MH3022

CAT®

Wheel Material Handler 2017



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

vveights	
Operating Weight with Work Tool	20 705 kg-25 450 kg
Working Ranges (MH boom, stick 4900 mm)	
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 at a lower cost.

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 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, is powerful and efficient, with an optimized 10% fuel consumption improvement versus the previous model and no impact on your productivity. This means less resource consumption and fewer CO_2 emissions.

Quiet Operation

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

Transparent Technologies and Longer Service Intervals

- The Eco Mode, 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 up to B20 biodiesel 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



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
- 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

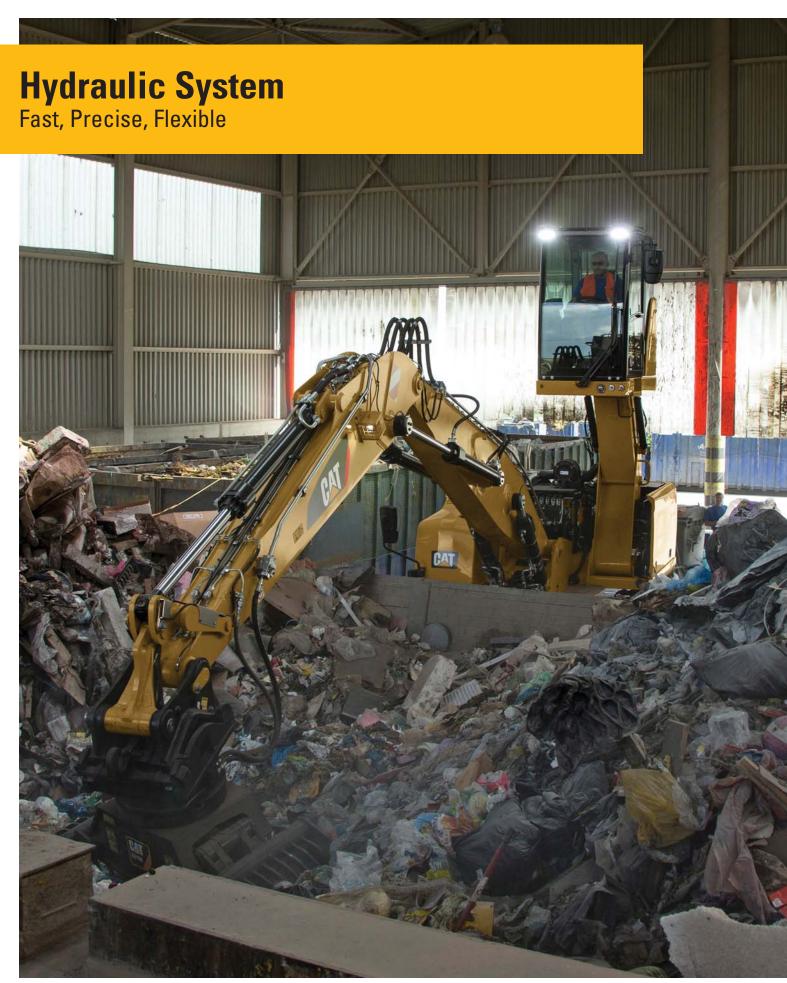
To assure that our technology will meet your expectations for reliable trouble-free service, we subjected these engines and technologies to extensive operating hours of test and validation.





Built-in Fuel Savers That Add Up

- Automatic Engine Speed Control: lowers engine speed when it is not needed.
- Engine Idle Shutdown: turns the engine off when it's been idling for more than a pre-set amount of time.
- On-Demand Cooling System: variable speed and on-demand fan.
- Enhanced Eco Mode: reduces engine speed while delivering the same power.
- Automatic Shift to Travel Mode when you start driving.
- NEW! Optimized Travel Mode: travel mode rpm levels are set automatically on-demand only to further reduce fuel consumption.



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.
- 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 Regeneration Circuit Increases efficiency and helps enhance controllability for higher productivity of straight sticks with linkage.









Well Balanced Cooling Package

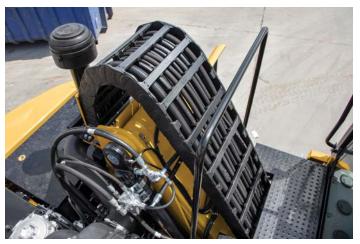
The hydraulic oil cooler is mounted side-by-side with the engine radiator and the air-to-air aftercooler (ATAAC). Located separately from the engine and featuring a well-balanced sizing, the new cooling package offers unprecedented up-times even in difficult environments.

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. The drive shaft offers long service intervals.

