M322D MH

Wheel Material Handler

Engine	
Engine Model	Cat® C6.6 with ACERT™ Technology
Net Power (ISO 9249)	123 kW (167 hp)

Weights	
Operating Weight	23 500 to 25 700 kg
Working Ranges	
Maximum Reach (stick pin)	12 480 mm
Maximum Height (stick pin)	13 300 mm

Features

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

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.

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

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

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

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

Contents

The Cat® D Series Material Handlers incorporate innovations for improved performance and versatility.

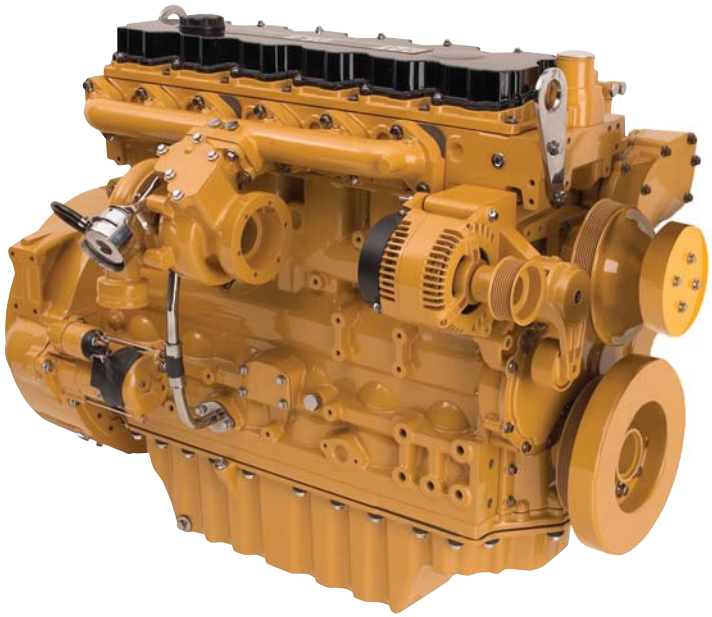
Increased lifting capacity, improved cycle times and ease of operation lead to increased productivity and lower operating costs.

Engine

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

Powerful Performance

The Cat® C6.6 engine with ACERT™ Technology provides breakthrough engine performance while meeting EU Stage IIIA engine emission regulations. The Cat C6.6 engine in the M322D MH delivers a maximum gross power of 129 kW.



Low Fuel Consumption

The C6.6 is electronically controlled and uses the Cat Common Rail Fuel System and fuel pump. This combination provides outstanding fuel consumption during both production and travel.

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 new Waste Handling Package has been specifically developed for machines working in dusty environments. This package has been tested to make sure customers can rely on it. This package includes:

- An automatic, hydraulic reversible fan that reverses airflow after a set interval, manually adjustable between 2 and 60 minutes directly from the monitor.
- A special dense wire mesh cooling system hood that further helps to reduce radiator clogging.
- A maintenance-free turbine precleaner with side dust ejection provides precleaned air to the engine air filter.
- A new air filter.
- A special dense wire mesh covering air inlets.
- A new sealing all around the front hood.

The front hood enclosures are perforated when the machine is equipped with the Waste Handling Package.

Hydraulics

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

Implement Speed

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 drive. 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%. 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 preprogrammed 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.

Stick Regeneration Circuit

The Stick Regeneration Circuit increases efficiency and helps increase controllability for higher productivity and lower operating costs.

Hydraulic Snubbers

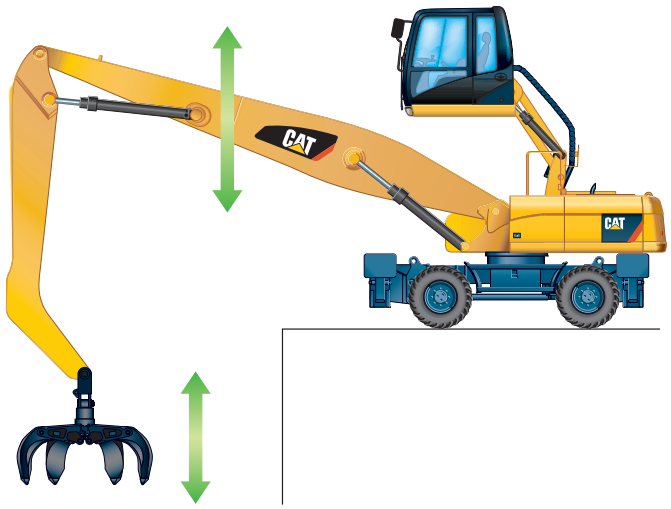
Caterpillar integrates its cylinder snubber technology into all Wheel Material Handler boom, stick and hydraulic cab riser cylinders. These snubbers help cushion shocks, reduce sound and increase cylinder life.

SmartBoom™

Reduces stress and vibrations transmitted to the machine and provides a more comfortable environment.

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.



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 Cat® C6.6 engine meets EU Stage IIIA emissions regulations while offering increased performance, reliability and reduced fuel consumption and sound levels.

Quiet Operation

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

Biodegradable Hydraulic Oil

The optional biodegradable hydraulic oil (Cat BIO HYDO Advanced HEES™) is formulated to provide excellent high-pressure and high temperature characteristics, and is fully compatible with all hydraulic components. Cat BIO HYDO Advanced 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 Cat 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.

Operator Comfort

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

Interior Operator Station

Visibility and ergonomics are some of the many features of the D Series Material Handler Operator Station. The 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.

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.
- 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.

Heated Mirrors

Another 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.

Monitor

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

- Two times 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 standard camera mounted on the counterweight.

Deluxe Seat

The 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.

Lunch Box

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

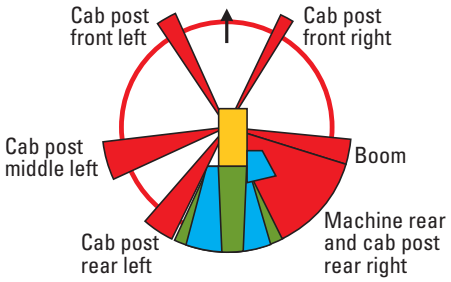
Foot Pedals

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.

Cat Standard Rearview Camera

The rearview camera displays on the operator monitor. Together with best-in-class visibility to the front, up, left and right, the rearview camera ensures the safe operation of the machine and fulfills the requirements of ISO 5006/EN474.

Field of Vision



Legend:
Red: limitations due to cab post and/or boom
Blue: additional visibility due to mirrors
Green: additional visibility due to rearview camera

Elevated Cab

Hydraulic cab riser is available to maximize viewing to all sides of the machine.

