M318D MH
M322D MH

Wheel
Material Handlers

	M318D MH	M322D MH
Cat® C6.6 engine with ACERT™ Technology		
Net power (ISO 9249)	124 kW/169 hp	123 kW/167 hp
Operating weight	21 100 to 23 400 kg	23 500 to 25 700 kg
Maximum reach (stick pin)	11 000 mm	12 480 mm
Maximum height (stick pin)	12 040 mm	13 300 mm

M318D MH and M322D MH Wheel Material Handlers

The D series Material Handlers incorporate innovations for improved performance and versatility.

Engine

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

Hydraulics

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

Operator Comfort

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

Environmentally Responsible Design

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

SmartBoom™

✔ More productive. Faster cycle times for material handling. More fuel efficiency. **pg. 5**

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

✔ *New Feature*

Elevated Cab

✔ The new D-Series Material Handler elevated cab options have undergone many design changes to focus on operator safety and comfort while maintaining the best solution to maximize visibility to all sides of the machine. **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. 8**

Booms and Sticks

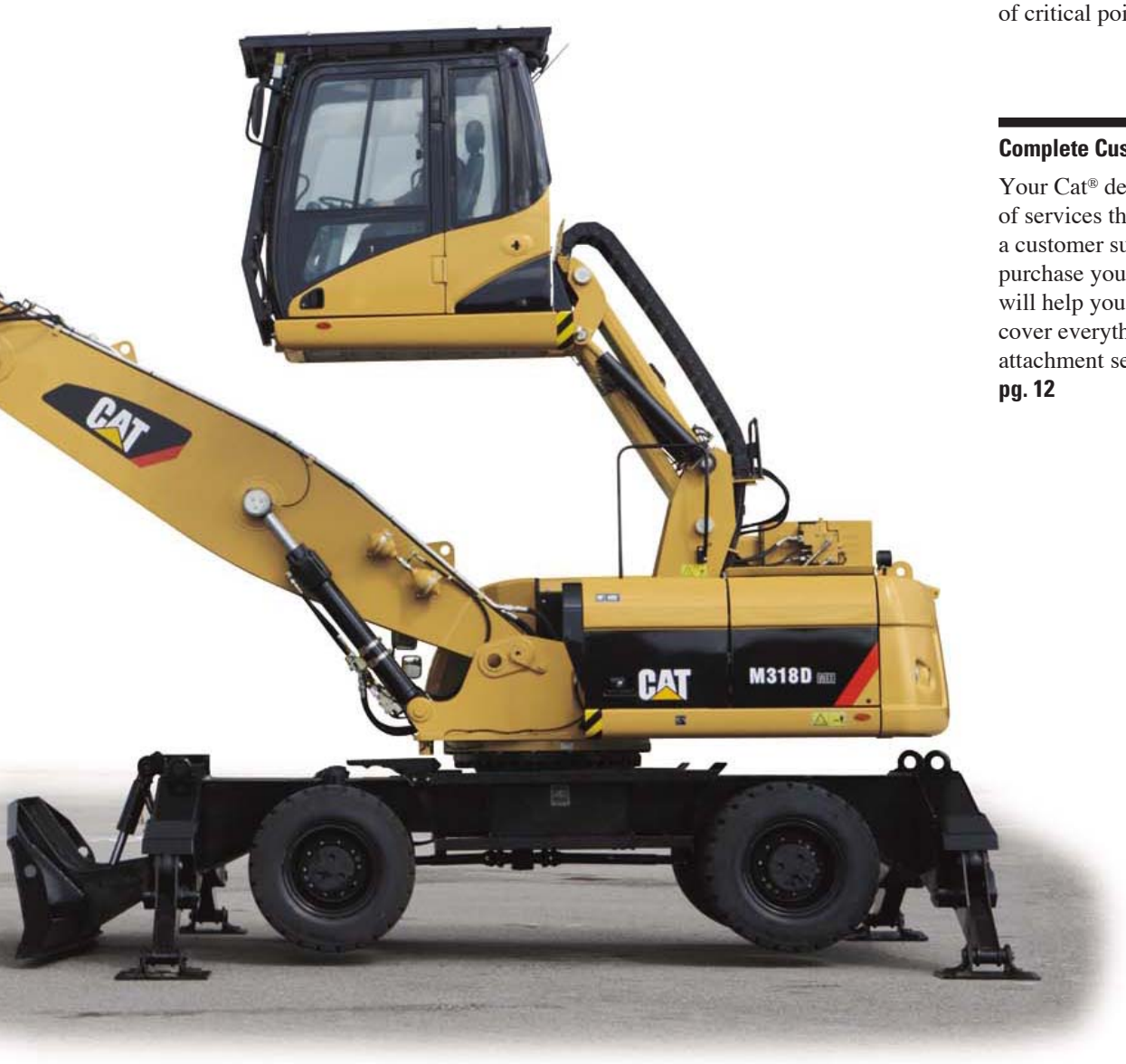
Caterpillar® excavator booms and sticks are built for performance and long service life. The box section design provides the strength needed for even the toughest applications. Multiple boom and stick options allow you to pick the best match for your job. **pg. 10**

Versatility

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

Serviceability

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

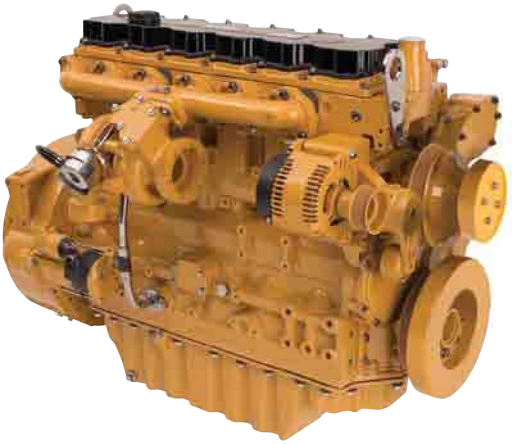


Complete Customer Service

Your Cat® dealer offers a wide range of services that can be set up under a customer support agreement when you purchase your equipment. Your dealer will help you choose a plan that can cover everything from machine and attachment selection to replacement. **pg. 12**

Engine

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



Powerful Performance. The Cat C6.6 engine with ACERT Technology introduces a series of evolutionary, incremental improvements that provide breakthrough engine performance. The building blocks of ACERT Technology are fuel delivery, air management and electronic control. ACERT Technology optimizes engine performance while meeting EU Stage IIIA engine emission regulations. The Cat C6.6 engine in the M318D MH and M322D MH deliver a maximum gross power of 130 kW (M318D) and 129 kW (M322D).

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

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

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

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

Waste Handling Package. The Waste Handling Package has been specifically developed for Material Handlers 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.

Environmentally Responsible Design

The D-Series Material Handlers help build a better world and preserve the fragile environment.

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

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

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

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

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

Hydraulics

Fast cycle times and increased lift capacity combine to maximize your productivity in any job.

Improved Implement Speed. Due to new spools and increased horsepower, the D-Series Material Handlers are 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. Adjustable Hydraulic Sensitivity allows the operator to adjust the aggressiveness of the machine according to the application. For precision work, one of three different levels of aggressiveness can be pre-selected.

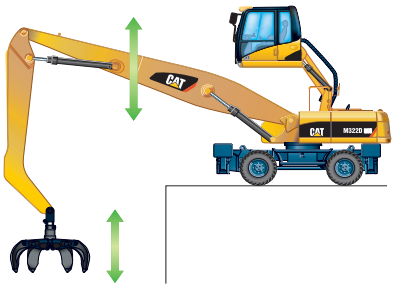
Proportional Auxiliary Hydraulics. Versatility of the hydraulic system can be expanded to utilize a wide variety of hydraulic work tools using multiple valve options.

- 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.

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 shocks, reduce sound and increase cylinder life.

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



SmartBoom. It allows the operator to fully concentrate on production. The unique Cat SmartBoom significantly enhances operator comfort and job efficiency. Loading is more productive and more fuel efficient as the return cycle is reduced while the boom down function does not require pump flow.

Operator Comfort

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

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 with a skylight for added upward visibility. Direct sunlight is diverted with the retractable sunshield.

