# MH3024 WHEEL MATERIAL HANDLER Engine Model Cat® C4.4 26 500 kg (58,420 lb) **Maximum Operating Weight** 12 010 mm (39.4 ft) **Maximum Reach**

# MH3024

### WHEEL MATERIAL HANDLER

We know that when it comes to material handling equipment, your success depends on productivity and low operating costs. The Cat® MH3024 is a purpose-built material handler that will provide you with the superior performance you need for your toughest waste and scrapyard applications. The MH3024 features simple-to-use technologies, a redesigned cab for enhanced comfort, and more boom options to match your work. Combine these features with up to 10% lower operating costs and up to 20% greater swing torque, and you have a safe, quality, and reliable product to take on the wide variety of challenges you face each day.



### SUPERIOR PERFORMANCE

Work faster with up to 20% more swing torque. A wider machine footprint improves stability.

# UP TO 10% LOWER OPERATING COSTS

With extended maintenance intervals and fewer connections and hoses, you get more done at a lower cost compared to the previous model.

# ENHANCED COMFORT

Operate with ease in cab comfort options of your choice and better visibility with 360° machine view.

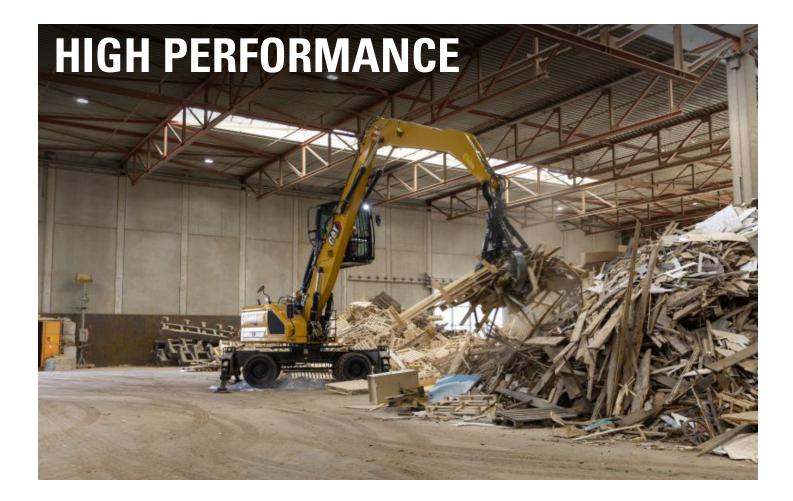
## **LATEST FEATURES**



#### **Cab Monitor Improvements**

- Continuously improved user interface allows for intuitive navigation, minimizing performance interruption with the easy-to-use touchscreen menu.
- 2. Identify apps quickly with a grid list view, abbreviated app names, and categorized menu options.
- A notification center keeps important information visible to the operator, and displays messages without shrinking the camera view.
- 4. Color coded notifications set critical messages apart from the rest.
- 5. Use the in-monitor QR code to learn about machine technology and features through a full suite of "how-to" videos.
- Enhance visibility to make service work easier and safer with optional inspection lighting.
- Standard integrated vehicle health management system alerts the operator with service guidance and parts needed to enhance untime

Not all features are available in all regions. Please check with your local Cat dealer for specific offering availability in your area. Build Number: 07D



- Use up to 10% less fuel versus the previous model, with no impact on your productivity.
- The Cat C4.4 meets Brazil MAR-1 emission standards, equivalent to U.S. EPA Tier 3 and EU Stage IIIA.
- Match the machine to the job with three power modes Power, Smart, and Eco. Smart mode automatically matches engine and hydraulic power to working conditions, providing maximum power when needed and reducing power when it isn't to save fuel.
- The advanced electro-hydraulic system provides the optimum balance of power and efficiency while giving you the control you need.
- Available SmartBoom<sup>™</sup> lets the boom freely travel up and down without using any pump flow so operators can focus on stick and bucket work.
- Valve priority puts hydraulic pressure and flow where you need it.
- The variable gauge undercarriage retracts for easy transportation and expands for increased stability and lifting capacity.
- Program and store your preferred power mode and joystick settings using your Operator ID. The machine will automatically remember your selections.