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.

Bottom Position (1)

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

Top Position (2)

The top position raises the cab by 2400 mm. This provides optimal viewing for all material handling jobs.

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 the Cat 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 – 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 millyard applications.
- The standard undercarriage 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 minimizes the rocking effect associated with working free on wheels.

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 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.

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 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.

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.

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.

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.

Working Modes

Two selectable working modes 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.

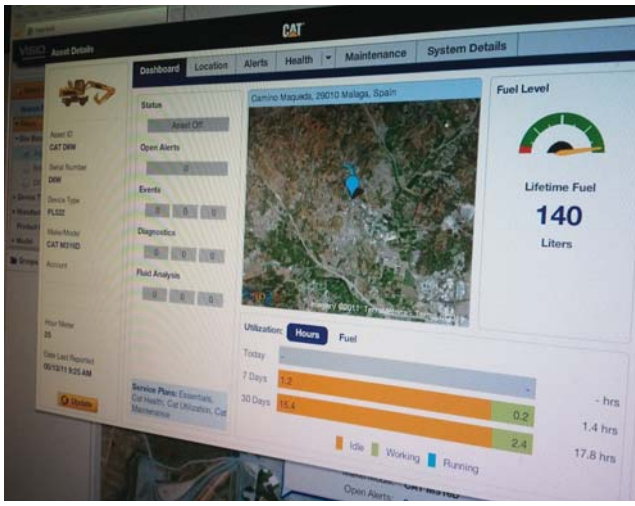
Product Link

Product Link allows remote monitoring of the machine, using a powerful telemetric system to transmit needed information to the customer and the dealer via a secure, web-based application, VisionLink™.

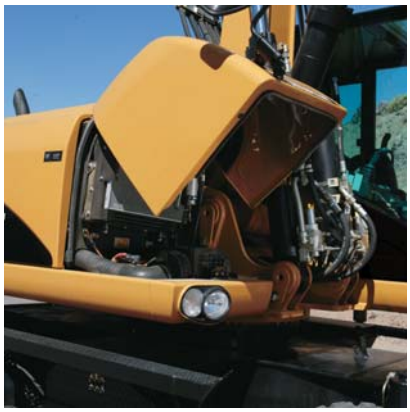
Critical information, such as event and diagnostic codes, is readily accessible, as are machine statistics, such as hour-meter reading, fuel consumption and idle time. Mapping functions include location and geo-fencing, which assist in servicing operations and in preventing unauthorized machine use. With Product Link, the customer and the dealer have an invaluable tool for more efficiently managing machines and fleets.

Machine Security

An optional Machine Security System is available from the factory. This system controls who can operate the machine when, and utilizes specific keys to prevent unauthorized machine use.



Serviceability and Complete Customer Support



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 Handler service and maintenance intervals are 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 6,000 hours.

Engine Oil

Cat 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.

Air Filters

Cat 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.

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

Front Compartment

The front compartment hood can be opened vertically, providing outstanding ground level access to the batteries, air-to-air aftercooler, air conditioner condenser and the engine air 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 Cat 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 undercarriage, two remote blocks provide easy access for greasing the oscillating axle and, as an option, the dozer blade.

Handrails and Steps

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

LED Rear Lights

Standard Light Emitting Diode (LED) rear lights provide increased visibility on the job site and longer life.

M322D MH Wheel Material Handler Specifications

Engine

Engine Model	Cat® C6.6 with ACERT™ Technology
Ratings	2,000 rpm
Gross Power	129 kW (175 hp)
Net Power	
ISO 9249	123 kW (167 hp)
EEC/80/1269	123 kW (167 hp)
Bore	105 mm
Stroke	127 mm
Displacement	6.6 L
Cylinders	6
Maximum Torque at 1,400 rpm	750 N·m

- EU Stage IIIA (distributed through transitional provisions), ADSD-N EPA/ARB Flexibility Engine and non-current Tier 3 or Stage IIIA emissions for territories other than EU and ADSD-N.
- Full engine net power up to 3000 m altitude.

Hydraulic System

Tank Capacity	225 L
System	350 L
Maximum Pressure	
Implement Circuit	
Normal	350 bar
Heavy Lift	375 bar
Travel Circuit	350 bar
Auxiliary Circuit	
High Pressure	350 bar
Medium Pressure	200 bar
Swing Mechanism	340 bar
Maximum Flow	
Implement/Travel Circuit	350 L/min
Auxiliary Circuit	
High Pressure	250 L/min
Medium Pressure	40 L/min
Swing Mechanism	112 L/min

Cab/FOGS

- Cab with Falling Object Guard Structure (FOGS) meets ISO 10262.

Weights

MH Boom	
Rear Dozer Only	20 400 kg
Rear Dozer, Front Outriggers	21 600 kg
Front and Rear Outriggers	21 850 kg
With MH Undercarriage	22 900 kg
With MH Undercarriage and Push Blade	23 600 kg
VA Boom	
Rear Dozer Only	20 700 kg
Rear Dozer, Front Outriggers	21 900 kg
Front and Rear Outriggers	22 150 kg
With MH Undercarriage	23 200 kg
With MH Undercarriage and Push Blade	23 900 kg
One-Piece Boom	
Rear Dozer Only	20 050 kg
Rear Dozer, Front Outriggers	21 250 kg
Front and Rear Outriggers	21 500 kg
With MH Undercarriage	22 550 kg
With MH Undercarriage and Push Blade	23 250 kg
Sticks	
MH Straight	1100 kg
MH Drop Nose Short	910 kg
MH Drop Nose Long	1080 kg
Digging Short	650 kg
Digging Medium	700 kg
Digging Long	780 kg
MH Push Blade (with MH Undercarriage)	675 kg
Dozer Blade	920 kg
Outriggers	1260 kg
Counterweights	
Standard	4400 kg
Optional	5400 kg

- M322D HCR – Machine weight with Hydraulic Cab Riser, medium stick/MH 5.9 m stick, 4400 kg counterweight, with operator and full fuel tank, without work tool. Weight varies depending on configuration. Inflatable 10.00-20 tires.

