered	kg			*9750	8900	*8250	6250	6500	4650	5050	3650	4850	3500	10.74 m
	Rear dozer raised	kg			6950	4900	4900	3450	3650	2550	2850	1950	2700	1850	
	Rear dozer lowered	kg			*9750	5450	7850	3850	5800	2850	4500	2200	4350	2100	
	Rear stabilizer lowered	kg			*9750	6400	7000	4500	5200	3350	4000	2600	3850	2500	
	F. stabilizer & r. dozer lowered	kg			*9750	7750	*8250	5450	6450	4100	5000	3200	4800	3050	
4.5 m	2 sets of stabilizers lowered	kg	*13 200	*13 200	*10 300	8600	*8500	6050	6400	4600	5000	3600	4500	3250	11.22 m
	Rear dozer raised	kg	10 500	7150	6650	4600	4750	3300	3550	2450	2800	1900	2500	1700	
	Rear dozer lowered	kg	*13 200	8050	*10 300	5150	7700	3700	5700	2750	4450	2150	4000	1900	
	Rear stabilizer lowered	kg	*13 200	9600	9850	6100	6800	4350	5100	3300	4000	2550	3600	2300	
	F. stabilizer & r. dozer lowered	kg	*13 200	11 850	*10 300	7450	*8500	5300	6350	4000	4950	3150	4450	2850	
3.0 m	2 sets of stabilizers lowered	kg	*14 550	13 100	*10 900	8200	8350	5850	6250	4450	4950	3550	4300	3100	11.47 m
	Rear dozer raised	kg	9700	6450	6300	4300	4550	3100	3450	2350	2750	1850	2400	1600	
	Rear dozer lowered	kg	*14 550	7300	10 800	4850	7450	3500	5600	2650	4400	2100	3850	1800	
	Rear stabilizer lowered	kg	*14 550	8850	9400	5750	6600	4150	4950	3150	3950	2500	3400	2150	
	F. stabilizer & r. dozer lowered	kg	*14 550	11 000	*10 900	7050	8250	5100	6200	3900	4900	3100	4300	2700	
1.5 m	2 sets of stabilizers lowered	kg	*15 100	12 250	*11 100	7800	8100	5650	6150	4350	4850	3500	4250	3050	11.52 m
	Rear dozer raised	kg	8950	5750	5900	3950	4350	2900	3350	2250	2700	1800	2350	1550	
	Rear dozer lowered	kg	*15 100	6600	10 350	4500	7200	3300	5450	2550	4350	2050	3800	1750	
	Rear stabilizer lowered	kg	14 750	8100	9000	5400	6350	3950	4850	3050	3850	2450	3350	2150	
	F. stabilizer & r. dozer lowered	kg	*15 100	10 250	*11 100	6700	8050	4900	6100	3800	4850	3050	4200	2650	
Ground	2 sets of stabilizers lowered	kg	*10 250	*10 250	*10 600	7500	7900	5450	6000	4250	4800	3450			
	Rear dozer raised	kg	8450	5350	5650	3700	4150	2750	3250	2150	2650	1750			
	Rear dozer lowered	kg	*10 250	6200	10 000	4200	7050	3150	5350	2450	4300	2000			
	Rear stabilizer lowered	kg	*10 250	7650	8650	5100	6150	3800	4750	2950	3800	2400			
	F. stabilizer & r. dozer lowered	kg	*10 250	9750	*10 600	6400	7850	4700	5950	3700	4800	3000			
–1.5 m	2 sets of stabilizers lowered	kg			*9200	7350	*7250	5350							
	Rear dozer raised	kg			5500	3550	4050	2650							
	Rear dozer lowered	kg			*9200	4100	6900	3050							
	Rear stabilizer lowered	kg			8500	4950	6050	3700							
	F. stabilizer & r. dozer lowered	kg			*9200	6250	*7250	4600							

* Indicates the load is hydraulically limited.

- Lift capacity ratings are based on ISO 10567 standards.
- Rated loads do not exceed 87% of the hydraulic lifting capacity or 75% of tipping.
- All weights are calculated at stick nose and without work tool installed.
- Oscillating axle must be locked.

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

Lift Capacities – M322D MH

Load Point Height | Load at Maximum Reach | Load Radius Over Front | Load Radius Over Side

UNDERCARRIAGE – Standard **BOOM** – 6.8 m (22'4") **STICK** – 5.9 m (19'4") Drop Nose