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.

Travel mode rpm levels are set automatically and "on-demand only" to further reduce fuel consumption.













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

No Compromise on Durability

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.

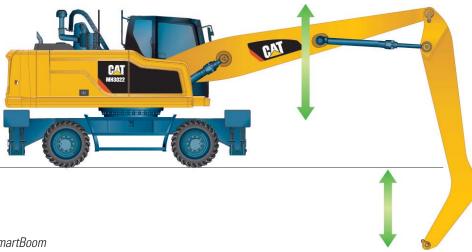
MH Sticks

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.

Standard stick as well as industrial sticks are available in combination with a variable adjustable (VA) or one-piece boom.



Smart Features

Easier than Ever

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.
- NEW! The swing lock can be applied independently from the implements lock at low speed (below 5 km/h)

Integrated Pin Code

No need to buy an 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

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



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. Several areas provide sufficient room to store a hard hat, a drink, phone, or keys.

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 ventilated seats are available.

Safety Is 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.





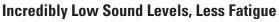


Simplicity and Functionality

For Ease of Operation

A Cab Just for You - Fully Adjustable

- 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
- NEW! Joystick and left pedal controls assignments: can be set up as desired and per tool
- NEW! Optional advanced joystick offering more controls (two sliders, five buttons each)
- Automatic air conditioning
- NEW! Optional heated mirrors are now also electrically adjustable from the cab



Increased cab pressure, preventing from dust entry, combined with the cab design contributes to reducing sound.

Outstanding Visibility: See the difference!

- · All glass areas have been drastically increased
- Standard LED working lights and halogen front roading lights
- Standard LED dome light
- Standard rearview AND sideview wide angle cameras
- Wide angle mirrors for a better visibility even down to the ground
- Parallel intermittent (four speeds) wipers covering the whole windshield



NEW! Standard LED Lights for BOTH Cameras to See What's Going on Around, Day or Night.

The rear camera is integrated into the counterweight for enhanced protection.

NEW! Split-Screen View of BOTH Cameras on the Same Monitor

The views from both cameras are displayed side by side on the additional wide color monitor for better visibility at first glance.

Large Color Machine 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.

A Smart Design for Any Temperature

The side-by-side coolers 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.

- The optional Cooling Protection Package includes a fine mesh for enhanced radiator protection and an engine air pre-cleaner.
- The optional Waste Handling Package adds a reversing fan rotation function with adjustable intervals and a vibrating grill on the cooling hood.
 This vibration together with the reversed airflow direction will shake accumulated particles off the mesh.

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 lubrication system is a 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 maintenance works for you.

Keep it simple.









Integrated Technologies

It Pays to Know



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:



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.

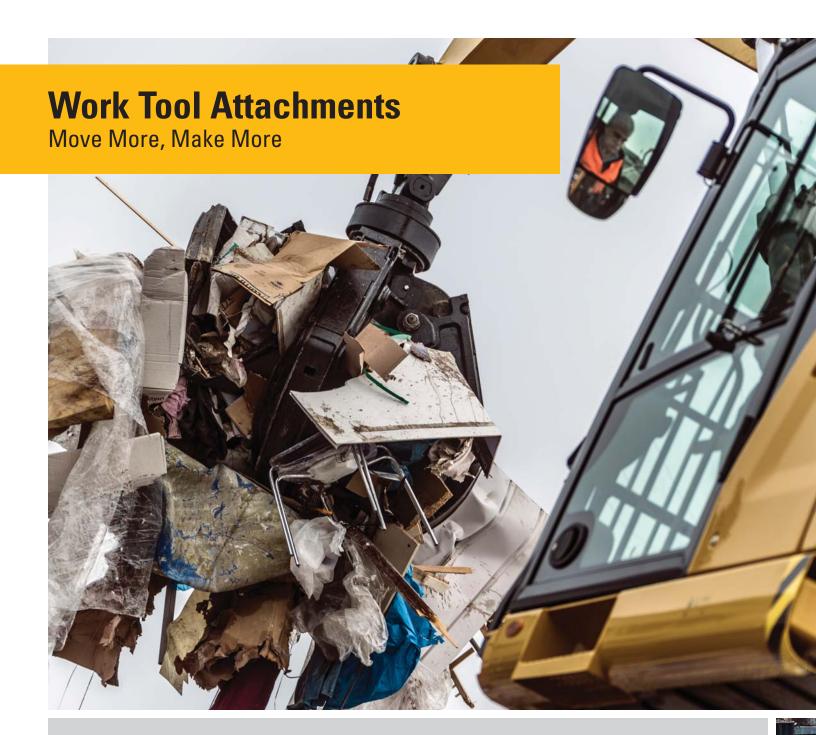
Featured Cat Connect technologies include the following:

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.