Interior Operator Station. Improved visibility and ergonomics are some of the many new features of the D-Series Material Handler Operator Station. The pressurized cab 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 the 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 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. Interior noise levels are substantially reduced due to the cab shell being attached to the frame with rubber mounts that limit vibration and sound transmitted from the frame.

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 adjusts to the driver’s weight providing a more relaxed and comfortable environment.

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

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

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

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

Elevated Cab

Fixed and hydraulic cab risers are available to maximize viewing to all sides of the machine.

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. This provides optimal viewing for all material handling jobs.

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 to offer better viewing around the machine. Well positioned steps lead up to the cab from the ground level. Fixed cab riser option is only available for the M322D MH.

Undercarriage and Drive Line

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 M318D MH and M322D MH come 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 M318D MH and M322D MH driveline design effectively utilize the 19% increase in engine torque and 10% increase in power to provide a comfortable ride with improved smoothness, hydraulic retarding, and gear shifting commonly used during travel between material handling jobs.

Ground Clearance. A compact undercarriage design provides the M318D MH and M322D MH with optimum ground clearance during travel.

Booms and Sticks

Improved strength and kinematics help to bring higher production and efficiency to all jobs.

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.

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.

M318D MH Sticks. Two options of MH sticks are available for the M318D MH, all equipped with high and medium pressure auxiliary lines. The 4900 mm Drop Nose Stick offers the reaching and lifting capabilities required for typical MH applications, while the 4200 mm Straight Stick is the best solution for when additional work tool functionality is needed.

M322D 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 Drop Nose Stick offers the reaching and lifting capabilities required for typical MH applications, while the 5900 mm Long Drop Nose Stick is ideal when maximum reach is necessary. The 4800 mm Straight Stick is the best solution when additional work tool functionality is needed.

Special Applications. The M318D MH and 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 mill yard applications.

Versatility

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

Control Settings. Two selectable control settings are available to choose from in order to get the best power output from the engine and hydraulics and 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 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.

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.

Serviceability and Complete Customer Support

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

Ground Level Maintenance. Caterpillar designed its D-Series 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 4000 hours. Engine coolant change intervals are 12 000 hours with Cat Extended Life Coolant.

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

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

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

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

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

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

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

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

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

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

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

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

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

Remote Greasing Blocks. For those hard to reach locations, remote greasing blocks for the swing bearing and front-end-attachments have been provided to reduce maintenance time. For the under-carriage, two remote blocks provide easy access for greasing the oscillating axle and, as an option, the dozer blade.

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

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

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

Storage Box. Two toolboxes in the undercarriage provide enough storage room. Additionally a waterproof storage box can be integrated into the upper structure steps.

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

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

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

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

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

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

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

Engine

	M318D	M322D
Cat C6.6 with ACERT Technology		
Ratings	1800 rpm	2000 rpm
Gross power	130 kW/177 hp	129 kW/175 hp
Net power		
ISO 9249	124 kW/169 hp	123 kW/167 hp
EEC 80/1269	124 kW/169 hp	123 kW/167 hp
Bore	105 mm	105 mm
Stroke	127 mm	127 mm
Displacement	6.6 liters	6.6 liters
Cylinders	6	6
Maximum torque at 1400 rpm	805 Nm	750 Nm

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

Transmission

	M318D	M322D
1st gear, forward/reverse	8 km/h	7 km/h
2nd gear, forward/reverse	25 km/h	25 km/h
Creeper speed (first gear)	3 km/h	3 km/h
Creeper speed (second gear)	13 km/h	11 km/h
Drawbar pull	103 kN	112 kN
Maximum Gradeability	47%	52%

Undercarriage

	M318D	M322D
Ground clearance	380 mm	380 mm
Maximum steering angle	35°	35°
Oscillation axle angle	± 6°	± 6°
Minimum turning radius		
Standard axle		
outside of tire	6800 mm	6800 mm
end of VA boom	7100 mm	7800 mm
end of one-piece boom	8500 mm	9300 mm

Cab

FOGS meets ISO 10262.

Hydraulic System

	M318D	M322D
Tank capacity	170 l	220 l
System	270 l	335 l
Maximum pressure		
Implement circuit		
normal	350 bar	350 bar
heavy lift	375 bar	375 bar
Travel circuit	350 bar	350 bar
Auxiliary circuit		
high pressure	350 bar	350 bar
medium pressure	200 bar	200 bar
Swing mechanism	310 bar	340 bar
Maximum flow		
Implement/travel circuit	290 l/min	350 l/min
Auxiliary circuit		
high pressure	250 l/min	250 l/min
medium pressure	50 l/min	50 l/min
Swing mechanism	112 l/min	112 l/min

Swing Mechanism

	M318D	M322D
Swing speed	10 rpm	9 rpm
Swing torque	46 kNm	56 kNm

Service Refill Capacities

	M318D	M322D
	Liter	Liter
Fuel tank capacity	310	385
Cooling	32	33
Engine crankcase	15	15
Rear axle housing (differential)	14	14
Front steering axle (differential)	11	11
Final drive	2.5	2.5
Powershift transmission	2.5	2.5

Sound Levels

Operator Sound. The operator sound level measured according to the procedures specified in ISO 6394:1998 is 72 dB(A).

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

Weights

	M318D	M322D
MH boom	kg	kg
rear dozer only	20 300	22 550
rear dozer, front outriggers	21 500	23 750
front and rear outriggers	21 850	24 100
with MH undercarriage	21 450	23 700
with MH undercarriage and push blade	22 125	24 375
VA boom		
rear dozer only	20 650	22 900
rear dozer, front outriggers	21 850	24 100
front and rear outriggers	22 200	24 450
with MH undercarriage	21 800	24 050
with MH undercarriage and push blade	22 475	24 725
One-piece boom		
rear dozer only	20 050	22 300
rear dozer, front outriggers	21 250	23 500
front and rear outriggers	21 600	23 850
with MH undercarriage	21 200	23 450
with MH undercarriage and push blade	21 875	24 125

	M318D	M322D
Sticks	kg	kg
MH straight	950	1100
MH drop nose short	840	910
MH drop nose long	–	1080
digging short	550	650
digging medium	580	700
digging long	600	780
industrial	520	–
MH push blade (with MH undercarriage)	675	675
Dozer blade	770	920
Outriggers	1030	1260
Counterweights		
Standard	4000	4400
Optional	–	5400

Tire Options

10.00-20 (dual solid rubber)
11.00-20 (dual pneumatic)

Work Tools Matching Guide

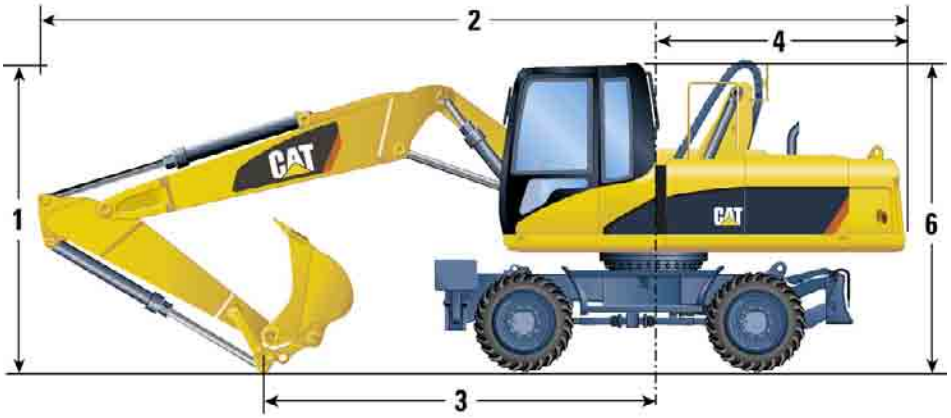
Without quick coupler			Boom	M318D MH – 6200 mm				M322D MH – 6800 mm					
			Undercarriage	MH		Standard		MH			Standard		
			Stick length (mm)	4900	4200	4900	4200	4900	5900	4800	4900	5900	4800
360° rotatable Shears*	S325, S340												
Multi-Grapples	G315B	D, R		×		×		×	×		×	×	
Orange Peel Grapples (5 tines)	GSH15B	400, 500, 600											
		800											
	GSH20B	600											
		800					×					×	
		1000			×	×					×	×	×
Orange Peel Grapples (4 tines)	GSH15B	400, 500, 600											
		800											
	GSH20B	600											
		800											
		1000		×		×							×
With quick coupler													
Quick Couplers	CW-30, 30S			×		×		×	×	×	×	×	×
	CW-40, 40S			×	×	×	×	×	×		×	×	
Multi-Grapples	G315B	D, R		×		×		×			×	×	