Swing Mechanism

Swing Speed	9 rpm
Swing Torque	56 kN·m

Transmission

Forward/Reverse	
1st Gear	7 km/h
2nd Gear	25 km/h
Creeper Speed	
1st Gear	3 km/h
2nd Gear	12 km/h
Drawbar Pull	112 kN
Maximum Gradeability	52%

Tire Options

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

Undercarriage

Ground Clearance	380 mm
Maximum Steering Angle	35°
Oscillation Axle Angle	± 6°
Minimum Turning Radius	
Standard Axle	
Outside of Tire	6800 mm
End of VA Boom	7800 mm
End of One-Piece Boom	9300 mm

Service Refill Capacities

Fuel Tank Capacity	385 L
Cooling	37 L
Engine Crankcase	15 L
Rear Axle Housing (Differential)	14 L
Front Steering Axle (Differential)	11 L
Final Drive	2.5 L
Powershift Transmission	2.5 L

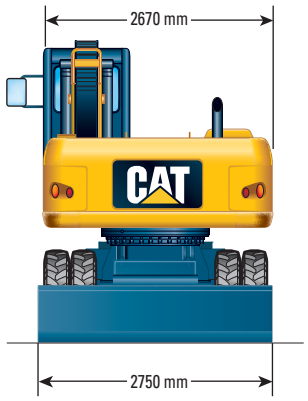
Sound Levels

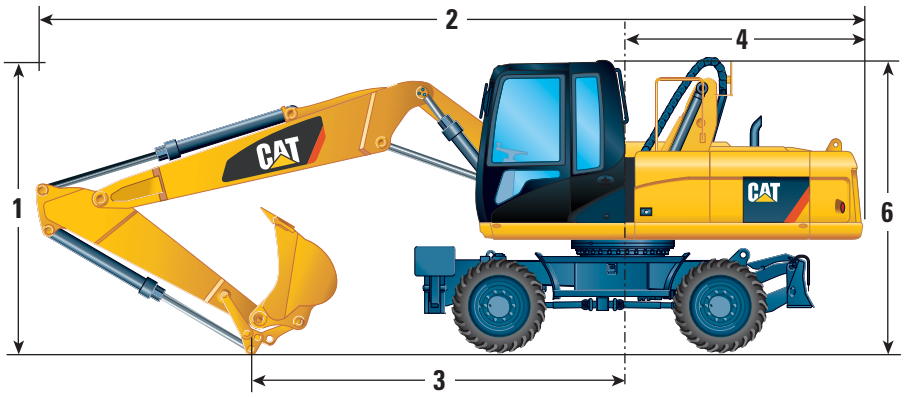
Exterior Sound

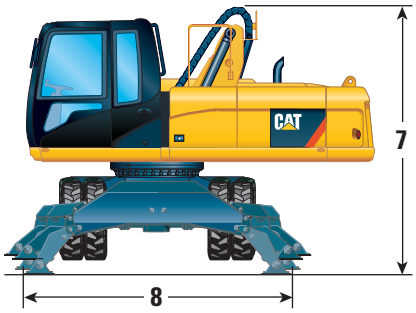
- The labeled spectator sound power level measured according to the test procedures and conditions specified in 2000/14/EC is 103 dB(A).

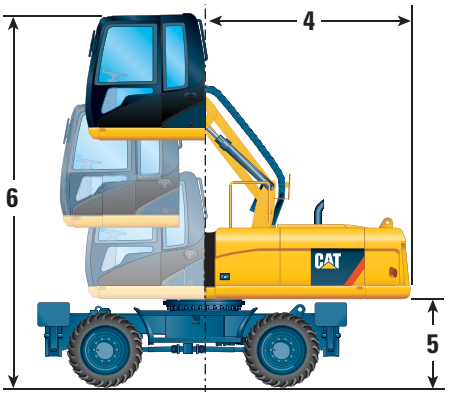
Dimensions with Standard Undercarriage (with pneumatic tires)

All dimensions are approximate.





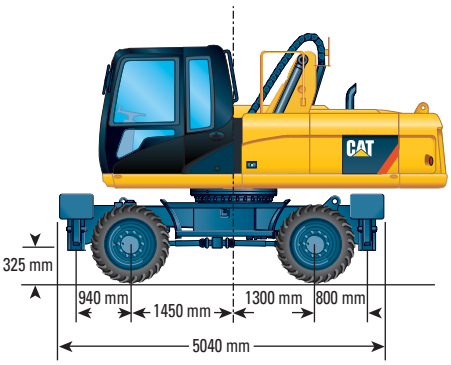




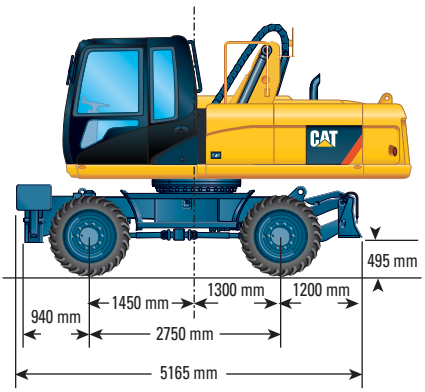
	VA Boom	One-Piece Boom
1 Shipping Height*		
2200 mm Stick	3400 mm	3400 mm
2500 mm Stick	3400 mm	3400 mm
2900 mm Stick	3400 mm	3400 mm
2 Shipping Length		
2200 mm Stick	9550 mm	9750 mm
2500 mm Stick	9550 mm	9720 mm
2900 mm Stick	9540 mm	9720 mm
3 Support Point		
2200 mm Stick	4380 mm	4270 mm
2500 mm Stick	3830 mm	3810 mm
2900 mm Stick	3530 mm	3440 mm
4 Tail Swing Radius	2820 mm	2820 mm
5 Counterweight Clearance	1310 mm	1310 mm
6 Cab Height with Hydraulic Cab Riser		
Lowered	3240 mm	3240 mm
Raised	5640 mm	5640 mm
Lowered with Guard Falling Object	3370 mm	3370 mm
7 Height of Tray Group Flex	3400 mm	3400 mm
8 Stabilizer Width on Ground	3960 mm	3960 mm

*Shipping height may depend of the height of the Tray Group Flex (7).

