MH3022

Wheel Material Handler





Engine		
Engine Model	Cat® C7.1 A	CERT™
Emissions	EU Stage IV	1
Power (Maximum)		
ISO 9249 at 1,550 rpm	126 kW	169 hp
ISO 9249 at 1,550 rpm (metric)		171 hp (PS)
ISO 14396	129.4 kW	174 hp
ISO 14396 (metric)		176 hp (PS)

vveigins	
Operating Weight with Worktool	21 500-24 500 kg
Working Ranges	
Maximum Reach (stick pin)	11 005 mm
Maximum Height (stick pin)	12 065 mm
Drive	
Maximum Travel Speed	25 km/h

Introduction

We know that when it comes to material handling equipment, your success depends on high productivity and dependable performance. The MH3022 anchors the smaller end of the new Cat wheel material handlers. It offers a great compromise between the agility, versatility and performance of a wheeled excavator and the stability, efficiency and power needed to cope with harsh environments and applications of industrial, scrap, waste recycling and bulk handling operations, which call for safe, quality and reliable products, while generating a low operating cost to the owner.

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The new MH3022 is here to help you take on the wide variety of challenges you face every day, more easily and with more pleasure.

Commitment from the Ground Up.





Safety and Comfort Are Not Optional

- Embedded smart devices help enforce safe behaviors, like the automatic swing lock, brake and axle lock, and safety lever
- The new cab contributes to your comfort with limited vibrations and drastically reduced sound levels
- Improved access with new and longer handrails, steps and service platform
- Improved visibility with enlarged glass areas, rear and side cameras and LED working lights



Make the Move to the Next Generation

Refinements. From the whole design to the smallest detail. Convenient features, new advanced and transparent technologies, not only to reduce emissions but to further improve your daily experience when working with our products.

Made to be Efficient

Recognizing that fuel efficiency is directly affected by hydraulic performance, the hydraulic system in the MH3022 is carefully designed to provide the work needed without wasting fuel. A high capacity hydraulic cooling system keeps operating temperatures well-balanced, resulting in longer component life, higher efficiency and lower repair cost.

Made to Keep Your Costs Down

Not only does the machine give you all the performance you need, but it does so while providing a great deal of precision, and speed with an absolute minimum fuel consumption – and zero impact on your efficiency.

Maintenance: Keep it Simple

Ground level and grouped service points, automatic central greasing, dedicated system compartments and many other features that make your maintenance quick and easy.

Made to Make Operation Easy and Pleasant

Have a seat, you will be impressed by the quietness and comfort of the cab. Feel relaxed, we help you make sure you're safe.

Integrated Technologies

Enjoy integrated technologies; they act transparently.

Be Flexible to Win

When you add the multiple Cat attachments that help you do all kinds of jobs, you simply won't find a better machine.





Fuel Efficiency and Reduced Exhaust Emissions

The engine meets Stage IV emission standards and performs the same amount of work as the previous model, all while burning less fuel, which means more efficiency, less resource consumption, and fewer emissions.

Quiet Operation

Outstandingly low sound levels, you won't believe your machine is running.

Transparent Technologies and Longer Service Intervals

- The new Eco Modes, Auto Engine Speed Control and Engine Idle Shutdown help further reduce your overall fuel consumption.
- Product Link[™] allows remote monitoring of the machine and helps improve overall efficiency.
- You Cat dealer can help extend service intervals, meaning fewer fluids and disposals, all adding up to lower costs.

Biodiesel and Biodegradable Hydraulic Oil

- The MH3022 has the flexibility of running on either ultra-lowsulfur diesel (ULSD) fuel with 10 ppm of sulfur or less or biodiesel (up to B20) fuel blended with ULSD.
- Cat BIO HYDO Advanced HEES™ reduces the impact on the environment.

Cat Certified Used

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

Engine

Power, Reliability, and Fuel Economy

The Power and Performance You Need

Constant Power Strategy

Provides a quick response to changing loads, while delivering the same amount of power regardless of operating conditions.

A Transparent Emission Solution That Works.

The Cat C7.1 ACERT engine meets today's Stage IV emission standards, and it does so without interrupting your job process. It is designed to be:

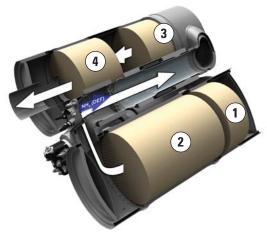
- Transparent: no operator intervention
- Durable: fit for life Diesel Particulate Filter (DPF)
- Efficient: no work interruption, even in case of extended idling time
- Simple: minimum maintenance. Longitudinal engine installation, which further simplifies maintenance

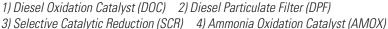
Biodiesel Not a Problem

The engine can run on up to B20 biodiesel fuel that meets ASTM 6751 standards – all to give you more potential fuel-saving flexibility.

Proven Technology

To assure that our technology will meet your expectations for reliable trouble-free service, we subjected these engines and technologies to extensive operating hours of test and validation.



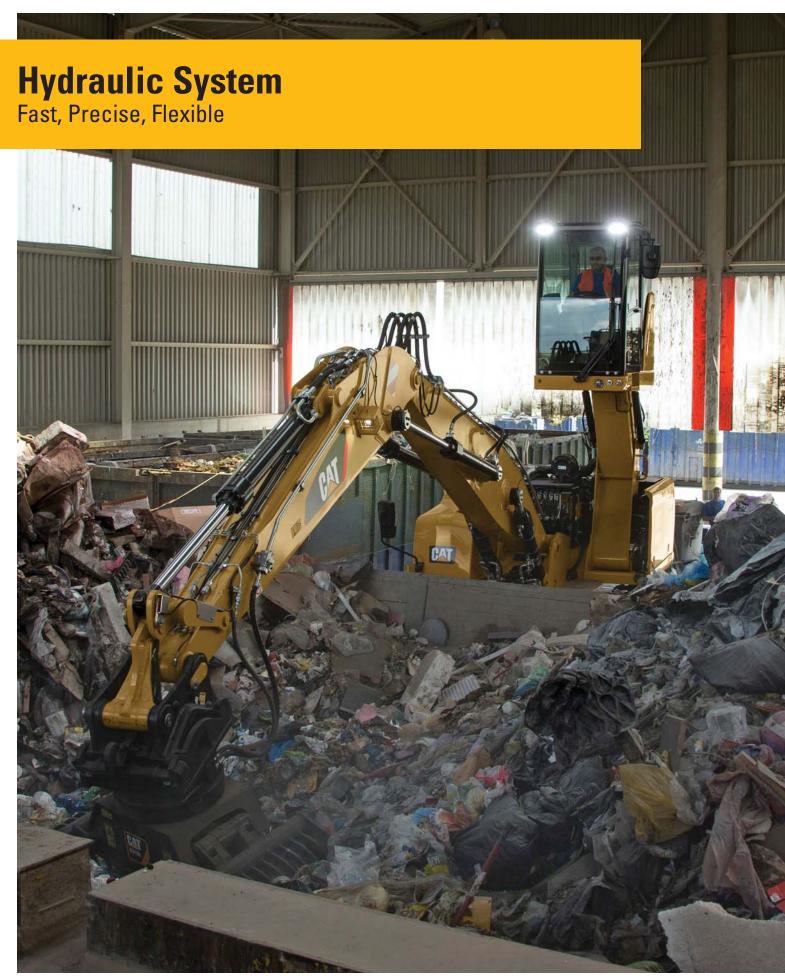






Built-in Fuel Savers That Add Up

- Automatic Engine Speed Control: lowers engine speed when it is not needed.
- NEW Engine Idle Shutdown (when activated): turns the engine off when it's been idling for more than a pre-set amount of time.
- NEW Cooling System: variable speed and on-demand fan optimizing consumption.
- NEW enhanced Eco Mode: reduces engine speed while delivering the same power.
- Automatic shift to Travel Mode when you start riding: optimizes driveline performance while preserving fuel.



