

# MH3050

WHEEL MATERIAL HANDLER



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Engine Model  
Maximum Operating Weight  
Maximum Reach

Cat® C9.3B  
50 000 kg (110,250 lb)  
18 060 mm (59.3 ft)



# MH3050

## WHEEL MATERIAL HANDLER

The Cat® MH3050 is a powerful and reliable material handler designed for high performance. Its wide undercarriage and stabilizer footprint help provide stability, while an optional generator helps expand versatility in material handling applications. Built with proven components from next generation Cat excavators and featuring a purpose-built material handler cab, the MH3050 helps deliver productivity, operator comfort, and long-lasting durability.



### HIGH PERFORMANCE

A long reach offering helps you move more material without repositioning the machine. A wide undercarriage helps provide 360° stability.

### PROVEN RELIABILITY

The MH3050 is built from proven components designed to withstand the toughest applications. Count on your machine to provide the durability and reliability you expect from Cat products.

### OPERATOR COMFORT

Operate with ease. In cab comfort options of your choice and high visibility with 360° machine view help you work comfortably all shift long.



## Machine Setup Simplification

- At the touch of fingertips and navigating user-friendly icons, the latest operator oriented User Interface (UI) maximizes uptime and gets crews to work without delay. From re-ordering work tool lists to creating new work tool combinations as needed, operators can quickly set up machines and easily access information.
- The interface allows operators to maintain accuracy and makes the most of every second of their shift. Adding the ability to input couplers and attachments into the system makes setting up work tool combinations highly efficient by significantly reducing calibration time. It also eliminates the need to measure up again when changing Cat® work tool attachments and makes it manageable for a single person to check and adjust for bucket wear.

## Cat Payload\*

- Cat Payload provides operators with on-the-go weighing to help them hit load targets and avoid overloading, underloading, or misloading materials. Combine Payload with VisionLink® Productivity\*\* to analyze jobsites and individual assets for remote management of production targets and key metrics.

## Swing Assist

- Swing Assist automatically stops machine swing at operator-defined preset points. Simply swing to the desired stopping point and activate using the machine monitor or a preset joystick button. As you get closer, the machine will automatically decelerate and not allow swing past the set point. Swing Assist helps you hit more repetitive swing targets to help reduce fuel use and improve cycle times.

