

MH3024

Wheel Material Handler

2017



Engine

Engine Model	Cat® C7.1 ACERT™	
Emissions	EU Stage IV	
Power (Maximum)		
ISO 9249 at 1,700 rpm	126 kW	169 hp
ISO 9249 at 1,700 rpm (metric)		171 hp (PS)
ISO 14396 at 1,700 rpm (gross)	129.4 kW	174 hp
ISO 14396 at 1,700 rpm (gross) (metric)		176 hp (PS)

Weights

Operating Weight with Work Tool 23 215-27 470 kg

Working Ranges (MH boom, stick 5900 mm)

Maximum Reach (stick pin)	12 485 mm
Maximum Height (stick pin)	13 300 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 MH3024 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 MH3024 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.



Next Generation Key Features

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 MH3024 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.





Sustainability

Generations Ahead in Every Way

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 CO₂ 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.
- Your Cat dealer can help extend service intervals, meaning fewer fluids and disposals, all adding up to lower costs.

Biodiesel and Biodegradable Hydraulic Oil

- The MH3024 has the flexibility of running on either ultra-low-sulfur 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



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
- **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

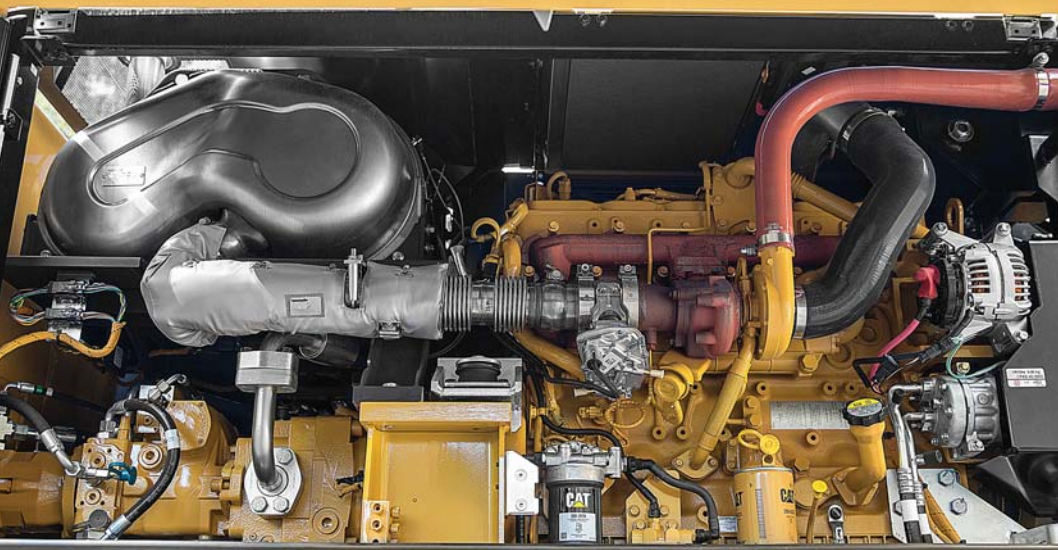
The engine can run on up to B20 biodiesel fuel that meets ASTM 6751 standards – all to give you more potential fuel-saving flexibility.

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.



Hydraulic System

Fast, Precise, Flexible



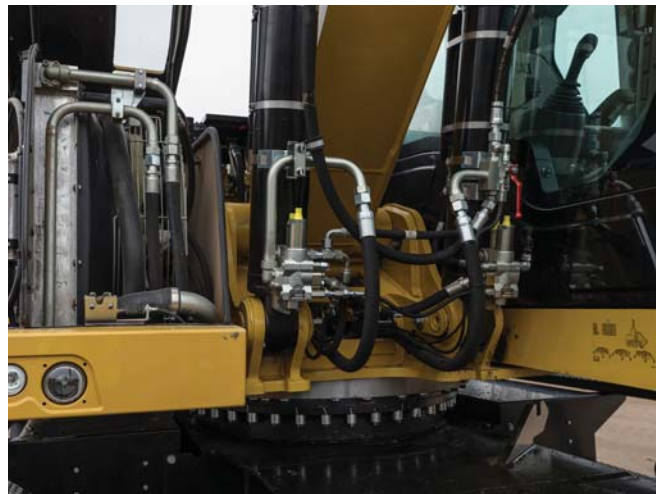
When it comes to moving material quickly, you need efficient hydraulics – the type the MH Series can deliver.

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 MH3024, 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.

Three 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 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.



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 MH3024's booms and sticks are purpose built for the loads encountered in material handling applications.

MH Boom

MH boom includes high pressure hydraulic lines for opening and closing functionality and medium pressure lines for implement rotation.

MH Sticks

MH sticks are equipped with high and medium pressure auxiliary lines. The 4900 mm and 5900 mm Drop Nose Sticks offer the reaching and lifting capabilities required for typical MH applications, while the 4800 mm Straight Stick is the best solution when additional work tool functionality is needed.

Special Applications

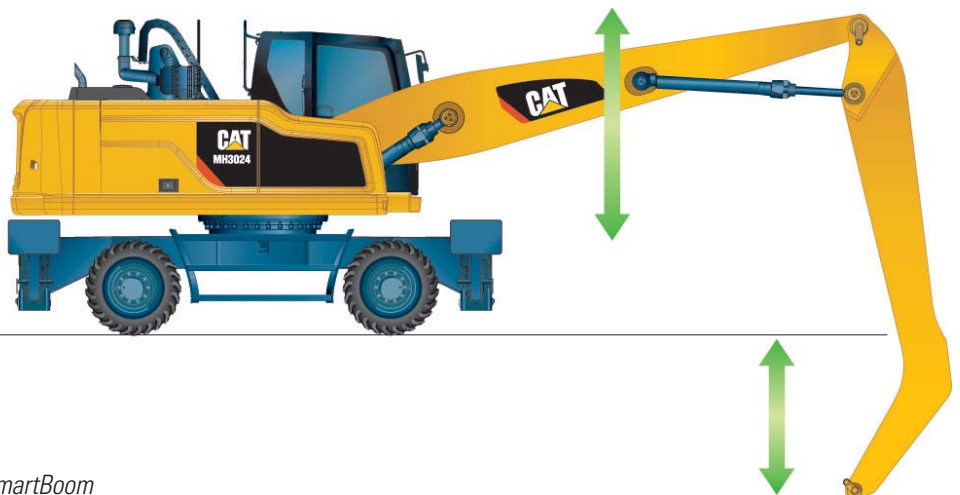
The MH3024 offers the ability to combine the hydraulic cab riser with a traditional excavator front linkage. This combination has been proven in transfer station, mining, and millyard applications.

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

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.



SmartBoom

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

Incredibly Low Sound Levels, Less Fatigue

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 are 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 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.

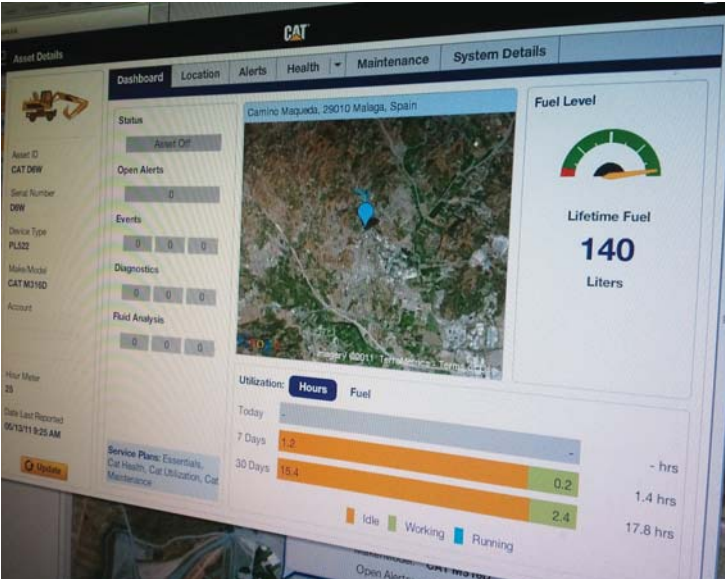
Featured Cat Connect technologies include the following:

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.