Undercarriage with 2 sets of outriggers



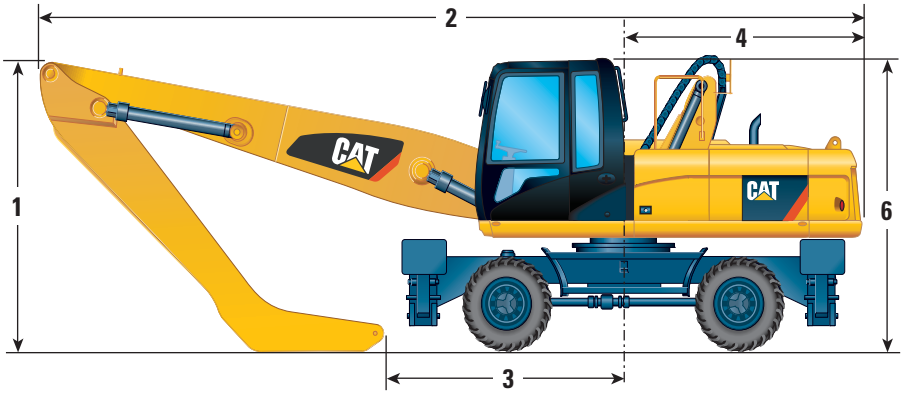
Undercarriage with 1 set of outriggers and dozer

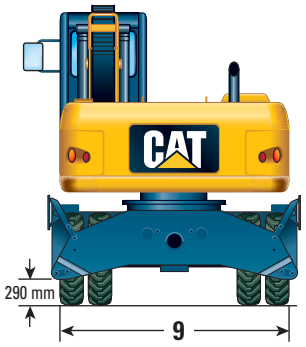


M322D MH Wheel Material Handler Specifications

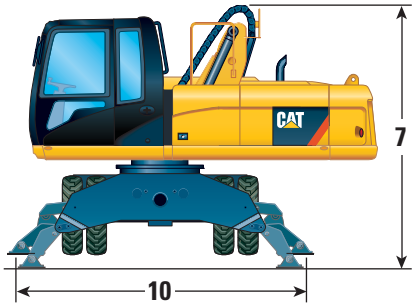
Dimensions with MH Undercarriage (with pneumatic tires)

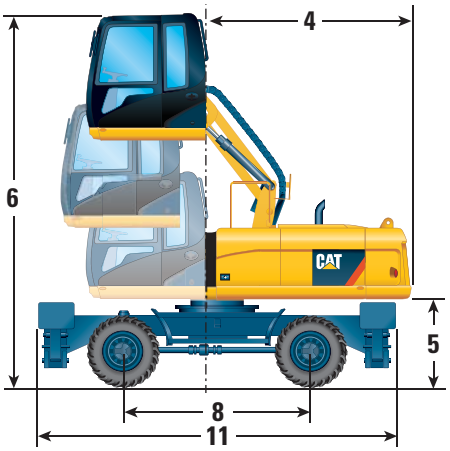
All dimensions are approximate.





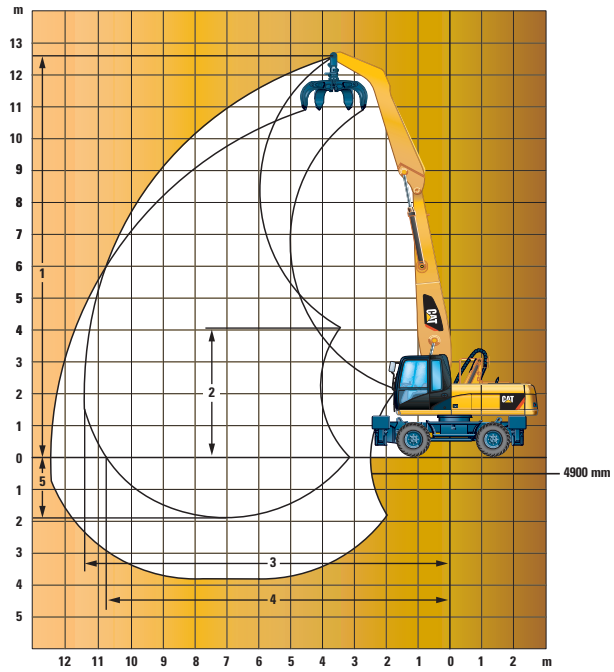
1	Shipping Height*	
	4800 mm Straight Stick	3400 mm
	4900 mm Drop Nose Stick	3600 mm
	5900 mm Drop Nose Stick (Removed)	3400 mm
	5900 mm Drop Nose Stick (Installed)	5285 mm
2	Shipping Length	
	4800 mm Straight Stick	9870 mm
	4900 mm Drop Nose Stick	9870 mm
	5900 mm Drop Nose Stick (Removed)	9930 mm
	5900 mm Drop Nose Stick (Installed)	15 130 mm
3	Support Point	
	4800 mm Straight Stick	3250 mm
	4900 mm Drop Nose Stick	3250 mm
	5900 mm Stick (fully extended)	15 010 mm
	Stick Removed	7110 mm
4	Tail Swing Radius	2820 mm
5	Counterweight Clearance	1310 mm
6	Cab Height with Hydraulic Cab Riser	
	Lowered	3240 mm
	Raised	5640 mm
	Lowered with Guard Falling Object	3370 mm
7	Height of Tray Group Flex	3400 mm
8	Wheel Base	2750 mm
9	Undercarriage Width	2990 mm
10	Stabilizer Width on Ground	4360 mm
11	Undercarriage Length	5250 mm