English Units/all weights are in lb

Load Point Height	Undercarriage configuration		10.0 ft		15.0 ft		20.0 ft		25.0 ft		30.0 ft		35.0 ft		40.0 ft				
40.0 ft	2 sets of stabilizers lowered	lb					*16,424	*16,424											
	Rear dozer raised	lb					15,653	11,133											
	Rear dozer lowered	lb					*16,424	12,346											
	Rear stabilizer lowered	lb					*16,424	14,440											
	F. stabilizer & r. dozer lowered	lb					*16,424	*16,424											
35.0 ft	2 sets of stabilizers lowered	lb							*15,984	14,220									
	Rear dozer raised	lb							11,133	7,937									
	Rear dozer lowered	lb							*15,984	8,818									
	Rear stabilizer lowered	lb							15,873	10,362									
	F. stabilizer & r. dozer lowered	lb							*15,984	12,456									
30.0 ft	2 sets of stabilizers lowered	lb							*16,535	14,330	14,661	10,582							
	Rear dozer raised	lb							11,354	8,157	8,378	5,842							
	Rear dozer lowered	lb							*16,535	9,039	13,118	6,504							
	Rear stabilizer lowered	lb							16,094	10,472	11,795	7,716							
	F. stabilizer & r. dozer lowered	lb							*16,535	12,566	14,551	9,259							
25.0 ft	2 sets of stabilizers lowered	lb							*16,645	14,330	14,661	10,582	11,244	8,157			*9,700	7,385	36'5"
	Rear dozer raised	lb							11,244	8,047	8,378	5,842	6,393	4,409			5,732	3,858	
	Rear dozer lowered	lb							*16,645	8,929	13,228	6,504	10,141	4,960			9,149	4,409	
	Rear stabilizer lowered	lb							15,984	10,472	11,795	7,716	9,039	5,842			8,157	5,181	
	F. stabilizer & r. dozer lowered	lb							*16,645	12,566	14,551	9,259	11,244	7,165			*9,700	6,393	
20.0 ft	2 sets of stabilizers lowered	lb							*17,086	14,110	14,551	10,472	11,244	8,157			9,259	6,614	38'8"
	Rear dozer raised	lb							11,023	7,826	8,267	5,732	6,283	4,299			5,181	3,417	
	Rear dozer lowered	lb							*17,086	8,708	13,007	6,393	10,031	4,850			8,267	3,858	
	Rear stabilizer lowered	lb							15,763	10,251	11,574	7,606	9,039	5,842			7,385	4,630	
	F. stabilizer & r. dozer lowered	lb							*17,086	12,346	14,440	9,149	11,133	7,055			9,149	5,842	
15.0 ft	2 sets of stabilizers lowered	lb					*21,054	19,621	*17,747	13,669	14,220	10,251	11,133	8,047	8,929	6,393	8,708	6,283	40'0"
	Rear dozer raised	lb					15,212	10,692	10,692	7,496	8,047	5,512	6,173	4,189	4,960	3,307	4,740	3,197	
	Rear dozer lowered	lb					*21,054	11,905	17,306	8,378	12,787	6,173	9,921	4,740	7,937	3,748	7,716	3,638	
	Rear stabilizer lowered	lb					*21,054	13,999	15,322	9,811	11,354	7,385	8,818	5,622	7,055	4,519	6,945	4,299	
	F. stabilizer & r. dozer lowered	lb					*21,054	16,976	*17,747	11,905	14,110	8,929	11,023	6,945	8,818	5,622	8,598	5,401	
10.0 ft	2 sets of stabilizers lowered	lb			*29,652	*29,652	*22,708	18,629	*18,519	13,118	13,889	9,921	10,913	7,826	8,818	6,283	8,378	5,952	40'9"
	Rear dozer raised	lb			22,487	15,212	14,330	9,811	10,141	7,055	7,716	5,291	6,063	4,079	4,850	3,197	4,519	2,976	
	Rear dozer lowered	lb			*29,652	17,196	*22,708	11,023	16,645	7,826	12,456	5,952	9,700	4,630	7,937	3,638	7,496	3,417	
	Rear stabilizer lowered	lb			*29,652	20,613	21,275	13,118	14,771	9,370	11,023	7,055	8,708	5,512	7,055	4,409	6,614	4,189	
	F. stabilizer & r. dozer lowered	lb			*29,652	25,463	*22,708	16,094	18,519	11,464	13,779	8,598	10,803	6,834	8,818	5,512	8,267	5,181	
5.0 ft	2 sets of stabilizers lowered	lb			*32,518	27,888	*23,920	17,527	17,968	12,566	13,558	9,590	10,692	7,606	8,708	6,283	8,267	5,842	40'11"
	Rear dozer raised	lb			20,503	13,338	13,338	8,929	9,590	6,504	7,385	4,960	5,842	3,858	4,740	3,086	4,519	2,866	
	Rear dozer lowered	lb			*32,518	15,322	23,259	10,141	16,094	7,385	12,125	5,622	9,590	4,409	7,826	3,527	7,385	3,307	
	Rear stabilizer lowered	lb			*32,518	18,629	20,172	12,125	14,110	8,818	10,692	6,724	8,488	5,291	6,945	4,299	6,504	4,079	
	F. stabilizer & r. dozer lowered	lb			*32,518	23,369	*23,920	15,102	17,857	10,913	13,448	8,378	10,582	6,614	8,708	5,401	8,157	5,071	
Ground	2 sets of stabilizers lowered	lb	*8,929	*8,929	*32,518	26,125	*23,920	16,645	17,417	12,015	13,228	9,259	10,472	7,496	8,708	6,173			
	Rear dozer raised	lb	*8,929	*8,929	18,850	12,015	12,456	8,157	9,149	6,063	7,055	4,630	5,732	3,748	4,740	2,976			
	Rear dozer lowered	lb	*8,929	*8,929	*32,518	13,779	22,156	9,370	15,543	6,945	11,795	5,291	9,370	4,299	7,716	3,527			
	Rear stabilizer lowered	lb	*8,929	*8,929	31,526	16,976	19,180	11,354	13,669	8,378	10,362	6,393	8,267	5,181	6,834	4,189			
	F. stabilizer & r. dozer lowered	lb	*8,929	*8,929	*32,518	21,716	*23,920	14,220	17,306	10,362	13,118	8,047	10,472	6,504	8,598	5,291			
–5.0 ft	2 sets of stabilizers lowered	lb			*23,038	*23,038	*22,156	16,094	17,086	11,685	13,007	9,039	10,362	7,275					
	Rear dozer raised	lb			17,968	11,244	11,905	7,716	8,818	5,732	6,834	4,519	5,622	3,638					
	Rear dozer lowered	lb			*23,038	13,007	21,495	8,818	15,102	6,614	11,574	5,181	9,259	4,189					
	Rear stabilizer lowered	lb			*23,038	16,204	18,629	10,803	13,228	7,937	10,141	6,173	8,157	5,071					
	F. stabilizer & r. dozer lowered	lb			*23,038	20,834	*22,156	13,669	16,865	10,031	12,897	7,826	10,251	6,283					

* Indicates the load is hydraulically limited.

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- Rated loads do not exceed 87% of the hydraulic lifting capacity or 75% of tipping.
- All weights are calculated at stick nose and without work tool installed.
- Oscillating axle must be locked.