When it comes to moving material quickly, you need efficient hydraulics – the type the MH Series can deliver.

Efficient Design, Smart and Fast

- Simple Design The new hydraulic valve compartment and routings offer a simple and clean design to help ensure durability. Everything is reachable from ground level.
- Smart Main Hydraulics The system allows reducing the load on the engine when not needed, which translates into lower fuel consumption.
- Dedicated Swing Pump A closed hydraulic circuit is dedicated to the swing only. Having two separate pumps, one for the swing and the second for the other functions allows faster and smoother combined movements.

Control Like No Other

- Electronic Pump Control Controllability is one of the main attributes
 of the MH3022, and one of the key contributors to this is the Electronic
 Pump Control (EPC) that's designed to improve response time and
 precision. It puts flow exactly where you need it, when you need it,
 which means a much smoother operation and greater efficiency.
- Adjustable Hydraulic Sensitivity Allows you to adjust the aggressiveness of the machine according to the application.
- Stick Circuit Increases efficiency and helps enhance controllability for higher productivity.









Well Balanced Cooling Package

The hydraulic oil cooler is mounted side-by-side with the engine radiator and the air-to-air aftercooler (ATAAC). Located separately from the engine and featuring a well-balanced sizing, the new cooling package offers unprecedented up-times even in difficult environments.

Structure – Elevated Cab and Frame

Strength, Flexibility and Mobility







High Visibility – 2400 mm Elevated Cab

The hydraulic cab riser is designed to be:

- Stable Wide lift arms, deep box-sectioned design, strong top and bottom links and retractable hydraulic cylinders used to raise the cab for greater stability.
- Fast Two heavy-duty hydraulic cylinders provide quick and controlled up and down travel.
- Comfortable The parallelogram design of the linkage allows the cab to remain level at all ranges of motion.
 Cab movement is also slowed as it reaches the end of the riser stroke, with no sudden start/stop effect.
- Safe The cab can be lowered using either a lever inside the cab or one on the frame at ground level in the event of a hydraulic malfunction.

Undercarriage Options

Effective hydraulic line routing, transmission protection and heavy-duty axles make the Cat undercarriages perfect for material handler applications. Four different undercarriages are available to provide the stability you need for your applications:

- Material Handling The Material Handling undercarriage with four welded outriggers is ideal when extra stability is needed.
- Material Handling with Dozer Blade An optional expansion to the Material Handling Undercarriage includes an additional dozer blade mounted ahead of the front stabilizers to be used to push material commonly encountered in waste and millyard applications.
- The Material Handling Narrow undercarriage, specifically designed for limited space applications – Thanks to smaller undercarriage width and length, compared to MH undercarriage, and thanks to its symmetrical design, this MH Narrow undercarriage enhances maneuverability and flexibility in tight areas.
- The standard undercarriage allows for different kinds of stabilizers and blades to be attached either to the front or to the rear.

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 minimizes the rocking effect associated with working free on wheels.

Driveline Concept

The driveline design effectively utilizes engine torque and power to provide a comfortable ride with improved smoothness.

Ground Clearance

The MH3022 offers good ground clearance, with the transmission mounted and protected by the rear axle.













SmartBoom

Allow Your Operator to Fully Concentrate on Production

The unique Cat SmartBoom significantly enhances operator comfort and job efficiency by reducing stress and vibrations transmitted to the machine. Loading is more productive and more fuel efficient as the return cycle is reduced while the boom down function does not require pump flow.

Front Linkage

Durability – Built with No Compromises

You know that a material handler works only as good as its front linkage is able to handle the job. The MH3022's booms and sticks are purpose built for the loads encountered in material handling applications.

MH Boom

MH booms include high pressure hydraulic lines for opening and closing functionality and medium pressure lines for implement rotation. A short MH boom is available to match indoor applications while retaining the same performance and lifting capabilities.

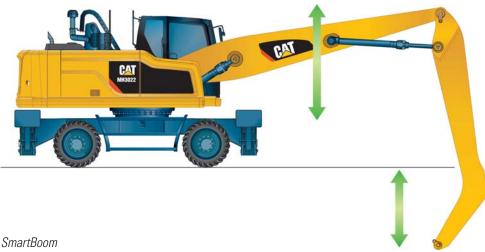
MH Sticks

MH sticks are 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 when additional work tool functionality is needed.

Special Applications

The MH3022 offers the ability to combine the hydraulic cab riser with a traditional excavator front linkage. This combination has been proven in transfer station, mining, and millyard applications.

Automatic lubrication of the whole uppercarriage extends component life, protecting your equipment.



Smart Features

When Operation Becomes as Easy as Pleasant

Joystick Steering (Optional)

Keep both hands on your joysticks even when you need to reposition the machine while simultaneously moving the implements.

Swing and Auto Travel Lock

No need for the operator to bend to engage the swing lock pin.

- · Just press a button,
- Align the upper to the lower frame,
- Enjoy the ride: a green indicator confirms the swing and the implements have been automatically locked.

Integrated Pin Code

No need to buy optional security system to protect your equipment against theft.

- The pin code is integrated into the monitor (standard)
- Entering the right code allows the engine to start

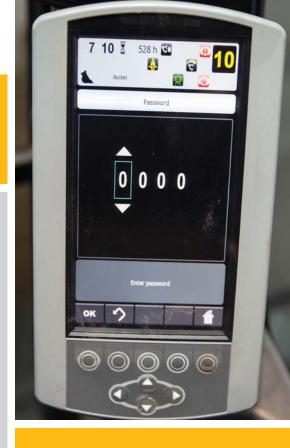
The Machine Security System (MSS – optional) adds even more protection when needed.

Cruise Control

Focus on the working environment, not on your foot. No need to press the pedal all the time.

- Choose the very speed you wish
- Press the quick access button on the monitor
- Enjoy the ride





Load and Go Auto Axle Lock

Presses the Pedal for You, Reducing the Number of Actions You Need to Do

The machine automatically detects when the service brake and axle need to be locked (like when working), or unlocked (roading), hence removing the need for the operator to systematically press the pedal. Brake and axle are released automatically by pressing the travel pedal again.

Premium Comfort

Keeps Operators Productive All Shift Long



Legacy from the Renowned Cat Wheel Material Handlers

Designed for the operator, our cabs are unique.

Ergonomic Layout

- Frequently used switches are centralized, kept to the minimum and ideally located close to the joysticks.
- Storage compartments are useful ... when well designed. The lunch box provides sufficient room to store a hard hat. Several other areas include drink, phone, or key holders.

Comfortable Seat Options

Our seats provide all the comfort needed for a long day of work, including FULL adjustment. All seats are heated and air suspended. Automatic weight adjustment and air cooled seats are available.

Safety – Not Optional

FOPS cabs, seat belt alarm, safety lever, sideview camera ... among others.

Details That Make the Difference

Have a look at the cab; you will see it is through details that we improve pleasure of operating.

Smart Controls to Reduce Fatigue

- Features like SmartBoom or joystick steering will be precious to increase your productivity.
- New technologies that work transparently like the swing and auto travel lock or the automatic brake and axle lock, reduce the number of tasks you need to do.

Plug, Charge and Play Your Devices

- The 12V 10A power supply socket is conveniently located for charging your laptop, or a tablet.
- A CD/MP3 radio with speakers and USB port is available.

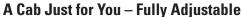






Simplicity and Functionality

For Ease of Operation



- Seat armrests, in height and angle
- Steering column adjustment, not only tilting fore/aft but also in height
- Hydraulic sensitivity of the machine to make it more or less aggressive
- Joystick controls, buttons and thumb wheels
- Automatic air conditioning



Operator sound level has been reduced thanks to a new cab design and increased cab pressure, which also prevents from dust entry. Add in the rubber mounts to fix the cab on the frame and you have a cab that's as quiet as any of today's premium cars.