* boom mounted

360° Working Range
Quick coupler match
× Not Compatible
Maximum Material density 3000 kg/m³
Maximum Material density 1800 kg/m³
Maximum Material density 1200 kg/m³

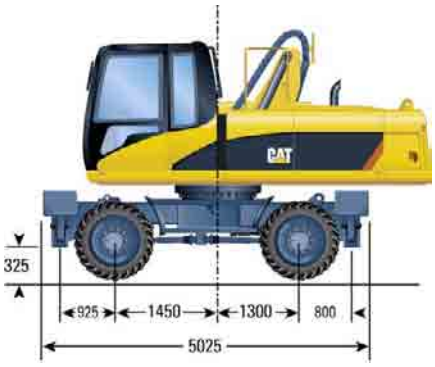
Dimensions with Standard Undercarriage

All dimensions are approximate – measured in mm

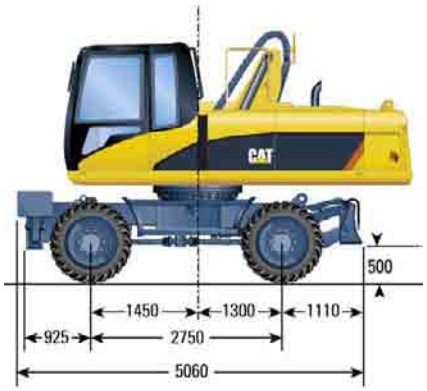


		M318D/M322D VA boom		M318D/M322D One-piece boom	
		mm	mm	mm	mm
1	Shipping height				
	2200 mm stick	3320	3350	3320	3350
	2500 mm stick	3320	3350	3320	3350
	2800 mm stick	3320	–	3320	–
	2900 mm stick	–	3350	–	3350
2	Shipping length				
	2200 mm stick	8870	9550	8970	9750
	2500 mm stick	8850	9550	8960	9720
	2800 mm stick	8820	–	8950	–
	2900 mm stick	–	9540	–	9720
3	Support Point				
	2200 mm stick	3960	4380	3830	4270
	2500 mm stick	3640	3830	3500	3810
	2800 mm stick	3510	–	3330	–
	2900 mm stick	–	3530	–	3440
4	Tail swing radius	2500	2820	2500	2820
5	Counterweight clearance	1310	1310	1310	1310
6	Cab height				
	with 1200 mm Fixed Cab Raiser	–	4440	–	4440
	with hydraulic cab riser (lowered)	3240	3240	3240	3240
	with hydraulic cab riser (raised)	5640	5640	5640	5640
7	Stabilizer width on ground	3960	3960	3960	3960

