

# MH3049

Wheel Material Handler



## Engine

Engine Model	Cat® C9 ACERT™	
Net Power (ISO 9249)	224 kW	300 hp

## Weights

Operating Weight	50 349 kg	111,000 lb
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## Working Ranges

Long Boom/Long Stick		
Maximum Reach	17.8 m	58'5"
Maximum Height	19.5 m	64'0"
Maximum Depth	5.3 m	17'4"

## Introduction

*We know that when it comes to material handling equipment, your success depends on high productivity and dependable performance.*

*The new Cat MH3049 Material Handler is designed where harsh environments and severe duty applications of industrial, scrap recycling, and bulk handling operations call for safe, quality and reliable products. The MH3049 is a purpose-built material handler from the ground up. Everything about this machine is designed to do one thing well – move material.*

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## Key Features

Commitment from the Ground Up



### Safety and Comfort

Decrease the risk for slips and falls with the patented “ground entry and exit” hydraulic cab riser system. This innovative system will lower the cab to ground level for operator entry and exit. This is one of many features the MH3049 brings to improve the safety of your operations.



### **Efficiency**

Recognizing that fuel efficiency is directly affected by hydraulic performance, the hydraulic system in the MH3049 is carefully designed to provide the work needed without wasting fuel. A high capacity hydraulic cooling system keeps operating temperatures low, resulting in longer component life, higher efficiency and lower repair cost.

### **Structural Integrity**

You expect quality and durability. The MH3049 is purpose-built from the ground up with frame construction that utilizes continuous welds, extensive chamfering, “feathered” weld end points and radiused corners. Critical areas use high grade structural steel, and areas susceptible to side loading have pins oversized by 15%-20%, with threaded retention. To withstand extreme loads encountered in material handling applications, both the boom and the stick are built from single piece continuous top and side plates – no seams or baffles.

### **User-Friendly Technology**

Effective operator and machine communication is critical in any job application to ensure productivity. The MH3049 features a user-friendly operating system that clearly communicates machine conditions in plain language, no need to research code definitions. In addition, the in-cab monitor reports machine conditions, warnings and maintenance checks. To increase comfort, operators can adjust machine functions, such as joystick control sensitivity through the operating system.

### **Lower Operating Cost**

Low operating cost was one of the top priorities throughout the MH3049’s design phase. The combination of extending component life, optimizing fuel efficiency and an innovative hydraulic system all work together to provide the lowest possible operating cost.



# Engine and Power Train

## More Power and Efficiency

### Precise Engine Control

The ADEM™ A4 (Advanced Diesel Engine Management) provides quick response to engine demands. Utilizing flexible fuel mapping, the ADEM A4 electronically controlled fuel module monitors performance with sensors in the air intake, fuel, exhaust and cooling system to produce higher efficiency and lower emissions.

### Fuel Delivery Technology

The Cat C9 ACERT features electronic controls that govern mechanically actuated unit fuel injection system. With a carefully designed combustion cycle, the C9 lowers emissions produced and improves fuel economy.

### Powerful Engine Cooling System

The MH3049's engine cooling system adjusts to demands of work applications. Rated for a 257 kW (350 hp) engine, the cooling system incorporates a variable pitch, auto-reversing Flexxaire cooling fan that runs on set intervals to purge debris from the cooling system, extending component life.

### Enhanced Fuel Efficiency with Auto Throttle

Fuel can drastically affect your businesses' operating cost. The fuel saving auto throttle feature reduces the engine rpm back to idle after five seconds of inactivity, decreasing fuel consumption.

### Dependable Power Train

True all-wheel drive is achieved with four independent planetary wheel drives. Oscillating rear housing with lock-out feature and solid rubber tires provide machine stability and traction. As a result, there are no transfer cases, axles or drive shafts in the undercarriage from which material could drag and damage machinery.

### Convenient Travel

Machine movement is regulated through a two mode shift on the fly travel system that includes a creeper mode up to 5.0 km/h (3.1 mph) and a standard mode up to 12.0 km/h (7.5 mph). Steering and speed are controlled through the joystick controls while forward and reverse direction is controlled through a foot pedal.