- Standard LED working lights and halogen roading lights
- Standard LED dome light
- All glass areas have been drastically increased
- Choice of 70/30 front windshield or one piece windshield
- New wide angle mirrors including a lower mirror for a better visibility to the ground
- Parallel intermittent (four speeds) wipers covering the whole windshield



Standard Rear and Side Wide Angle Cameras

Cameras let you see what's going on around. The image from the side camera is displayed on an additional wide color screen, offering the full view from the front to the rear of the machine. The rear camera is integrated into the counterweight for enhanced protection.

Large Color Monitor

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

Serviceability

When Uptime Counts

Convenient Access Built In

You can reach routine maintenance items like fuel and engine oil filters and fluid taps at ground level while fuel and DEF tank accessible from the safety of the slip-resistant new service foldable step. Compartments feature wide composite service doors, designed to be more resistant to shocks, which all include gas struts to facilitate the opening. Components are now gathered in specific dedicated compartment, like the special electrical compartment.

A Smart Design for Any Temperature

The side-by-side and axial fan design allows greater cooling performance. The system is completely separated from the engine compartment to reduce noise and heat, and all radiators are gathered in the same compartment while featuring easy-to-clean cores with a tilting device that requires no tool to unlock.

A Fresh Idea

Ventilation inside the cab allows outside air to enter through a fresh air filter. The filter is located on the side of the cab to make it easy to reach, and it is protected by a lockable door that can be opened with the ignition key.

Lube and Fuel Options

An automatic lubricator system is an available time-saving standard feature for greasing the whole uppercarriage. Greasing points for the undercarriage are kept to a minimum and grouped. An electric refueling pump is also available. The hose is stored in a dedicated tray, for more cleanliness. Add in the new electric lift pump removing the need to prime the system manually, the standard fuel and water separator and you get a machine that does the fastidious works for you.

Keep it simple.









Integrated Technologies

It Pays to Know



Cambre Manager System Details

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CAT CONNECT









Cat Connect makes smart use of technology and services to improve your job site efficiency. Using the data from technology-equipped machines, you'll get more information and insight into your equipment and operations than ever before.

Cat Connect technologies offer improvements in these key areas:



MANAGEMENT

Equipment Management – increase uptime and reduce operating costs.



Productivity – monitor production and manage job site efficiency.



Safety – enhance job site awareness to keep your people and equipment safe.

Featured Cat Connect technologies include the following:

Link

Link technologies provide wireless capability to machines to enable two-way transfer of information collected by on-board sensors, control modules, and other Cat Connect technologies.

Manage Your Machine Remotely

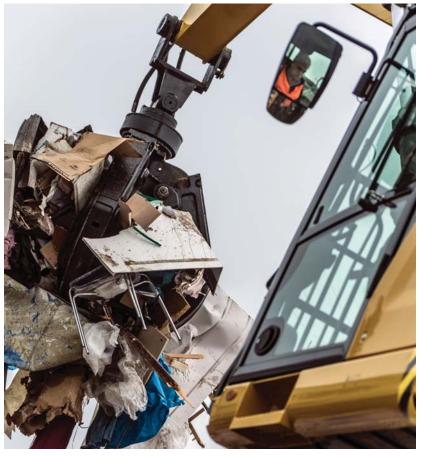
Cat Product Link is a system that is deeply integrated into the machine monitoring system to take the guesswork out of managing your equipment. The system tracks location, hours, fuel usage, productivity, idle time, and diagnostic codes and shares it with you through VisionLink® to help you maximize efficiency, improve productivity, and lower operating costs.











Work Tool Attachments

Move More, Make More



Power Match*

Match your Cat hydraulic work tools to your Cat machine, and get the most out of the standard, built-in software. 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. Attachment changes have never been easier!

*For straight/linkage sticks.











Attachment Solutions for Scrap Recycling, Bulk Handling

When productivity, reliability and stability are important, Cat attachments are the perfect solution for the MH3024. Choose one for your Cat machine for maximum performance.

Productive and Perfectly Matched

Loading and unloading is foundational to your productivity. Grapples are sized right for the MH3024. They are designed for maximum penetration into the pile. The full power of your machine is utilized to provide fast open/close times and powerful closing force. Full, 360° rotation systems allow precise placement. Together, an MH3024 and Cat grapple allow you to move volumes with minimal time and effort.

Built for Severe Material

Cat grapples are built to take on the material you move. Hydraulic components are protected from damage, yet easily accessed for routine maintenance. Areas that dig and penetrate are made of high quality, wear resistant material to keep them in working condition. Components that pivot and move are engineered to the latest standards for a long life. Cat grapples last for a positive impact to your bottom line.

Orange Peel Grapples

The perfect solution for scrap yards, recycling plants and transfer stations. These grapples are available with 4 or 5 tines, in capacities from 600 to 1000 L. Several shell choices allow further customization of your grapple to the specific material you work with.

Clamshell Grapples

The perfect solution for loading and transferring large volumes of loose material like grain, coal, sand and gravel. These grapples are configured with several shells for different capacity options to meet your specific requirements.

Digging Grapples

Cat Digging grapples are designed to suit MH machines for digging applications where good penetration is required.

Waste Handling Grapples

The dedicated waste handling grapple has been specifically designed to offer high volume for maximum loads and proven fuel consumption.

Contact your local Cat dealer to learn more about the specific grapple choices available in your region.

Safety

Your Safety Is NOT Optional

Embedded Features

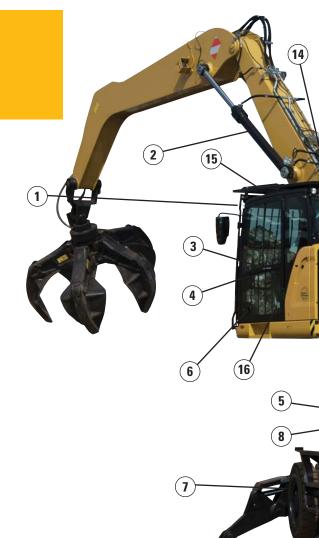
Smart devices are embedded to offer as much safety as possible for your operators and help enforce safe behavior:

- Safety seat belt and warning indicators (monitor)
- Automatic swing lock
- Automatic brake and axle lock
- Safety lever, preventing exit when the implements are not locked out
- Emergency shut off switch and battery switch disconnect
- Adjustable travel alarm
- Lowering check valves





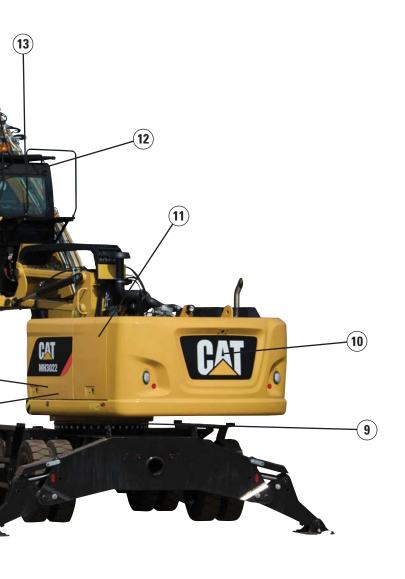




Cab Ingress

We bring a solution to allow you to safely climb into the cab:

- Three longer access steps, aligned with the cab entry
- New additional step integrated into the skirt, directly below the cab door
- Anti-skid plates on all walkways and steps reducing slipping hazards
- Convenient door handrail
- Additional extended handrail, from the top to the bottom of the cab
- Tiltable console, not to obstruct entry into the cab
- Safety lever built into the tiltable console to make sure the way in and out is free of obstacles



- 1) Laminated windshield and skylight window
- 2) Lowering check valves
- 3) Safety seat belt indicator
- 4) Safety lever
- 5) Emergency shut-off switch
- 6) Automatic brake and axle lock
- 7) Punched, anti-slippery walking surfaces
- 8) Battery switch disconnect
- 9) Swing and implement electronic lock
- 10) Adjustable travel alarm
- 11) All doors equipped with gas spring cylinders
- 12) Emergency hammer and exit
- 13) Sound proofing
- 14) Beacon available
- 15) FOPS cab and top/front guards compatibility
- 16) Safety lever to lower the cab, either from the ground or directly from the cab

Smart Lighting

- LED lights for all working lights for enhanced visibility
- Halogen lights for all roading lights
- LED dome light for better illumination inside the cab



Safe and Quiet Cab

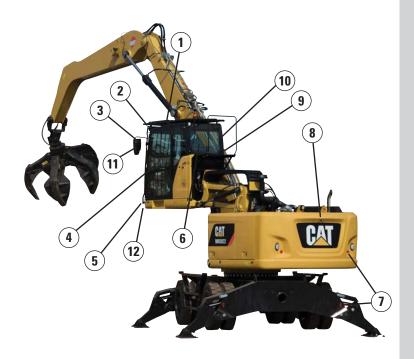
The all-new cab provides you with a safe environment. It also contributes to your comfort with limited vibrations and drastically reduced sound levels.