Undercarriage with 2 sets of outriggers

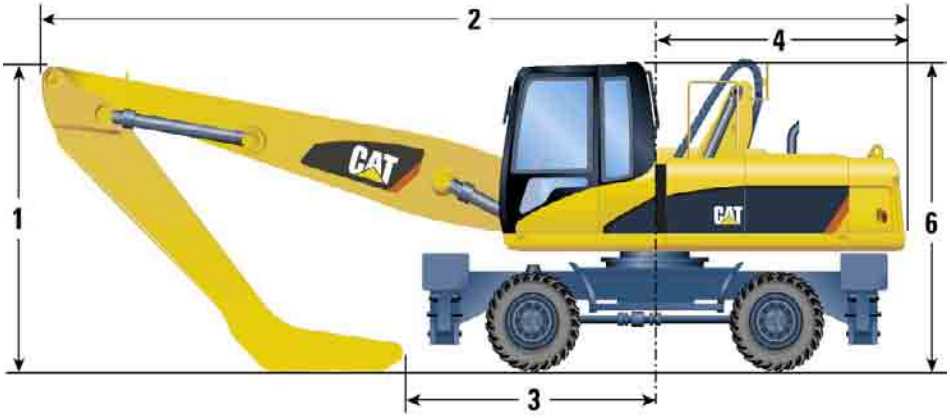


Undercarriage with 1 set of outriggers and dozer

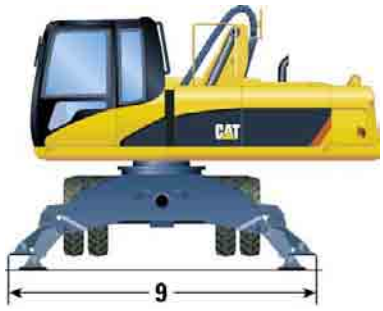


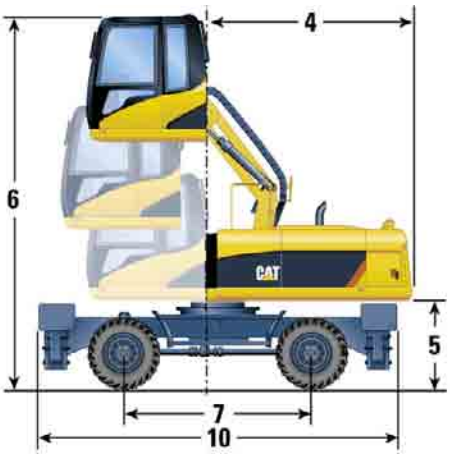
Dimensions with MH Undercarriage

All dimensions are approximate – measured in mm

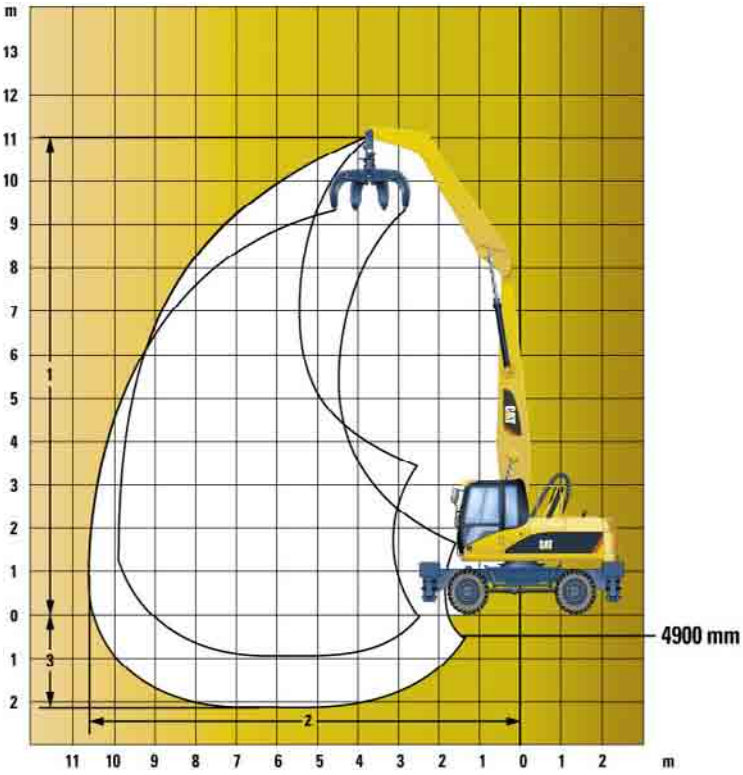


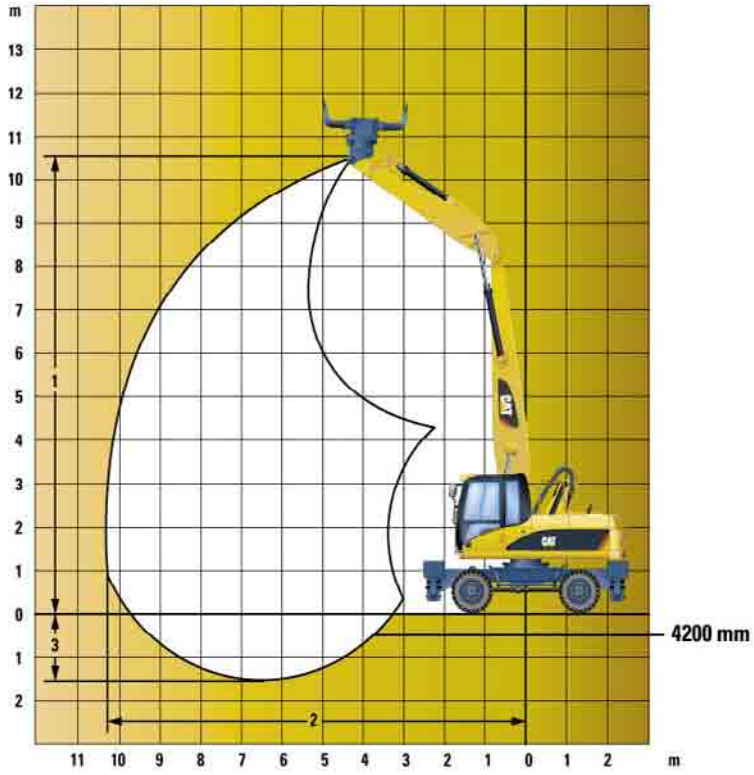
	M318D	M322D
	mm	mm
1 Shipping height		
4200 mm straight stick	3400	–
4800 mm straight stick	–	3410
4900 mm drop nose stick	3400	3410
5900 mm drop nose stick (removed)	–	3350
5900 mm drop nose stick (installed)	–	3350
2 Shipping length		
4200 mm straight stick	9060	–
4800 mm straight stick	–	9870
4900 mm drop nose stick	9060	9870
5900 mm drop nose stick (removed)	–	9930
5900 mm drop nose stick (installed)	–	15 130
3 Support Point		
4200 mm straight stick	3160	–
4800 mm straight stick	–	3250
4900 mm drop nose stick	2720	–
5900 mm drop nose stick (installed)	–	15 010
4 Tail swing radius	2500	2820
5 Counterweight clearance	1310	1310
6 Cab Height		
with 1200 mm Fixed Cab Raiser	–	4440
with Hydraulic Cab Riser (lowered)	3240	3240
with Hydraulic Cab Riser (raised)	5640	5640
7 Wheel base	2750	2750
8 Undercarriage width	2990	2990
9 Stabilizer width on ground	4360	4360
10 Undercarriage length	5250	5250





Working Ranges – M318D MH

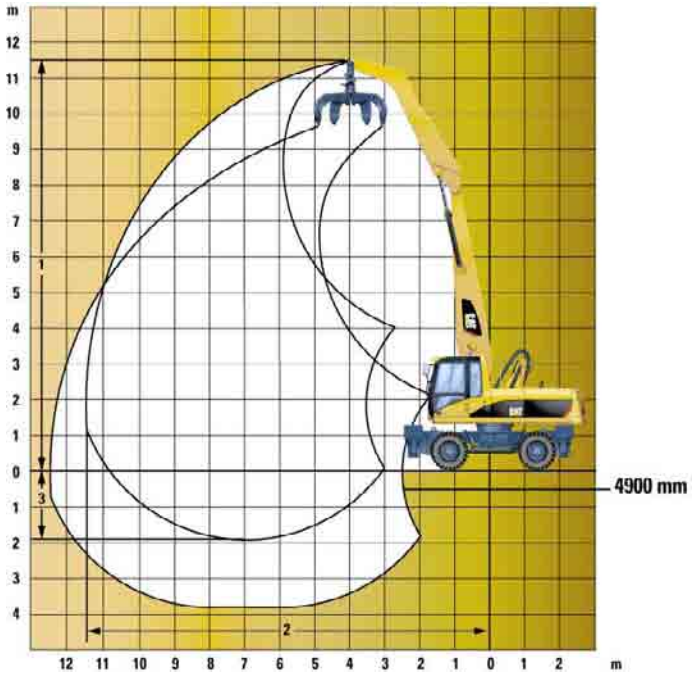


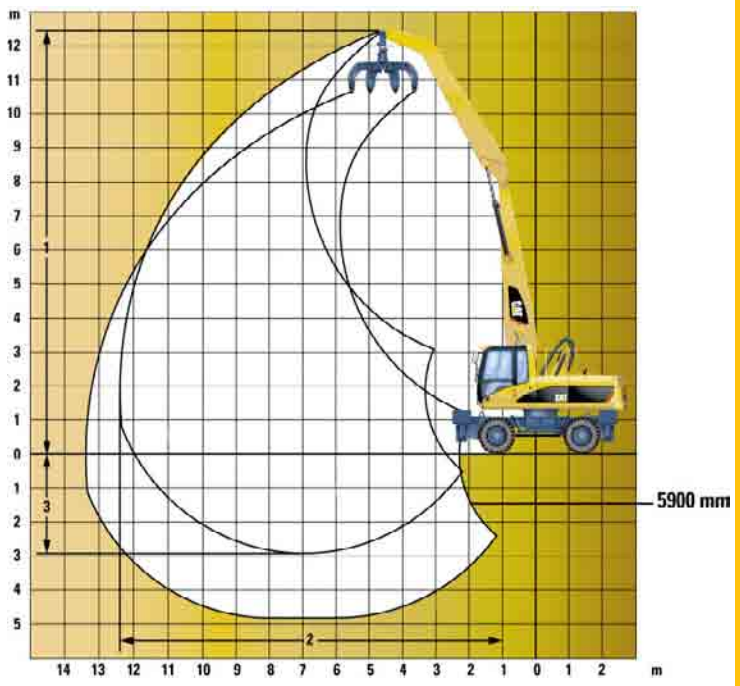


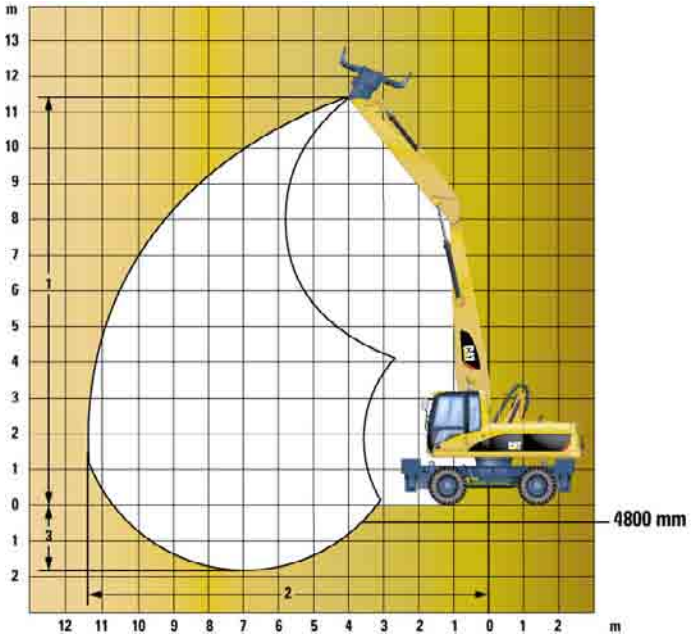
Undercarriage Material Handling

		MH drop nose 4900 mm	MH straight stick 4200 mm
Boom Length	mm	6200	6200
Maximum Height	mm	12 040	11 490
Minimum Dump Height	mm	3690	4330
1 Maximum Reach	mm	11 000	10 350
2 Maximum Reach at Ground Level	mm	10 620	10 180
3 Maximum Depth	mm	2190	1480

Working Ranges – M322D MH







Undercarriage Material Handling

		MH drop nose 4900 mm	MH drop nose 5900 mm	MH straight stick 4800 mm
Boom Length	mm	6800	6800	6800
Maximum Height	mm	12 500	13 300	12 430
Minimum Dump Height	mm	4030	3090	4120
1 Maximum Reach	mm	11 530	12 480	11 430
2 Maximum Reach at Ground Level	mm	10 850	12 050	11 280
3 Maximum Depth	mm	1920	2920	1820

Lift Capacities – M318D MH

All weights are in kg.