New! Optional 15 kW Cat Generator with Solid State Controller

If your work tool or application needs additional power for operation, the MH3022 can come equipped with an optional 15 kW solid state generator. Experience enhanced sorting ability through the proprietary solid state generator control. The genset is capable of producing enough power to operate up to a 1.4 m (57") diameter magnet. The optional solid state genset would be placed in the upper frame for ease of maintenance without obstructing other machine components.

With the operator friendly material sorting control enables the machine operator to turn the magnet current on and off at quick intervals without initiating the actual "drop" or "reverse current" cycle of the magnet which completely and quickly cleans the material off of the magnet during normal production handling.

This proprietary generator system is designed, sold and serviced by Caterpillar and Cat dealers worldwide.



Attachment Solutions for Industrial and Recycling Applications

When productivity, reliability and stability are important, Cat attachments are the perfect solution for the MH3022.

Productive and Perfectly Matched

Loading and unloading is foundational to your productivity. Grapples are sized right for the MH3022. 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, a MH3022 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. 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.







Get the Most from Your Machine

You can easily expand all the possibilities the MH3022 offers by utilizing a straight stick linkage and combining it with any of the variety of Cat attachments for excavators. In this case, a quick coupler will bring the ability to quickly change attachments.

Safety

Your Safety Is NOT Optional

Embedded Features

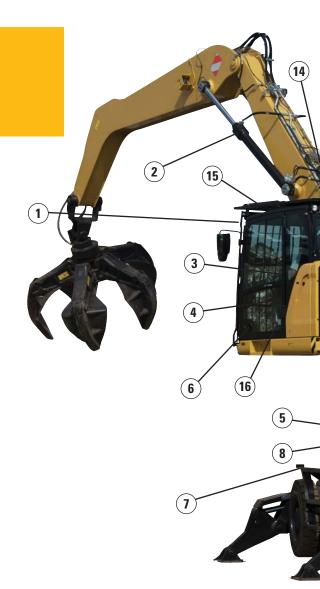
Smart embedded devices help enforce safe behavior:

- 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 disconnect switch
- Travel alarm
- Lowering check valves
- NEW! Quick coupler control switch, ISO 13031 compliant





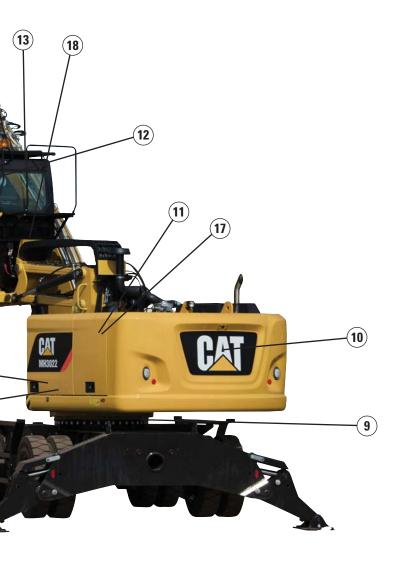




Cab Ingress

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

- Three longer access steps, aligned with the cab entry
- Additional step integrated into the skirt, directly below the cab door
- Anti-skid plates on all walkways and steps reducing slipping hazards
- Tiltable console to make sure the way in and out is free of obstacles
- New! Optional Easy Cab Access Package featuring a rigid ladder mounted on the rear axle (right side) for straight access into the cab from the ground.



- 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 disconnect switch
- 9) Swing and implement electronic lock
- 10) Adjustable travel alarm
- 11) All doors equipped with gas strut 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
- 17) Foldable service platform
- 18) Cab Advanced Pre-Filtration System (optional)

Safe and Quiet Cab

The cab provides you with a safe environment. It also contributes to your comfort with limited vibrations and low sound levels.