Great Views

- Enlarged glass gives you excellent visibility to the front, top, rear, and sides, even to the right
- Standard rearview camera gives you a clear field of view behind the machine through the monitor. Camera is integrated into the counterweight.
- Standard sideview camera, to check nothing is hidden to you from the front right hand side to the rear of the machine
- Lenses of all the cameras are wide angle and heated
- All mirrors are wide angle and allow view not only around the machine but also to the ground

Unmatched Visibility

Make Sure Nothing Is Hidden to You



Visibility all around is critical, especially for machines working and driving on industrial job sites.

- 1) Increased skylight and windshield glass area
- 2) Improved lighting with standard LED lights for all working lights
- 3) Optional heated mirrors
- 4) Great left hand side visibility with the new all glass door
- 5) Halogen roading lights
- 6) Wide rear window
- 7) Reflecting red lights on rear and blade/outriggers
- 8) Standard wide rearview camera
- 9) Standard side camera and dedicated wide monitor
- 10) Large right hand side window
- 11) Mirrors, wide angle, with additional lower mirror for ground visibility
- 12) High visibility 2400 mm elevated cab

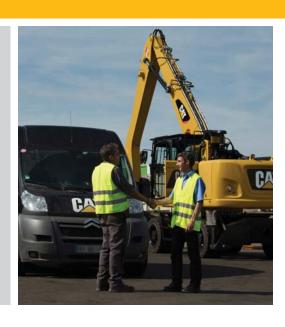
Complete Customer Care

Your Cat Dealer Will Support You Like No Other

Support You Can Count On

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

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



Engine		
Engine Model	Cat C7.1 A	CERT ⁽¹⁾
Ratings	1,550 rpm	
Engine Power (Maximum)		
ISO 14396	129.4 kW	174 hp
ISO 14396 (metric)		176 hp (PS)
Net Power (Rated) (2)		
ISO 9249	126 kW	169 hp
ISO 9249 (metric)		171 hp (PS)
80/1269/EEC	126 kW	169 hp
Net Power (Maximum)		
ISO 9249	126 kW	169 hp
ISO 9249 (metric)		171 hp (PS)
80/1269/EEC	126 kW	
Bore	105 mm	
Stroke	135 mm	
Displacement	7.01 L	
Maximum Torque at 1,400 rpm	830 N·m	
Number of Cylinders	6	
Number of Cylinders	U	

⁽¹⁾ Meets Stage IV emission standards.

Transmission	
Forward/Reverse	
1st Gear	10.0 km/h
2nd Gear	25.0 km/h
Creeper Speed	
1st Gear	3.0 km/h
2nd Gear	10.0 km/h
Drawbar Pull	127.0 kN
Maximum Gradeability	68%
Swing Mechanism	
Swing Speed	8.5 rpm
Swing Torque	48.0 kN·m
Undercarriage*	
Maximum Steering Angle	35.0°
Oscillation Axle Angle	±5.0°
Minimum Turning Radius	
Outside of Tire	6800 mm
End of VA Boom	7800 mm
End of One-Piece Boom	9300 mm

^{*}Dimensions valid for standard undercarriage.

Service Refill Capacities	
Fuel Tank (total capacity)	330 L
Diesel Exhaust Fluid Tank	34.5 L
Cooling System	46.9 L
Engine Crankcase	18.5 L
Rear Axle Housing (differential)	14 L
Front Steering Axle (differential)	10.5 L
Final Drive	2.5 L
Powershift Transmission	2.5 L

⁽²⁾ Rated speed 1,550 rpm. Constant power from 1,500-1,550 rpm.

[•] Net power advertised is the power available at the flywheel when engine is equipped with air cleaner, CEM exhaust gas aftertreatment, alternator, and cooling fan running at intermediate speed.

[•] No deratings required up to 3000 m altitude. Automatic derating occurs after 3000 m.

Weights	
Operating Weights*	21 500-24 500 kg
Long MH Boom (6.4 m)	
MH Undercarriage, Straight Stick	23 670 kg
MH Undercarriage, Drop Nose Stick	23 250 kg
MH Narrow Undercarriage, Drop Nose Stick	22 340 kg
Standard Undercarriage**, Straight Stick	22 730 kg
Short MH Boom (5.35 m)	
Narrow Undercarriage, Straight Stick	22 540 kg
One-Piece Boom	
Standard Undercarriage**, Industrial Stick	21 650 kg
VA Boom	
Standard Undercarriage**, 2800 mm Stick	22 630 kg
Sticks***	
Digging (2800 mm)	970 kg
Straight (4200 mm)	1265 kg
Drop Nose (4900 mm)	860 kg
Industrial (3300 mm)	500 kg
MH Push Blade	675 kg
Dozer Blade	850 kg
Solid Tires (delta vs. standard tires)	950 kg
Counterweight	
Standard	3700 kg
Optional	4200 kg

*Operating weight includes solid tires, 3700 kg counterweight, full
fuel tank, operator, four outriggers undercarriage, attachment
(1400 kg). Weight varies depending on configuration.

^{**}Standard undercarriage with 2 sets of outriggers and dual pneumatic tires.

Hydraulic System		
Tank Capacity	153 L	
System	345 L	

Hydraulic System: Maximum Pressure		
Implement Circuit		
Normal	350 bar	
Heavy Lift	370 bar	
Travel Circuit	350 bar	
Auxiliary Circuit		
High Pressure	350 bar	
Medium Pressure	210 bar	
Swing Mechanism	310 bar	

Hydraulic System: Maximum Flow		
Implement/Travel Circuit	288 L/min	
Auxiliary Circuit		
High Pressure	250 L/min	
Medium Pressure	49 L/min	
Swing Mechanism	108 L/min	

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

^{*}Not compatible with MH undercarriage.

^{**}Not compatible with MH Narrow undercarriage.

Push Blade	
Blade Type	Radial
Blade Height	920 mm
Width	2990 mm

^{***}Includes cylinder, bucket linkage, pins and standard hydraulic lines.

Emissions and Safety	
Engine Emissions	Stage IV
Diesel Exhaust Fluid	Must meet ISO 22241
Fluids (Optional)	
Cat Bio HYDO™ Advanced	Readily biodegradable
	EU Flower eco-label certified
Biodiesel up to B20	Meets EN 14214 or ASTM D6751 with EN590 or ASTM D975 standard mineral diesel fuels
Vibration Levels	
Maximum Hand/Arm	
ISO 5349:2001	<2.5 m/s ²
Maximum Whole Body	
ISO/TR 25398:2006	<0.5 m/s ²
Seat Transmissibility Factor	
ISO 7096:2000-spectral class EM5	<0.7

Standards	
Operator Protective Structure	
Top/Front Guards	FOPS (Falling Object Protective Structure) meets FOPS criteria ISO 10262:1998 and SAE J1356:2008
Cab/Sound Levels	Meets appropriate standards as listed below

Sound Performance		
Operator Sound		
2000/14/EC	71 dB(A)	
Spectator Sound		
2000/14/EC	100 dB(A)	

- Operator Sound The operator sound level is measured according to the procedures specified in 2000/14/EC, for a cab offered by Caterpillar, when properly installed and maintained and tested with the door and windows closed.
- Exterior Sound The labeled spectator sound power level is measured according to the test procedures and conditions specified in 2000/14/EC.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained for doors/ windows open) for extended periods or in noisy environment(s).