*\*Payload technologies are not legal for trade.*

*\*\*VisionLink® subscription required.*

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

# HIGH PERFORMANCE

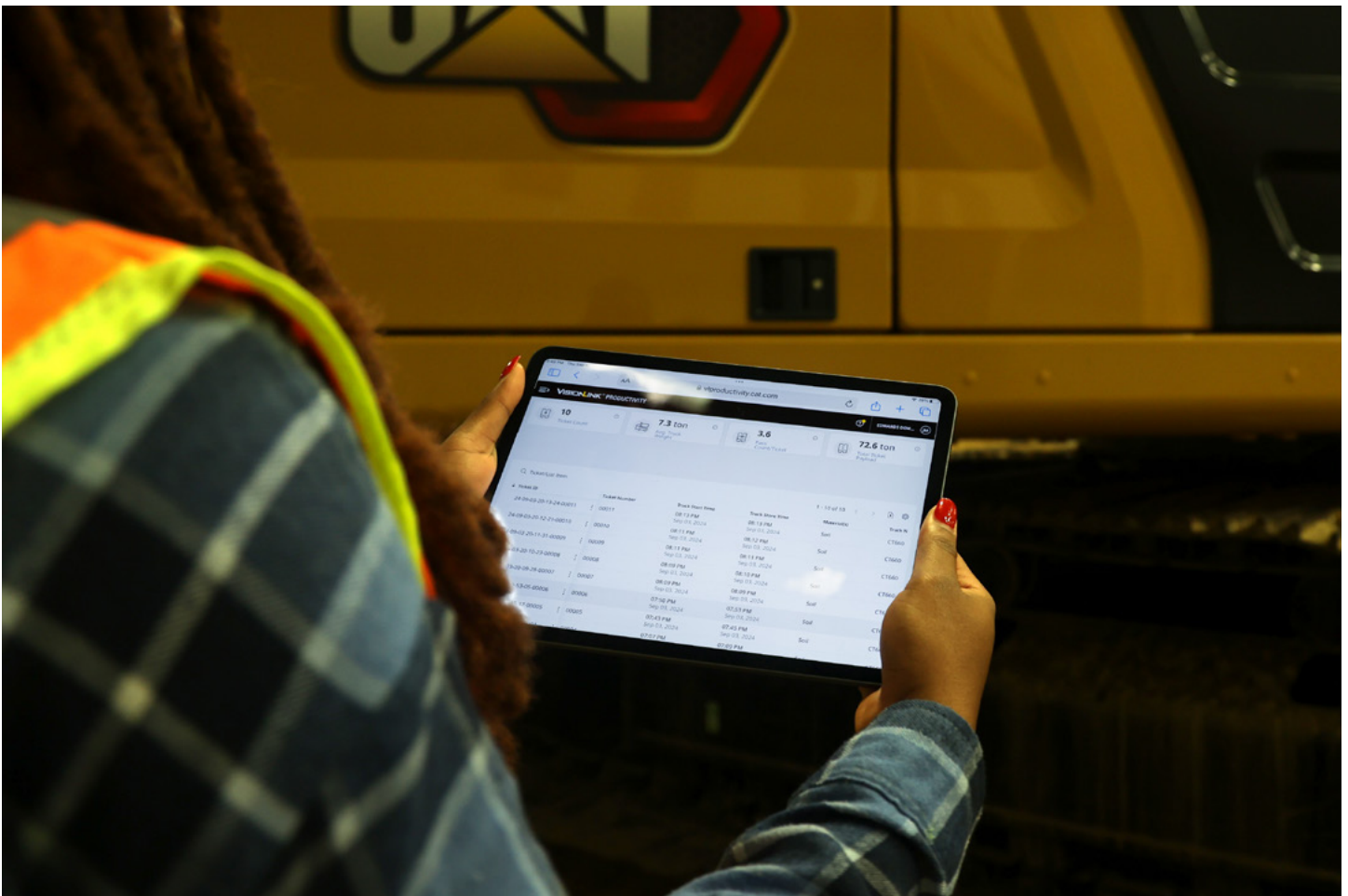


- The C9.3B engine can run on biodiesel up to B20 and meets U.S. EPA Tier 4 Final and EU Stage V emissions standards with an aftertreatment system that requires no scheduled maintenance or downtime.
- Match the machine to the job with three power modes – Power, Smart, and Eco. Smart mode automatically matches engine and hydraulic power to working conditions, helping provide maximum power when needed and reducing power when it isn't to save fuel.
- The advanced electro-hydraulic system helps provide the optimum balance of power and efficiency while giving you the control you need.
- Available SmartBoom™ lets the boom freely travel up and down without using any pump flow so operators can focus on stick and bucket work.
- Valve priority helps put hydraulic pressure and flow where you need it.
- Program and store your preferred power mode and joystick settings using your Operator ID. The machine will automatically remember your selections.

# INTEGRATED CAT® TECHNOLOGIES

- 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.
- Swing Assist automatically stops machine swing at operator-defined preset points. Simply swing to the desired stopping point and activate using the machine monitor or a preset joystick button. As you get closer, the machine will automatically decelerate and not allow swing past the set point. Swing Assist helps you hit more repetitive swing targets to help reduce fuel use and improve cycle times.
- 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.*



# WORK IN COMFORT



- The MH3050 comes equipped with a premium cab.
- The cab has a wide seat that adjusts for operators of all sizes.
- Get in and out of the cab easier using the tilt-up left console.
- Control the machine comfortably with easy-to-reach controls all located in front of you.
- 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.
- Connect to personal devices via the standard radio's USB ports and Bluetooth® technology.
- Optional auxiliary relay powers on and turns off CB radios, beacon lights, and other attachments without taking your hands off the joysticks.
- 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 help 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 machine has a standard high-ambient temperature capability of 52°C (125°F) and cold start capability of -32°C (-25°F).
- Auto warm up speeds up hydraulic oil warming in cold temperatures and helps prolong the life of components.
- Standard autolube simplifies maintenance by automatically keeping the machine greased from the swing bearing and cab riser to the stick end.
- Match your machine to your application. Multiple configurations allow you to customize your machine to your needs.
- An optional 25 kW (34 hp) generator allows for magnet operation. Generator controls are fully integrated into the cab monitor.
- Expand your work capabilities with attachments for a variety of applications.



# MAINTENANCE



- Track your machine's filter life and maintenance intervals via the in-cab monitor.
- Scheduled Oil Sampling (S-O-S<sup>SM</sup>) ports are located at ground level, helping simplify maintenance and allowing for quick, easy extraction of fluid samples for analysis.
- The long life of the air intake filter with pre-cleaner helps save on maintenance costs.
- The hydraulic oil filter helps provide high filtration performance, anti-drain valves to help keep oil clean when the filter is replaced, and long life with a 3,000-hour replacement interval.
- High-efficiency cooling fans run only when needed; you can program intervals so they automatically reverse to help keep cores clean without interrupting your work.
- 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 to help reduce unnecessary downtime.