More power when you need it, the Cat C9 ACERT large displacement engine optimizes machine performance and enhances fuel efficiency while meeting Tier 3/Stage IIIA emission regulations. The C9 is an 8.8 L (537 in<sup>3</sup>), in-line 6 cylinder engine rated at 224 kW (300 hp). This market proven Cat engine produces enough power to run simultaneous machine operations.

# Hydraulic System

Effective Hydraulics – Improve Your Machine's Performance





Machine productivity depends on hydraulic performance. The MH3049's hydraulic system is designed to provide power without compromising efficiency, and protect component life to keep your machine running.

### **Torque Performance**

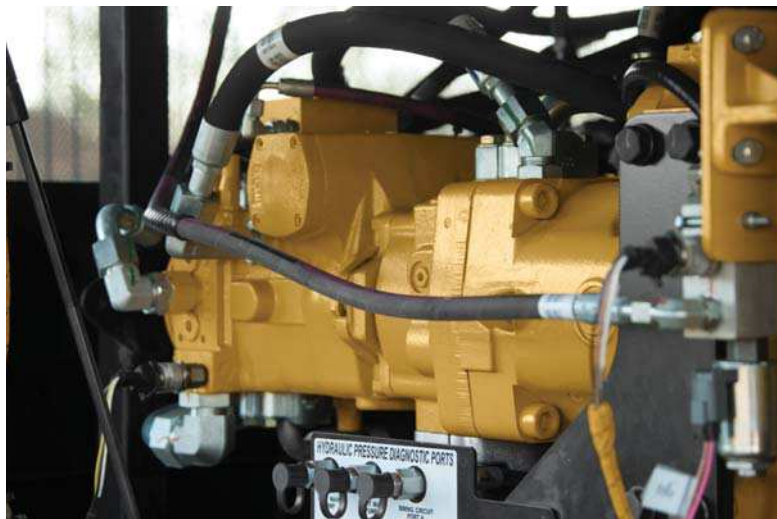
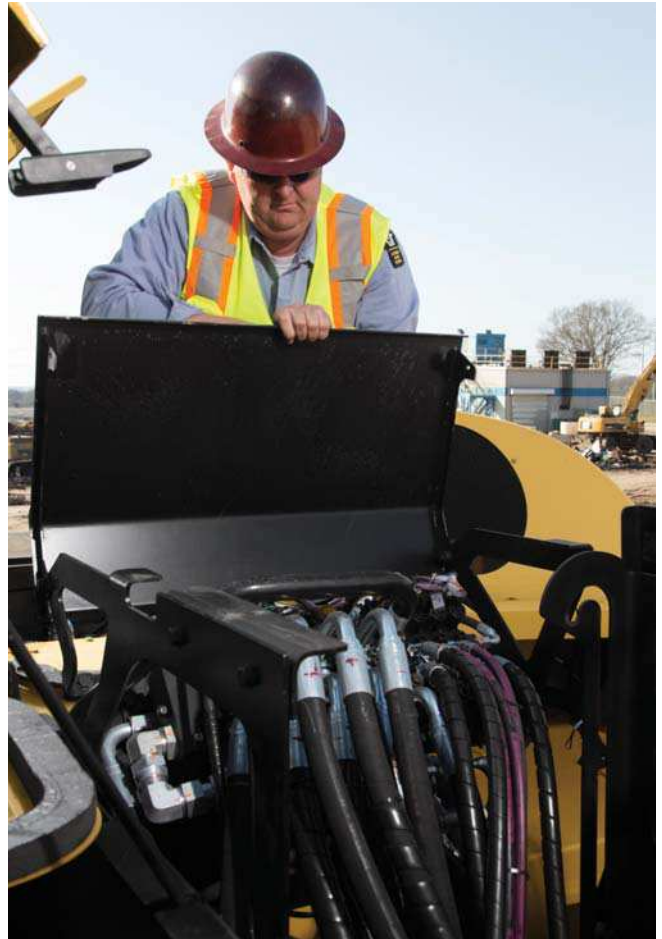
Proper torque distribution on the MH3049 allows you to run simultaneous operations without compromising performance or efficiency. A dedicated closed loop swing system ensures that machine implement functions do not interfere with swing movements. A dual pump system produces hydraulic power for the implements, work tools, travel and cab riser systems. The engine flywheel evenly divides power between both main pumps through a two pad pump drive gearbox. A dedicated swing pump provides torque for swing functions, maintaining swing priority for increased production cycles.