Dimensions – With Standard Undercarriage*

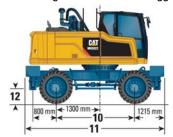
All dimensions are approximate.



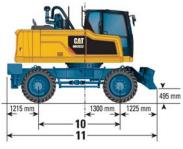


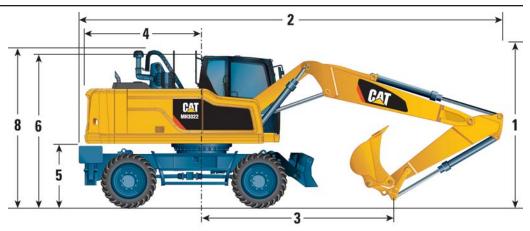


Undercarriage with 2 sets of outriggers



Undercarriage with 1 set of outriggers and dozer blade





		V	A Booi	n	One-	Boom				
Stick Length	mm	2500	2800	3300	2500	2800	3300			
1 Shipping Height with Falling Object Guard and Handrails Lowered (highest point between boom and cab)	mm		3375			3375				
2 Shipping Length	mm	8915	8890	8940	9025	9025	9040			
3 Support Point	mm	3625	3485	3270	3480	3300	3070			
4 Tail Swing Radius	mm			25	70					
5 Counterweight Clearance	mm			13	10					
6 Cab Height with Hydraulic Cab Riser										
Cab Lowered – No Falling Object Guard, Handrails Lowered	mm			32	45					
Cab Lowered – No Falling Object Guard, Handrails Not Lowered	mm	3350								
Cab Lowered – with Falling Object Guard	mm			33	75					
Cab Raised – with Falling Object Guard	mm		5775							
Cab Raised – without Falling Object Guard	mm	5645								
7 Overall Machine Width										
Width with Outriggers on Ground	mm			39	30					
Width with Outriggers Up	mm			27	50					
Width with Blade	mm			27	50					
8 Height of Tray Group Flex	mm			33	60					
9 Maximum Outriggers Depth	mm			12	20					
10 Wheel Base	mm			27	50					
11 Undercarriage length										
With 2 Sets of Outriggers Raised	mm			50	40					
With 1 Set of Outriggers and Dozer Blade Raised	mm			51	90					
12 Undercarriage Clearance	mm			32	25					

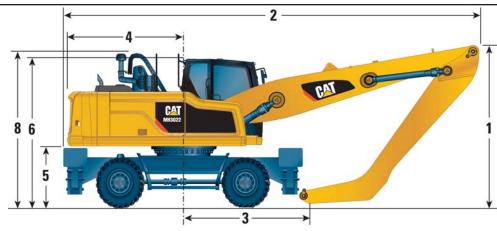
^{*}Standard undercarriage with 2 sets of outriggers and dual pneumatic tires.

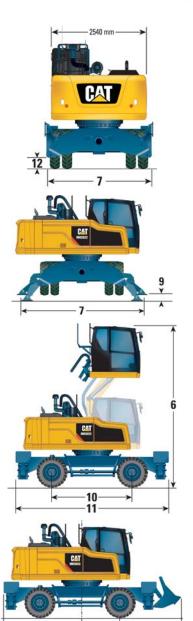
Note: Values with 11.00-20 pneumatic tires. For machines fitted with solid tires all vertical dimensions have to be reduced by 35 mm. For dimension 9 add 35 mm.

Dimensions – With MH and MH Narrow Undercarriage

All dimensions are approximate.







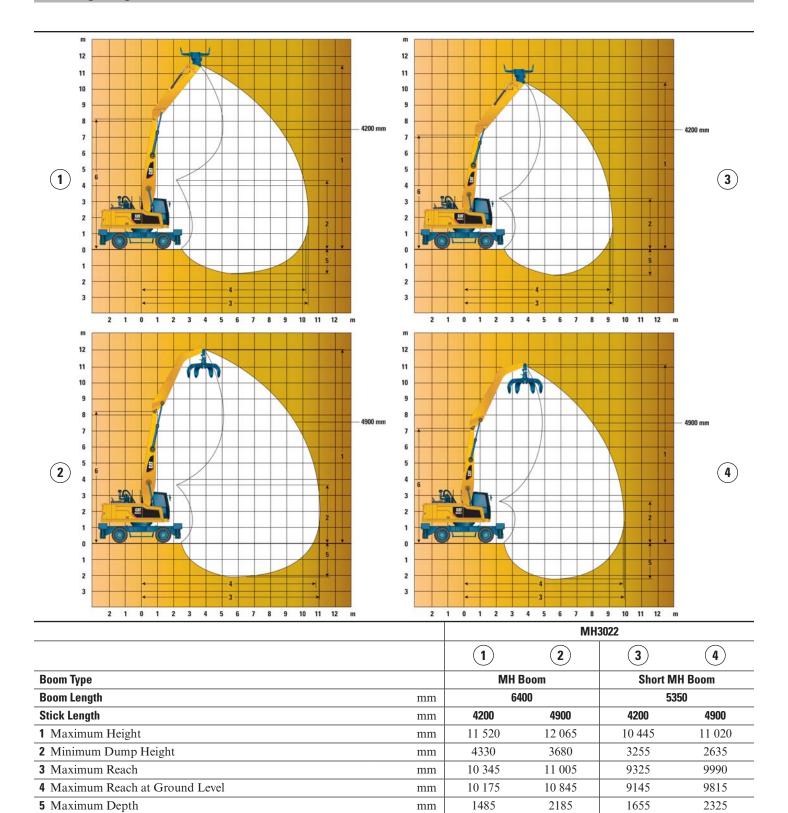
		MH Under	rcarriage	MH Narr	ow UC*		
		Long Mi	l Boom	Short M	H Boom		
Boom Length	mm	640	00	53!	50		
Stick Type		Straight	Drop Nose	Straight	Drop Nose		
Stick Length	mm	4200	4900	4200	4900		
1 Shipping Height with Falling Object Guard and Handrails Lowered (highest point between boom and cab)	mm	3340	3620	3340	4535		
2 Shipping Length	mm	9420	9280	8310	7885		
3 Support Point	mm	3230	2760	2190	2180		
4 Tail Swing Radius	mm		25	70			
5 Counterweight Clearance	mm		12	.75			
6 Cab Height with Hydraulic Cab Riser							
Cab Lowered – No Falling Object Guard, Handrails Lowered	mm		32	10			
Cab Lowered – No Falling Object Guard, Handrails Not Lowered	mm		33	15			
Cab Lowered – with Falling Object Guard	mm		33	40			
Cab Raised – with Falling Object Guard	mm		57	40			
Cab Raised – No Falling Object Guard	mm		56	510			
7 Overall Machine Width							
Width with Outriggers on Ground	mm	430	50	368	30		
Width with Outriggers Up	mm	299	90	25:	50		
Width with the Special Front Push Blade	mm	299	90	N.	A		
8 Height of Tray Group Flex	mm		33	25			
9 Maximum Outriggers Depth	mm	9()	12	0		
10 Wheel Base	mm	27:	50	260	00		
11 Undercarriage Length	mm	523	50	490	00		
With MH Undercarriage Front Push Blade	mm	608	30	NA			
12 Undercarriage Clearance	mm	24	.5	29	5		

*Dimensions with MH Narrow undercarriage, outriggers front and rear, and without work tool.

When the shipping height is over 4 m, the stick must be removed for transportation.

Note: Values are with 10.00-20 pneumatic or with solid tires. For machine fitted with 11.00-20 pneumatic tires and MH Undercarriage all vertical dimensions have to be increased by 35 mm. For dimension 9 reduce by 35 mm.

Working Ranges



8235

mm

7160

All dimensions refer to sticknose pin, with solid tires.

6 Boom Pin Height

These dimensions are independent from the undercarriage type (whether it is MH or MH Narrow undercarriage).