Undercarriage
Standard

Boom
6200 mm

Stick
4200 mm

	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m			9.0 m						m
10.5 m	2 sets stab down				*8400		*8400													
	Rear dozer up				*8400		6000													
	Rear dozer down					*8400	6800													
	Rear stab down					*8400	8250													
	Dozer and stab down				*8400		*8400													
9.0 m	2 sets stab down							*8350		7500										
	Rear dozer up							5700		3900										
	Rear dozer down								*8350	4400										
	Rear stab down								*8350	5250										
	Dozer and stab down							*8350		6450										
7.5 m	2 sets stab down							*8600		7500	*7350		5200						4050	8.64
	Rear dozer up							5750		3900	4000		2700				*5200		2050	
	Rear dozer down								*8600	4400		6550	3050				3100	5100	2350	
	Rear stab down								8550	5250		5800	3650					4500	2850	
	Dozer and stab down							*8600		6450	*7350		4500				*5200		3550	
6.0 m	2 sets stab down				*10900		*10900	*8800		7400	7350		5150	5400		3800	4950		3500	9.46
	Rear dozer up				9000		6000	5650		3800	3950		2650	2900		1900	2650		1750	
	Rear dozer down					*10900	6800		*8800	4300		6500	3000		4800	2200		4400	2000	
	Rear stab down					*10900	8200		8400	5150		5750	3600		4200	2650		3850	2400	
	Dozer and stab down				*10900		10250	*8800		6350	7300		4450	5350		3300	4950		3050	
4.5 m	2 sets stab down	*14800		*14800	*11850		11650	*9200		7150	7250		5000	5350		3750	4550		3200	10.10
	Rear dozer up	*14800		10800	8550		5600	5400		3600	3850		2550	2850		1850	2400		1550	
	Rear dozer down		*14800	12600		*11850	6400		*9200	4100		6400	2900		4750	2150		4000	1800	
	Rear stab down		*14800	*14800		*11850	7800		8150	4950		5600	3500		4200	2600		3500	2150	
	Dozer and stab down	*14800		*14800	*11850		9800	*9200		6150	7150		4350	5300		3250	4500		2750	
3.0 m	2 sets stab down				*12850		10950	*9550		6850	7050		4805	5300		3700	4300		3000	10.28
	Rear dozer up				7950		5050	5150		3350	3700		2400	2800		1800	2250		1450	
	Rear dozer down					*12850	5850		9050	3850		6200	2750		4650	2050		3750	1650	
	Rear stab down					*12850	7200		7800	4650		5450	3350		4100	2550		3350	2050	
	Dozer and stab down				*12850		9150	*9550		5850	7000		4200	5250		3200	4250		2600	
1.5 m	2 sets stab down				*12900		10300	*9500		6550	6900		4700	5200		3600	4250		2950	10.34
	Rear dozer up				7350		4550	4850		3100	3550		2250	2700		1750	2200		1400	
	Rear dozer down					*12900	5300		8700	3550		6050	2600		4550	2000		3700	1600	
	Rear stab down					12350	6600		7500	4400		5300	3200		4000	2450		3250	2000	
	Dozer and stab down				*12900		8550	*9500		5550	6850		4050	5150		3100	4200		2550	
0 m	2 sets stab down				*9650		*9650	*8800		6350	6750		4600	5150		3550				
	Rear dozer up				7050		4250	4650		2900	3400		2150		2650	1700				
	Rear dozer down					*9650	5000		8450	3400		5900	2500		4500	1950				
	Rear stab down					*9650	6300		7250	4200		5150	3100	3950		2400				
	Dozer and stab down				*9650		8200	*8800		5350	6700		3900	5100		3050				

Undercarriage
Material Handling

Boom
6200 mm

Stick
4200 mm

	Undercarriage configuration	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
10.5 m	All stabilizers up			*8400	6550									
	All stabilizers down			*8400	*8400									
9.0 m	All stabilizers up					5650	4250							
	All stabilizers down					*8350	*8350							
7.5 m	All stabilizers up					5650	4300	3950	2950			3100	2300	8.64
	All stabilizers down					*8600	*8600	*7350	6250			*5200	4900	
6.0 m	All stabilizers up			8850	6550	5550	4200	3900	2950	2900	2150	2650	1950	9.46
	All stabilizers down			*10 900	*10 900	*8800	*8800	*7400	6200	5700	4600	*5050	4250	
4.5 m	All stabilizers up	*14 800	11 750	8400	6150	5350	4000	3800	2800	2850	2100	2400	1750	10.00
	All stabilizers down	*14 800	*14 800	*11 850	*11 850	*9200	8750	*7500	6100	5650	4550	4750	3850	
3.0 m	All stabilizers up			7800	5600	5100	3700	3650	2700	2800	2050	2250	1650	10.28
	All stabilizers down			*12 850	*12 850	*9550	8400	7400	5900	5550	4500	4550	3650	
1.5 m	All stabilizers up			7250	5100	4800	3450	3500	2550	2700	1950	2200	1600	10.43
	All stabilizers down			*12 900	*12 900	*9500	8100	7250	5750	5500	4400	*4300	3600	
0 m	All stabilizers up			6900	4800	4600	3300	3400	2450	2650	1900			
	All stabilizers down			*9650	*9650	*8800	7850	*6800	5650	*5150	4350			

Load point height

Load over front

Load over rear

Load over side

Load at maximum reach

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

Undercarriage
Standard

Boom
6200 mm

Stick
4900 mm

	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m			9.0 m			10.5 m						m
10.5 m	2 sets stab down							*6500		*6500													
	Rear dozer up							5800		4000													
	Rear dozer down								*6500	4500													
	Rear stab down								*6500	5350													
	Dozer and stab down							*6500		*6500													
9.0 m	2 sets stab down							*7850		7700	*6300		5350										
	Rear dozer up							5950		4100	4150		2850										
	Rear dozer down								*7850	4600		*6300	3200										
	Rear stab down								*7850	5450		5950	3800										
	Dozer and stab down							*7850		6650	*6300		4650										
7.5 m	2 sets stab down							*8200		7700	*7150		5350	*5500		3950				*4450		3650	9.42
	Rear dozer up							5950		4100	4150		2850	3050		2050				2800		1900	
	Rear dozer down								*8200	4600		6750	3200		4950	2350					*4450	2150	
	Rear stab down								*8200	5450		5950	3800		4400	2800					4050	2550	
	Dozer and stab down							*8200		6650	*7150		4650	*5500		3450				*4450		3200	
6.0 m	2 sets stab down							*8450		7600	*7250		5300	5550		3950				*4300		3250	10.18
	Rear dozer up							5800		4000	4100		2800	3050		2050				2450		1650	
	Rear dozer down								*8450	4500		6700	3150		4950	2300					4000	1850	
	Rear stab down								*8450	5350		5900	3750		4350	2800					3550	2250	
	Dozer and stab down							*8450		6550	*7250		4600	5500		3450				*4300		2800	
4.5 m	2 sets stab down				*11200		*11200	*8950		7350	7400		5150	5500		3900	4300		3005	4200		2950	10.68
	Rear dozer up				8900		5900		5600	3800	3950		2700	3000		2000	2350		1500	2250		1450	
	Rear dozer down					*11200	6700		*8950	4300		6550	3050		4850	2250		3800	1750		3700	1700	
	Rear stab down					*11200	8100	8350		5150		5750	3650		4300	2700		3350	2100		3250	2050	
	Dozer and stab down				*11200		10100	*8950		6350	7350		4500	5450		3400	4250		2650	4150		2600	
3.0 m	2 sets stab down	*18650		*18650	*12450		11350	*9450		7050	7200		5000	5400		3800	4250		3000	4000		2850	10.94
	Rear dozer up	16900		10000	8300		5400	5350		3550	3800		2550	2900		1900	2300		1500	2150		1400	
	Rear dozer down		*18650	11800		*12450	6150		9250	4000		6350	2900		4750	2200		3750	1700		3500	1600	
	Rear stab down		*18650	15050		*12450	7500		8050	4850		5600	3500		4200	2650		3300	2100		3100	1950	
	Dozer and stab down	*18650		*18650	*12450		9500	*9450		6050	7150		4350	5350		3300	4200		2600	3950		2450	
1.5 m	2 sets stab down				*13100		10650	*9650		6750	7050		4850	5300		3700	4200		2950	3950		2800	11.00
	Rear dozer up				7650		4850	5050		3250	3650		2400	2800		1850	2250		1450	2100		1350	
	Rear dozer down					*13100	5600		8900	3750		6200	2750		4650	2100		3700	1650		3450	1550	
	Rear stab down					12700	6900		7700	4550		5400	3300		4100	2550		3300	2050		3050	1900	
	Dozer and stab down				*13100		8850	*9650		5750	6950		4150	5250		3200	4150		2550	3900		2400	
0 m	2 sets stab down	*3500		*3500	*12200		10150	*9300		6500	6850		4700	5200		3650	*4100		2950				
	Rear dozer up	*3500		*3500	7250		4450	4800		3050	3550		2250	2750		1750		2200	1400				
	Rear dozer down		*3500	*3500		*12200	5200		8600	3500		6050	2600		4600	2050		3650	1650				
	Rear stab down		*3500	*3500		12150	6500		7400	4300		5250	3200		4050	2500	3250		2000				
	Dozer and stab down	*3500		*3500	*12200		8400	*9300		5500	6800		4050	5150		3150	*4100		2550				
-1.5 m	2 sets stab down				*9600		*9600	*8100		6350	*6300		4600	*4750		3600							
	Rear dozer up				7050		4250	4650		2900	3450		2200	2700		1700							
	Rear dozer down					*9600	5000		*8100	3400		5950	2500		4550	2000							
	Rear stab down					*9600	6300		7250	4200		5150	3100		4000	2450							
	Dozer and stab down				*9600		8200	*8100		5350	*6300		3950	*4750		3100							