CAT® CONNECT



Work Tool Attachments

Move More, Make More



New! Optional 15 kW Cat Generator with Solid State Controller

If your work tool or application needs additional power for operation, the MH3024 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 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 MH3024.

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. 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 MH3024 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.

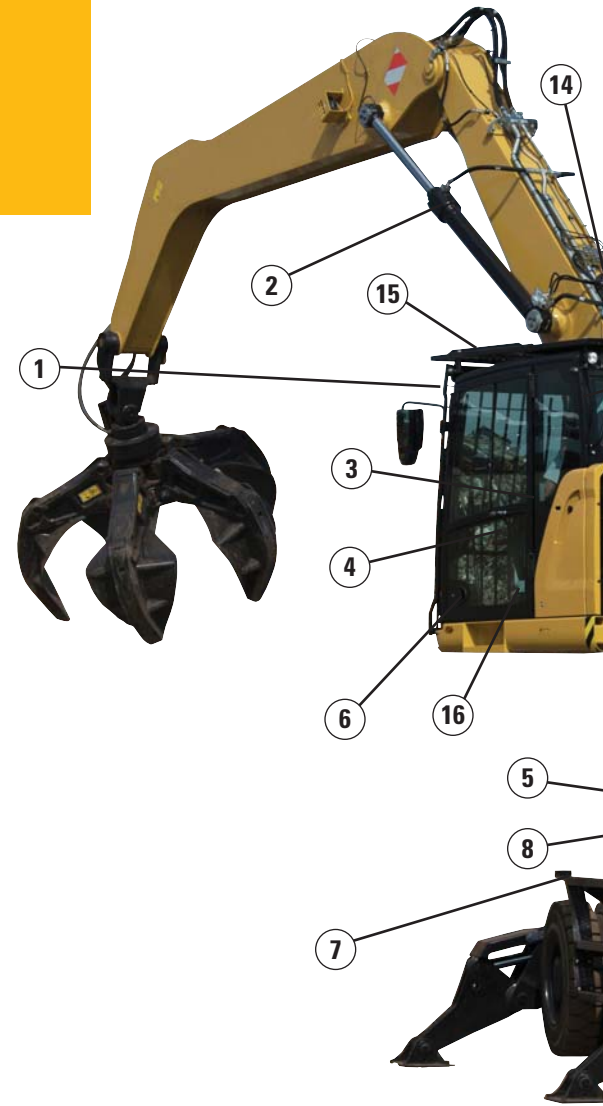
Safety

Your Safety Is NOT Optional

Embedded Features

Smart embedded devices help enforce safe behavior:

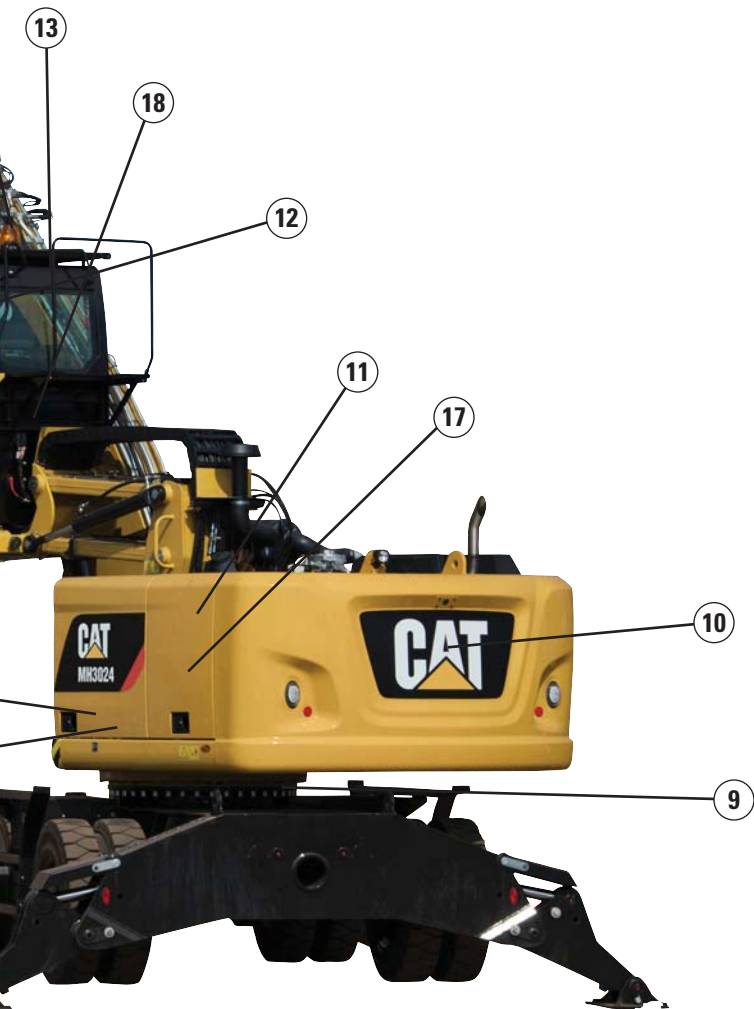
- Safety seat belt and warning indicators (monitor)
- Automatic swing lock
- Automatic brake and axle lock
- Safety lever, preventing exit when the implements are not locked out
- Emergency shut off switch and battery disconnect switch
- Travel alarm
- Lowering check valves
- NEW! Quick coupler control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

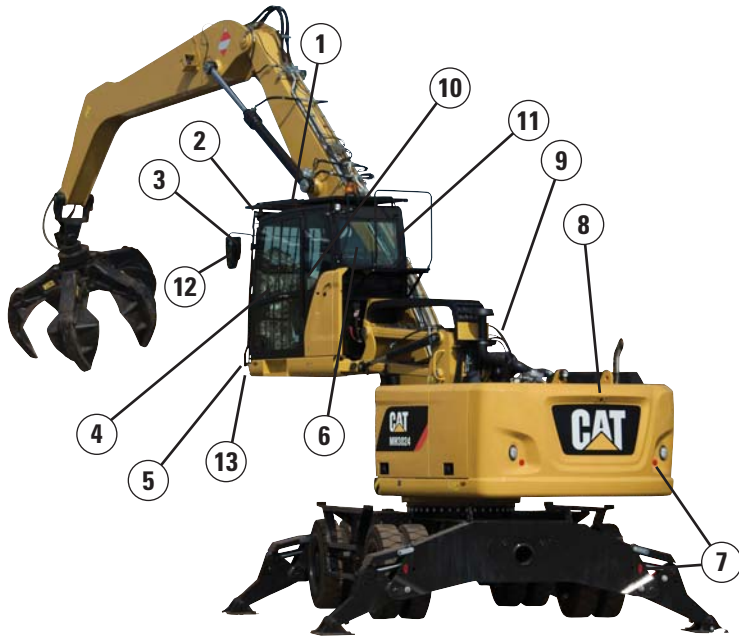
- Enlarged glass gives you excellent visibility to the front, top, rear, and sides, even to the right
- Standard rearview camera gives you a clear field of view behind the machine
- Standard sideview camera, to check nothing is hidden to you from the front right hand side to the rear of the machine
- NEW! Monitor split-screen to easily check cameras rearview and sideview on the same display
- 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 in 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

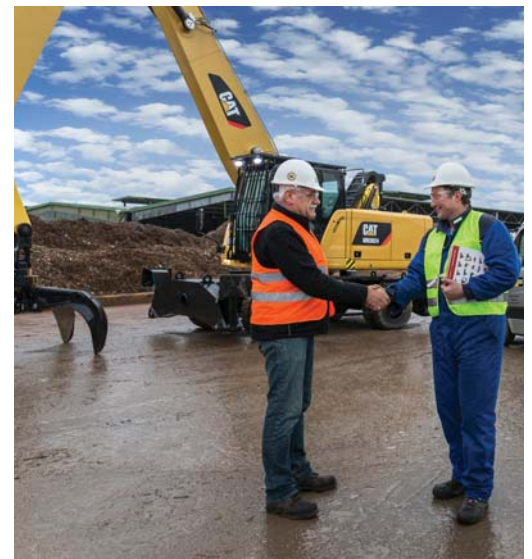
Complete Customer Care

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.