MH3022 Work Tool Offering Guide with Straight Sticks*

	Boom Length		One-Pie	ce Boom			Boom I m)		Boom 5 m)
	Counterweight	370	0 kg	420	0 kg	3700 kg	4200 kg	3700 kg	4200 kg
	Undercarriage/Outriggers	(1)	(1)	(1)	(1)	(1)	(1)
	Stick Length	2500 mm	2800 mm	2500 mm	2800 mm	4200 mm	4200 mm	4200 mm	4200 mm
	Stick Type	Straight	Straight	Straight	Straight	Straight	Straight	Straight	Straight
	H115Es								
Hydraulic Hammer	H120Es								
	H130Es								
	MP318 CC Jaw								
	MP318 D Jaw								
Multi-Processor	MP318 P Jaw								
	MP318 U Jaw								
	MP318 S Jaw								
Crusher	P315								
Pulverizer	P215								
	G315 GC								
Sorting Grapple	G315B WH								
	G315B-D/R								
C Ch	S320B								
Scrap Shear	S325B								
Compactor Plate	CVP75								
Pin Grabber Coupler	CL-QC								
D. F. (10.110)	CW-30	The	se couplers	are availab	le for the M	1H3022 (with	n straight sti	ck and linka	age).
Dedicated Quick Coupler	CW-30S								
(1) MH undercarriage with 2 sets outriggers	Work tool is a match Pin-on or dedicated CW coup	ler (Pin-on on Boom mo	-		Not	t recomme	nded

^{*}Offerings not available in all areas. Matches are dependent on machine configurations. Consult your Cat dealer to determine what is offered in your area and for proper work tool match.

Fixed CAN: CW quick coupler adapter plates

MH3022 Work Tool Offering Guide with Drop Nose Sticks*

	Boom Length		Boom I m)	MH E (5.3)	
	Counterweight	3700 kg	4200 kg	3700 kg	4200 kg
	Undercarriage/Outriggers	(1)	(1)	(1)	(1)
	Stick Length	4900 mm	4900 mm	4900 mm	4900 mm
	Stick Type	MH Stick (drop nose)	MH Stick (drop nose)
	GSH15B 400 L				
	GSH15B 500 L				
	GSH15B 600 L				
Orange Peel Grapple (4 or 5 tines)	GSH15B 800 L				
	GSH20B 600 L				
	GSH20B 800 L				
	GSH20B 1000 L				
	GSM25 400 L				
	GSM25 500 L				
	GSM25 600 L				
Outron Deal County (Friend)	GSM25 800 L				
Orange Peel Grapple (5 tines)	GSM35 500 L				
	GSM35 600 L				
	GSM35 800 L				
	GSM35 1000 L				
	CTV15 1000 L				
	CTV15 1200 L				
Clamshell Grapple	CTV15 1500 L				
	CTV15 1700 L				
	CTV15 1900 L				

⁽¹⁾ MH undercarriage with 2 sets outriggers

Maximum density 1.2 t/m³ (light material)

Maximum density 1.8 t/m³ (standard material)

^{*}Offerings not available in all areas. Matches are dependent on machine configurations. Consult your Cat dealer to determine what is offered in your area and for proper work tool match.

Lift Capacities

All values are in kg, without work tool, with counterweight (4200 kg), heavy lift on.

Load	Load point height Load over front P Load over re						r	Load over side Load							oad at ma	d at maximum reach (sticknose/bucket pin)					
	carriage 2.99 m) or MH Narrow (2	2.55 m))						Boon 5.35	n m MH	H		Stick 4.2 m Straight Stick								
> _→			3000 mm		4500 mm		6000 mm				7500 mm			9000 mm							
	Undercarriage configuration	4	1	Œ	₽ <u></u>	4	GP	P	P	ŒP		7			4	œ		4	GP	mm	
9000 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down				*8550 *8550 *8500 *8500	*8550 *8550 *8500 *8500	6950 *8550 6200 *8500										*5750 *5750 5400 *5800	*5750 *5750 5400 *5800	4400 *5750 3950 *5800	5900	
7500 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down							5900 *8250 5350 *8200	5900 *8250 5350 *8200	4450 *8250 3950 7150							4150 *5100 3750 *5100	4150 *5100 3750 *5100	3050 *5100 2700 5000	7380	
6000 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down							5900 *8600 5350 *8600	5900 *8600 5350 *8600	4400 *8600 3900 7100	4050 *7300 3650 6950	4050 *7300 3650 6950	3000 6450 2650 4900				3350 *4800 3050 *4800	3350 *4800 3050 *4800	2450 *4800 2150 4050	8340	
4500 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down				9200 *11 100 8300 *11 050	9200 *11 100 8300 *11 050	6750 *11 100 6000 *11 050	5750 *8900 5200 *8900	5750 *8900 5200 *8900	4250 *8900 3800 7000	4000 *7350 3600 6850	4000 *7350 3600 6850	2950 6400 2600 4850				2950 *4750 2650 *4750	2950 *4750 2650 *4750	2150 *4750 1850 3600	8940	
3000 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down	17 750 *18 000 15 750 *17 950	17 750 *18 000 15 750 *17 950	12 050 *18 000 10 550 *17 950	8700 *12 250 7850 *12 200	8700 *12 250 7850 *12 200	6300 *12 250 5600 10 900	5500 *9300 4950 *9300	5500 *9300 4950 *9300	4050 9050 3600 6750	3900 *7400 3500 6750	3900 *7400 3500 6750	2850 6250 2500 4700	2900 *5750 2600 5000	2900 *5750 2600 5000	2100 4650 1800 3500	2750 *4850 2450 4800	2750 *4850 2450 4800	2000 4450 1700 3350	9260	
1500 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down	*11 900 *11 900 *12 350 *12 350	*11 900 *11 900 *12 350 *12 350	10 650 *11 900 9200 *12 350	8150 *12 950 7300 *12 950	8150 *12 950 7300 *12 950	5850 *12 950 5100 10 300	5250 *9450 4750 *9450	5250 *9450 4750 *9450	3850 8750 3350 6450	3750 *7250 3350 6600	3750 *7250 3350 6600	2750 6150 2400 4600	2850 *5300 2550 4950	2850 *5300 2550 4950	2050 4600 1750 3450	2700 *4750 2400 4700	2700 *4750 2400 4700	1950 4400 1650 3300	9320	
0 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down	*6250 *6250 *6250 *6250	*6250 *6250 *6250 *6250	*6250 *6250 *6250 *6250	7750 *12 250 6900 *12 300	7750 *12 250 6900 *12 300	5450 *12 250 4750 9850	5050 *8900 4550 *8900	5050 *8900 4550 *8900	3650 8500 3150 6250	3650 *6600 3250 6500	3650 *6600 3250 6500	2650 6000 2300 4500								
–1500 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down				7600 *9850 6700 *9950	7600 *9850 6700 *9950	5300 *9850 4550 9650	4950 *7300 4400 *7350	4950 *7300 4400 *7350	3550 *7300 3050 6150											

^{*}Limited by hydraulic rather than tipping load.

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

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

Lift Capacities

All values are in kg, without work tool, with counterweight (4200 kg), heavy lift on.