Undercarriage
Material Handling

Boom
6200 mm

Stick
4900 mm

	Undercarriage configuration	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m					m
10.5 m	All stabilizers up					5750	4350										
	All stabilizers down					*6500	*6500										
9.0 m	All stabilizers up					5850	4450	4100	3100								
	All stabilizers down					*7850	*7850	*6300	*6300								
7.5 m	All stabilizers up					5850	4450	4100	3150	3050	2300			2800	210		9.42
	All stabilizers down					*8200	*8200	*7150	6400	*5500	4750			*4450	4400		
6.0 m	All stabilizers up					5750	4350	4050	3100	3050	2300			2450	1850		10.18
	All stabilizers down					*8450	*8450	*7250	6350	5850	4750			*4300	3900		
4.5 m	All stabilizers up			8750	6450	5550	4150	3950	2950	3000	2250	2350	1700	2250	1650		10.68
	All stabilizers down			*11 200	*11 200	*8950	*8950	*7450	6250	5800	4700	4550	3700	*4350	3600		
3.0 m	All stabilizers up	16 200	10 950	8150	5900	5250	3900	3800	2850	2900	2150	2300	1700	2150	1550		10.94
	All stabilizers down	*18 650	*18 650	*12 450	*12 450	*9450	8600	7550	6050	5700	4600	4500	3650	4200	3450		
1.5 m	All stabilizers up			7550	5350	5000	3650	3650	2700	2800	2050	2250	1650	2100	1550		11.00
	All stabilizers down			*13 100	*13 100	*9650	8300	7350	5900	5600	4500	4450	3600	4150	3350		
0 m	All stabilizers up	*3500	*3500	7100	4950	4750	3400	3500	2550	2750	2000	2200	1600				
	All stabilizers down	*3500	*3500	*12 200	*12 200	*9300	8000	7200	5750	5500	4450	*4100	3550				
-1.5 m	All stabilizers up			6900	4800	4600	3300	3400	2450	2700	1950						
	All stabilizers down			*9600	*9600	*8100	7850	*6300	5650	*4750	4350						

Lift Capacities – M322D MH

All weights are in kg.

Undercarriage
Standard

Boom
6800 mm

Stick
4800 mm

	Undercarriage configuration	4.5 m			6.0 m			7.5 m			9.0 m			10.5 m						m
10.5 m	2 sets stab down				*9150		8950													
	Rear dozer up				6950		4900													
	Rear dozer down					*9150	5450													
	Rear stab down					*9150	6400													
	Dozer and stab down				*9150		7750													
9.0 m	2 sets stab down				*9300		9050	*8050		6250										
	Rear dozer up				7050		5000	4900		3400										
	Rear dozer down					*9300	5550		7900	3800										
	Rear stab down					*9300	6500		7000	4500										
	Dozer and stab down				*9300		7850	*8050		5450										
7.5 m	2 sets stab down				*9350		9000	*8000		6200	6400		4600				5450		3900	9.91
	Rear dozer up				7000		4950	4850		3400	3600		2450				3000		2050	
	Rear dozer down					*9350	5500		7850	3800		5750	2800					4850	2300	
	Rear stab down					*9350	6450		7000	4500		5100	3300					4300	2750	
	Dozer and stab down				*9350		7800	*8000		5450	6350		4000				5400		3400	
6.0 m	2 sets stab down				*9700		8800	*8150		6100	6350		4550	4900		350	4800		3450	10.64
	Rear dozer up				6800		4750	4750		3350	3550		2450	2700		1800	2650		1750	
	Rear dozer down					*9700	5350		7750	3700		5700	2750		4400	2050		4300	2000	
	Rear stab down					*9700	6300		6850	4400		5050	3250		3900	2450		3800	2400	
	Dozer and stab down				*9700		7650	*8150		5350	6300		4000	4900		3050	4750		3000	
4.5 m	2 sets stab down	*13150		*13150	*10250		8500	*8400		5950	6250		4450	4900		3500	4450		3150	11.12
	Rear dozer up	10350		7000	6500		4500	4600		3150	3450		2350	2700		1800	2450		1600	
	Rear dozer down		*13150	7900		*10250	5050		7550	3550		5600	2650		4350	2050		3950	1800	
	Rear stab down		*13150	9450		9700	6000		6700	4200		5000	3150		3850	2450		3500	2200	
	Dozer and stab down	*13150		11700	*10250		7300	*8400		5150	6200		3900	4850		3050	4400		2750	
3.0 m	2 sets stab down	*14450		12900	*10750		8050	8200		5700	6150	4350		4850	3450		4250		3000	11.38
	Rear dozer up	9500		6250	6150		4150		4400	2950	3350		2250	2650		1750	2300		1500	
	Rear dozer down		*14450	7150		10650	4700		7300	3350	5500		2550	4300		2000		3800	1700	
	Rear stab down		*14450	8650		9250	5600	6450		4000	4850		3050	3800		2400		3350	2100	
	Dozer and stab down	*14450		10800	*10750		6900	8150		4950	6100	3750		4800	2950		4200		2600	
1.5 m	2 sets stab down	*14850		12000	*10900		7650	7950		5500	6000		4200	4750		3350	4200		2950	11.43
	Rear dozer up	8700		5550	5750		3800	4200		2800	3200		2150	2550		1650	2250		1450	
	Rear dozer down		*14850	6400		10150	4300		7100	3150		5350	2450		4250	1900		3700	1700	
	Rear stab down		14500	7850		8800	5200		6200	3800		4700	2900		3750	2300		3300	2050	
	Dozer and stab down	*14850		10000	*10900		6500	7900		4750	5950		3650	4700		2900	4150		2550	
0 m	2 sets stab down	*9900		*9900	*10350		7350	7750		5300	5900		4100	4700		3300				
	Rear dozer up	8200		5100	5450		3500	4000		2600	3100		2050	2500		1600				
	Rear dozer down		*9900	5950		9800	4050		6900	3000		5250	2350		4150	1850				
	Rear stab down		*9900	7400		8500	4950		6000	3650		4600	2850		3700	2250				
	Dozer and stab down	*9900		9500	*10350		6250	7700		4550	5850		3550	4650		2850				
-1.5 m	2 sets stab down				*8850		7150	*7000		5200										
	Rear dozer up				5300		3400	3900		2500										
	Rear dozer down					*8850	3900		6750	2900										
	Rear stab down					8300	4800		5900	3550										
	Dozer and stab down				*8850		6050	*7000		4450										