### **Low Operating Temperatures**

Running at lower operating temperatures protects component life. The MH3049's hydraulic system is linked with its own independent cooling system to ensure that low operating temperatures are maintained. The independent hydraulic cooler features a variable speed auto-reversing hydraulic fan and its own air tunnel to ensure proper ventilation without compromising the engine's cooling system.

### **Fast Cycle Times**

Faster cycle times increase productivity. An efficient load sensing hydraulic system supplies quick lift and implement performance while providing control regardless of boom, stick or travel demands. The dedicated hydrostatic swing system ensures that swing speed is not affected by other machine functions.



### **Flow Management**

Operating costs are cut with flow management technologies. Flow-sharing compensation delivers flow on-demand for smooth, efficient operations, regardless of load. Load sensing pumps generate only the flow and pressure required to meet system demands based on the work being done.

# Structure and Frame

## Built Quality – Structural Integrity



Your operators face harsh working environments that can affect the durability of your equipment. With this in mind, the MH3049 was built beyond industry standards. Structures were subjected to extensive strain gauge testing and finite element analysis to ensure built quality and durability. Not cutting any corners, structural grade steel is used in critical areas.

Built to last, The MH3049 has continuous welds along with chamfering and feathering techniques. Pins and bushings are oversized to prevent stress failures and lubricated through the automatic lubrication system to enhance component durability.

### Frame

The MH3049's frame is divided into an upper and lower portion. The upper frame houses the hydraulic cab riser, counterweight, boom, engine and hydraulic system. The boom foot is mounted at the upper frame's center to create a stable working platform. The upper frame attaches to the lower frame through the MH3049's rotating axis, a 660 mm (26 in) fully boxed riser ring with 51 mm (2 in) integrated top plate. The lower frame is high off the ground to prevent any materials from dragging and the design is tapered to evenly distribute the weight on its four outriggers.

### Counterweight

Weighing 9980 kg (22,000 lb), the cast counterweight, located at the rear of the machine, includes a grid enclosure to ensure ventilation of the engine and hydraulic machinery compartment. The rearview camera is housed in the counterweight, protecting it from debris.



The MH3049 is meant to be an integral part of your operations for many years to come, built strong with thick plates, radiused corners and detailed welds.



# Front Linkage

Durability – Built with No Compromises



You know that a material handler works only as good as its front linkage is able to handle the job. The MH3049's boom and stick are purpose built for the loads encountered in bulk material handling applications, able to withstand extreme loading conditions.

Careful and detailed handling of stresses ensures that the MH3049 has the durability you need for your day-to-day operation. The boom and stick top and side plates are manufactured from single plates of steel to eliminate the need for internal baffles and cross boom weld joints. Feathered welds and strengthened connections compliment the structural integrity of the front linkage.

Automatic lubrication on linkage pins and bushings extend component life, protecting your investment.

Excellent lift performance is delivered with dual boom cylinders and stick cylinders. The boom foot mounted on the center of the upper frame creates a stable lifting platform. The 10.67 m (35'0") boom and 8 m (26'3") drop nose stick provide a horizontal reach of 17.8 m (58'5") and a large working envelope, minimizing machine travel and bringing down operation costs.