Loa	Load point height Load over front Load							er rear		Load over side								Load at maximum reach (sticknose/bucket pin)							
	carriage 2.99 m) or MH Narr	row (') 55 r	m)							Boom	ı MH					Stick 4.9 m MH								
	2.99 III) 01 WIII INAI				l	4500				<u>'</u>	0,11111111														
\sim			3000 mm			4500 mm		6000 mm			7500 mm			9000 mm			10 500 mr				4	=	$\overline{}$		
	Undercarriage configuration					4								₽	7			7					mm		
	SA – 2 sets stabilizers up							6250	6250	4750										5200	5200	3950			
10 500 mm	SA – 2 sets stabilizers down							*6500	*6500	*6500										*5250	*5250	*5250	6700		
10 000	Narrow – 2 sets stabilizers up							5650	5650	4250										4750	4750	3550	0,00		
	Narrow – 2 sets stabilizers down							*6450	*6450	*6450										*5300	*5300	*5300			
	SA – 2 sets stabilizers up							6350	6350	4850	4450	4450	3400							3700	3700	2800			
9000 mm	SA – 2 sets stabilizers down							*7850	*7850	*7850	*6300	*6300	*6300							*4700	*4700	*4700	8320		
0000	Narrow – 2 sets stabilizers up							5800	5800	4350	4050	4050	3000							3400	3400	2500	0020		
	Narrow – 2 sets stabilizers down							*7850	*7850	7600	*6250	*6250	5300							*4700	*4700	4450			
	SA – 2 sets stabilizers up							6350	6350	4850	4450	4450	3400	3300	3300	2500				3050	3050	2300			
7500 mm	SA – 2 sets stabilizers down							*8200	*8200	*8200	*7100	*7100	6900	*5500	*5500	5100				*4400	*4400	*4400	9420		
	Narrow – 2 sets stabilizers up							5800	5800	4350	4050	4050	3050	3000	3000	2200				2750	2750	2050			
	Narrow – 2 sets stabilizers down							*8150	*8150	7600	*7100	*7100	5300	5450	5450	3950				*4400	*4400	3650			
6000 mm	SA – 2 sets stabilizers up							6250	6250	4750	4400	4400	3350	3300	3300	2500				2700	2700	2000			
	SA – 2 sets stabilizers down							*8400	*8400	*8400	*7200	*7200	6800	*6200	*6200	5100				*4300	*4300	4150	10 180		
	Narrow – 2 sets stabilizers up							5700	5700	4250	4000	4000	3000	3000	3000	2200				2400	2400	1750			
	Narrow – 2 sets stabilizers down							*8400	*8400	7500	*7200	*7200	5250	5450	5450	3900				*4300	*4300	3200			
	SA – 2 sets stabilizers up				9450	9450	7000	6000	6000	4550	4300	4300	3250	3250	3250	2450	2500	2500	1850	2450	2450	1800			
4500 mm	SA – 2 sets stabilizers down				*11 150	*11 150	*11 150	*8900	*8900	*8900	*7350	*7350	6700	6200	6200	5000	4850	4850	3950	*4300	*4300	3850	10 680		
	Narrow – 2 sets stabilizers up				8550	8550	6250	5450	5450	4050	3900	3900	2850	2900	2900	2150	2250	2250	1650	2200	2200	1600			
	Narrow – 2 sets stabilizers down				*11 150	*11 150	*11 150	*8850	*8850	7250	7150	7150	5100	5350	5350	3850	4200	4200	3000	4100	4100	2950			
	SA – 2 sets stabilizers up	17 550	17 550	11 900	8800	8800	6450	5700	5700	4250	4100	4100	3100	3150	3150	2350	2500	2500	1850	2350	2350	1700			
3000 mm	SA – 2 sets stabilizers down	*18 550	*18 550		*12 350	*12 350	*12 350	*9350	*9350	9250	*7550	*7550	6500	6050	6050	4950	4800	4800	3900	*4400	*4400	3650	10 940		
	Narrow – 2 sets stabilizers up	15 550	15 550	10 400	7950	7950	5700	5150	5150	3750	3700	3700	2700	2850	2850	2050	2250	2250	1600	2100	2100	1500			
	Narrow – 2 sets stabilizers down	*18 500	*18 500	*18 500	*12 350	*12 350	11 000	*9350	*9350	6950	7000	7000	4950	5250	5250	3750	4150	4150	3000	3900	3900	2800			
	SA – 2 sets stabilizers up				8150	8150	5850	5400	5400	3950	3950	3950	2900	3050	3050	2250	2450	2450	1800	2300	2300	1650			
1500 mm	SA – 2 sets stabilizers down				*13 000	*13 000	*13 000	*9550	*9550	8850	*7500	*7500	6300	5950	5950	4800	*4700	*4700	3850	*4100	*4100	3600	11 000		
	Narrow – 2 sets stabilizers up				7300	7300	5100	4850	4850	3500	3550	3550	2550	2750	2750	1950	2200	2200	1550	2050	2050	1450			
	Narrow – 2 sets stabilizers down	XOFC-	Vorce	*orc:	*13 000	*13 000	10 250	*9550	*9550	6600	6800	6800	4750	5150	5150	3650	4100	4100	2950	3850	3850	2750			
	SA – 2 sets stabilizers up	*3500	*3500	*3500	7700	7700	5400	5150	5150	3700	3800	3800	2800	2950	2950	2150	2400	2400	1750						
0 mm	SA – 2 sets stabilizers down	*3500	*3500	*3500	*12 200	*12 200	*12 200	*9150	*9150	8600	*7150	*7150	6150	*5550	*5550	4750	*4050	*4050	3800						
	Narrow – 2 sets stabilizers up	*3500	*3500	*3500	6850	6850	4700	4600	4600	3250	3400	3400	2400	2650	2650	1900	2150	2150	1500						
	Narrow – 2 sets stabilizers down	*3500	*3500	*3500	*12 350	*12 350	9750	*9200	*9200	6300	6600	6600	4600	5050	5050	3600	*4050	*4050	2900						
	SA – 2 sets stabilizers up				7450	7450	5200	5000	5000	3600	3700	3700	2700	2900	2900	2100									
-1500 mm	SA – 2 sets stabilizers down				*9600	*9600	*9600	*8000	*8000	*8000	*6200	*6200	6050	*4650	*4650	*4650									
	Narrow – 2 sets stabilizers up				6650	6650	4500	4450	4450	3100	3300	3300	2350	2600	2600	1850									
	Narrow – 2 sets stabilizers down				*9600	*9600	9500	*8000	*8000	6150	*6250	*6250	4500	*4700	*4700	3550					\Box				

^{*}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.

Lift Capacities

All values are in kg, without work tool, with counterweight (4200 kg), heavy lift on.

Load	point height L	Load over rear Load over side						Load at maximum reach (sticknose/bucket pin)														
	earriage 99 m) or MH Narrov	v (2.55 m)					Boom 6.4 m MH								Stick 4.2 m Straight Stick						
IVIII (2	99 III) 01 WITT INATIO	w (2.33 III	,					0.4 m MH						4.2 ili Straight Suc					-K			
\searrow_{\top}			3000 mm		4500 mm			6000 mm			7500 mm			9000 mm								
	Undercarriage configuration	₽ <u>^</u>	7	-		7	F	₽	V			Ē.	æ		Ē.		₽.	8	æ	mm		
9000 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down							5900 *8100 5350 *8050	5900 *8100 5350 *8050	4400 *8100 3900 7150							4050 *5300 3700 *5300	4050 *5300 3700 *5300	3000 *5300 2650 4950	7420		
7500 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down							5900 *8250 5350 *8250	5900 *8250 5350 *8250	4400 *8250 3950 7150	4050 *7000 3650 6950	4050 *7000 3650 6950	3000 6450 2650 4900				3150 *4900 2800 *4900	3150 *4900 2800 *4900	2250 *4900 2000 3800	8640		
6000 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down				9350 *10 600 8450 *10 600	9350 *10 600 8450 *10 600	6900 *10 600 6100 *10 600	5800 *8500 5250 *8450	5800 *8500 5250 *8450	4300 *8500 3800 7050	4000 *7050 3600 6900	4000 *7050 3600 6900	2950 6400 2600 4850	2900 5850 2600 5050	2900 5850 2600 5050	2100 4700 1800 3550	2650 *4750 2350 4600	2650 *4750 2350 4600	1900 4300 1650 3250	9460		
4500 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down	*14 500 *14 500 *14 250 *14 250	*14 500 *14 500 *14 250 *14 250	12 500 *14 500 10 950 *14 250	8850 *11 500 8000 *11 500	8850 *11 500 8000 *11 500	6450 *11 500 5700 11 100	5550 *8850 5000 *8850	5550 *8850 5000 *8850	4100 *8850 3600 6800	3900 *7150 3500 6750	3900 *7150 3500 6750	2850 6250 2500 4700	2850 5800 2550 5000	2850 5800 2550 5000	2050 4650 1750 3500	2350 *4750 2100 4200	2350 *4750 2100 4200	1650 3900 1400 2900	10 000		
3000 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down				8200 *12 450 7350 *12 400	8200 *12 450 7350 *12 400	5850 *12 450 5100 10 350	5250 *9200 4700 *9150	5250 *9200 4700 *9150	3800 8750 3350 6450	3700 *7200 3350 6600	3700 *7200 3350 6600	2700 6100 2350 4550	2800 5700 2450 4900	2800 5700 2450 4900	2000 4550 1700 3400	2200 *4500 1950 3950	2200 *4500 1950 3950	1550 3700 1300 2750	10 280		
1500 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers up				7550 *12 450 6700 *12 500	7550 *12 450 6700 *12 500	5300 *12 450 4550 9650	4950 *9100 4400 *9100	4950 *9100 4400 *9100	3550 8400 3050 6150	3550 *7000 3150 6400	3550 *7000 3150 6400	2550 5900 2200 4400	2700 *5450 2400 4800	2700 *5450 2400 4800	1900 4450 1600 3300	2150 *3950 1900 3900	2150 *3950 1900 3900	1500 3600 1250 2650	10 340		
0 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down				7200 *9400 6350 *9450	7200 *9400 6350 *9450	4950 *9400 4250 9250	4750 *8350 4200 *8400	4750 *8350 4200 *8400	3350 8150 2850 5900	3450 *6400 3050 6250	3450 *6400 3050 6250	2400 5800 2050 4250	2650 *4800 2350 4750	2650 *4800 2350 4750	1850 4400 1550 3250						