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Lift Capacities – M322D MH

 Load Point Height

 Load at Maximum Reach

 Load Radius Over Front

 Load Radius Over Side

UNDERCARRIAGE – Standard **BOOM** – 6.8 m (22'4") **STICK** – 5.9 m (19'4") Drop Nose

Metric Units/all weights are in kg

	Undercarriage configuration		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m				
12.0 m	2 sets of stabilizers lowered	kg					*7450	*7450											
	Rear dozer raised	kg					7100	5050											
	Rear dozer lowered	kg					*7450	5600											
	Rear stabilizer lowered	kg					*7450	6550											
	F. stabilizer & r. dozer lowered	kg					*7450	*7450											
10.5 m	2 sets of stabilizers lowered	kg							*7250	6450									
	Rear dozer raised	kg							5050	3600									
	Rear dozer lowered	kg							*7250	4000									
	Rear stabilizer lowered	kg							7200	4700									
	F. stabilizer & r. dozer lowered	kg							*7250	5650									
9.0 m	2 sets of stabilizers lowered	kg							*7500	6500	6650	4800							
	Rear dozer raised	kg							5150	3700	3800	2650							
	Rear dozer lowered	kg							*7500	4100	5950	2950							
	Rear stabilizer lowered	kg							7300	4750	5350	3500							
	F. stabilizer & r. dozer lowered	kg							*7500	5700	6600	4200							
7.5 m	2 sets of stabilizers lowered	kg							*7550	6500	6650	4800	5100	3700			*4400	3350	11.11 m
	Rear dozer raised	kg							5100	3650	3800	2650	2900	2000			2600	1750	
	Rear dozer lowered	kg							*7550	4050	6000	2950	4600	2250			4150	2000	
	Rear stabilizer lowered	kg							7250	4750	5350	3500	4100	2650			3700	2350	
	F. stabilizer & r. dozer lowered	kg							*7550	5700	6600	4200	5100	3250			*4400	2900	
6.0 m	2 sets of stabilizers lowered	kg							*7750	6400	6600	4750	5100	3700			4200	3000	11.76 m
	Rear dozer raised	kg							5000	3550	3750	2600	2850	1950			2350	1550	
	Rear dozer lowered	kg							*7750	3950	5900	2900	4550	2200			3750	1750	
	Rear stabilizer lowered	kg							7150	4650	5250	3450	4100	2650			3350	2100	
	F. stabilizer & r. dozer lowered	kg							*7750	5600	6550	4150	5050	3200			4150	2650	
4.5 m	2 sets of stabilizers lowered	kg					*9550	8900	*8050	6200	6450	4650	5050	3650	4050	2900	3950	2850	12.20 m
	Rear dozer raised	kg					6900	4850	4850	3400	3650	2500	2800	1900	2250	1500	2150	1450	
	Rear dozer lowered	kg					*9550	5400	7850	3800	5800	2800	4500	2150	3600	1700	3500	1650	
	Rear stabilizer lowered	kg					*9550	6350	6950	4450	5150	3350	4000	2550	3200	2050	3150	1950	
	F. stabilizer & r. dozer lowered	kg					*9550	7700	*8050	5400	6400	4050	5000	3150	4000	2550	3900	2450	
3.0 m	2 sets of stabilizers lowered	kg			*13 450	*13 450	*10 300	8450	*8400	5950	6300	4500	4950	3550	4000	2850	3800	2700	12.43 m
	Rear dozer raised	kg			10 200	6900	6500	4450	4600	3200	3500	2400	2750	1850	2200	1450	2050	1350	
	Rear dozer lowered	kg			*13 450	7800	*10 300	5000	7550	3550	5650	2700	4400	2100	3600	1650	3400	1550	
	Rear stabilizer lowered	kg			*13 450	9350	9650	5950	6700	4250	5000	3200	3950	2500	3200	2000	3000	1900	
	F. stabilizer & r. dozer lowered	kg			*13 450	11 550	*10 300	7300	8400	5200	6250	3900	4900	3100	4000	2500	3750	2350	
1.5 m	2 sets of stabilizers lowered	kg			*14 750	12 650	*10 850	7950	8150	5700	6150	4350	4850	3450	3950	2850	3750	2650	12.48 m
	Rear dozer raised	kg			9300	6050	6050	4050	4350	2950	3350	2250	2650	1750	2150	1400	2050	1300	
	Rear dozer lowered	kg			*14 750	6950	10 550	4600	7300	3350	5500	2550	4350	2000	3550	1600	3350	1500	
	Rear stabilizer lowered	kg			*14 750	8450	9150	5500	6400	4000	4850	3050	3850	2400	3150	1950	2950	1850	
	F. stabilizer & r. dozer lowered	kg			*14 750	10 600	*10 850	6850	8100	4950	6100	3800	4800	3000	3950	2450	3700	2300	
Ground	2 sets of stabilizers lowered	kg	*4050	*4050	*14 750	11 850	*10 850	7550	7900	5450	6000	4200	4750	3400	3950	2800			
	Rear dozer raised	kg	*4050	*4050	8550	5450	5650	3700	4150	2750	3200	2100	2600	1700	2150	1350			
	Rear dozer lowered	kg	*4050	*4050	*14 750	6250	10 050	4250	7050	3150	5350	2400	4250	1950	3500	1600			
	Rear stabilizer lowered	kg	*4050	*4050	14 300	7700	8700	5150	6200	3800	4700	2900	3750	2350	3100	1900			
	F. stabilizer & r. dozer lowered	kg	*4050	*4050	*14 750	9850	*10 850	6450	7850	4700	5950	3650	4750	2950	3900	2400			
–1.5 m	2 sets of stabilizers lowered	kg			*10 450	*10 450	*10 050	7300	7750	5300	5900	4100	4700	3300					
	Rear dozer raised	kg			8150	5100	5400	3500	4000	2600	3100	2050	2550	1650					
	Rear dozer lowered	kg			*10 450	5900	9750	4000	6850	3000	5250	2350	4200	1900					
	Rear stabilizer lowered	kg			*10 450	7350	8450	4900	6000	3600	4600	2800	3700	2300					
	F. stabilizer & r. dozer lowered	kg			*10 450	9450	*10 050	6200	7650	4550	5850	3550	4650	2850					

* Indicates the load is hydraulically limited.