Great Views

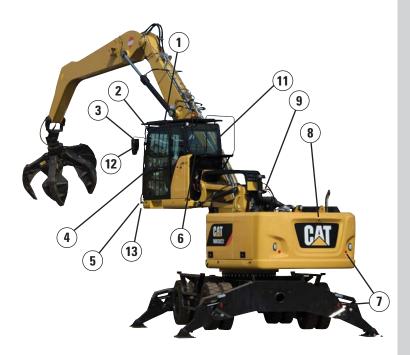
- Enlarged glass gives you excellent visibility to the front, top, rear, and sides, even to the right
- Standard rearview camera gives you a clear field of view behind the machine
- NEW! Monitor split-screen to easily check cameras rearview and sideview on the same display
- Standard sideview camera, 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

New! Safety Options for Specific Applications

- Impact Resistant One-Piece Windshield and skylight, 10 mm thick, fulfills EN356 P5A standards.
- High Impact Resistant fixed Windshield (two-parts) and skylight, 26 mm thick, fulfills EN356 P8B standards.
- Advanced Cab Pre-Filtration Package A cab pre-filtration package reduces dust entry and air contamination.
 It includes:
- an integrated air pre-cleaner, which also extends filters life
- a fresh air filtration system with H13 and ABEK1 Hg filters against odor and gas
- a recirculation filtration system, with a H13 filter

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 areas
- 2) Standard LED lights for all working lights
- 3) Optional electrically adjustable and heated mirrors
- 4) Great left hand side visibility with all glass door
- 5) Halogen front roading lights
- 6) Wide rear window
- 7) Red reflectors, on counterweight and rear blade/outriggers
- 8) Standard wide angle rearview camera with LED light
- 9) Standard wide angle sideview camera with LED light
- 10) Split-screen display of both cameras on the same monitor
- 11) Large right hand side window
- 12) Mirrors, wide angle, with additional lower mirror for ground visibility
- 13) High visibility 2400 mm elevated cab

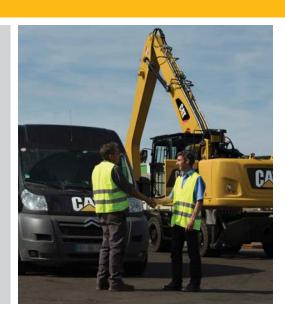
Complete Customer Care

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.



Cat C7.1 Ac	CERT (1)
1,550 rpm	
129.4 kW	174 hp
	176 hp (PS)
126 kW	169 hp
	171 hp (PS)
126 kW	169 hp
126 kW	169 hp
	171 hp (PS)
126 kW	
105 mm	
135 mm	
7.01 L	
830 N·m	
6	
	1,550 rpm 129.4 kW 126 kW 126 kW 126 kW 105 mm 135 mm 7.01 L 830 N·m

⁽¹⁾ Meets Stage IV emission standards.

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

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 kN
Maximum Gradeability at 23.500 kg	65%
Swing Mechanism	
Maximum Swing Speed	8.1 rpm
Maximum Swing Torque	54 kN·m
Undercarriage	
Axle Ground Clearance*	325 mm
Maximum Steering Angle	35.0°
Oscillation Axle Angle	±5.0°
Minimum Turning Radius**	
Outside of Tire	6800 mm
End of VA Boom	7600 mm
End of One-Piece Boom	9000 mm
End of MH Boom (with 4.9 m drop-nose stick)	8800 mm

^{*}Dimension for standard and MH undercarriage. For machines fitted with 11.00-20 pneumatic tires, add 35 mm.

^{**}Boom and stick in travel position.

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.

Weights	
Operating Weights*	21 655-23 670 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	21 740 kg
VA Boom	
Standard Undercarriage**, 2800 mm Stick	22 630 kg
Sticks***	
Digging (2800 mm)	925 kg
Straight (4200 mm)	1315 kg
Drop Nose (4900 mm)	885 kg
Industrial (3300 mm)	515 kg
MH Push Blade	675 kg
Dozer Blade	850 kg
Solid Tires (delta vs. standard tires)	950 kg
Counterweights	
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.

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

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

^{***}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	99 dB(A)*	

- *Noise level is for a machine without the generator.
- 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, Two Sets of Outriggers

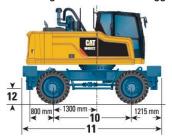
All dimensions are approximate.