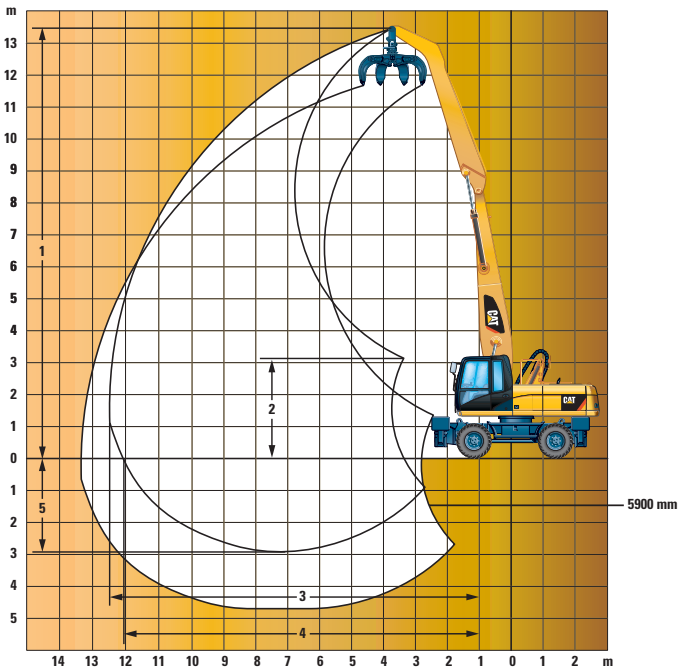


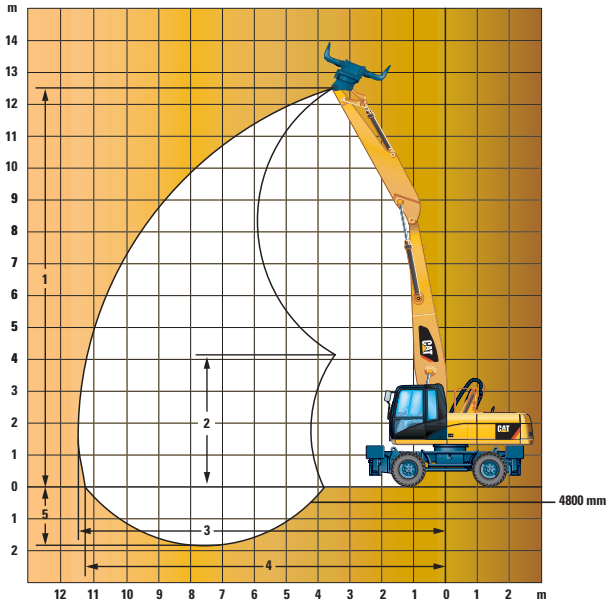


*Shipping height may depend of the height of the Tray Group Flex (7).

Working Ranges







Undercarriage Material Handling

		MH Drop Nose 4900 mm	MH Drop Nose 5900 mm	MH Straight Stick 4800 mm
Boom Length	mm	6800	6800	6800
1 Maximum Height	mm	12 500	13 300	12 430
2 Minimum Dump Height	mm	4030	3090	4120
3 Maximum Reach	mm	11 530	12 480	11 430
4 Maximum Reach at Ground Level	mm	10 850	12 050	11 280
5 Maximum Depth	mm	1920	2920	1820

M322D MH Wheel Material Handler Specifications

Work Tools Matching Guide

	Boom		6800 mm					
	Undercarriage		MH			Standard		
Without Quick Coupler	Stick Length (mm)		4900	5900	4800	4900	5900	4800
360° Rotatable Shears*	S325B, S340B							
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 1800 kg/m³
- Maximum Material Density 1200 kg/m³

Lift Capacities

All values are in kg, without bucket and without QC, with counterweight (5400 kg), heavy lift on.

Undercarriage	Boom	Stick
Standard	6800 mm	5900 mm

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

	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			*7250	6500													*5700	*5700		
	Rear dozer up									7050	5850	5000			3600													5300	4350	3750	7.09
	Rear dozer down										*7450	5550		5050	4150	4000													*5700	4150	
	Dozer and stab down										*7450	*7450			*7250	5550													*5700	*5700	
10.5 m	2 sets stab down													*7500	6550	6700												*4950	*4950	4800	
	Rear dozer up													5100	4250	3650	3750											3700	3050	2600	8.91
	Rear dozer down														*7500	4050													*4950	2900	
	Dozer and stab down														*7500	5650													*4950	4100	
9.0 m	2 sets stab down													*7550	6550	6700		5900	4850									*4600	*4600	3900	
	Rear dozer up													5100	4200	3600	3750	3100	2650									3000	2400	2050	10.18
	Rear dozer down														*7550	4050		5850	2950										*4600	2300	
	Dozer and stab down														*7550	5600		6400	4150										*4600	3300	
7.5 m	2 sets stab down													*7550	6550	6700		5900	4850	5150	4550	3700						*4400	4100	3350	
	Rear dozer up													5100	4200	3600	3750	3100	2650	2850	2300	1950						2550	2050	1750	11.11
	Rear dozer down														*7550	4050		5850	2950		4450	2200							4050	1950	
	Dozer and stab down														*7550	5600		6400	4150		4950	3200							*4400	2850	
6.0 m	2 sets stab down													*7750	6400	6650		5800	4800	5150	4500	3700						4250	3750	3050	
	Rear dozer up													5000	4100	3550	3700	3000	2600	2850	2300	1950						2300	1850	1550	11.76
	Rear dozer down														*7750	3950		5750	2900		4450	2200							3650	1750	
	Dozer and stab down														*7750	5500		6350	4100		4950	3150							4050	2600	
4.5 m	2 sets stab down									*9550	*9550	8950	*8050	7650	6250	6500		5700	4650	5050	4450	3650	4100	3600	2900	3950	3500	2850			
	Rear dozer up									6850	5650	4800	4800		3950	3350	3600	2900	2500	2800	2250	1900	2200	1750	1450	2150	1700	1400	12.20
	Rear dozer down										*9550	5350		7650	3750	3550		5650	2800		4400	2150		3500	1650		3400	1600	
	Dozer and stab down										*9550	7600		*8050	5350	7600		6250	4000		4850	3100		3900	2450		3800	2400	
3.0 m	2 sets stab down					*13 400	*13 400	*13 400	*10 300	8500	*8400	7400	6000	6350	5550	4500	5000	4400	3550	4050	3550	2900	3800	3350	2700					
	Rear dozer up					10 150	8200	6850	6450	5250	4600	3700	3150	3450	2800	2350	2700	2150	1800	2150	1700	1400	2050	1600	1300	12.43			
	Rear dozer down						*13 400	7750		*10 300	5000	7350	3550		5500	2650		4300	2050		3450	1650		3300	1500				
	Dozer and stab down						*13 400	11 400		*10 300	7200	8150	5100		6100	3850		4800	3050		3900	2450		3650	2300				
1.5 m	2 sets stab down					*14 700	12 800	*10 850	10 150	8050	8250	7100	5750	6200	5400	4350	4900	4300	3450	4000	3500	2850	3750	3300	2700					
	Rear dozer up					9200	7350	6000	6000	4800	4350	3500	2900	3300	2650	2200	2650	2100	1750	2150	1650	1400	2000	1550	1300	12.48			
	Rear dozer down						*14 700	6850		10 200	4550	7100	3300		5350	2500		4200	2000		3450	1600		3250	1500				
	Dozer and stab down						*14 700	10 450		*10 850	6700	7850	4850		5900	3700		4700	2950		3850	2400		3600	2250				
0.0 m	2 sets stab down	*4050	*4050	*4050	*14 700	*14 700	12 000	*10 800	*10 800	9700	7600	8000	6900	5500	6050	5250	4250	4800	4200	3400	3950	3450	2800							
	Rear dozer up	*4050	*4050	*4050	8500	6650	5350	5600	4450	3650	4100	3250	2700	3200	2500	2100	2550	2000	1650	2100	1650	1350							
	Rear dozer down		*4050	*4050		*14 700	6200		9750	4200		6850	3100		5200	2400		4100	1900		3400	1550							
	Dozer and stab down		*4050	*4050		*14 700	9700		*10 800	6350		7600	4600		5800	3550		4600	2850		3800	2350							
−1.5 m	2 sets stab down				*10 450	*10 450	*10 450	*10 000	9400	7350	7800	6700	5350	5950	5150	4150	4750	4150	3350										
	Rear dozer up				8100	6250	5000	5350	4200	3450	3950	3100	2550	3100	2400	2000	2500	1950	1600										
	Rear dozer down					*10 450	5850		9450	3950		6650	2950		5050	2300		4050	1850										
	Dozer and stab down					*10 450	9250		*10 000	6050		7400	4450		5650	3450		4550	2800										

*Limited by hydraulic rather than tipping load.