# TAKE THE GUESSWORK OUT OF MANAGING YOUR EQUIPMENT

- Cat Payload helps you achieve precise load targets to improve your operating efficiency. Pick up a load of material – with a bucket and thumb combination or grapple and clamshell attachments – and get a real-time weight estimate without swinging.
- Combine Payload with VisionLink® and remotely manage your production targets.
- VisionLink provides actionable data insights for all assets –
  regardless of fleet size or equipment manufacturer.\* Review
  equipment data from your desktop or mobile device to maximize
  uptime and optimize assets. Dashboards provide information
  such as hours, miles, location, idle time, and fuel utilization.
  Make informed decisions that lower costs, simplify maintenance,
  and improve safety and security on your jobsite.
- VisionLink Productivity gathers and summarizes machine telematics and jobsite data from all your equipment – regardless of the manufacture.\* View actionable information such as idle time, fuel burn, location, payload, load counts, total cycles, and more to improve machine efficiency, productivity, and utilization. Access data anywhere via a mobile, tablet, or desktop – on or off the jobsite.
- Remote Troubleshoot is a mobile application that allows your Cat dealer to perform diagnostic testing on your connected machine remotely to help ensure that issues are resolved quickly and with less downtime.

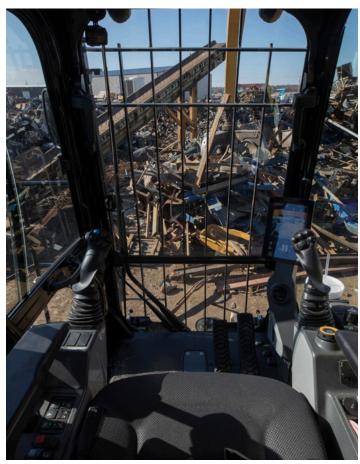
 Remote Flash is a mobile application that allows you to update onboard software without a technician being present, allowing you to initiate software updates when convenient, increasing your overall operating efficiency.

\*Data field availability can vary by equipment manufacturer.





- The Deluxe seat is heated and air adjustable, while the Premium seat is heated and ventilated and adjusts automatically.
- The cab has a wide seat that adjusts for operators of all sizes.
- Control the machine comfortably with easy-to-reach controls.
- Standard automatic climate control keeps you at the right temperature all shift long.
- Stow your gear with plenty of in-cab storage beneath and behind the seat, overhead, and in the consoles. A cup holder, document holder, bottle holder, and coat hook are also provided.
- Use the standard radio's USB ports and Bluetooth® technology to connect to personal devices.
- Cat continues to improve user interface functionality for operators of all skill levels. The touchscreen monitor is an easy-to-use operating tool that presents the jobsite dashboard with an intuitive format.
- Productivity applications are displayed in grid view to read on the go, and touchscreen navigation is programmed to ensure job performance continues without any hold-ups.



## RELIABLE, DURABLE, AND VERSATILE

- Count on your machine to withstand wear throughout the years.
   Boom, sticks, and other high-stress areas are reinforced with thick multi-plate fabrications, castings, and forgings to ensure quality and reliability.
- Work up to 3000 m (9,840 ft) above sea level without derating.
- Don't let the temperature stop you from working. The material handler has a standard high-ambient temperature capability of 52° C (125° F) and cold start capability of -18° C (-0°F).
- Auto warm up speeds up hydraulic oil warming in cold temperatures and helps prolong the life of components.
- Match your machine to your application. Multiple configurations allow you to customize your machine to your needs.
- Equip your MH3024 with an optional 15kW generator for magnet operation. Generator controls are fully integrated into the cab monitor.
- Expand your work capabilities with attachments for a variety of applications.
- Make operating easier with the touch of a joystick button. Additional auxiliary relays allow you to power on or turn off a CB radio, beacon light, and even a dust suppression watering system without taking your hands off the joysticks.