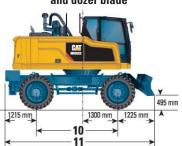


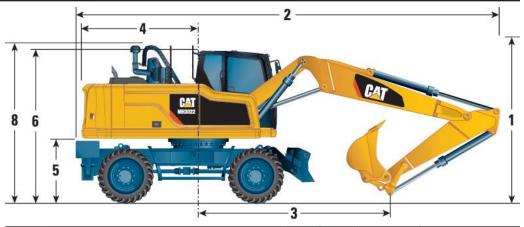


Undercarriage with 2 sets of outriggers



Undercarriage with 1 set of outriggers and dozer blade





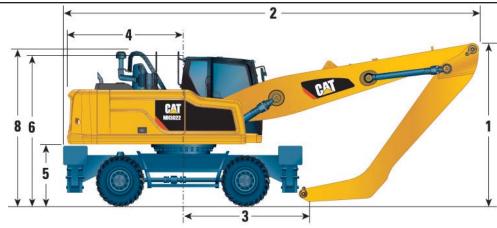
		V	A Booi	n	One-	Piece I	Boom		
Stick Length	mm	2500	2800	3300	2500	2800	3300		
1 Shipping Height with Falling Object Guard (highest point between boom and cab)	mm		3375			3375			
2 Shipping Length	mm	8915	8890	8940	9025	9025	9040		
3 Support Point	mm	3625	3485	3270	3480	3300	3070		
4 Tail Swing Radius	mm			25	70				
5 Counterweight Clearance	mm			13	10				
6 Cab Height with Hydraulic Cab Riser									
Cab Lowered – No Falling Object Guard	mm			33	50				
Cab Lowered – with Falling Object Guard	mm	3375							
Cab Raised – with Falling Object Guard	mm			57	75				
Cab Raised – without Falling Object Guard	mm			56	45				
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				

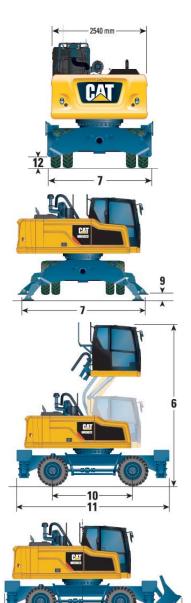
Note: Values with 11.00-20 pneumatic tires. For machines fitted with solid tires all vertical dimensions have to be reduced by 35 mm. For dimension 9 add 35 mm.

Dimensions – With MH and MH Narrow Undercarriage

All dimensions are approximate.







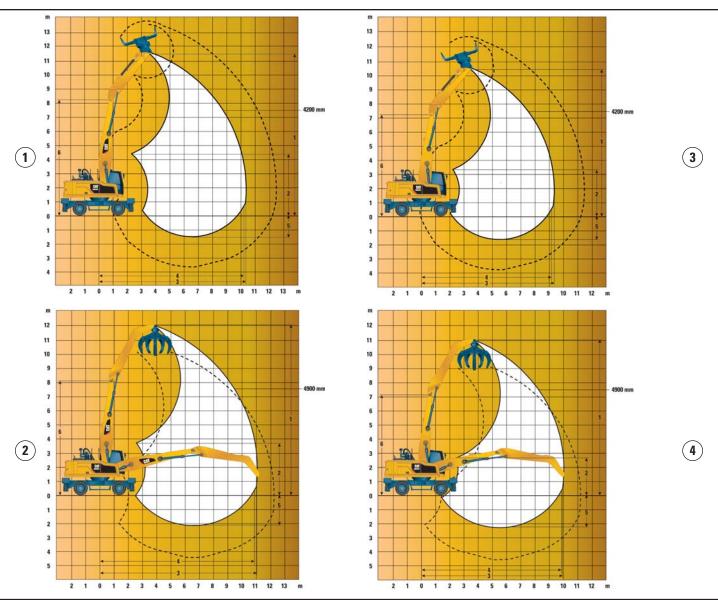
		row UC*					
		Long M	H Boom	Short M	H Boom		
Boom Length	mm	64	00	53!	50		
Stick Type		Straight	Drop Nose	Straight	Drop Nose		
Stick Length	mm	4200	4900	4200	4900		
1 Shipping Height with Falling Object Guard (highest point between boom and cab)	mm	3340	3620	3340	4535		
2 Shipping Length	mm	9420	9280	8310	7885		
3 Support Point	mm	3230	2760	2190	2180		
4 Tail Swing Radius	mm		25	570			
5 Counterweight Clearance	mm		12	275			
6 Cab Height with Hydraulic Cab Riser							
Cab Lowered – No Falling Object Guard	mm		33	315			
Cab Lowered – with Falling Object Guard	mm		33	340			
Cab Raised – with Falling Object Guard	mm	5740					
Cab Raised – No Falling Object Guard	mm	5610					
7 Overall Machine Width							
Width with Outriggers on Ground	mm	43	60	369	80		
Width with Outriggers Up	mm	29	90	25:	50		
Width with the Special Front Push Blade	mm	29	90	N.	A		
8 Height of Tray Group Flex	mm		33	325			
9 Maximum Outriggers Depth	mm	9	0	12	20		
10 Wheel Base	mm	27	50	260	00		
11 Undercarriage Length	mm	52	50	490	00		
With MH Undercarriage Front Push Blade	mm	60	80	N.	A		
12 Undercarriage Clearance	mm	24	15	29	15		