Lift capacity ratings are based on ISO 10567:2007, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. The load point is the center line of the bucket pivot mounting pin on the stick. The oscillating axle must be locked.

Lifting capacities are based on the machine standing on a firm uniform supporting surface. For lifting capacity including bucket and/or quick coupler, the respective weight has to be subtracted from above values. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

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

M322D MH Wheel Material Handler Specifications

Lift Capacities

All values are in kg, without bucket and without QC, with counterweight (5400 kg), heavy lift on.

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

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	*9200	9100	*6350	*6350	6250							*6350	*6350	6250	7.50
	Rear dozer up				7000	5800	4950	4800	3950	3350							4800	3950	3350	
	Rear dozer down					*9200	5500		*6350	3750								*6350	3750	
	Dozer and stab down					*9200	7750		*6350	5300								*6350	5300	
9.0 m	2 sets stab down				*9300	*9300	9200	*8100	7800	6350							*5750	5750	4700	8.98
	Rear dozer up				7100	5900	5050	4950	4050	3500							3600	2950	2500	
	Rear dozer down					*9300	5600		7750	3900								5650	2800	
	Dozer and stab down					*9300	7850		*8100	5450								*5750	4000	
7.5 m	2 sets stab down				*9350	*9350	9150	*8050	7800	6350	6550	5750	4750				*5450	4800	3950	10.02
	Rear dozer up				7050	5850	5000	4950	4050	3500	3650	3000	2550				3050	2450	2050	
	Rear dozer down					*9350	5550		7750	3900		5700	2850					4750	2350	
	Dozer and stab down					*9350	7800		*8050	5450		6300	4050					5250	3350	
6.0 m	2 sets stab down				*9700	*9700	9000	*8200	7700	6250	6500	5700	4700	5050	4450	3650	4850	4300	3500	10.74
	Rear dozer up				6900	5700	4850	4850	4000	3400	3600	2950	2500	2800	2250	1900	2700	2150	1800	
	Rear dozer down					*9700	5400		7650	3800		5650	2800		4400	2150		4200	2050	
	Dozer and stab down					*9700	7650		*8200	5350		6250	4000		4850	3100		4700	3000	
4.5 m	2 sets stab down	*13 150	*13 150	*13 150	*10 300	*10 300	8650	*8450	7500	6100	6450	5650	4600	5050	4450	3600	4500	4000	3250	11.22
	Rear dozer up	10 400	8500	7100	6600	5400	4550	4700	3800	3250	3550	2850	2450	2750	2200	1850	2450	1950	1650	
	Rear dozer down		*13 150	8000		*10 300	5150		7450	3650		5550	2750		4350	2100		3900	1900	
	Dozer and stab down		*13 150	11 700		*10 300	7350		8250	5200		6150	3950		4850	3100		4350	2750	
3.0 m	2 sets stab down	*14 550	*14 550	13 250	*10 850	10 400	8250	8400	7300	5900	6300	5500	4500	4950	4350	3550	4350	3800	3100	11.47
	Rear dozer up	9600	7750	6400	6200	5050	4250	4500	3650	3050	3400	2750	2300	2700	2150	1800	2350	1850	1550	
	Rear dozer down		*14 550	7250		10 450	4800		7250	3450		5450	2650		4300	2050		3750	1800	
	Dozer and stab down		*14 550	10 850		*10 850	6950		8000	5000		6050	3800		4750	3000		4150	2650	
1.5 m	2 sets stab down	*15 050	*15 050	12 400	*11 050	9950	7850	8150	7050	5650	6150	5400	4350	4900	4300	3500	4250	3750	3050	11.52
	Rear dozer up	8850	7000	5700	5850	4700	3900	4300	3450	2850	3300	2650	2200	2650	2100	1750	2300	1800	1500	
	Rear dozer down		*15 050	6550		10 000	4450		7000	3250		5300	2500		4200	2000		3700	1750	
	Dozer and stab down		*15 050	10 050		*11 050	6550		7750	4800		5900	3700		4700	2950		4100	2600	
0.0 m	2 sets stab down	*10 200	*10 200	*10 200	*10 550	9600	7550	7950	6850	5500	6050	5300	4250	4850	4250	3450				
	Rear dozer up	8350	6550	5250	5550	4400	3650	4100	3250	2700	3200	2550	2100	2600	2050	1700				
	Rear dozer down		*10 200	6100		9700	4150		6800	3100		5200	2400		4150	1950				
	Dozer and stab down		*10 200	9550		*10 550	6300		7600	4600		5800	3600		4650	2900				
–1.5 m	2 sets stab down				*9150	*9150	7400	*7250	6750	5400										
	Rear dozer up				5400	4250	3500	4000	3150	2600										
	Rear dozer down					*9150	4000		6700	3000										
	Dozer and stab down					*9150	6150		*7250	4500										

*Limited by hydraulic rather than tipping load.

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

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Lift Capacities

All values are in kg, without bucket and without QC, with counterweight (5400 kg), heavy lift on.