- Lift capacity ratings are based on ISO 10567 standards.
- Rated loads do not exceed 87% of the hydraulic lifting capacity or 75% of tipping.
- All weights are calculated at stick nose and without work tool installed.
- Oscillating axle must be locked.

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Lift Capacities – M322D MH

 Load Point Height

 Load at Maximum Reach

 Load Radius Over Front

 Load Radius Over Side

UNDERCARRIAGE – Standard **BOOM** – 6.8 m (22'4") **STICK** – 4.8 m (15'9") Straight

English Units/all weights are in lb

	Undercarriage configuration		15.0 ft		20.0 ft		25.0 ft		30.0 ft		35.0 ft				
35.0 ft	2 sets of stabilizers lowered	lb			*20,172	19,731									
	Rear dozer raised	lb			15,322	10,803									
	Rear dozer lowered	lb			*20,172	12,015									
	Rear stabilizer lowered	lb			*20,172	14,110									
	F. stabilizer & r. dozer lowered	lb			*20,172	17,086									
30.0 ft	2 sets of stabilizers lowered	lb			*20,503	19,952	*17,747	13,779							
	Rear dozer raised	lb			15,543	11,023	10,803	7,496							
	Rear dozer lowered	lb			*20,503	12,236	17,417	8,378							
	Rear stabilizer lowered	lb			*20,503	14,330	15,432	9,921							
	F. stabilizer & r. dozer lowered	lb			*20,503	17,306	*17,747	12,015							
25.0 ft	2 sets of stabilizers lowered	lb			*20,613	19,842	*17,637	13,669	14,110	10,141			12,015	8,598	32'6"
	Rear dozer raised	lb			15,432	10,913	10,692	7,496	7,937	5,401			6,614	4,519	
	Rear dozer lowered	lb			*20,613	12,125	17,306	8,378	12,677	6,173			10,692	5,071	
	Rear stabilizer lowered	lb			*20,613	14,220	15,432	9,921	11,244	7,275			9,480	6,063	
	F. stabilizer & r. dozer lowered	lb			*20,613	17,196	*17,637	12,015	13,999	8,818			11,905	7,496	
20.0 ft	2 sets of stabilizers lowered	lb			*21,385	19,401	*17,968	13,448	13,999	10,031	10,803	7,716	10,582	7,606	34'11"
	Rear dozer raised	lb			14,991	10,472	10,472	7,385	7,826	5,401	5,952	3,968	5,842	3,858	
	Rear dozer lowered	lb			*21,385	11,795	17,086	8,157	12,566	6,063	9,700	4,519	9,480	4,409	
	Rear stabilizer lowered	lb			*21,385	13,889	15,102	9,700	11,133	7,165	8,598	5,401	8,378	5,291	
	F. stabilizer & r. dozer lowered	lb			*21,385	16,865	*17,968	11,795	13,889	8,818	10,803	6,724	10,472	6,614	
15.0 ft	2 sets of stabilizers lowered	lb	*28,991	*28,991	*22,597	18,739	*18,519	13,118	13,779	9,811	10,803	7,716	9,811	6,945	36'6"
	Rear dozer raised	lb	22,818	15,432	14,330	9,921	10,141	6,945	7,606	5,181	5,952	3,968	5,401	3,527	
	Rear dozer lowered	lb	*28,991	17,417	*22,597	11,133	16,645	7,826	12,346	5,842	9,590	4,519	8,708	3,968	
	Rear stabilizer lowered	lb	*28,991	20,834	21,385	13,228	14,771	9,259	11,023	6,945	8,488	5,401	7,716	4,850	
	F. stabilizer & r. dozer lowered	lb	*28,991	25,794	*22,597	16,094	18,519	11,354	13,669	8,598	10,692	6,724	9,700	6,063	
10.0 ft	2 sets of stabilizers lowered	lb	*31,857	28,440	*23,700	17,747	18,078	12,566	13,558	9,590	10,692	7,606	9,370	6,614	37'4"
	Rear dozer raised	lb	20,944	13,779	13,558	9,149	9,700	6,504	7,385	4,960	5,842	3,858	5,071	3,307	
	Rear dozer lowered	lb	*31,857	15,763	23,479	10,362	16,094	7,385	12,125	5,622	9,480	4,409	8,378	3,748	
	Rear stabilizer lowered	lb	*31,857	19,070	20,393	12,346	14,220	8,818	10,692	6,724	8,378	5,291	7,385	4,630	
	F. stabilizer & r. dozer lowered	lb	*31,857	23,810	*23,700	15,212	17,968	10,913	13,448	8,267	10,582	6,504	9,259	5,732	
5.0 ft	2 sets of stabilizers lowered	lb	*32,739	26,455	*24,030	16,865	17,527	12,125	13,228	9,259	10,472	7,385	9,259	6,504	37'6"
	Rear dozer raised	lb	19,180	12,236	12,677	8,378	9,259	6,173	7,055	4,740	5,622	3,638	4,960	3,197	
	Rear dozer lowered	lb	*32,739	14,110	22,377	9,480	15,653	6,945	11,795	5,401	9,370	4,189	8,157	3,748	
	Rear stabilizer lowered	lb	31,967	17,306	19,401	11,464	13,669	8,378	10,362	6,393	8,267	5,071	7,275	4,519	
	F. stabilizer & r. dozer lowered	lb	*32,739	22,046	*24,030	14,330	17,417	10,472	13,118	8,047	10,362	6,393	9,149	5,622	
Ground	2 sets of stabilizers lowered	lb	*21,826	*21,826	*22,818	16,204	17,086	11,685	13,007	9,039	10,362	7,275			
	Rear dozer raised	lb	18,078	11,244	12,015	7,716	8,818	5,732	6,834	4,519	5,512	3,527			
	Rear dozer lowered	lb	*21,826	13,118	21,605	8,929	15,212	6,614	11,574	5,181	9,149	4,079			
	Rear stabilizer lowered	lb	*21,826	16,314	18,739	10,913	13,228	8,047	10,141	6,283	8,157	4,960			
	F. stabilizer & r. dozer lowered	lb	*21,826	20,944	*22,818	13,779	16,976	10,031	12,897	7,826	10,251	6,283			
–5.0 ft	2 sets of stabilizers lowered	lb			*19,511	15,763	*15,432	11,464							
	Rear dozer raised	lb			11,685	7,496	8,598	5,512							
	Rear dozer lowered	lb			*19,511	8,598	14,881	6,393							
	Rear stabilizer lowered	lb			18,298	10,582	13,007	7,826							
	F. stabilizer & r. dozer lowered	lb			*19,511	13,338	*15,432	9,811							