MH3024 Wheel Material Handler Specifications

Engine

Engine Model	Cat C7.1 ACERT ⁽¹⁾	
Ratings	1,700 rpm	
Engine Gross Power (Maximum)		
ISO 14396	129.4 kW	174 hp
ISO 14396 (metric)	176 hp (PS)	
Net Power (Rated) ⁽²⁾		
ISO 9249/SAE J1349	126 kW	169 hp
ISO 9249/SAE J1349 (metric)	171 hp (PS)	
80/1269/EEC	126 kW	169 hp
Net Power (Maximum)		
ISO 9249/SAE J1349	126 kW	169 hp
ISO 9249/SAE J1349 (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	

⁽¹⁾ Meets Stage IV emission standards.

⁽²⁾ Rated speed 1,700 rpm. Constant power from 1,500-1,700 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 derating required up to 3000 m altitude. Automatic derating occurs after 3000 m.

Transmission

Forward/Reverse	
1st Gear	8.0 km/h
2nd Gear	25.0 km/h
Creeper Speed	
1st Gear	3.0 km/h
2nd Gear	8.0 km/h
Drawbar Pull	127.0 kN
Maximum Gradeability at 25 000 kg	60.0%

Swing Mechanism

Maximum Swing Speed	8.8 rpm
Maximum Swing Torque	59.6 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	7800 mm
End of One-Piece Boom	9300 mm
End of MH Boom (with 5.9 m drop nose stick)	9800 mm

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

Service Refill Capacities

Fuel Tank (total capacity)	420 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

MH3024 Wheel Material Handler Specifications

Weights

Operating Weights*	24 685-26 165 kg
MH Boom	
MH Undercarriage, Straight Stick	26 150 kg
MH Undercarriage, 5900 mm Drop Nose Stick	25 770 kg
Standard Undercarriage**, Straight Stick	26 165 kg
One-Piece Boom	
Standard Undercarriage**, 2900 mm Stick	24 685 kg
VA Boom	
Standard Undercarriage**, 2900 mm stick	25 250 kg
Sticks***	
Digging (2500 mm)	1005 mm
Digging (2900 mm)	1085 mm
Straight (4800 mm)	1465 kg
Drop Nose (4900 mm)	875 kg
Drop Nose (5900 mm)	1015 kg
MH Push Blade	675 kg
Dozer Blade	850 kg
Solid Tires (delta vs. standard tires)	950 kg
Counterweights	
Standard	4100 kg
Optional	5200 kg

*Operating weight includes solid tires, 5200 kg counterweight, full fuel tank, operator, four outriggers undercarriage, attachment (1400 kg). Weight varies depending on configuration.

**Standard undercarriage with two sets of outriggers and dual pneumatic tires.

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

Hydraulic System

Tank Capacity	200 L
System	365 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	340 bar

Hydraulic System: Maximum Flow

Implement/Travel Circuit	340 L/min
Auxiliary Circuit	
High Pressure	250 L/min
Medium Pressure	49 L/min
Swing Mechanism	118 L/min

Tires

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

Push Blade

Blade Type	Radial
Blade Height	920 mm
Width	2990 mm

MH3024 Wheel Material Handler Specifications

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
Bio Diesel 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

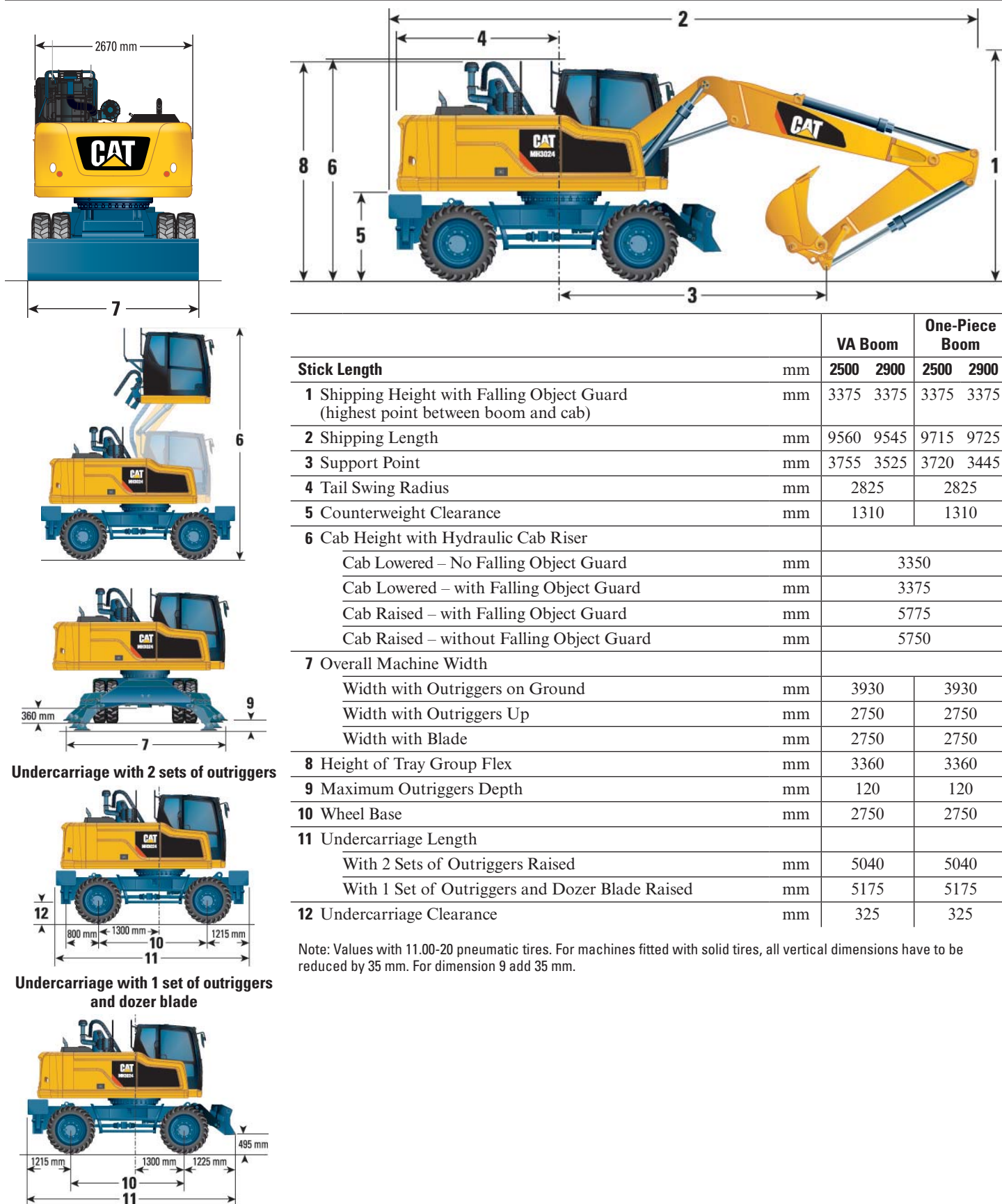
Operator Sound	
2000/14/EC	71 dB(A)
Spectator Sound	
2000/14/EC	99 dB(A)*

- *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).