*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



			МН	3022	
		1	2	3	4
Boom Type/Length		MH Boor	n/6400 mm	Short MH B	oom/5350 mm
Stick Length	mm	4200	4900	4200	4900
Stick Type	mm	Straight	Drop Nose	Straight	Drop Nose
1 Maximum Height	mm	11 520	12 065	10 445	11 020
2 Minimum Dump Height	mm	4330	3680	3255	2635
3 Maximum Reach	mm	10 345	11 005	9325	9990
4 Maximum Reach at Ground Level	mm	10 175	10 845	9145	9815
5 Maximum Depth	mm	1485	2185	1655	2325
6 Boom Pin Height	mm	82	235	7	160

All dimensions refer to sticknose pin, with solid tires.

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
Hydraulic Hammer	H115Es/H120Es								
riyuraunc manimer	H130Es								
	MP318 CC & D Jaw								
Multi-Processor	MP318 P Jaw								
	MP318 U & 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		,						
Dadia atad Oviale Cavalan	CW-30	TI	hese couple	rs are availa	ble for the N	1H3022 (with	straight stic	k and linkag	e).
Dedicated Quick Coupler	CW-30S						-		
(1) MH undercarriage with 2 sets outriggers	match			Pin-on only			Not recommended		
	Pin-on or dedic	cated CW co	oupler		Boom moun	mount			

^{*}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	MH B (6.4		MH B (5.35	
	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 (d	lrop nose)
Oranga Paul Grannla (4 ar Etinaa)	GSH15B 600 L				
orange reer drappie (4 or 5 tilles)	GSH15B 800 L				
	GSM25 400 L				
Orange Peel Grapple (4 or 5 tines) Orange Peel Grapple (5 tines)	GSM25 500 L				
	GSM25 600 L				
	GSM25 800 L				
	CTV15 1000 L				
	CTV15 1200 L				
Clamshell Grapple	CTV15 1500 L				
	CTV15 1700 L				
	CTV15 1900 L				
(1) MH undercarriage with 2 sets outrigg	ers	,	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 point height Load over front Load over rear									Load over side Load at maximum re						each (sticknose/bucket pin)					
	arriage .99 m) or MH Narrow (2	.55 m))					Boom 5.35 m MH					Stick 4.2 m Straight Stick							
\>_⊤			3000 mm			4500 mm		6000 mm				7500 mm			9000 mm				=	
	Undercarriage configuration	₽ <u></u>	4	œ	4	P	ŒP	₽.	P	ŒP	₽,	P	ŒP	Α.	7	æ		7	æ	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 P Load over								r Load over side Load at maximum reach (sticknose/bucket pin)														
	carriage	(1	2.55	`							Boom	-					Sticl	-	т				
MH (.	2.99 m) or MH Nar	row (2	2.33 r	n)					6.4 m MH							4.9 m MH							
\>_⊤		;	3000 mm	1	۱ ،	4500 mm 6000 m			6000 mm		7500 mm			9	9000 mm		10 500 mm						
	Undercarriage configuration	P.	P	Œ.	4	P		P.	9	ŒP	P-	P	ŒP	A	P	ŒP	4	9	ŒP	P.	P	F	mm
10 500 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down							6250 *6500 5650 *6450	6250 *6500 5650 *6450	4750 *6500 4250 *6450										5200 *5250 4750 *5300	5200 *5250 4750 *5300	3950 *5250 3550 *5300	6700
9000 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down							6350 *7850 5800 *7850	6350 *7850 5800 *7850	4850 *7850 4350 7600	4450 *6300 4050 *6250	4450 *6300 4050 *6250	3400 *6300 3000 5300							3700 *4700 3400 *4700	3700 *4700 3400 *4700	2800 *4700 2500 4450	8320
7500 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down							6350 *8200 5800 *8150	6350 *8200 5800 *8150	4850 *8200 4350 7600	4450 *7100 4050 *7100	4450 *7100 4050 *7100	3400 6900 3050 5300	3300 *5500 3000 5450	3300 *5500 3000 5450	2500 5100 2200 3950				3050 *4400 2750 *4400	3050 *4400 2750 *4400	2300 *4400 2050 3650	9420
6000 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down							6250 *8400 5700 *8400	6250 *8400 5700 *8400	4750 *8400 4250 7500	4400 *7200 4000 *7200	4400 *7200 4000 *7200	3350 6800 3000 5250	3300 *6200 3000 5450	3300 *6200 3000 5450	2500 5100 2200 3900				2700 *4300 2400 *4300	2700 *4300 2400 *4300	2000 4150 1750 3200	10 180
4500 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down				9450 *11 150 8550 *11 150	9450 *11 150 8550 *11 150	7000 *11 150 6250 *11 150	6000 *8900 5450 *8850	6000 *8900 5450 *8850	4550 *8900 4050 7250	4300 *7350 3900 7150	4300 *7350 3900 7150	3250 6700 2850 5100	3250 6200 2900 5350	3250 6200 2900 5350	2450 5000 2150 3850	2500 4850 2250 4200	2500 4850 2250 4200	1850 3950 1650 3000	2450 *4300 2200 4100	2450 *4300 2200 4100	1800 3850 1600 2950	10 680
3000 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down	17 550 *18 550 15 550 *18 500	17 550 *18 550 15 550 *18 500	10 400	8800 *12 350 7950 *12 350	8800 *12 350 7950 *12 350	6450 *12 350 5700 11 000	5700 *9350 5150 *9350	5700 *9350 5150 *9350	4250 9250 3750 6950	4100 *7550 3700 7000	4100 *7550 3700 7000	3100 6500 2700 4950	3150 6050 2850 5250	3150 6050 2850 5250	2350 4950 2050 3750	2500 4800 2250 4150	2500 4800 2250 4150	1850 3900 1600 3000	2350 *4400 2100 3900	2350 *4400 2100 3900	1700 3650 1500 2800	10 940
1500 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down				8150 *13 000 7300 *13 000	8150 *13 000 7300 *13 000	5850 *13 000 5100 10 250	5400 *9550 4850 *9550	5400 *9550 4850 *9550	3950 8850 3500 6600	3950 *7500 3550 6800	3950 *7500 3550 6800	2900 6300 2550 4750	3050 5950 2750 5150	3050 5950 2750 5150	2250 4800 1950 3650	2450 *4700 2200 4100	2450 *4700 2200 4100	1800 3850 1550 2950	2300 *4100 2050 3850	2300 *4100 2050 3850	1650 3600 1450 2750	11 000
0 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down	*3500 *3500 *3500 *3500	*3500 *3500 *3500 *3500	*3500 *3500 *3500 *3500	7700 *12 200 6850 *12 350	7700 *12 200 6850 *12 350	5400 *12 200 4700 9750	5150 *9150 4600 *9200	5150 *9150 4600 *9200	3700 8600 3250 6300	3800 *7150 3400 6600	3800 *7150 3400 6600	2800 6150 2400 4600	2950 *5550 2650 5050	2950 *5550 2650 5050	2150 4750 1900 3600	2400 *4050 2150 *4050	2400 *4050 2150 *4050	1750 3800 1500 2900		1130		
-1500 mm	SA – 2 sets stabilizers up SA – 2 sets stabilizers down Narrow – 2 sets stabilizers up Narrow – 2 sets stabilizers down				7450 *9600 6650 *9600	7450 *9600 6650 *9600	5200 *9600 4500 9500	5000 *8000 4450 *8000	5000 *8000 4450 *8000	3600 *8000 3100 6150	3700 *6200 3300 *6250	3700 *6200 3300 *6250	2700 6050 2350 4500	2900 *4650 2600 *4700	2900 *4650 2600 *4700	2100 *4650 1850 3550							