* Indicates the load is hydraulically limited.

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- Rated loads do not exceed 87% of the hydraulic lifting capacity or 75% of tipping.
- All weights are calculated at stick nose and without work tool installed.
- Oscillating axle must be locked.

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

Lift Capacities – M322D MH

 Load Point Height

 Load at Maximum Reach

 Load Radius Over Front

 Load Radius Over Side

UNDERCARRIAGE – Standard **BOOM** – 6.8 m (22'4") **STICK** – 4.8 m (15'9") Straight

Metric Units/all weights are in kg

Undercarriage configuration			4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				
10.5 m	2 sets of stabilizers lowered	kg			*9150	8950									
	Rear dozer raised	kg			6950	4900									
	Rear dozer lowered	kg			*9150	5450									
	Rear stabilizer lowered	kg			*9150	6400									
	F. stabilizer & r. dozer lowered	kg			*9150	7750									
9.0 m	2 sets of stabilizers lowered	kg			*9300	9050	*8050	6250							
	Rear dozer raised	kg			7050	5000	4900	3400							
	Rear dozer lowered	kg			*9300	5550	7900	3800							
	Rear stabilizer lowered	kg			*9300	6500	7000	4500							
	F. stabilizer & r. dozer lowered	kg			*9300	7850	*8050	5450							
7.5 m	2 sets of stabilizers lowered	kg			*9350	9000	*8000	6200	6400	4600			5450	3900	9.91 m
	Rear dozer raised	kg			7000	4950	4850	3400	3600	2450			3000	2050	
	Rear dozer lowered	kg			*9350	5500	7850	3800	5750	2800			4850	2300	
	Rear stabilizer lowered	kg			*9350	6450	7000	4500	5100	3300			4300	2750	
	F. stabilizer & r. dozer lowered	kg			*9350	7800	*8000	5450	6350	4000			5400	3400	
6.0 m	2 sets of stabilizers lowered	kg			*9700	8800	*8150	6100	6350	4550	4900	3500	4800	3450	10.64 m
	Rear dozer raised	kg			6800	4750	4750	3350	3550	2450	2700	1800	2650	1750	
	Rear dozer lowered	kg			*9700	5350	7750	3700	5700	2750	4400	2050	4300	2000	
	Rear stabilizer lowered	kg			*9700	6300	6850	4400	5050	3250	3900	2450	3800	2400	
	F. stabilizer & r. dozer lowered	kg			*9700	7650	*8150	5350	6300	4000	4900	3050	4750	3000	
4.5 m	2 sets of stabilizers lowered	kg	*13 150	*13 150	*10 250	8500	*8400	5950	6250	4450	4900	3500	4450	3150	11.12 m
	Rear dozer raised	kg	10 350	7000	6500	4500	4600	3150	3450	2350	2700	1800	2450	1600	
	Rear dozer lowered	kg	*13 150	7900	*10 250	5050	7550	3550	5600	2650	4350	2050	3950	1800	
	Rear stabilizer lowered	kg	*13 150	9450	9700	6000	6700	4200	5000	3150	3850	2450	3500	2200	
	F. stabilizer & r. dozer lowered	kg	*13 150	11 700	*10 250	7300	8400	5150	6200	3900	4850	3050	4400	2750	
3.0 m	2 sets of stabilizers lowered	kg	*14 450	12 900	*10 750	8050	8200	5700	6150	4350	4850	3450	4250	3000	11.38 m
	Rear dozer raised	kg	9500	6250	6150	4150	4400	2950	3350	2250	2650	1750	2300	1500	
	Rear dozer lowered	kg	*14 450	7150	10 650	4700	7300	3350	5500	2550	4300	2000	3800	1700	
	Rear stabilizer lowered	kg	*14 450	8650	9250	5600	6450	4000	4850	3050	3800	2400	3350	2100	
	F. stabilizer & r. dozer lowered	kg	*14 450	10 800	*10 750	6900	8150	4950	6100	3750	4800	2950	4200	2600	
1.5 m	2 sets of stabilizers lowered	kg	*14 850	12 000	*10 900	7650	7950	5500	6000	4200	4750	3350	4200	2950	11.43 m
	Rear dozer raised	kg	8700	5550	5750	3800	4200	2800	3200	2150	2550	1650	2250	1450	
	Rear dozer lowered	kg	*14 850	6400	10 150	4300	7100	3150	5350	2450	4250	1900	3700	1700	
	Rear stabilizer lowered	kg	14 500	7850	8800	5200	6200	3800	4700	2900	3750	2300	3300	2050	
	F. stabilizer & r. dozer lowered	kg	*14 850	10 000	*10 900	6500	7900	4750	5950	3650	4700	2900	4150	2550	
Ground	2 sets of stabilizers lowered	kg	*9900	*9900	*10 350	7350	7750	5300	5900	4100	4700	3300			
	Rear dozer raised	kg	8200	5100	5450	3500	4000	2600	3100	2050	2500	1600			
	Rear dozer lowered	kg	*9900	5950	9800	4050	6900	3000	5250	2350	4150	1850			
	Rear stabilizer lowered	kg	*9900	7400	8500	4950	6000	3650	4600	2850	3700	2250			
	F. stabilizer & r. dozer lowered	kg	*9900	9500	*10 350	6250	7700	4550	5850	3550	4650	2850			
–1.5 m	2 sets of stabilizers lowered	kg			*8850	7150	*7000	5200							
	Rear dozer raised	kg			5300	3400	3900	2500							
	Rear dozer lowered	kg			*8850	3900	6750	2900							
	Rear stabilizer lowered	kg			8300	4800	5900	3550							
	F. stabilizer & r. dozer lowered	kg			*8850	6050	*7000	4450							

* Indicates the load is hydraulically limited.