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

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				*8900	*8900	8800										*6200	*6200	6100	7.35
	Rear dozer up				6700	5500	4650										4650	3750	3150	
	Rear dozer down					*8900	5200											*6200	3550	
	Dozer and stab down					*8900	7450											*6200	5200	
9.0 m	2 sets stab down				*9050	*9050	8900	*7750	7500	6050							*5550	5550	4500	8.86
	Rear dozer up				6800	5600	4750	4600	3750	3150							3400	2700	2250	
	Rear dozer down					*9050	5300		7450	3550								5500	2550	
	Dozer and stab down					*9050	7550		*7750	5150								*5550	3800	
7.5 m	2 sets stab down				*9100	*9100	8850	*7750	7450	6050	6250	5450	4400				5250	4550	3700	9.91
	Rear dozer up				6750	5550	4700	4600	3750	3150	3350	2650	2200				2750	2150	1800	
	Rear dozer down					*9100	5250		7450	3550		5400	2500					4500	2050	
	Dozer and stab down					*9100	7500		*7750	5150		5950	3700					5000	3100	
6.0 m	2 sets stab down				*9400	*9400	8650	*7900	7350	5950	6200	5400	4350	4750	4150	3300	4600	4050	3250	10.64
	Rear dozer up				6550	5350	4500	4500	3650	3050	3300	2600	2200	2450	1900	1550	2400	1850	1500	
	Rear dozer down					*9400	5100		7350	3450		5350	2500		4050	1800		3950	1750	
	Dozer and stab down					*9400	7300		*7900	5050		5950	3700		4550	2750		4400	2700	
4.5 m	2 sets stab down	*12 900	*12 900	*12 900	*9950	*9950	8300	*8100	7150	5750	6100	5300	4250	4700	4100	3300	4250	3700	2950	11.12
	Rear dozer up	10 050	8100	6700	6250	5050	4200	4350	3500	2900	3200	2500	2100	2450	1900	1550	2150	1650	1350	
	Rear dozer down		*12 900	7650		*9950	4800		7150	3300		5250	2400		4000	1800		3600	1550	
	Dozer and stab down		*12 900	11 350		*9950	7000		7900	4850		5800	3600		4500	2750		4100	2450	
3.0 m	2 sets stab down	*14 150	*14 150	12 800	*10 450	10 000	7900	8050	6900	5550	5950	5150	4150	4650	4050	3200	4050	3550	2800	11.38
	Rear dozer up	9200	7300	5950	5850	4650	3850	4100	3250	2700	3050	2400	1950	2350	1800	1450	2050	1550	1250	
	Rear dozer down		*14 150	6850		10 100	4400		6900	3100		5100	2300		3950	1700		3450	1450	
	Dozer and stab down		*14 150	10 450		*10 450	6550		7650	4650		5700	3450		4450	2700		3900	2350	
1.5 m	2 sets stab down	*14 550	*14 550	11 900	*10 600	9550	7450	7800	6700	5300	5800	5050	4000	4550	3950	3150	4000	3450	2750	11.43
	Rear dozer up	8350	6500	5200	5450	4300	3500	3900	3050	2500	2950	2300	1850	2300	1750	1400	2000	1500	1200	
	Rear dozer down		*14 550	6050		9600	4050		6650	2900		4950	2150		3900	1650		3400	1400	
	Dozer and stab down		*14 550	9550		*10 600	6150		7400	4400		5550	3350		4350	2600		3800	2300	
0.0 m	2 sets stab down	*9650	*9650	*9650	*10 000	9200	7150	7600	6500	5100	5700	4900	3900	4500	3900	3100				
	Rear dozer up	7850	6050	4800	5150	4000	3200	3750	2900	2350	2850	2200	1750	2250	1700	1350				
	Rear dozer down		*9650	5600		9250	3750		6450	2700		4850	2050		3800	1600				
	Dozer and stab down		*9650	9050		*10 000	5850		7200	4250		5450	3250		4300	2550				
–1.5 m	2 sets stab down				*8550	*8550	6950	*6700	6350	5000										
	Rear dozer up				5000	3850	3050	3600	2800	2250										
	Rear dozer down					*8550	3600		6300	2600										
	Dozer and stab down					*8550	5700		*6700	4100										

*Limited by hydraulic rather than tipping load.

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

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

M322D MH Wheel Material Handler Specifications

Lift Capacities

All values are in kg, without bucket and without QC, with counterweight (5400 kg), heavy lift on.

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

Undercarriage
Special Application

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					7000	5400									5300	4050	7.09
	All stabilizers down					*7450	*7450									*5700	*5700	
10.5 m	All stabilizers up							5000	3900							3700	2850	8.91
	All stabilizers down							*7250	*7250							*4950	*4950	
9.0 m	All stabilizers up							5100	3950	3750	2900					3000	2250	10.18
	All stabilizers down							*7500	*7500	*6750	5700					*4600	4600	
7.5 m	All stabilizers up							5050	3950	3750	2900	2850	2150			2550	1950	11.11
	All stabilizers down							*7550	*7550	*6700	5700	5350	4400			*4400	4000	
6.0 m	All stabilizers up							4950	3850	3700	2850	2850	2150			2300	1700	11.76
	All stabilizers down							*7750	7550	*6800	5650	5350	4400			*4300	3600	
4.5 m	All stabilizers up					6800	5200	4800	3650	3600	2750	2800	2100	2200	1650	2150	1600	12.20
	All stabilizers down					*9550	*9550	*8050	7350	6750	5500	5250	4300	4250	3500	4150	3400	
3.0 m	All stabilizers up			9950	7400	6400	4850	4550	3450	3450	2600	2700	2000	2200	1600	2050	1500	12.43
	All stabilizers down			*13 400	*13 400	*10 300	10 200	*8400	7100	6600	5350	5200	4250	4200	3450	4000	3250	
1.5 m	All stabilizers up			9050	6600	5950	4400	4300	3200	3300	2450	2650	1950	2150	1550	2000	1450	12.48
	All stabilizers down			*14 700	*14 700	*10 850	9700	8500	6850	6400	5200	5100	4150	4150	3400	3950	3200	
0.0 m	All stabilizers up	*4050	*4050	8350	5950	5550	4050	4100	3000	3200	2350	2550	1850	2100	1500			
	All stabilizers down	*4050	*4050	*14 700	*14 700	*10 800	9250	8250	6600	6250	5050	5000	4050	*4050	3350			
–1.5 m	All stabilizers up			7950	5600	5300	3850	3950	2850	3100	2250	2500	1800					
	All stabilizers down			*10 450	*10 450	*10 000	8950	*7850	6450	6150	4950	*4800	4000					