# SAFETY FEATURES



- Cab Avoidance helps you avoid contact between your work tool attachment 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 small cab pillars, large windows, and a flat engine hood design. Rearview and side-view 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 help 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.
- In an emergency, lower the cab safely with the emergency 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.

# SUSTAINABILITY

- The Cat C9.3B diesel engine meets U.S. EPA Tier 4 Final and EU Stage V emission standards.
- Cat 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: 20% biodiesel FAME (fatty acid methyl ester)\* or 100% renewable diesel, HVO (hydrogenated 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.
- Auto Engine Speed Control helps reduce unnecessary fuel burn and greenhouse gas emissions by allowing the engine to automatically go into idle mode when the machine is not working.
- Cat® 2D E-fence keeps the front linkage within a predefined work area to avoid hazards such as traffic – not only helping keep personnel safe and helps avoid repairs, downtime, and costly jobsite fines.
- Extended maintenance intervals help reduce downtime and decrease the amount of fluid and filters that are replaced over the machine's life.
- VisionLink displays the CO<sub>2</sub> emissions for monitored assets, calculated by fuel type for the Runtime Fuel Burned each day in a selected date range.
- Remote Flash helps minimize downtime and maintenance time while keeping your asset running with maximum efficiency. Alerts for machine updates are sent virtually from your Cat dealer and updates can be deployed without a dealer technician needing to be onsite.
- Remote Troubleshoot helps decrease maintenance time and keeps your machine running with maximum efficiency by allowing your Cat dealer to virtually test the machine while working. Once a problem is identified, a technician can fix it the first time, saving time and money.

*\*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).*

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



# 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 world-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](http://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.



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.

**GSH – ORANGE PEEL  
GRAPPLES**



**GSV – ORANGE PEEL  
GRAPPLES**



**CLAMSHELL GRAPPLES**



**FORESTRY GRAPPLES**



# TECHNICAL SPECIFICATIONS

## Engine

Engine Model	Cat C9.3B	
Net Power – ISO 9249	258 kW	346 hp
Net Power – ISO 9249 (DIN)	351 hp (metric)	
Engine Power – ISO 14396	259 kW	347 hp
Engine Power – ISO 14396 (DIN)	352 hp (metric)	
Bore	115 mm	4.5 in
Stroke	149 mm	5.9 in
Displacement	9.3 L	568 in <sup>3</sup>
Biodiesel Capability	Up to B20 <sup>1</sup>	
Emissions	Meets U.S. EPA Tier 4 Final and EU Stage V 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 1,900 rpm. Advertised power is tested per the specified standard in effect at the time of manufacture.

<sup>1</sup>Cat 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: 20% 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).

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

## Transmission

Maximum Travel Speed	18 km/h	11.2 mile/h
Drawbar Pull	182 kN	40,915 lb/ft
Maximum Gradeability	41%	

## Weights

Operating Weight	50 000 kg	110,250 lb
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## Service Refill Capacities

Fuel Tank Capacity	600 L	158.5 gal
Cooling System	40 L	10.6 gal
Engine Oil	32 L	8.5 gal
Rear Axle – Housing (Differential)	40 L	10.6 gal
Final Drive – Each	4.5 L	1.2 gal
Powershift Transmission	3 L	0.8 gal
Hydraulic System – Including Tank	423 L	111.7 gal
Hydraulic Tank	186 L	49.1 gal
Diesel Exhaust Fluid (DEF) Tank	80 L	21.1 gal

## Swing Mechanism

Swing Speed*	7 r/min	
Maximum Swing Torque	143 kN·m	105,820 ft·lbf

\*For CE-marked machine default value may be set lower.