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- All weights are calculated at stick nose and without work tool installed.
- Oscillating axle must be locked.

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Lift Capacities – M322D MH

Load Point Height | Load at Maximum Reach | Load Radius Over Front | Load Radius Over Side

UNDERCARRIAGE – Material Handling **BOOM** – 6.8 m (22'4") **STICK** – 4.8 m (15'9") Straight

English Units/all weights are in lb

Load Point Height	Undercarriage configuration		15.0 ft		20.0 ft		25.0 ft		30.0 ft		35.0 ft				
35.0 ft	2 sets of stabilizers raised	lb			15,102	11,574									
	2 sets of stabilizers lowered	lb			*20,172	*20,172									
30.0 ft	2 sets of stabilizers raised	lb			15,322	11,795	10,582	8,157							
	2 sets of stabilizers lowered	lb			*20,503	*20,503	*17,747	16,314							
25.0 ft	2 sets of stabilizers raised	lb			15,212	11,685	10,582	8,157	7,826	5,952			6,614	4,960	32'6"
	2 sets of stabilizers lowered	lb			*20,613	*20,613	*17,637	16,314	14,771	12,015			*12,125	10,251	
20.0 ft	2 sets of stabilizers raised	lb			14,771	11,354	10,362	7,937	7,716	5,842	5,952	4,409	5,842	4,299	34'11"
	2 sets of stabilizers lowered	lb			*21,385	*21,385	*17,968	16,094	14,661	11,905	11,354	9,259	11,133	9,039	
15.0 ft	2 sets of stabilizers raised	lb	22,267	16,645	14,110	10,692	10,031	7,606	7,496	5,732	5,842	4,409	5,291	3,968	36'6"
	2 sets of stabilizers lowered	lb	*28,991	*28,991	*22,597	22,487	*18,519	15,653	14,440	11,795	11,244	9,149	10,251	8,378	
10.0 ft	2 sets of stabilizers raised	lb	20,503	14,991	13,338	9,921	9,590	7,165	7,275	5,401	5,732	4,299	5,071	3,748	37'4"
	2 sets of stabilizers lowered	lb	*31,857	*31,857	*23,700	21,495	18,850	15,102	14,110	11,464	11,133	9,039	9,811	8,047	
5.0 ft	2 sets of stabilizers raised	lb	18,739	13,448	12,456	9,149	9,149	6,724	7,055	5,181	5,622	4,079	4,960	3,638	37'6"
	2 sets of stabilizers lowered	lb	*32,739	*32,739	*24,030	20,613	18,298	14,661	13,779	11,133	11,023	8,929	*9,590	7,937	
Ground	2 sets of stabilizers raised	lb	17,637	12,456	11,795	8,598	8,708	6,393	6,834	4,960	5,512	3,968			
	2 sets of stabilizers lowered	lb	*21,826	*21,826	*22,818	19,842	*17,747	14,220	13,558	10,913	*10,582	8,818			
–5.0 ft	2 sets of stabilizers raised	lb			11,464	8,267	8,488	6,173							
	2 sets of stabilizers lowered	lb			*19,511	19,511	*15,432	13,999							

UNDERCARRIAGE – Material Handling **BOOM** – 6.8 m (22'4") **STICK** – 4.8 m (15'9") Straight

Metric Units/all weights are in kg

Load Point Height	Undercarriage configuration		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				
10.5 m	2 sets of stabilizers raised	kg			6850	5250									
	2 sets of stabilizers lowered	kg			*9150	*9150									
9.0 m	2 sets of stabilizers raised	kg			6950	5350	4800	3700							
	2 sets of stabilizers lowered	kg			*9300	*9300	*8050	7400							
7.5 m	2 sets of stabilizers raised	kg			6900	5300	4800	3700	3550	2700			3000	2250	9.91 m
	2 sets of stabilizers lowered	kg			*9350	*9350	*8000	7400	6700	5450			*5500	4650	
6.0 m	2 sets of stabilizers raised	kg			6700	5150	4700	3600	3500	2650	2700	2000	2650	1950	10.64 m
	2 sets of stabilizers lowered	kg			*9700	*9700	*8150	7300	6650	5400	5150	4200	5050	4100	
4.5 m	2 sets of stabilizers raised	kg	10 100	7550	6400	4850	4550	3450	3400	2600	2650	2000	2400	1800	11.12 m
	2 sets of stabilizers lowered	kg	*13 150	*13 150	*10 250	10 200	*8400	7100	6550	5350	5100	4150	4650	3800	
3.0 m	2 sets of stabilizers raised	kg	9300	6800	6050	4500	4350	3250	3300	2450	2600	1950	2300	1700	11.38 m
	2 sets of stabilizers lowered	kg	*14 450	*14 450	*10 750	9750	8550	6850	6400	5200	5050	4100	4450	3650	
1.5 m	2 sets of stabilizers raised	kg	8500	6100	5650	4150	4150	3050	3200	2350	2550	1850	2250	1650	11.43 m
	2 sets of stabilizers lowered	kg	*14 850	*14 850	*10 900	9350	8300	6650	6250	5050	5000	4050	*4350	3600	
Ground	2 sets of stabilizers raised	kg	8000	5650	5350	3900	3950	2900	3100	2250	2500	1800			
	2 sets of stabilizers lowered	kg	*9900	*9900	*10 350	9000	*8050	6450	6150	4950	*4800	4000			
–1.5 m	2 sets of stabilizers raised	kg			5200	3750	3850	2800							
	2 sets of stabilizers lowered	kg			*8850	8850	*7000	6350							

* Indicates the load is hydraulically limited.