- Cab Avoidance helps you avoid contact between your worktool and the cab.
- Standard 2D E-Fence prevents your machine from moving outside operator-defined parameters.
- Ground-level shutoff switch stops all fuel to the engine when activated and shuts down the machine.
- Keep your machine secure with Operator ID. Use your PIN code on the monitor to enable the push button starting feature.
- Enjoy great all-around visibility with the help of smaller cab pillars, larger windows, and a flat engine hood design. Rearview and sideview cameras are standard.
- Standard 1800-lumen LED exterior lights illuminate your surroundings for a safer work environment.
- Thick impact-resistant windshields fulfill P5A standards.
- Service platform design provides easy, safe, and quick access to the upper service platform. The service platform steps use an anti-skid punch plate to prevent slipping.
- The standard hydraulic lockout lever isolates all hydraulic and travel functions in the lowered position.
- Optional Operator Protective Guards (OPG) protect from falling and flying debris.
- When activated, the ground-level shutoff switch stops all fuel in the engine and shuts down the machine.
- In an emergency, safely lower the cab with the cab lowering valve behind the cab riser or to the right of the seat. The valve located behind the cab riser is easily accessible.

- Boom and stick lowering check valves prevent reverse flow, keeping your front linkage securely in place should the hydraulic system unexpectedly lose pressure.
- Make service work more accessible and safer with optional inspection lighting. With the flip of a switch, lights will illuminate the engine pump, battery, and radiator compartments to enhance visibility.

### **MAINTENANCE**

- Track your machine's filter life and maintenance intervals via the in-cab monitor.
- Using Cat genuine oil and filters and doing your typical Scheduled Oil Sampling (S·O·S<sup>SM</sup>) monitoring will double the current service interval to 1,000 hours, giving you greater uptime to do more work.
- Expect the latest air intake filter with pre-cleaner to last up to 1,000 hours a 100% increase over the previous filter.
- The latest hydraulic oil filter provides improved filtration performance, anti-drain valves to keep oil clean when the filter is replaced, and longer life with a 3,000-hour replacement interval – 50% longer than previous filter designs.
- High-efficiency cooling fans run only when needed; you can program intervals so they automatically reverse to keep cores clean without interrupting your work.
- S·O·S ports are on ground level, simplifying maintenance and allowing for quick, easy extraction of fluid samples for analysis.
- Boost productivity with proactive service reminders. The integrated vehicle health management system alerts the operator with step-by-step service guidance and the parts needed so you don't experience unnecessary downtime.



# MORE THAN MACHINES

### **BUILT AROUND YOUR SUCCESS**

When you buy Cat equipment, you get so much more than the machine. You also get the support of a best-in-class dealer network, backed by a range of flexible solutions, technology, tools, and more.



### **CUSTOMER VALUE AGREEMENTS**

A Customer Value Agreement (CVA) from your Cat dealer helps you do more and worry less. A CVA simplifies machine ownership and maintenance, adds the security of expert dealer support, and gives you the peace of mind from effective equipment health management.

### **GENUINE CAT PARTS**

Genuine Cat parts deliver the highest level of reliability and productivity. Order direct from your Cat dealer or shop online at parts.cat.com.

#### **REPAIR OPTIONS**

A broad range of repair options gives you choices that work with your needs, budget, and timeline. Every repair is performed by expert Cat technicians. You'll receive smart repair advice, a timely, accurate quote, and service that gets your machine back into action quickly.

### **FINANCIAL SERVICES**

Count on Cat Financial to provide the best finance and extended protection solutions for your business. For more than 30 years, we have helped our customers succeed through financial service excellence.