^{*}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.

Load point height Load over front P Load over rear								Load over side						ر ا	Load at maximum reach (sticknose/bucket pin)						
	arriage .99 m) or MH Narrow (2 55 m)					Boom Stick 6.4 m MH 4.2 m Straight Stick									k				
	.55 m) or will reallow (3000 mm								7500 mm 9000 mm				It Stie	`	<u></u>	$\overline{}$			
\rceil	Undercarriage configuration			F	<u> </u>				7	ŒP			ŒP	Į,		F		9		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 down				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
- Lighting
- -Boom and stick LED working light
- One LED light on the counterweight for the rear camera, and one on the right for the sideview camera.
- -Cab LED interior dome light
- -Roading lights two front, halogen
- -Roading lights two rear, LED
- Working LED lights, cab mounted (two front and one rear), compatible with Falling Objects Guards
- · Main shut-off switch
- Signal/warning horn

ENGINE

- Cat C7.1 ACERT technology engine meets Stage IV emission standards
- Aftertreatment technologies including the Cat Clean Emission Module (Cat CEM) package
- · Air filter
- 3000 m altitude capability without de-rate
- Automatic Engine Speed Control (AESC), including One Touch Low Idle
- Engine Idle Shutdown (EIS)
- · Automatic starting aid
- · Fuel filter
- Fuel/water separator with water in fuel switch
- 48° C ambient cooling capability without de-rate
- Power mode selector
- Electric fuel priming pump