MH3024 Wheel Material Handler Specifications

Dimensions – With Standard Undercarriage, Two Sets of Outriggers

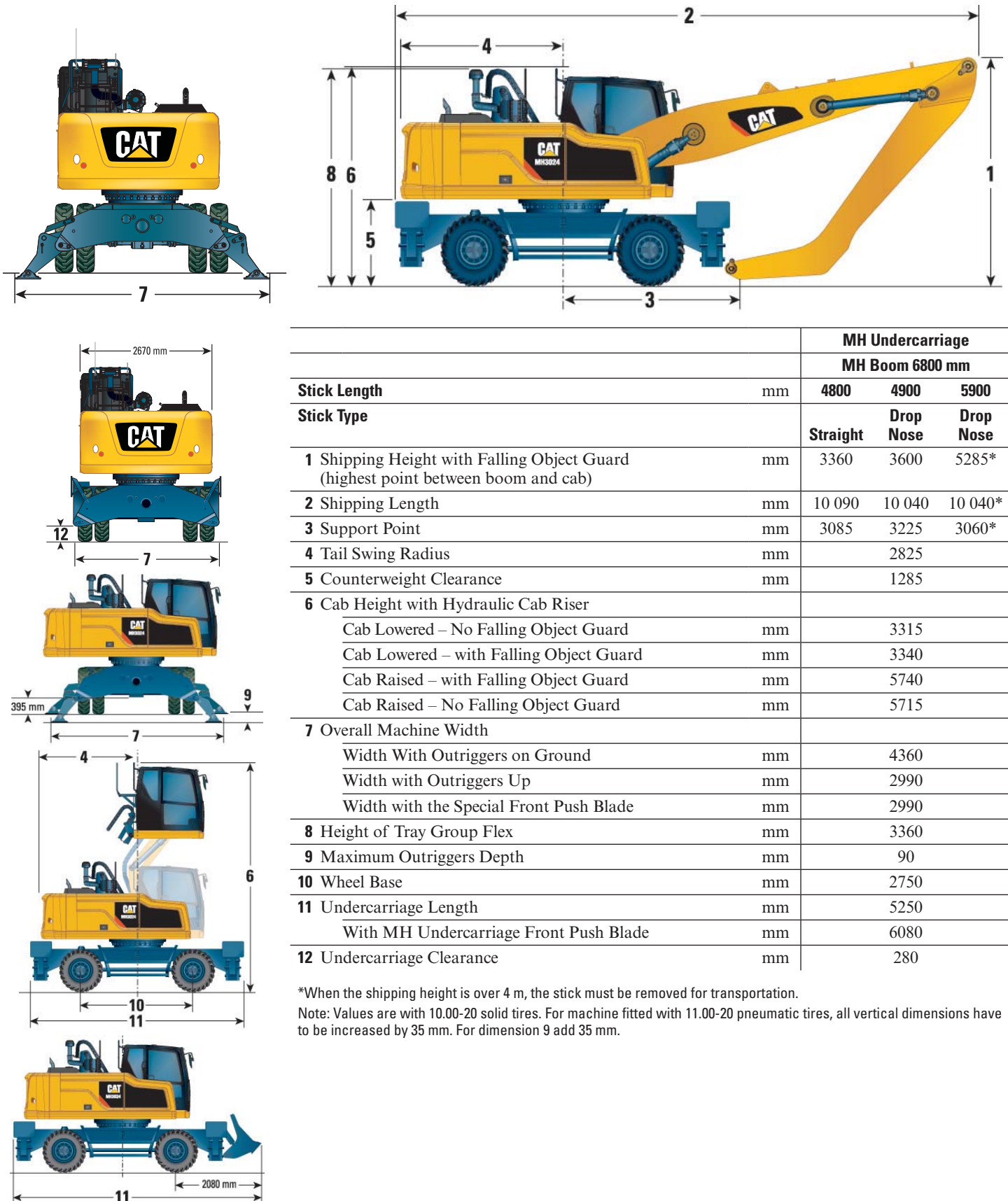
All dimensions are approximate.



MH3024 Wheel Material Handler Specifications

Dimensions – With MH Undercarriage

All dimensions are approximate.

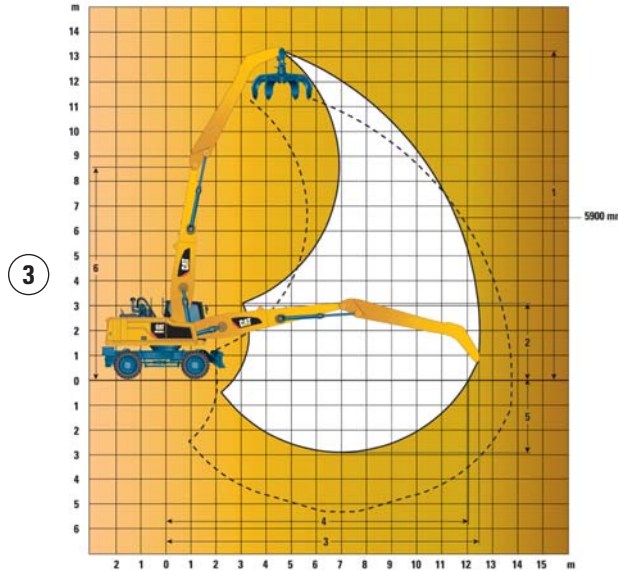
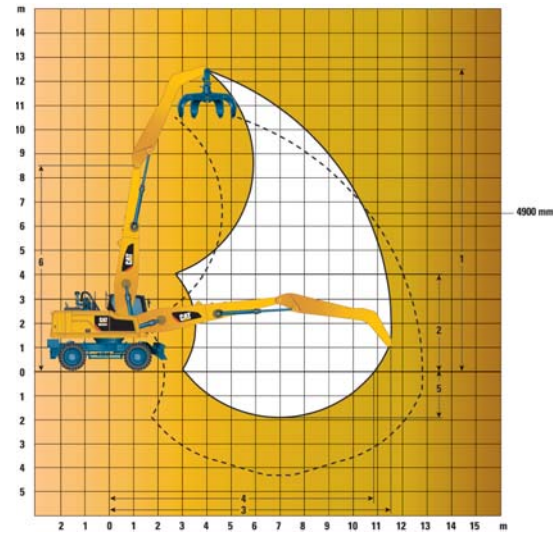
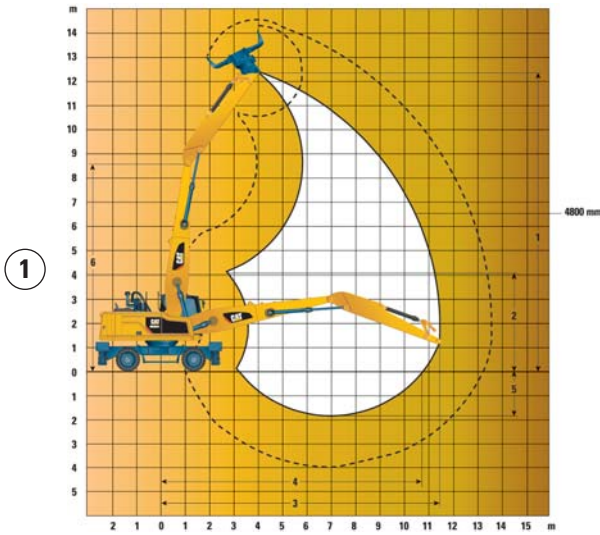


*When the shipping height is over 4 m, the stick must be removed for transportation.

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

MH3024 Wheel Material Handler Specifications

Working Ranges



		MH3024						
						①	②	③
		Standard Undercarriage*				MH Undercarriage**		
Boom Type		VA Boom		One-Piece Boom		MH Boom		
Stick Length	mm	2500	2900	2500	2900	4800	4900	5900
Stick Type	mm	Digging Sticks		Digging Sticks		Straight	Drop Nose	
1 Maximum Height	mm	8910	9220	7945	8165	12 425	12 505	13 300
2 Minimum Dump Height	mm	4530	4135	4070	3675	4120	4025	3090
3 Maximum Reach	mm	8285	8675	8395	8770	11 435	11 530	12 485
4 Maximum Reach at Ground Level	mm	8070	8470	8185	8580	10 720	10 850	12 050
5 Maximum Depth	mm	4565	4965	4360	4760	1820	1920	2925
6 Boom Pin Height	mm	8620	8620	8620	8620	8620	8620	8620

*Standard undercarriage figures calculated with pneumatic tires.