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**DOZERS** 

**SKID STEERS** 

**MATERIAL HANDLERS** 

**EXCAVATORS** 

WHEEL LOADERS

**TRACK LOADERS** 

## **INCREASE YOUR PRODUCTIVITY AND PROFIT**

# WITH CAT ATTACHMENTS

Easily expand the performance of your machine by using Cat attachments. Each Cat attachment is designed to fit the weight and horsepower of Cat material handlers for improved performance, safety, and stability. Complete attachment guides can be found in the technical specifications documents.

**GSH – ORANGE PEEL GRAPPLES** 



**GSV – ORANGE PEEL GRAPPLES** 



**DEMO AND SORTING GRAPPLES** 



**CLAMSHELL GRAPPLES** 



**MULTI-PROCESSORS** 



## **TECHNICAL SPECIFICATIONS**

Engine				
Engine Model	Cat C4.4			
Net Power – ISO 9249	128 kW	171 hp		
Net Power – ISO 9249 (DIN)	174 hp (metric)			
Engine Power – Maximum – ISO 14396	129 kW	174 hp		
Engine Power – ISO 14396 (DIN)	176 hp (metric)			
Bore	105 mm	4.1 in		
Stroke	135 mm	5.3 in		
Displacement	4.4 L	268.5 in <sup>3</sup>		
Biodiesel Capability	Up to B201			
Emissions	Meets Brazil MAR-1, U.S. EPA Tier 3 and EU Stage IIIA equivalent emission standards.			

Net power advertised is the power available at the flywheel when the engine is equipped with fan, air intake system, exhaust system, and alternator with engine speed at 1,800 rpm. Advertised power is tested per the specified standard in effect at the time of manufacture.

¹Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels\*\* up to: 100% biodiesel FAME (fatty acid methyl ester)\* or 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels. Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.

\*Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel (for use of blends higher than 20% biodiesel, consult your Cat dealer).

<sup>\*\*</sup>Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.

Hydraulic System				
Maximum Pressure – Implements	37 000 kPa	5,366 psi		
Maximum Pressure – Travel	35 000 kPa	5,075 psi		
Maximum Pressure – Swing	39 000 kPa	5,656 psi		
Machine Weights				
Maximum Operating Weight	26 500 kg	58,420 lb		
Swing Mechanism				
Swing Speed	8.2 r/min			
Maximum Swing Torque	55 kN⋅m	40,700 ft·lbf		
Service Refill Capacities				
Fuel Tank Capacity	350 L	92.5 gal		
Cooling System	36 L	9.5 gal		
Engine Oil	13 L	3.4 gal		
Hydraulic Tank	155 L	40.9 gal		
Hydraulic System – Including Tank	345 L	91.1 gal		
Rear Axle – Housing (Differential)	14 L	3.7 gal		
Front Steering Axle – Differential	10.5 L	2.8 gal		
Final Drive – Each	2.5 L	0.7 gal		
Powershift Transmission	2.5 L	0.7 gal		

Dimensio	ons			
Boom	MH Boom 7.45 m (24'5")			
Stick	Drop Nose 5.0 m (16'5")			
Undercarriage Width	2990 mm	9.8 ft		
Shipping Height (with OPG, without stick)	3350 mm	11 ft		
Shipping Length	10 670 mm	35 ft		
Shipping Length (with push blade)	11 130 mm	36.5 ft		
Machine Length	5290 mm	17.3 ft		
Machine Length (with push blade)	5740 mm	18.8 ft		
Tail Swing Radius	2600 mm	8.5 ft		
Counterweight Clearance	1300 mm	4.3 ft		
Cab Height- Lowered	3350 mm	11 ft		
Cab Height-Lowered with OPG	3350 mm	11 ft		
Cab Height-Raised	5750 mm	18.9 ft		
Cab Height-Raised with OPG	5750 mm	18.9 ft		
Wheel Base	2750 mm	9 ft		
Shipping Width	2990 mm	9.8 ft		
Ground Clearance	320 mm	1.1 ft		
Undercarriage Length	5300 mm	17.4 ft		
Undercarriage Length (with push blade)	5740 mm	18.8 ft		
Upper Frame Width (including handrails)	2540 mm	8.3 ft		
Working Ranges				
Boom	3 3			
Stick	Drop Nose 5.0 m (16'5")			
Maximum Reach	12 010 mm	39.4 ft		
Maximum Height	13 030 mm	42.8 ft		
Minimum Dump Height	4520 mm	14.8 ft		
Maximum Reach at Ground Line	11 870 mm	38.9 ft		
Maximum Depth	3010 mm	9.9 ft		
Boom Pin Height	9260 mm	30.4 ft		
Transmiss	ion			
Maximum Gradeability (23 500 kg/51,810 lb)	6	5		
Maximum Travel Speed (with steering wheel)	20 km/h	12.4 mile/h		
Maximum Travel Speed (with joysticks)	15 km/h	9.3 mile/h		
Drawbar Pull	127 kN	28,551 lb/ft		