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 attachments
- · Heavy lift mode
- · Load-sensing hydraulic system
- Quick disconnect couplings
- Separate swing pump
- Electric Pump Control (EPC)
- Boom Lowering Check Valve (BLCV), including overload warning device
- Stick Lowering Check Valve (SLCV)

OPERATOR STATION

- Additional color monitor for cameras, split-screen display for both cameras' view
- · 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 (four speeds), parallel wiping system, covering upper and lower windshield glass
- CD/MP3 radio (12V) 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, engine dial setting
- -Clock with 10-day backup battery
- Interior LED lighting with door switch
- Joysticks, pilot operated with one proportional slider
- · Laminated front windshield
- Left side console, tiltable, with lock out for all controls
- Cigarette lighter (24V)
- Literature holder in right console
- Mobile phone holder
- · Parking brake
- Pin code type engine start prevention, integrated into the monitor
- Power supply, 12V-10A
- Rear window (tempered glass)/emergency exit, with hammer
- Retractable seat belt, integrated into the seat
- Seat belt indicator and alarm
- · Skylight, laminated glass
- · 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
- Safety lever, integrated into the left console
- Sealed cab, with positive filtered, variable speed ventilation

Continued on next page

MH3022 Standard Equipment

Standard Equipment

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

UNDERCARRIAGE

- · Automatic brake and axle lock
- · Electronic swing and travel lock
- · Creeper speed
- Four wheel drive
- Heavy-duty axles, advanced travel motor, adjustable braking force and disc brake system
- Oscillating front axle, lockable, with remote greasing point
- Steps, wide, left and right
- Tool boxes, left and right, in undercarriage
- Two-speed hydrostatic transmission
- One-piece drive shaft, with 1,000 hours greasing intervals

OTHER EQUIPMENT

- Auto-lube system (implements and swing gear)
- Automatic swing brake
- · Capability to add auxiliary hydraulic circuit
- Cat Electronic Technician capability (ET)
- Counterweight, 3700 kg
- Door locks and cap locks with Cat one-key security system
- Mirrors, wide angle, frame and cab
- Product Link

- Cameras
- Rear mounted wide angle camera, integrated into the counterweight
- Right side wide angle camera, mounted on the cooling hood.
- S·O·SSM Quick Sampling valves for engine oil, hydraulic oil and coolant
- Engine emergency shutoff switch
- · Spacer rings for tires
- Cooling package, fine mesh screen, and engine air precleaner

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 an attachment
 - Programmable flow and pressure for up to 10 work tools selection via monitor
 - Quick coupler circuit and lines for hydraulic quick coupler (both Cat pin grabber and dedicated/CW quick couplers, controlled by a dedicated switch)
- SmartBoom

HYDRAULICS

• Cat BIO HYDO Advanced HEES biodegradable hydraulic oil

FRONT LINKAGE

- 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

- · Adjustable travel alarm
- · Rotating beacon
- · Generator, 15 kW
- Kit, generator, 15 kW***

OPERATOR STATION

- Top/front guards
- Joystick steering
- Advanced joysticks with two proportional sliders
- · High pressure auxiliary pedal
- Seat, adjustable high-back, with vertical and horizontal air-suspension and head rest
- Automatic weight adjustment, mechanical lumbar support, passive climate system, seat cushion length/angle adjustment and heated seat (Comfort)
- Automatic height and weight adjustment, active climate system, premium microfiber seat fabric, pneumatic lumbar support, seat cushion length and angle adjustment and adjustable dampening, heated and ventilated (Deluxe)
- Visor for rain protection
- · Windshield
- One-piece, impact resistant, laminated windshield and skylight (EN356 P5A standards, 10 mm)
- -70/30 split, openable. Two-parts split, fixed, high impact resistant, with skylight (EN356 P8B standards, 26 mm)
- Mirrors, electrically adjustable and heated, frame and cab

TIRES*

- Dual pneumatic 10.00-20
- Dual pneumatic 11.00-20
- Dual solid rubber, 10.00-20

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)
- Easy Cab Access Package with ladder

OTHER EQUIPMENT

- · Bucket linkages
- Cat Machine Security System
- Counterweight, 4200 kg
- · Hydraulic quick coupler
- Maximum speed 20 km/h or 25 km/h**
- Refueling pump with dedicated tray for the hose
- Waste Handling Package, adds a reversing fan and vibrating grill to the cooling protection package
- Cab pre-filtration system
- Attachments (see p. 29-30)
 - *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
- ***Available starting 2017

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