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- Rated loads do not exceed 87% of the hydraulic lifting capacity or 75% of tipping.
- All weights are calculated at stick nose and without work tool installed.
- Oscillating axle must be locked.

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Lift Capacities – M322D MH

Load Point Height | Load at Maximum Reach | Load Radius Over Front | Load Radius Over Side

UNDERCARRIAGE – Material Handling **BOOM** – 6.8 m (22'4") **STICK** – 5.9 m (19'4") Drop Nose

English Units/all weights are in lb

Load Point Height	Undercarriage configuration		10.0 ft		15.0 ft		20.0 ft		25.0 ft		30.0 ft		35.0 ft		40.0 ft				
40.0 ft	2 sets of stabilizers raised	lb					15,432	11,905											
	2 sets of stabilizers lowered	lb					*16,424	*16,424											
35.0 ft	2 sets of stabilizers raised	lb							11,023	8,598									
	2 sets of stabilizers lowered	lb							*15,984	*15,984									
30.0 ft	2 sets of stabilizers raised	lb							11,244	8,708	8,267	6,393							
	2 sets of stabilizers lowered	lb							*16,535	*16,535	*14,881	12,566							
25.0 ft	2 sets of stabilizers raised	lb							11,133	8,708	8,267	6,393	6,283	4,850			5,732	4,299	36'5"
	2 sets of stabilizers lowered	lb							*16,645	*16,645	*14,771	12,566	11,795	9,700			*9,700	8,818	
20.0 ft	2 sets of stabilizers raised	lb							10,913	8,488	8,157	6,283	6,283	4,740			5,071	3,858	38'8"
	2 sets of stabilizers lowered	lb							*17,086	16,645	*14,991	12,346	11,685	9,700			*9,590	7,937	
15.0 ft	2 sets of stabilizers raised	lb					14,991	11,464	10,582	8,157	7,937	6,063	6,173	4,630	4,850	3,638	4,740	3,527	40'0"
	2 sets of stabilizers lowered	lb					*21,054	*21,054	*17,747	16,204	14,771	12,125	11,574	9,480	9,370	7,716	9,149	7,496	
10.0 ft	2 sets of stabilizers raised	lb			21,936	16,314	14,110	10,692	10,031	7,606	7,606	5,732	5,952	4,519	4,850	3,527	4,519	3,307	40'9"
	2 sets of stabilizers lowered	lb			*29,652	*29,652	*22,708	22,377	*18,519	15,653	14,440	11,795	11,354	9,370	9,259	7,606	8,818	7,165	
5.0 ft	2 sets of stabilizers raised	lb			19,952	14,551	13,118	9,811	9,480	7,165	7,275	5,512	5,842	4,299	4,740	3,417	4,409	3,197	40'11"
	2 sets of stabilizers lowered	lb			*32,518	*32,518	*23,920	21,275	18,739	15,102	14,110	11,464	11,244	9,149	9,149	7,496	8,598	7,055	
Ground	2 sets of stabilizers raised	lb	*8,929	*8,929	18,409	13,118	12,346	9,039	9,039	6,724	7,055	5,181	5,622	4,189	4,630	3,417			
	2 sets of stabilizers lowered	lb	*8,929	*8,929	*32,518	*32,518	*23,920	20,393	18,188	14,551	13,779	11,133	11,023	8,929	*9,039	7,385			
–5.0 ft	2 sets of stabilizers raised	lb			17,637	12,346	11,795	8,488	8,708	6,393	6,834	4,960	5,512	4,079					
	2 sets of stabilizers lowered	lb			*23,038	*23,038	*22,156	19,731	*17,306	14,220	13,558	10,913	*10,582	8,818					

UNDERCARRIAGE – Material Handling **BOOM** – 6.8 m (22'4") **STICK** – 5.9 m (19'4") Drop Nose

Metric Units/all weights are in kg

Load Point Height	Undercarriage configuration		3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m				
12.0 m	2 sets of stabilizers raised	kg					7000	5400											
	2 sets of stabilizers lowered	kg					*7450	*7450											
10.5 m	2 sets of stabilizers raised	kg							5000	3900									
	2 sets of stabilizers lowered	kg							*7250	*7250									
9.0 m	2 sets of stabilizers raised	kg							5100	3950	3750	2900							
	2 sets of stabilizers lowered	kg							*7500	*7500	*6750	5700							
7.5 m	2 sets of stabilizers raised	kg							5050	3950	3750	2900	2850	2200			2600	1950	11.11 m
	2 sets of stabilizers lowered	kg							*7550	*7550	*6700	5700	5350	4400			*4400	4000	
6.0 m	2 sets of stabilizers raised	kg							4950	3850	3700	2850	2850	2150			2300	1750	11.76 m
	2 sets of stabilizers lowered	kg							*7750	7550	*6800	5600	5300	4400			*4350	3600	
4.5 m	2 sets of stabilizers raised	kg					6800	5200	4800	3700	3600	2750	2800	2100	2200	1650	2150	1600	12.20 m
	2 sets of stabilizers lowered	kg					*9550	*9550	*8050	7350	6700	5500	5250	4300	4250	3500	4150	3400	
3.0 m	2 sets of stabilizers raised	kg			9950	7400	6400	4850	4550	3450	3450	2600	2700	2050	2200	1600	2050	1500	12.43 m
	2 sets of stabilizers lowered	kg			*13 450	*13 450	*10 300	10 150	*8400	7100	6550	5350	5150	4250	4200	3450	4000	3250	
1.5 m	2 sets of stabilizers raised	kg			9050	6600	5950	4450	4300	3250	3300	2500	2650	1950	2150	1550	2000	1450	12.48 m
	2 sets of stabilizers lowered	kg			*14 750	*14 750	*10 850	9650	8500	6850	6400	5200	5100	4150	4150	3400	3900	3200	
Ground	2 sets of stabilizers raised	kg	*4050	*4050	8350	5950	5600	4100	4100	3050	3200	2350	2550	1900	2100	1550			
	2 sets of stabilizers lowered	kg	*4050	*4050	*14 750	*14 750	*10 850	9250	8250	6600	6250	5050	5000	4050	*4100	3350			
–1.5 m	2 sets of stabilizers raised	kg			8000	5600	5350	3850	3950	2900	3100	2250	2500	1850					
	2 sets of stabilizers lowered	kg			*10 450	*10 450	*10 050	8950	*7850	6450	6150	4950	*4800	4000					