## Dimensions

Boom	Material Handling (MH) 10.95 m (35'11")	
Stick	Industrial 8.3 m (27'3")	
Shipping Length	14 840 mm	48.7 ft
Machine Length	6850 mm	22.5 ft
Tail Swing Radius	3520 mm	11.6 ft
Counterweight Clearance	1630 mm	5.3 ft
Cab Height- Lowered	3670 mm	12 ft
Cab Height-Lowered with OPG	3720 mm	12.2 ft
Cab Height-Raised	6260 mm	18.4 ft
Cab Height-Raised with OPG	6310 mm	20.7 ft
Wheel Base	3400 mm	11.2 ft
Shipping Width	3490 mm	11.4 ft
Ground Clearance	310 mm	0.9 ft
Undercarriage Length	6750 mm	22.2 ft

## Working Ranges

Boom	MH 10.95 m (35'11")	
Stick	Industrial 8.3 m (27'3")	
Maximum Reach	18 060 mm	59.3 ft
Maximum Height	19 030 mm	62.4 ft
Minimum Dump Height	5530 mm	17.5 ft
Maximum Depth	5760 mm	18.9 ft
Boom Pin Height	13 470 mm	44.2 ft

## Hydraulic System

Maximum Pressure – Implements	31 000 kPa	4,496 psi
Maximum Pressure – Swing	29 400 kPa	4,264 psi
Maximum Pressure – Travel	35 000 kPa	5,076 psi

## Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.25 kg (2.76 lb) of refrigerant which has a CO<sub>2</sub> equivalent of 1.787 metric tonnes (1.970 tons).

# STANDARD & OPTIONAL EQUIPMENT

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

	Standard	Optional		Standard	Optional
<b>CAB</b>			<b>CAT TECHNOLOGY</b>		
Advanced sound suppressed Tip Over Protective Structure (TOPS) certified cab with rubber mounts	✓		VisionLink	✓	
High-resolution 254 mm (10") LCD touchscreen monitor	✓		Remote Flash and Remote Troubleshoot	✓	
Automatic bi-level air conditioner	✓		Cat Payload	✓	
Jog dial and shortcut keys for monitor control	✓		<b>BOOM AND STICK</b>		
Keyless push-to-start engine control	✓		10.95 m (35'11") Straight Material Handling boom	✓	
Tilt-up left-side console	✓		8.3 m (27'3") Industrial stick	✓	
Heated and cooled premium seat with air suspension with headrest	✓		<b>ELECTRICAL</b>		
LED dome light	✓		LED lights on boom, stick and cab	✓	
Operator Protective Guards (OPG)		✓	LED lights on chassis and counterweight	✓	
<b>HYDRAULICS</b>			Programmable time-delay LED working lights	✓	
Boom and stick lowering control check valves	✓		Maintenance free batteries	✓	
Boom and stick regeneration circuits	✓		Centralized electrical disconnect switch	✓	
Electronic main control valve	✓		Generator, 25 kW with wiring to stick nose		✓
Automatic hydraulic oil warm up	✓		<b>UNDERCARRIAGE AND STRUCTURES</b>		
High performance hydraulic return filter	✓		All wheel drive	✓	
<b>SERVICE AND MAINTENANCE</b>			Automatic brake/axle lock	✓	
Scheduled Oil Sampling (S-O-S <sup>SM</sup> ) ports	✓		Creeper speed	✓	
QuickEvac <sup>TM</sup> maintenance ready	✓		Electronic swing and travel lock	✓	
Grouped location for engine oil and fuel filters	✓		Heavy-duty axles, advanced disc brake system and travel motor, adjustable braking force	✓	
Automatic lubrication system for implement and swing system	✓		Oscillating front axle, lockable, with remote greasing point	✓	
<b>SAFETY AND SECURITY</b>			Access steps and one tool box at the undercarriage	✓	
Caterpillar One Key Security System	✓		Two speed hydrostatic transmission	✓	
Travel alarm	✓		Counterweight 9000 kg (19,850 lb)	✓	
Lockable external tool/storage box	✓		Tires, 12.00-24, dual, solid rubber		✓
Ground-level accessible secondary engine shutoff switch in cab	✓		Tires, 14.00-24, dual, solid rubber		✓
Signal/warning horn	✓		Access steps rear at the undercarriage		✓
Neutral lever (lock out) for all controls	✓		<b>ENGINE</b>		
2D E-fence	✓		Cat C9.3B diesel engine	✓	
Cab Avoidance	✓		Three selectable modes: Power, Smart, Eco	✓	
Swing Assist	✓		4500 m (14,760 ft) altitude capability with engine power derate above 3000 m (9,840 ft)	✓	
Rear and right-side-view cameras	✓		Cold starting capability for -32°C (-25°F)	✓	
360° visibility		✓	On-demand hydraulic cooling fan with auto-reverse function	✓	
Rotating beacon on cab		✓	Cooling door with integrated fine mesh screen		✓



For more complete information on Cat products, dealer services and industry solutions, visit us on the web at [www.cat.com](http://www.cat.com).

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