Load point height

Load over front

Load over rear

Load over side

Load at maximum reach

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

Undercarriage
Standard

Boom
6800 mm

Stick
4900 mm

	Undercarriage configuration	4.5 m			6.0 m			7.5 m			9.0 m			10.5 m						
																				m
10.5 m	2 sets stab down				*9200		9050	*6350		6200										
	Rear dozer up				7050		5000	4850		3400										
	Rear dozer down					*9200	5550		*6350	3800										
	Rear stab down					*9200	6500		*6350	4450										
	Dozer and stab down				*9200		7850	*6350		5400										
9.0 m	2 sets stab down				*9300		9150	*8100		6350										
	Rear dozer up				7150		5050	5000		3550										
	Rear dozer down					*9300	5650		7950	3950										
	Rear stab down					*9300	6600		7100	4600										
	Dozer and stab down				*9300		7950	*8100		5550										
7.5 m	2 sets stab down				*9400		9100	*8100		6300	6500		4700				5450		3900	10.02
	Rear dozer up				7100		5050	4950		3550	3700		2600				3050		2100	
	Rear dozer down					*9400	5600		7950	3900		5850	2900					4850	2350	
	Rear stab down					*9400	6550		7100	4600		5200	3400					4350	2800	
	Dozer and stab down				*9400		7900	*8100		5550	6450		4150				5400		3450	
6.0 m	2 sets stab down				*9750		8900	*8250		6250	6500		4650	5050		3650	4850		3500	10.74
	Rear dozer up				6950		4900	4900		3450	3650		2550	2850		1950	2700		1850	
	Rear dozer down					*9750	5450		7850	3850		5800	2850		4500	2200		4350	2100	
	Rear stab down					*9750	6400		7000	4500		5200	3350		4000	2600		3850	2500	
	Dozer and stab down				*9750		7750	*8250		5450	6450		4100	5000		3200	4800		3050	
4.5 m	2 sets stab down	*13200		*13200	*10300		8600	*8500		6050	6400		4600	5000		3600	4500		3250	11.22
	Rear dozer up	10500		7150	6650		4600	4750		3300	3550		2450	2800		1900	2500		1700	
	Rear dozer down		*13200	8050		*10300	5150		7700	3700		5700	2750		4450	2150		4000	1900	
	Rear stab down		*13200	9600		9850	6100		6800	4350		5100	3300		4000	2550		3600	2300	
	Dozer and stab down	*13200		11850	*10300		7450	*8500		5300	6350		4000	4950		3150	4450		2850	
3.0 m	2 sets stab down	*14550		13100	*10900		8200	8350		5850	6250		4450	4950		3550	4300		3100	11.47
	Rear dozer up	9700		6450	6300		4300	4550		3100	3450		2350	2750		1850	2400		1600	
	Rear dozer down		*14550	7300		10800	4850		7450	3500		5600	2650		4400	2100		3850	1800	
	Rear stab down		*14550	8850		9400	5750		6600	4150		4950	3150		3950	2500		3400	2150	
	Dozer and stab down	*14550		11000	*10900		7050	8250		5100	6200		3900	4900		3100	4300		2700	
1.5 m	2 sets stab down	*15100		12250	*11100		7800	8100		5650	6150		4350	4850		3500	4250		3050	11.52
	Rear dozer up	8950		5750	5900		3950	4350		2900	3350		2250	2700		1800	2350		1550	
	Rear dozer down		*15100	6600		10350	4500		7200	3300		5450	2550		4350	2050		3800	1750	
	Rear stab down		14750	8100		9000	5400		6350	3950		4850	3050		3850	2450		3350	2150	
	Dozer and stab down	*15100		10250	*11100		6700	8050		4900	6100		3800	4850		3050	4200		2650	
0 m	2 sets stab down	*10250	*10250	*1060	7500	7900	5450	6000	4250	4800	3450									
	Rear dozer up	8450	5350	5650	3700	4150	2750	3250	2150	2650	1750									
	Rear dozer down	*10250	6200	10000	4200	7050	3150	5350	2450	4300	2000									
	Rear stab down	*10250	7650	8650	5100	6150	3800	4750	2950	3800	2400									
	Dozer and stab down	*10250	9750	*10600	6400	7850	4700	5950	3700	4800	3000									
-1.5 m	2 sets stab down				*9200		7350	*7250		5350										
	Rear dozer up				5500		3550	4050		2650										
	Rear dozer down					*9200	4100		6900	3050										
	Rear stab down					8500	4950		6050	3700										
	Dozer and stab down				*9200		6250	*7250		4600										

Load point height

Load over front

Load over rear

Load over side

Load at maximum reach

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

Lift Capacities – M322D MH

All weights are in kg.

Undercarriage
Standard

Boom
6800 mm

Stick
5900 mm

	Undercarriage configuration	3.0 m			4.5 m			6.0 m			7.5 m			9.0 m			10.5 m			12.0 m					m
12.0 m	2 sets stab down							*7450		*7450															
	Rear dozer up							7100		5050															
	Rear dozer down								*7450	5600															
	Rear stab down								*7450	*7450															
	Dozer and stab down							*7450		*7450															
10.5 m	2 sets stab down									*7250		6450													
	Rear dozer up									5050		3600													
	Rear dozer down										*7250	4000													
	Rear stab down										7200	4700													
	Dozer and stab down									*7250		5650													
9.0 m	2 sets stab down									*7500		6500	6650		4800									3350	11.11
	Rear dozer up									5150		3700	3800		2650									1750	
	Rear dozer down										*7500	4100		5950	2905							4150		2000	
	Rear stab down										7300	4750		5350	3500							3700		2350	
	Dozer and stab down									*7500		5700	6600		4200							*4400		2900	
7.5 m	2 sets stab down									*7550		6500	6650		4800	5100			3700			*4400	3350	11.11	
	Rear dozer up									5100		3650	3800		2650	2900			2000			2600	1750		
	Rear dozer down										*7550	4050		6000	2950		4600		2250				2000		
	Rear stab down										7250	4750		5350	3500		4100		2650				2350		
	Dozer and stab down									*7550		5700	6600		4200	5100			3250			*4400	2900		
6.0 m	2 sets stab down									*7550		6400	6600		4750	5100			3700				3000	11.76	
	Rear dozer up									5000		3550	3750		2600	2850				1950			1550		
	Rear dozer down										*7550	3950		5900	2900		4550		2200				1750		
	Rear stab down										7150	4650		5250	3450		4100		2650				2100		
	Dozer and stab down									*7550		5600	6550		4150	5050			3200			4150	2650		
4.5 m	2 sets stab down									*8050		6200	6450		4650	5050			3650	4050			2850	12.20	
	Rear dozer up									4850		3400	3650		2500	2800			1900	2250			1450		
	Rear dozer down								*9550		7850	3800		5800	2800		4500		2150		3600		1650		
	Rear stab down								*9550		6950	4450		5150	3350		4000		2550		3200		1950		
	Dozer and stab down							*9550		7700	*8050	5400	6400		4050	5000			3150	4000		2550	2450		
3.0 m	2 sets stab down						*13450	*10300		8450	*8400	5950	6300		4500	4950			3550	4000		2850	2700	12.43	
	Rear dozer up						10200	6900	6500	4450	4600	3200	3500		2400	2750			1850	2200		1450	1350		
	Rear dozer down					*13450		7800		5000	*10300	5650		5650	2700		4400		2100		3600	1650	1550		
	Rear stab down					*13450		9350		5950	9650	6700		5000	3200		3950		2500		3200	2000	1900		
	Dozer and stab down				*13450			11550	*10300	7300		8400	6250		3900	4900			3100	4000		2500	2350		
1.5 m	2 sets stab down				*14750			12650	*10850	7950		8150	6150		4350	4850			3450	3950		2850	2650	12.48	
	Rear dozer up				9300			6050	6050	4050		4350	3350		2250	2650			1750	2150		1400	1300		
	Rear dozer down					*14750		6950		4600	10550			5500	2550		4350		2000		3550	1600	1500		
	Rear stab down					*14750		8450		5500	9150	7300		4850	3050		3850		2400		3150	1950	1850		
	Dozer and stab down				*14750			10600	*1085	6850		6400	6100		3800	480			3000	3950		2450	2300		
0 m	2 sets stab down	*4050		*4050	*14750			11850	*10850	7550		7900	6000		4200	4750			3400	3950		2800			
	Rear dozer up	*4050		*4050	8550			5450	5650	3700		4150	3200		2100	2600			1700	2150		1350			
	Rear dozer down		*4050	*4050		*14750		6250		4250	1005			5350	2400		4250		1950		3500	1600			
	Rear stab down		*4050	*4050		14300		7700		5150	8700	7050	3150		2900		3750		2350		3100	1900			
	Dozer and stab down	*4050		*4050	*14750			9850	*10850	6450		6200	3800	4700	3650	4750			2950	3900		2400			
-1.5 m	2 sets stab down				*10450			*10450	*10050	7300		7750	5300		4100	4700			3300						
	Rear dozer up				8150			5100	5400	3500		4000	2600		2050	2550			1650						
	Rear dozer down					*10450		5900		4000	9750			6850	2350		4200		1900						
	Rear stab down					*10450		7350		4900	8450	6000	3600		2800		3700		2300						
	Dozer and stab down				*10450			9450	*10050	6200		7650	4550	5850	3550	4650			2850						