Undercarriage
Special Application

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	All stabilizers up			6950	5350	4800	3700					4800	3700	7.50
	All stabilizers down			*9200	*9200	*6350	*6350					*6350	*6350	
9.0 m	All stabilizers up			7000	5450	4900	3800					3600	2750	8.98
	All stabilizers down			*9300	*9300	*8100	7500					*5750	5550	
7.5 m	All stabilizers up			7000	5400	4900	3800	3650	2800			3050	2300	10.02
	All stabilizers down			*9350	*9350	*8050	7500	6800	5550			*5450	4650	
6.0 m	All stabilizers up			6800	5250	4800	3700	3600	2750	2800	2100	2700	2000	10.74
	All stabilizers down			*9700	*9700	*8200	7400	6750	5550	5250	4300	5050	4150	
4.5 m	All stabilizers up	10 250	7650	6550	5000	4650	3550	3550	2700	2750	2100	2500	1850	11.22
	All stabilizers down	*13 150	*13 150	*10 300	*10 300	*8450	7200	6650	5450	5200	4300	4700	3850	
3.0 m	All stabilizers up	9450	6950	6150	4650	4450	3350	3400	2600	2700	2050	2350	1750	11.47
	All stabilizers down	*14 550	*14 550	*10 850	9950	8650	7000	6550	5300	5150	4200	4500	3700	
1.5 m	All stabilizers up	8700	6300	5800	4300	4250	3200	3300	2450	2650	1950	2300	1700	11.52
	All stabilizers down	*15 050	*15 050	*11 050	9500	8450	6800	6400	5200	5100	4150	*4450	3650	
0.0 m	All stabilizers up	8250	5850	5550	4050	4100	3050	3200	2350	2600	1900			
	All stabilizers down	*10 200	*10 200	*10 550	9200	*8250	6600	6300	5100	*5000	4100			
–1.5 m	All stabilizers up			5400	3900	4000	2950							
	All stabilizers down			*9150	9000	*7250	6500							

Undercarriage
Special Application

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	All stabilizers up			6600	5050							4600	3500	7.35
	All stabilizers down			*8900	*8900							*6200	*6200	
9.0 m	All stabilizers up			6750	5150	4600	3500					3350	2500	8.86
	All stabilizers down			*9050	*9050	*7750	7200					*5550	5350	
7.5 m	All stabilizers up			6700	5100	4600	3450	3300	2450			2750	2000	9.91
	All stabilizers down			*9100	*9100	*7750	7200	6450	5250			*5250	4400	
6.0 m	All stabilizers up			6500	4900	4500	3400	3300	2450	2450	1750	2400	1700	10.64
	All stabilizers down			*9400	*9400	*7900	7050	6400	5200	4900	4000	4800	3900	
4.5 m	All stabilizers up	9850	7300	6200	4650	4300	3200	3200	2350	2450	1750	2150	1550	11.12
	All stabilizers down	*12 900	*12 900	*9950	*9950	*8100	6900	6300	5100	4900	3950	4450	3550	
3.0 m	All stabilizers up	9050	6550	5800	4250	4100	3000	3050	2250	2350	1700	2050	1450	11.38
	All stabilizers down	*14 150	*14 150	*10 450	9550	*8300	6650	6200	4950	4800	3900	4250	3400	
1.5 m	All stabilizers up	8250	5800	5400	3900	3900	2800	2950	2100	2300	1600	2000	1400	11.43
	All stabilizers down	*14 550	*14 550	*10 600	9100	8050	6400	6050	4850	4750	3800	*4100	3350	
0.0 m	All stabilizers up	7750	5350	5100	3600	3700	2650	2850	2000	2250	1550			
	All stabilizers down	*9650	*9650	*10 000	8750	*7750	6200	5900	4750	*4500	3750			
–1.5 m	All stabilizers up			4950	3450	3600	2550							
	All stabilizers down			*8550	*8550	*6700	6100							

*Limited by hydraulic rather than tipping load.

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

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

M322D MH Wheel Material Handler Standard Equipment

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

Auxiliary Controls and Lines
Lowering control devices for boom and stick

Electrical
Alternator, 75 A
Lights
- Boom working light
- Cab interior light
- Roading lights two front
- Roading lights two LED modules rear
- Rotating beacon on cab
- Working lights, cab mounted (front and rear)

Main shut-off switch
Maintenance free batteries
Signal/warning horn

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

Hydraulics
Heavy lift mode
Load-sensing Plus hydraulic system
Manual work modes (economy, power)
Separate swing pump
Stick regeneration circuit

Operator Station
Adjustable armrests
Air conditioner, heater and defroster with automatic climate control
Ash tray with cigarette lighter (24 volt)
Beverage cup/can holder
Bolt-on FOGS capability
Bottle holder
Bottom mounted parallel wiping system, covering upper and lower windshield glass
Camera mounted on counterweight displays through cab monitor
Coat hook
Floor mat, washable, with storage compartment
Fully adjustable suspension seat
Instrument panel and gauges
- Information and warning messages in local language
- Gauges for fuel level, engine coolant and hydraulic oil temperature
- Filters/fluids change interval
- Indicators for headlights, turning signal, low fuel, engine dial setting
- Clock with 10-day backup battery

Laminated front windshield
Left side console, tiltable, with lock out for all controls
Literature compartment behind seat
Literature holder in right console
Mobile phone holder
Parking brake
Positive filtered ventilation
Power supply, 12V-7A
Rear window, emergency exit
Retractable seat belt
Skylight
Sliding door windows
Steering column, tiltable
Storage area suitable for a lunch box
Sunshade for windshield and skylight

Undercarriage
Heavy-duty axles, advanced travel motor, adjustable braking force
Oscillating front axle with remote greasing
Tool box in undercarriage
- Second tool box for undercarriage

Two-speed transmission

Other Equipment
Automatic swing brake
Counterweight, 4400 kg
Mirrors, frame and cab
Product Link ready

M322D MH Wheel Material Handler Optional Equipment

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

Auxiliary Controls and Lines

Auxiliary boom and stick lines
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
- Quick coupler control

Cat BIO HYDO Advanced HEES™ biodegradable hydraulic oil
Generator with valve and priority function
SmartBoom™

Booms and Sticks

Material Handling boom (6800 mm)
Straight MH stick (4800 mm)
Drop nose MH stick (4900/5900 mm)
One-piece boom (5650 mm)
VA boom (5440 mm)
Sticks (2200/2500/2900 mm)

Electrical

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

Operator Station

Adjustable hydraulic sensitivity
CD/MP3 radio (12V) at rear location including speakers and 12 V converter
Falling objects guard
Joystick steering
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
- 70/30 split, openable

Undercarriage

MH undercarriage with four welded outriggers
MH undercarriage with four welded outriggers and front mounted blade
Standard undercarriage
Dozer blade, rear mounted
Outriggers, front and/or rear mounted
Spacer rings for tires

Other Equipment

Auto-lube system (implements and swing gear)
Cat Machine Security System
Cat Product Link
Counterweight, 5400 kg
Mirrors heated, frame and cab
Tires, 11.00-20 16 PR, solid rubber
Waste Handling Package (ambient capability 43° C)

Notes

Notes

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

AEHQ6288-01 (02-2013)
Replaces AEHQ6288

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