* Indicates the load is hydraulically limited.

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Standard Equipment

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

- Operator station
  - Adjustable armrest
  - Ash tray with cigarette lighter
  - Beverage holder
  - Steps uppercarriage
  - Bolt-on FOGS capability
  - Bottle holder
  - Coat hook
  - Parallel windshield wiper and washer
  - Floor mat with storage tray, washable
  - Monitor
    - fuel gauge, engine coolant temperature and hydraulic oil temperature
    - Information and warning messages
    - Filter and fluid change intervals
    - Working hour information
    - Headlight and turning signal display
    - Engine dial setting
    - Clock with 10 day back-up
  - Hydraulic cab riser 2400 mm (94 in)
  - Interior lighting
  - Joysticks, pilot operated
  - Laminated front windshield
  - Tiltable left side console with lock-out for all controls
  - Lower right side literature holder
  - Literature pocket behind seat
  - Mirrors
  - Mobile phone holder
  - Mounting provisions for radio and speakers
  - Parking brake
  - Positive filtered ventilation
  - Power supply, 12V-7A
  - Pressurized cab
  - Rear window, emergency exit
  - Seat belt, retractable
  - Seat with adjustable suspension
  - Skylight
  - Sliding door windows
  - Steering column, tiltable
  - Rear storage compartment
  - Sunshade for windshield and skylight
- Electrical
  - Alternator, 75 amp
  - Lights
    - Boom working light
    - Cab interior
    - Roading lights, front and rear
    - Flashers, (caution)
  - Power disconnect
  - Signal/warning horn
  - Heavy duty maintenance free batteries (2)
- Power Train
  - Air filter
  - Altitude capability, 3000 m (9,842 ft)
  - Automatic engine speed control
  - Automatic starting aid
  - Cat C6.6 ACERT Technology (U.S. Tier 3 and EU Stage IIIa compliant)
  - Fuel filter
  - Fuel/water separator with level indicator
  - Muffler
  - Power mode selector (economy and standard)
  - High ambient cooling 52° C (125° F)
- Undercarriage
  - Creeper speed
  - Four wheel drive
  - Full hydraulic steering with emergency capability
  - MH undercarriage with four welded outriggers
  - Oscillating front axle, lockable with remote greasing point
  - Right and left side anti-skid steps
  - Tool box (left side)
  - Two-piece drive shaft
  - Two speed transmission
  - 25 km/h (16 mph) Top Speed
- Hydraulics
  - Cat XT-6 ES hoses
  - Heavy lift mode
  - Oil cooler separate swing pump
  - Stick regeneration circuit
  - Variable displacement, load sensing hydraulic system
- Other equipment
  - Anti-drift valve for boom cylinder
  - Automatic swing brake
  - Capability to add auxiliary hydraulic circuit
  - Caterpillar Datalink and Electronic Technician capability
  - Caterpillar Product Link ready
  - Counterweight 5400 kg (11,905 lb)
  - S•O•S℠ quick sampling valves for engine oil, hydraulic oil and coolant
  - Uppercarriage access steps
  - Lockable doors and caps with Caterpillar one key security system

Optional Equipment

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

Operator station
- Rearview camera
- Seat
  - Comfort with air suspension and manual weight adjustment
  - Deluxe with vertical and horizontal air suspension, automatic weight adjustment, climate controlled seat cushion and backrest, headrest, premium micro-fiber cloth, pneumatic lumbar support, seat cushion length and angle adjustment
- Falling objects guard
- Seat headrest
- Travel speed lock
- Vandalism guard
- Rain visor
- Windshield
  - Fixed one piece
  - 70/30 removable
- 73 mm (3") static seatbelt
- Heated mirrors
- AM/FM radio
- Fixed Cab Riser, 1200 mm (47")

Electrical
- Rear LED lights
- Rotating beacon

Booms, MH
- MH 6.8 m (22'4")

Booms, Excavation
- One piece excavation 5.7 m (18'6")
- VA excavation 5.4 m (17'10")

Sticks, MH
- Drop nose MH 4.9 m (16'1")
- Long Drop Nose MH 5.9 m (19'4")
- Straight MH 4.8 m (15'8")

Sticks, Excavation
- Industrial 3.3 m (10'10")
- 2.2 m (7'3")
- 2.5 m (8'2")
- 2.8 m (9'3")

Hydraulics
- Biodegradable hydraulic oil

Undercarriage
- MH undercarriage with four welded outriggers and front mounted blade
- Standard bolt-on/pin-on undercarriage
  - Front bolt-on outriggers
  - Rear pin-on dozer blade
  - Rear pin-on outriggers
- Toolbox right side
- Optional tires
  - Dual 10.00-20 solid rubber
  - Dual 11.00-20 Bridgestone FG 16 ply
  - Dual 11.00-20 Nokian Armor Guard 16 ply

Other equipment
- Medium pressure auxiliary hydraulic circuit
- High pressure auxiliary hydraulic circuit
- 2nd High pressure auxiliary hydraulic circuit
- Joystick steering
- Machine security system
- Custom paint

M322D Material Handler

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

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

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