Undercarriage
Material Handling

Boom
6800 mm

Stick
4800 mm

	Undercarriage configuration	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m				
																m
10.5 m	All stabilizers up All stabilizers down					6850 *9150	5250 *9150									
9.0 m	All stabilizers up All stabilizers down					6950 *9300	5350 *9300	4800 *8050	3700 7400							
7.5 m	All stabilizers up All stabilizers down					6900 *9350	5300 *9350	4800 *8000	3700 7400	3550 6700	2700 5450			3000 *5500	2250 4650	9.91
6.0 m	All stabilizers up All stabilizers down					6700 *9700	5150 *9700	4700 *8150	3600 7300	3500 6650	2650 5400	2700 5150	2000 4200	2650 5050	1950 4100	10.64
4.5 m	All stabilizers up All stabilizers down			10 100 *13 150	7550 *13 150	6400 *10 250	4850 10 200	4550 *8400	3450 7100	3400 6550	2600 5350	2650 5100	2000 4150	2400 4650	180 3800	11.12
3.0 m	All stabilizers up All stabilizers down			9300 *14 450	6800 *14 450	6050 *10 750	4500 9750	4350 8550	3250 6850	3300 6400	2450 5200	2600 5050	1950 4100	2300 4450	1700 3650	11.38
1.5 m	All stabilizers up All stabilizers down			8500 *14 850	6100 *14 850	5650 *10 900	4150 9350	4150 8300	3050 6650	3200 6250	2350 5050	2550 5000	1850 4050	2250 *4350	1650 3600	11.43
0 m	All stabilizers up All stabilizers down			8000 *9900	5650 *9900	5350 *10 350	3900 9000	3950 *8050	2900 6450	3100 6150	2250 4950	2500 *4800	1800 4000			
-1.5 m	All stabilizers up All stabilizers down					5200 *8850	3750 8850	3850 *7000	2800 6350							

Undercarriage
Material Handling

Boom
6800 mm

Stick
4900 mm

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

Undercarriage
Material Handling

Boom
6800 mm

Stick
5900 mm

	Undercarriage configuration	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m		10.5 m		12.0 m				
																	m
12.0 m	All stabilizers up All stabilizers down					7000 *7450	5400 *7450										
10.5 m	All stabilizers up All stabilizers down							5000 *7250	3900 *7250								
9.0 m	All stabilizers up All stabilizers down							5100 *7500	3950 *7500	3750 *6750	2900 5700						
7.5 m	All stabilizers up All stabilizers down							5050 *7550	3950 *7550	3750 *6700	2900 5700	2850 5350	2200 4400			2600 *4400	1950 4000	11.11
6.0 m	All stabilizers up All stabilizers down							4950 *7750	3850 7550	3700 *6800	2850 5600	2850 5300	2150 4400			2300 *4350	1750 3600	11.76
4.5 m	All stabilizers up All stabilizers down					6800 *9550	5200 *9550	4800 *8050	3700 7350	3600 6700	2750 5500	2800 5250	2100 4300	2200 4250	1650 3500	2150 4150	1600 3400	12.20
3.0 m	All stabilizers up All stabilizers down			9950 *13450	7400 *13450	6400 *10300	4850 10150	4550 *8400	3450 7100	3450 6550	2600 5350	2700 5150	2050 4250	2200 4200	1600 3450	2050 4000	1500 3250	12.43
1.5 m	All stabilizers up All stabilizers down			9050 *14750	6600 *14750	5950 *10850	4450 9650	4300 8500	3250 6850	3300 6400	2500 5200	2650 5100	1950 4150	2150 4150	1550 3400	2000 3900	1450 3200	12.48
0 m	All stabilizers up All stabilizers down	*4050 *4050	*4050 *4050	8350 *14750	5950 *14750	5600 *10850	4100 9250	4100 8250	3050 6600	3200 6250	2350 5050	2550 5000	1900 4050	2100 *4100	1550 3350			
-1.5 m	All stabilizers up All stabilizers down			8000 *10450	5600 *10450	5350 *10050	3850 8950	3950 *7850	2900 6450	3100 6150	2250 4950	2500 *4800	1850 4000					

Standard Equipment

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

Electrical

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

Engine

Automatic engine speed control
Automatic starting aid
Cat C6.6 with ACERT Technology
  EU Stage IIIA compliant
Fuel/water separator with level indicator
High ambiant cooling 52° C

Hydraulics

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

Operator Station

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

Undercarriage

MH undercarriage with four welded outriggers
Bolt-on design for front attachments
Heavy-duty axles, advanced travel motor, adjustable braking force
Oscillating front axle with remote greasing
Tires, 10.00-20 16 PR, solid rubber
Tool box in undercarriage
Two-piece drive shaft
Two-speed transmission

Other Equipment

Automatic swing brake
Counterweight
  M318D 4000 kg
  M322D 4400 kg
Mirrors, frame and cab
Product Link ready

Optional Equipment

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

Auxiliary Controls and Lines

Auxiliary boom and stick lines
Anti-drift valves for bucket, stick, VA boom and tool control/multi-function circuits
Basic control circuits:
- Single action
  - One-way, high pressure circuit, for hammering application
- Medium pressure
  - Two-way, medium pressure circuit, for rotating or tilting of work tools
- Tool control/multi function
  - One/two-way high pressure for hammer application or opening and closing of a work tool
  - Programmable flow and pressure for up to 10 work tools - selection via monitor
- Second high pressure
  - Additional two-way, high pressure circuit, for tools requiring a second high or medium pressure function
- Quick coupler control

Biodegradable hydraulic oil (synthetic ester based)
Generator with valve and priority function
Lowering control devices for boom and stick
SmartBoom

Booms and Sticks

Material Handling boom
- M318D (6200 mm)
- M322D (6800 mm)

Straight MH stick
- M318D (4200 mm)
- M322D (4800 mm)

Drop nose MH stick
- M318D (4900 mm)
- M322D (4900/5900 mm)

One-piece boom
- M318D (5350 mm)
- M322D (5650 mm)

VA boom
- M318D (5260 mm)
- M322D (5440 mm)

Sticks
- M318D (2200/2500/2800 mm)
- M322D (2200/2500/2900 mm)

Electrical

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

Operator Station

Adjustable hydraulic sensitivity
Air conditioner, heater and defroster with automatic climate control
Camera mounted on counterweight, displays through cab monitor
Falling objects guard
Fixed cab riser, 1200 mm (M322D)
Joystick steering
Lid for storage compartment
Radio ready mounting (12 V or 24 V) at rear location including speakers and 12 V converter
Seat, adjustable high-back
- – mechanical suspension
- – air suspension (vertical)
- – deluxe with headrest, air suspension (horizontal and vertical), two-step seat heater, automatic weight adjustments, ventilated seat cushions, pneumatically adjustable lumbar support

Headrest
Travel speed lock
Vandalism guards
Visor for rain protection
Windshield
One-piece high impact resistant 50/50 split, openable; 70/30 split, openable

Undercarriage

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
Second tool box for undercarriage
Spacer rings for tires

Other Equipment

Auto-lube system (implements and swing gear)
Cat Machine Security System
Cat Product Link
Counterweight
5400 kg (M322D)
Custom paint
Mirrors heated, frame and cab
Ride Control
Tires (see pg.14)
Tool box in upperframe, lockable
Waste Handling Package

M318D MH and M322D MH Wheel Material Handlers

HEHH3572 (04/2007) hr

CATERPILLAR®