^{*}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.

MH3022 Standard Equipment

Standard Equipment

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

ELECTRICAL

- · Alternator, 115A
- Heavy Duty maintenance free batteries
- Lights
- -Boom and stick LED working light
- -One LED light on the counterweight
- -Cab LED interior dome light
- -Roading lights two front
- -Roading lights two rear
- Working LED lights, cab mounted (front and rear)
- · Main shut-off switch
- · Signal/warning horn

ENGINE

- Air filter
- Altitude capability: 3000 m
- Automatic engine speed control, including One Touch Low Idle
- · Engine Idle Shutdown
- · Automatic starting aid
- Cat C7.1 ACERT meeting Stage IV emission standards
- Fuel filter
- Fuel/water separator with level indicator
- High ambient cooling
- Power mode selector (economy, power)

HYDRAULICS

- Adjustable hydraulic sensitivity
- Cat XTTM-6 ES hoses
- Control circuits (standard and optional, depending on boom/stick/linkage choice):
- Medium pressure
 - Two-way, medium pressure circuit, for rotating or tilting of work tools
- · Heavy lift mode
- · Load-sensing hydraulic system
- · Oil cooler
- · Quick disconnect couplings
- Separate swing pump

OPERATOR STATION

- · Additional color monitor for sideview camera
- · Adjustable armrests
- Air conditioner, heater and defroster with automatic climate control
- Beverage cup/can holder
- · Bolt-on top/front guards capability
- · Bottle holder
- Bottom mounted, intermittent, parallel wiping system, covering upper and lower windshield glass
- Camera integrated into the counterweight displays through cab monitor
- CD/MP3 radio (12V) at rear location including speakers and 12V converter
- Coat hook
- Cruise control system
- Floor mat, washable, with storage compartment
- Fully adjustable suspension seat
- Hydraulic cab riser
- Instrument panel and gauges, full graphic and color display
- -Information and warning messages in local language
- -Gauges for fuel and DEF levels, engine coolant and hydraulic oil temperature
- Filters/fluids change interval, working hours
- Indicators for headlights, turning signal, low fuel and DEF, engine dial setting
- -Clock with 10-day backup battery
- Interior lighting with door switch
- · Joysticks, pilot operated
- · Laminated front windshield
- Left side console, tiltable, with lock out for all controls
- Lighter (24V)
- Literature compartment behind seat
- Literature holder in right console
- Mobile phone holder
- Parking brake
- Pin code type engine start prevention, integrated into the monitor
- Positive filtered ventilation, variable speed
- Power supply, 12V-10A

- · Rear window, emergency exit
- Retractable seat belt, integrated into the seat
- · Seat belt indicator and alarm
- Skylight
- Sliding door windows
- Steering column, adjustable angle and height
- Step, integrated into the skirt
- Storage area suitable for a lunch box
- Sunshade for windshield and skylight

UNDERCARRIAGE

- · Automatic brake and axle lock
- Automatic swing and implement lock
- · Creeper speed
- · Four wheel drive
- Full hydraulic steering with emergency capability
- Heavy-duty axles, advanced travel motor, adjustable braking force and disc brake system
- Oscillating front axle, lockable, with remote greasing
- Steps, wide, left and right
- Tool boxes, left and right, in undercarriage
- Two-speed hydrostatic transmission
- Cooling package, fine mesh screen, with engine air precleaner

OTHER EQUIPMENT

- Auto-lube system (implements and swing gear)
- Automatic swing brake
- · Capability to add auxiliary hydraulic circuit
- Electronic Technician capability (ET)
- Counterweight, 3700 kg
- Door locks and cap locks with Cat one-key security system
- Lowering check valves, BLCV including overload warning device and SLCV
- · Mirrors, frame and cab
- Product Link
- Rear wide angle camera
- Side wide angle camera
- S·O·SSM Quick Sampling valves for engine oil, hydraulic oil and coolant

MH3022 Optional Equipment

Optional Equipment

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

AUXILIARY CONTROLS AND LINES

- · Auxiliary boom and stick lines
- Control circuits (standard and optional, depending on boom/stick/linkage choice):
- -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
- SmartBoom

BOOMS AND STICKS

- VA boom (5260 mm):
- -Straight stick (2500, 2800 mm)
- -Industrial stick (3300 mm)
- One-Piece boom (5350 mm):
- -Straight stick (2500, 2800 mm)
- -Industrial stick (3300 mm)
- Material Handling boom (6400 mm):
- -Drop nose MH stick (4900 mm)
- -Straight MH stick (4200 mm)
- Material Handling boom (5350 mm):
- -Drop nose MH stick (4900 mm)
- -Straight MH stick (4200 mm)

ELECTRICAL

- Back-up alarm with three selectable modes
- · Rotating beacon

OPERATOR STATION

- Top/front guards
- · Joystick steering
- Pedal HPF/Hammer for auxiliary operation
- Seat, adjustable high-back
- Vertical air suspension, horizontal suspension, automatic weight adjustment, lumbar support, passive climate system, seat cushion length/angle adjustment and heated seat (Comfort)
- Vertical air suspension, horizontal suspension, automatic height and weight adjustment, active climate system, premium microfiber seat fabric, pneumatic lumbar support, seat cushion length and angle adjustment and adjustable dampening (Deluxe)
- Visor for rain protection
- · Windshield
- -One-piece fixed
- -70/30 split, openable

TIRES*

- Dual pneumatic 10.00-20
- Dual pneumatic 11.00-20
- Dual solid rubber, 10.00-20
- · Spacer rings for tires

UNDERCARRIAGE

- MH Narrow undercarriage with four welded outriggers
- MH undercarriage with four welded outriggers
- MH undercarriage with four welded outriggers and front mounted blade
- Standard undercarriage, with outriggers (front and/or rear), dozer blade (front or rear)

OTHER EQUIPMENT

- · Bucket linkages
- Cat Machine Security System
- Counterweight, 4200 kg
- · Hydraulic quick coupler
- Maximum speed 20 km/h or 25 km/h**
- Mirrors heated, frame and cab
- Refueling pump with dedicated tray for the hose
- *Dual Pneumatic 10.00-20 not compatible with MH undercarriage Dual Pneumatic 11.00-20 not compatible with MH narrow undercarriage
- **25 km/h not compatible with solid tires

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

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AEHQ7406-01 (08-2015) Replaces AEHQ7406