# **STANDARD & OPTIONAL EQUIPMENT**

NOTE: Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional
BOOMS AND STICKS		
7.45 m (24'5"') MH boom		✓
6.4 m (21') MH boom		✓
5.0 m (16'5") Drop Nose MH stick		✓
4.3 m (14'1") Straight MH stick		✓
Bucket linkage, B-type with lifting eye		✓
CAB		
Advanced sound-suppressed Tip Over Protective Structure (TOPS) cab (ISO 12117-2 compliant)	✓	
Deluxe cab: air suspension heated seat, 10" touchscreen monitor	✓	
Keyless push-to-start engine control	✓	
Fixed one-piece laminated windshield and roof window (P5A glass)	<b>√</b>	
LED dome lights	✓	
Operator Protective Guards		✓
SAFETY AND SECURITY		
Cab Avoidance	✓	
Rear- and right-side-view cameras	✓	
Secondary engine shutoff switch	✓	
Lockable disconnect switch	✓	
Travel alarm		✓
CAT TECHNOLOGY		
Cat VisionLink	✓	
Remote Flash	✓	
Remote Troubleshoot	✓	
SERVICE AND MAINTENANCE		
Automatic lubrication system for implement and swing system	<b>√</b>	
S·O·S ports	✓	
Integrated vehicle health management system	✓	
ELECTRICAL SYSTEM		
Roading and indicator lights at front and rear	✓	
Maintenance-free batteries	✓	
Centralized electrical disconnect switch	✓	
Programmable time delay LED working lights	✓	
LED left-hand-side, right-hand-side and rear lights for cameras installed on chassis		✓
Electrical refueling pump		✓
Generator, 15 kW with wiring to stick nose		✓

	Standard	Optional
HYDRAULIC SYSTEM		
Electric main control valve	✓	
Automatic hydraulic oil warm up	✓	
Automatic swing brake	✓	
Separate dedicated swing pump	✓	
Boom and stick lowering check valves	✓	
Medium pressure auxiliary circuit	✓	
Element type main hydraulic filter	✓	
SmartBoom	✓	
Heavy lift mode	✓	
UNDERCARRIAGE AND STRUCTURES		
All wheel drive	✓	
Automatic brake/axle lock	✓	
Creeper speed	✓	
Heavy-duty axles, advanced disc brake	✓	
system, and travel motor with adjustable		
braking force		
Lockable, oscillating front axle with remote greasing point	<b>V</b>	
2.75 m (9'0") wide undercarriage		✓
2.99 m (9'10") wide undercarriage		✓
4200 kg (9,250 lb) counterweight		✓
4700 kg (10,370 lb) counterweight		✓
Push Blade		✓
10.00-20 dual solid rubber tires		✓
11.00-20 16 PR dual tires		✓
ENGINE		
C4.4 engine	✓	
One-touch low idle with automatic engine speed control	✓	
Automatic engine shutdown	✓	
52° C (125° F) high-ambient capability	✓	
-18° C (-0° F) cold start capability	✓	
Electric fuel priming pump	✓	
Double element air filter with integrated pre-cleaner	✓	
On-demand electric cooling fans with auto-reverse function	✓	



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

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

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