**MH undercarriage figures calculated with solid tires. All dimensions refer to sticknose pin.

MH3024 Wheel Material Handler Specifications

MH3024 Work Tool Offering Guide*

Boom Type		One-Piece Boom				MH Boom					
Counterweight		4100 kg		5200 kg		4100 kg	5200 kg	4100 kg	5200 kg	4100 kg	5200 kg
Undercarriage/Outriggers		(1)		(1)		(2)	(2)	(2)	(2)	(2)	(2)
Stick Length		2500 mm	2900 mm	2500 mm	2900 mm	4800 mm	4800 mm	4900 mm	4900 mm	5900 mm	5900 mm
Stick Type		Straight	Straight	Straight	Straight	Straight	Straight	Drop Nose	Drop Nose	Drop Nose	Drop Nose
Hydraulic Hammer	H115Es	Match	Match	Match	Match	Match	Match				
	H120Es	Match	Match	Match	Match	Match	Match				
	H130Es	Match	Match	Match	Match	Match	Match				
Multi Processor	MP318 CC Jaw	Match	Match	Match	Match						
	MP318 D	Match	Match	Match	Match						
	MP318 P	Match	Match	Match	Match						
	MP318 S	Match	Match	Match	Match						
	MP318 U	Match	Match	Match	Match						
Crusher	P315	Match	Match	Match	Match						
Pulverizer	P215	Match	Match	Match	Match						
Demolition and Sorting Grapple	G315B-D/R	Match	Match	Match	Match	Match	Match				
	G315B-D/R fixed CAN	Match	Match	Match	Match						
	G315B WH	Match	Match	Match	Match	Match	Match				
Scrap and Demolition Shear	S320B	Match	Match	Match	Match						
	S325B	Match	Match	Match	Match						
	S340B	Match	Match	Match	Match						
Compactor	CVP75	Match	Match	Match	Match						
Dedicated Quick Coupler	CW-30, CW-30S	These couplers are available for the MH3024 (linkage stick).									
Orange Peel Grapple (4 or 5 Tines)	GSH15B 400L, 500L, 600L							Match	Match	Match	Match
	GSH15B 800L							Match	Match	Match	Match
	GSH20B 600L							Match	Match	Match	Match
	GSH20B 800L							Match	Match	Match	Match
	GSH20B 1000L							Match	Match	Match	Match
Orange Peel Grapple (5 Tines)	GSM25 400L, 500L, 600L, 800L							Match	Match	Match	Match
	GSM35 500							Match	Match	Match	Match
	GSM35 600L							Match	Match	Match	Match
	GSM35 800L							Match	Match	Match	Match
	GSM35 1000L							Match	Match	Match	Match
	GSM35 1500L							Match	Match	Match	Match
Digging Grapple/Clamshell	CTV15 1000L							Match	Match	Match	Match
	CTV15 1200L							Match	Match	Match	Match
	CTV15 1500L							Match	Match	Match	Match
	CTV15 1700L							Match	Match	Match	Match

(1) With the Outriggers front and rear undercarriage

(2) With the MH undercarriage

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

Note: Demolition and Sorting Grapple: D-Demolition shells, R-Recycling shells

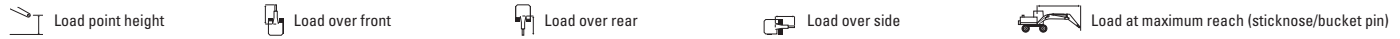
Fixed CAN: CW quick coupler adapter plates

- Attachment is a match
- Pin-on or dedicated coupler
- Pin-on only
- Boom mounted
- Not recommended
- Maximum Material Density 1800 kg/m³
- Maximum Material Density 1200 kg/m³
- Maximum Material Density 600 kg/m³

MH3024 Wheel Material Handler Specifications

Lift Capacities

All values are in kg, hydraulic cab riser, without work tool, with counterweight (5200 kg), heavy lift on.



Undercarriage MH or Standard

Boom 6.8 m MH

Stick 5.9 m MH

Load point height	Undercarriage configuration	3000 mm			4500 mm			6000 mm			7500 mm			Load at maximum reach (sticknose/bucket pin)			mm	
		Load over front	Load over rear	Load over side	Load over front	Load over rear	Load over side	Load over front	Load over rear	Load over side	Load over front	Load over rear	Load over side	Load over front	Load over rear	Load over side		
12 000 mm	MH – stabilizers up – solid tires							7200	7200	5550				5400	5400	4150	7090	
	MH – stabilizers down – solid tires							*7450	*7450	*7450				*5700	*5700	*5700		
	Lower (std UC) – f. stabilizer & r. dozer up							7100	6750	5350				5350	5050	4000		
	Lower (std UC) – f. stabilizer & r. dozer down							*7450	*7450	*7450				*5700	*5700	*5700		
	Lower (std UC) – f. dozer & r. stabilizer up							7300	6550	5350				5500	4900	4000		
	Lower (std UC) – f. dozer & r. stabilizer down							*7450	*7450	*7450				*5700	*5700	*5700		
	Lower (std UC) – 2 sets stabilizers up							7250	6700	5400				5450	5050	4050		
	Lower (std UC) – 2 sets stabilizers down							*7450	*7450	*7450				*5700	*5700	*5700		
10 500 mm	MH – stabilizers up – solid tires												5150	5150	4000	3800	3800	2900
	MH – stabilizers down – solid tires												*7250	*7250	*7250	*4950	*4950	*4950
	Lower (std UC) – f. stabilizer & r. dozer up												5050	4850	3850	3700	3550	2800
	Lower (std UC) – f. stabilizer & r. dozer down												*7250	*7250	5600	*4950	*4950	4150
	Lower (std UC) – f. dozer & r. stabilizer up												5200	4700	3850	3850	3450	2800
	Lower (std UC) – f. dozer & r. stabilizer down												*7250	*7250	5700	*4950	*4950	4250
	Lower (std UC) – 2 sets stabilizers up												5200	4800	3900	3800	3550	2800
	Lower (std UC) – 2 sets stabilizers down												*7250	*7250	6700	*4950	*4950	*4950
9000 mm	MH – stabilizers up – solid tires												5200	5200	4050	3050	3050	2300
	MH – stabilizers down – solid tires												*7450	*7450	*7450	*4550	*4550	*4550
	Lower (std UC) – f. stabilizer & r. dozer up												5150	4900	3900	3000	2850	2200
	Lower (std UC) – f. stabilizer & r. dozer down												*7450	*7450	5650	*4550	*4550	3300
	Lower (std UC) – f. dozer & r. stabilizer up												5300	4750	3900	3100	2750	2200
	Lower (std UC) – f. dozer & r. stabilizer down												*7450	*7450	5800	*4550	*4550	3400
	Lower (std UC) – 2 sets stabilizers up												5250	4900	3950	3050	2850	2250
	Lower (std UC) – 2 sets stabilizers down												*7450	*7450	6750	*4550	*4550	4000
7500 mm	MH – stabilizers up – solid tires												5200	5200	4050	2650	2650	1950
	MH – stabilizers down – solid tires												*7500	*7500	*7500	*4350	*4350	4050
	Lower (std UC) – f. stabilizer & r. dozer up												5100	4850	3900	2550	2450	1850
	Lower (std UC) – f. stabilizer & r. dozer down												*7500	*7500	5650	*4350	*4350	2850
	Lower (std UC) – f. dozer & r. stabilizer up												5250	4750	3900	2650	2350	1850
	Lower (std UC) – f. dozer & r. stabilizer down												*7500	*7500	5750	*4350	*4350	4100
	Lower (std UC) – 2 sets stabilizers up												5250	4850	3900	2650	2450	1900
	Lower (std UC) – 2 sets stabilizers down												*7500	*7500	6750	*4350	*4350	3450
6000 mm	MH – stabilizers up – solid tires												5100	5100	3950	2350	2350	1750
	MH – stabilizers down – solid tires												*7700	*7700	*7700	*4300	*4300	3700
	Lower (std UC) – f. stabilizer & r. dozer up												5000	4750	3800	2300	2200	1650
	Lower (std UC) – f. stabilizer & r. dozer down												*7700	*7700	5550	4250	4200	2600
	Lower (std UC) – f. dozer & r. stabilizer up												5150	4600	3800	2400	2100	1650
	Lower (std UC) – f. dozer & r. stabilizer down												*7700	*7700	5650	*4300	*4300	2650
	Lower (std UC) – 2 sets stabilizers up												5150	4750	3800	2350	2200	1700
	Lower (std UC) – 2 sets stabilizers down												*7700	*7700	6600	*4300	*4300	3100
4500 mm	MH – stabilizers up – solid tires							6950	6950	5350	4900	4900	3750	2200	2200	1600	12 200	
	MH – stabilizers down – solid tires							*9500	*9500	*9500	*8000	*8000	7550	4200	4200	3450		
	Lower (std UC) – f. stabilizer & r. dozer up							6900	6500	5150	4800	4600	3600	2150	2050	1500		
	Lower (std UC) – f. stabilizer & r. dozer down							*9500	*9500	7600	*8000	*8000	5350	4000	3950	2400		
	Lower (std UC) – f. dozer & r. stabilizer up							7100	6350	5150	4950	4450	3600	2200	1950	1500		
	Lower (std UC) – f. dozer & r. stabilizer down							*9500	*9500	7800	*8000	7650	5450	*4300	3450	2450		
	Lower (std UC) – 2 sets stabilizers up							7050	6500	5200	4950	4550	3650	2200	2000	1550		
	Lower (std UC) – 2 sets stabilizers down							*9500	*9500	9250	*8000	7850	6400	4100	3550	2900		
3000 mm	MH – stabilizers up – solid tires				10 250	10 250	7600	6550	6550	4950	4700	4700	3550	2100	2100	1500	12 430	
	MH – stabilizers down – solid tires				*13 350	*13 350	*13 350	*13 350	*10 250	*10 250	*8350	*8350	7300	4050	4050	3300		
	Lower (std UC) – f. stabilizer & r. dozer up				10 200	9500	7350	6450	6100	4750	4600	4350	3400	2050	1950	1450		
	Lower (std UC) – f. stabilizer & r. dozer down				*13 350	*13 350	11 400	*10 250	*10 250	7200	*8350	*8350	5100	3850	3800	2300		
	Lower (std UC) – f. dozer & r. stabilizer up				10 500	9250	7350	6650	5900	4750	4750	4200	3400	2100	1850	1450		
	Lower (std UC) – f. dozer & r. stabilizer down				*13 350	*13 350	11 800	*10 250	*10 250	7400	*8350	7400	5250	4250	3350	2350		
	Lower (std UC) – 2 sets stabilizers up				10 450	9450	7400	6650	6100	4800	4700	4350	3450	2100	1900	1450		
	Lower (std UC) – 2 sets stabilizers down				*13 350	*13 350	*13 350	*10 250	*10 250	8750	*8350	7600	6150	3950	3450	2800		
1500 mm	MH – stabilizers up – solid tires				9300	9300	6750	6100	6100	4550	4450	4450	3300	2050	2050	1500	12 480	
	MH – stabilizers down – solid tires				*14 600	*14 600	*14 600	*10 750	*10 750	9900	*8500	*8500	7000	4000	4000	3250		
	Lower (std UC) – f. stabilizer & r. dozer up				9250	8600	6500	6000	5650	4350	4350	4100	3150	2000	1900	1400		
	Lower (std UC) – f. stabilizer & r. dozer down				*14 600	*14 600	10 400	*10 750	*10 750	6750	8300	8100	4850	3800	3750	2250		
	Lower (std UC) – f. dozer & r. stabilizer up				9550	8300	6500	6200	5450	4350	4500	3950	3150	2050	1800	1400		
	Lower (std UC) – f. dozer & r. stabilizer down				*14 600	*14 600	10 800	*10 750	10 150	6900	*8500	7100	4950	*4000	3300	2300		
	Lower (std UC) – 2 sets stabilizers up				9500	8550	6550	6150	5650	4400	4450	4100	3200	2050	1900	1400		
	Lower (std UC) – 2 sets stabilizers down				*14 600	*14 600	13 200	*10 750	10 400	8250	8500	7300	5900	3900	3400	2750		
0 mm	MH – stabilizers up – solid tires	*4050	*4050	*4050	8600	8600	6100	5700	5700	4150	4200	4200	3100					
	MH – stabilizers down – solid tires	*4050	*4050	*4050	*14 600	*14 600	*14 600	*10 750	*10 750	9450	*8400	*8400	6750					
	Lower (std UC) – f. stabilizer & r. dozer up	*4050	*4050	*4050	8500	7850	5800	5600	5300	3950	4100	3900	2900					
	Lower (std UC) – f. stabilizer & r. dozer down	*4050	*4050	*4050	*14 600	*14 600	9650	*10 750	*10 750	6350	8050	7850	4650					
	Lower (std UC) – f. dozer & r. stabilizer up	*4050	*4050	*4050	8800	7600	5800	5800	5100	3950	4250	3750	2950					
	Lower (std UC) – f. dozer & r. stabilizer down	*4050	*4050	*4050	*14 600	*14 600	10 000	*10 750	9650	6500	*8400	6500	4750					
	Lower (std UC) – 2 sets stabilizers up	*4050	*4050	*4050	8750	7850	5900	5800	5250	4000	4200	3850	2950					
	Lower (std UC) – 2 sets stabilizers down	*4050	*4050	*4050	*14 600	*14 600	12 350	*10 750	9950	7850	8250	7050	5650					

*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.


MH3024 Wheel Material Handler Specifications

Lift Capacities


All values are in kg, hydraulic cab riser, without work tool, with counterweight (5200 kg), heavy lift on.

 Load point height

 Load over front

 Load over rear



















 Load over side

 Load at maximum reach (sticknose/bucket pin)

Undercarriage MH or Standard

Boom 6.8 m MH

Stick 4.9 m MH

Load point height	Undercarriage configuration	4500 mm			6000 mm			7500 mm			9000 mm			10 500 mm			mm			
																				
12 000 mm	MH – stabilizers up – solid tires																	*7800	*7800	6550
	MH – stabilizers down – solid tires																	*7800	*7800	*7800
	Lower (std UC) – f. stabilizer & r. dozer up																	*7800	*7800	6300
	Lower (std UC) – f. stabilizer & r. dozer down																	*7800	*7800	*7800
	Lower (std UC) – f. dozer & r. stabilizer up																	*7800	*7800	6300
	Lower (std UC) – f. dozer & r. stabilizer down																	*7800	*7800	*7800
	Lower (std UC) – 2 sets stabilizers up																	*7800	*7800	6400
10 500 mm	MH – stabilizers up – solid tires																	*7800	*7800	*7800
	MH – stabilizers down – solid tires																	*7800	*7800	6400
	Lower (std UC) – f. stabilizer & r. dozer up																	*7800	*7800	6300
	Lower (std UC) – f. stabilizer & r. dozer down																	*7800	*7800	*7800
	Lower (std UC) – f. dozer & r. stabilizer up																	*7800	*7800	6400
	Lower (std UC) – f. dozer & r. stabilizer down																	*7800	*7800	*7800
	Lower (std UC) – 2 sets stabilizers up																	*7800	*7800	6400
9000 mm	MH – stabilizers up – solid tires																	*7800	*7800	*7800
	MH – stabilizers down – solid tires																	*7800	*7800	6400
	Lower (std UC) – f. stabilizer & r. dozer up																	*7800	*7800	6300
	Lower (std UC) – f. stabilizer & r. dozer down																	*7800	*7800	*7800
	Lower (std UC) – f. dozer & r. stabilizer up																	*7800	*7800	6400
	Lower (std UC) – f. dozer & r. stabilizer down																	*7800	*7800	*7800
	Lower (std UC) – 2 sets stabilizers up																	*7800	*7800	6400
7500 mm	MH – stabilizers up – solid tires																	*7800	*7800	*7800
	MH – stabilizers down – solid tires																	*7800	*7800	6400
	Lower (std UC) – f. stabilizer & r. dozer up																	*7800	*7800	6300
	Lower (std UC) – f. stabilizer & r. dozer down																	*7800	*7800	*7800
	Lower (std UC) – f. dozer & r. stabilizer up																	*7800	*7800	6400
	Lower (std UC) – f. dozer & r. stabilizer down																	*7800	*7800	*7800
	Lower (std UC) – 2 sets stabilizers up																	*7800	*7800	6400
6000 mm	MH – stabilizers up – solid tires																	*7800	*7800	*7800
	MH – stabilizers down – solid tires																	*7800	*7800	6400
	Lower (std UC) – f. stabilizer & r. dozer up																	*7800	*7800	6300
	Lower (std UC) – f. stabilizer & r. dozer down																	*7800	*7800	*7800
	Lower (std UC) – f. dozer & r. stabilizer up																	*7800	*7800	6400
	Lower (std UC) – f. dozer & r. stabilizer down																	*7800	*7800	*7800
	Lower (std UC) – 2 sets stabilizers up																	*7800	*7800	6400
4500 mm	MH – stabilizers up – solid tires																	*7800	*7800	*7800
	MH – stabilizers down – solid tires																	*7800	*7800	6400
	Lower (std UC) – f. stabilizer & r. dozer up																	*7800	*7800	6300
	Lower (std UC) – f. stabilizer & r. dozer down																	*7800	*7800	*7800
	Lower (std UC) – f. dozer & r. stabilizer up																	*7800	*7800	6400
	Lower (std UC) – f. dozer & r. stabilizer down																	*7800	*7800	*7800
	Lower (std UC) – 2 sets stabilizers up																	*7800	*7800	6400
3000 mm	MH – stabilizers up – solid tires																	*7800	*7800	*7800
	MH – stabilizers down – solid tires																	*7800	*7800	6400
	Lower (std UC) – f. stabilizer & r. dozer up																	*7800	*7800	6300
	Lower (std UC) – f. stabilizer & r. dozer down																	*7800	*7800	*7800
	Lower (std UC) – f. dozer & r. stabilizer up																	*7800	*7800	6400
	Lower (std UC) – f. dozer & r. stabilizer down																	*7800	*7800	*7800
	Lower (std UC) – 2 sets stabilizers up																	*7800	*7800	6400
1500 mm	MH – stabilizers up – solid tires																	*7800	*7800	*7800
	MH – stabilizers down – solid tires																	*7800	*7800	6400
	Lower (std UC) – f. stabilizer & r. dozer up																	*7800	*7800	6300
	Lower (std UC) – f. stabilizer & r. dozer down																	*7800	*7800	*7800
	Lower (std UC) – f. dozer & r. stabilizer up																	*7800	*7800	6400
	Lower (std UC) – f. dozer & r. stabilizer down																	*7800	*7800	*7800
	Lower (std UC) – 2 sets stabilizers up																	*7800	*7800	6400
0 mm	MH – stabilizers up – solid tires																	*7800	*7800	*7800
	MH – stabilizers down – solid tires																	*7800	*7800	6400
	Lower (std UC) – f. stabilizer & r. dozer up																	*7800	*7800	6300
	Lower (std UC) – f. stabilizer & r. dozer down																	*7800	*7800	*7800
	Lower (std UC) – f. dozer & r. stabilizer up																	*7800	*7800	6400
	Lower (std UC) – f. dozer & r. stabilizer down																	*7800	*7800	*7800
	Lower (std UC) – 2 sets stabilizers up																	*7800	*7800	6400

*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.

MH3024 Wheel Material Handler Specifications

Lift Capacities

All values are in kg, bucket cylinder and linkage installed, hydraulic cab riser, without work tool, with counterweight (5200 kg), heavy lift on.



Undercarriage MH or Standard

Boom 6.8 m MH

Stick 4.8 m Straight Stick

Load Point	Undercarriage configuration	4500 mm			6000 mm			7500 mm			9000 mm			10 500 mm			mm		
		Load point height	Load over front	Load over rear	Load over front	Load over rear	Load over side	Load over front	Load over rear	Load over side	Load over front	Load over rear	Load over side	Load over front	Load over rear	Load over side			
12 000 mm	MH – stabilizers up – solid tires	*8800	*8800	7900												*7750	*7750	6700	
	MH – stabilizers down – solid tires	*8800	*8800	*8800												*7750	*7750	*7750	
	Lower (std UC) – f. stabilizer & r. dozer up	*8800	*8800	7600												*7750	*7750	6450	
	Lower (std UC) – f. stabilizer & r. dozer down	*8800	*8800	*8800												*7750	*7750	*7750	
	Lower (std UC) – f. dozer & r. stabilizer up	*8800	*8800	7600												*7750	*7750	6450	
	Lower (std UC) – f. dozer & r. stabilizer down	*8800	*8800	*8800												*7750	*7750	*7750	
	Lower (std UC) – 2 sets stabilizers up	*8800	*8800	7700												*7750	*7750	6500	
Lower (std UC) – 2 sets stabilizers down	*8800	*8800	*8800												*7750	*7750	*7750		
10 500 mm	MH – stabilizers up – solid tires				6800	6800	5150									4750	4750	3550	
	MH – stabilizers down – solid tires				*8850	*8850	*8850									*6150	*6150	*6150	
	Lower (std UC) – f. stabilizer & r. dozer up				6750	6350	4950									4650	4400	3400	
	Lower (std UC) – f. stabilizer & r. dozer down				*8850	*8850	7450									*6150	*6150	5200	
	Lower (std UC) – f. dozer & r. stabilizer up				6900	6150	4950									4800	4250	3400	
	Lower (std UC) – f. dozer & r. stabilizer down				*8850	*8850	7650									*6150	*6150	5300	
	Lower (std UC) – 2 sets stabilizers up				6900	6300	5000									4750	4400	3450	
Lower (std UC) – 2 sets stabilizers down				*8850	*8850	*8850									*6150	*6150	*6150		
9000 mm	MH – stabilizers up – solid tires				6950	6950	5300	4700	4700	3550						3450	3450	2550	
	MH – stabilizers down – solid tires				*9000	*9000	*9000	*7700	*7700	7350						*5550	*5550	5450	
	Lower (std UC) – f. stabilizer & r. dozer up				6850	6450	5100	4650	4400	3400						3350	3200	2400	
	Lower (std UC) – f. stabilizer & r. dozer down				*9000	*9000	7600	*7700	*7700	5150						*5550	*5550	3800	
	Lower (std UC) – f. dozer & r. stabilizer up				7050	6250	5100	4800	4250	3400						3500	3100	2400	
	Lower (std UC) – f. dozer & r. stabilizer down				*9000	*9000	7800	*7700	7500	5300						*5550	5500	3850	
	Lower (std UC) – 2 sets stabilizers up				7000	6450	5150	4750	4400	3450						3450	3200	2450	
Lower (std UC) – 2 sets stabilizers down				*9000	*9000	*9000	*7700	7650	6250						*5550	*5550	4600		
7500 mm	MH – stabilizers up – solid tires				6900	6900	5250	4700	4700	3550	3400	2500				2800	2800	2050	
	MH – stabilizers down – solid tires				*9050	*9050	*9050	*7700	*7700	7350	6600	6600	5350			*5200	*5200	4500	
	Lower (std UC) – f. stabilizer & r. dozer up				6800	6400	5050	4650	4400	3400	3300	3150	2400			2750	2600	1950	
	Lower (std UC) – f. stabilizer & r. dozer down				*9050	*9050	7550	*7700	*7700	5150	6300	6150	3700			*5200	5150	3100	
	Lower (std UC) – f. dozer & r. stabilizer up				7000	6250	5050	4800	4250	3400	3450	3050	2400			2850	2500	1950	
	Lower (std UC) – f. dozer & r. stabilizer down				*9050	*9050	7750	*7700	7450	5300	*6650	5400	3800			*5200	4550	3150	
	Lower (std UC) – 2 sets stabilizers up				6950	6400	5100	4750	4350	3450	3400	3150	2450			2800	2600	1950	
Lower (std UC) – 2 sets stabilizers down				*9050	*9050	*9050	*7700	7650	6250	6450	5550	4500			*5200	4650	3750		
6000 mm	MH – stabilizers up – solid tires				6700	6700	5050	4600	4600	3450	3350	2500	2500	1800		2450	2450	1750	
	MH – stabilizers down – solid tires				*9400	*9400	*9400	*7850	*7850	7250	6600	6600	5300	5050	4050	4900	4900	3950	
	Lower (std UC) – f. stabilizer & r. dozer up				6600	6250	4850	4550	4300	3300	3300	3100	2350	2450	2300	1700	2350	2250	1650
	Lower (std UC) – f. stabilizer & r. dozer down				*9400	*9400	7350	*7850	*7850	5050	6250	6100	3700	4750	4650	2750	4650	4550	2700
	Lower (std UC) – f. dozer & r. stabilizer up				6800	6050	4850	4700	4150	3300	3400	3000	2350	2550	2200	1700	2450	2150	1650
	Lower (std UC) – f. dozer & r. stabilizer down				*9400	*9400	7550	*7850	7350	5200	*6650	5400	3800	5300	4100	2850	*5100	4000	2750
	Lower (std UC) – 2 sets stabilizers up				6750	6200	4900	4650	4250	3350	3400	3100	2400	2500	2300	1700	2450	2250	1650
Lower (std UC) – 2 sets stabilizers down				*9400	*9400	8950	*7850	7550	6100	6400	5550	4500	4850	4200	3400	4750	4100	3300	
4500 mm	MH – stabilizers up – solid tires	10 200	10 200	7550	6350	6350	4750	4450	3300	3250	2400	2500	2500	1750	2200	2200	1550		
	MH – stabilizers down – solid tires	*12 850	*12 850	*12 850	*9900	*9900	*9900	*8050	*8050	7050	6450	5200	5000	4050	4550	4550	3650		
	Lower (std UC) – f. stabilizer & r. dozer up	10 150	9450	7250	6300	5900	4550	4350	4100	3150	3200	2250	2400	2300	1650	2150	2050	1450	
	Lower (std UC) – f. stabilizer & r. dozer down	*12 850	*12 850	11 350	*9900	*9900	7000	*8050	*8050	4850	6150	6000	3600	4700	4650	2750	4250	4200	2450
	Lower (std UC) – f. dozer & r. stabilizer up	10 450	9150	7250	6500	5750	4550	4500	3150	3300	2900	2250	2500	2200	1650	2250	1950	1450	
	Lower (std UC) – f. dozer & r. stabilizer down	*12 850	*12 850	11 750	*9900	*9900	7200	*8050	7150	5000	*6700	5300	3700	5300	4050	2800	4800	3650	2500
	Lower (std UC) – 2 sets stabilizers up	10 400	9400	7300	6450	5900	4600	4450	4100	3200	3300	3000	2300	2500	2200	1700	2200	2000	1500
Lower (std UC) – 2 sets stabilizers down	*12 850	*12 850	*12 850	*9900	*9900	8600	*8050	7350	5950	6300	5400	4400	4850	4200	3350	4400	3800	3050	
3000 mm	MH – stabilizers up – solid tires	9300	9300	6750	5950	5950	4400	4200	3100	3150	3150	2250	2400	1700	2100	2100	1450		
	MH – stabilizers down – solid tires	*14 100	*14 100	*14 100	*10 400	*10 400	9800	*8200	*8200	6800	6350	6350	5100	4950	3950	4300	4300	3450	
	Lower (std UC) – f. stabilizer & r. dozer up	9250	8550	6450	5850	5500	4200	4100	3900	2950	3050	2900	2150	2350	2200	1600	2000	1900	1350
	Lower (std UC) – f. stabilizer & r. dozer down	*14 100	*14 100	10 450	*10 400	*10 400	6600	8100	7900	4650	6000	5850	3450	4650	4550	2650	4050	4000	2300
	Lower (std UC) – f. dozer & r. stabilizer up	9550	8300	6450	6050	5300	4200	4250	3750	2950	3200	2800	2150	2450	2100	1600	2100	1800	1350
	Lower (std UC) – f. dozer & r. stabilizer down	*14 100	*14 100	10 800	*10 400	10 000	6800	*8200	6900	4750	*6700	5150	3550	5200	4000	2750	*4500	3500	2350
	Lower (std UC) – 2 sets stabilizers up	9500	8550	6500	6000	5500	4250	4250	3900	2950	3150	2900	2200	2400	2200	1650	2100	1900	1400
Lower (std UC) – 2 sets stabilizers down	*14 100	*14 100	13 250	*10 400	10 300	8150	*8200	7100	5700	6150	5300	4250	4750	4100	3300	4200	3600	2850	
1500 mm	MH – stabilizers up – solid tires	8450	8450	5950	5550	5550	4000	4000	2900	3000	3000	2150	2350	2350	1650	2050	2050	1400	
	MH – stabilizers down – solid tires	*14 450	*14 450	*14 450	*10 500	*10 500	9300	*8150	*8150	6550	6200	6200	4950	4850	3900	*4000	*4000	3400	
	Lower (std UC) – f. stabilizer & r. dozer up	8400	7750	5650	5450	5100	3800	3900	3700	2750	2950	2800	2050	2300	2150	1550	1950	1850	1300
	Lower (std UC) – f. stabilizer & r. dozer down	*14 450	*14 450	9550	*10 500	*10 500	6150	7850	7650	4400	5850	5700	3350	4550	4500	2600	4000	3950	2250
	Lower (std UC) – f. dozer & r. stabilizer up	8650	7450	5650	5650	4900	3800	4050	3550	2750	3050	2600	2050	2350	2050	1550	2050	1750	1350
	Lower (std UC) – f. dozer & r. stabilizer down	*14 450	*14 450	9900	*10 500	9500	6350	*8150	6650	4550	*6500	5000	3400	*5100	3900	2650	*4000	3450	2300
	Lower (std UC) – 2 sets stabilizers up	8600	7700	5750	5600	5100	3850	4000	3650	2750	3050	2750	2050	2350	2150	1550	2050	1850	1350
Lower (std UC) – 2 sets stabilizers down	*14 450	*14 450	12 250	*10 500	9800	7700	8050	6850	5450	6000	5150	4100	4700	4050	3250	*4000	3550	2800	
0 mm	MH – stabilizers up – solid tires	7950	7950	5500	5250	5250	3700	3800	2700	2900	2900	2050	2300	2300	1600				
	MH – stabilizers down – solid tires	*9550	*955																

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
 - Rooding lights two front, halogen
 - Rooding 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 XT™-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

MH3024 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
- Cooling package, fine mesh screen and engine air precleaner
- Cat Electronic Technician capability (ET)
- Counterweight, 4100 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

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 circuits 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 (5440 mm):
 - Straight stick (2500, 2900 mm)
- One-Piece boom (5650 mm):
 - Straight stick (2500, 2900 mm)
- Material Handling boom (6800 mm):
 - Drop nose MH stick (4900 or 5900 mm)
 - Straight MH stick (4800 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 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, laminated windshield and skylight (EN356 P8B standards, 26 mm)
- Mirrors, electrically adjustable and heated, frame and cab

TIRES

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

UNDERCARRIAGE

- 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, 5200 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)

*25 km/h not compatible with solid tires

**Available in 2017

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