# Integrated Technology

## Efficiently Operate and Manage Your Machine



### Manage Assets with Cat Product Link™ (Optional)

Product Link helps you take the guesswork out of equipment management. With timely, useful information, you can better manage your assets and costs. Through the powerful, web-based VisionLink® application you have access to remote monitoring of equipment – see hours and location, site boundaries and maintenance management. When you know where and when your equipment is running, you can manage your fleet more efficiently and effectively. It pays to know Cat Product Link. Consult your Cat dealer for availability of this option.

### Track Maintenance

Keep track of important maintenance with sensors in air filters and hydraulic filters. Warnings are displayed once maintenance is needed. Additional maintenance checks are based on time intervals, and maintenance logs are saved on the operating system.

### Simple Diagnostics

From the operator screen, all electronic inputs and outputs can be viewed to verify that they are working correctly. Engine fault codes, hydraulic pressure spikes and operating system diagnostic faults are logged.

### Adjustable

Your operators can adjust main machine functions to accommodate their preferences. Four operator pre-sets can be customized and saved so that different operators can feel comfortable.

### Machine Communication

No need to look up what codes mean, the MH3049 will display in plain language machine settings, controls, faults and warnings. User-friendly communications allow for your operators to be focused on the job at hand.



Operate the MH3049 with less fatigue and greater comfort. The operator station is ergonomically designed to provide a quiet, safe and comfortable work environment. Highly visible monitors, easily accessible switch consoles and operating controls reduce fatigue for your operator. With large windows and joystick controlled steering the MH3049 cab provides ideal job site visibility.

## Operator Station

### Built for Your Comfort

#### Comfort with the Cat D Series Cab

Comfortable operators make productive operators, which is why the MH3049 is equipped with our Cat D Series cab. The interior of the cab is spacious, and controls are ergonomically located within comfortable reach for the operator. This sturdy operator station features window panes that are attached directly onto the frame eliminating the need for sills that may be visual obstacles and weak stress points.

#### Convenient Cab Riser

Avoid unnecessary hassles and potential injuries. Start your day walking into the cab at ground level with our innovative hydraulic cab riser system. The cab riser can reach a height of 5.7 m (18'8") (eye level) in approximately 14 seconds, and come back to the ground in approximately 12 seconds.

#### Increased Productivity with Electronic Joystick Controls

Experience smoother, faster production with electronic joystick controls. Customizable machine functions allows the machine to be fine tuned to operator preferences.



# Serviceability

## Efficient Servicing for More Productivity



To ease serviceability on the MH3049, all primary service points are conveniently located under a single access service panel on the right side of the machine or beneath the top engine access panel. Easily locate components with the engine and cooling system's longitudinal layout. Both panels are hinged with gas struts, ensuring that one technician can easily access all maintenance points.

### Spacious Compartments

Purposefully designed, the spacious and lighted compartments allow for technicians to maneuver easily while accessing the engine, cooling system, hydraulic components and filters for maintenance and inspection.

### Labeled Service Points

We have taken the guesswork out of identifying key hydraulic hoses and electrical wiring with name labels to ease maintenance.

### Automatic Lubrication

Machine life is improved and operating costs are lowered by having the machine in charge of timely lubrication intervals. Upper and lower auto-lube sends grease based on duration runtime. The machine is factory set to run grease point lubrication every 15 minutes of use and the reservoir is estimated to run about 400 hours between fills.

### Guards, Railings and Anti-Slip Surfaces

Being able to safely service machinery is a primary concern for all owners. Equipped with handrails and anti-slip surfaces, technicians can safely perform inspections and maintenance.



# Safety and Security

Your Safety Is Our Priority



## Ground Access Cab

You are safer from the risk of slips and falls with the MH3049's patented ground entry and exit cab riser system. In the event of a power loss, a cab riser pressure release valve located in the operator station allows for the cab to be lowered, enabling the operator to safely exit the machine.

MAINTAIN A CLEAN WORK STATION, SAFELY, CONVENIENTLY



### **Falling Object Guard System (FOGS)**

Falling and flying debris is one of the hazards of the workplace. To protect your operator, the MH3049 is equipped with the impact-absorbing cab guard that conforms to ISO 10262 safety standards. The Falling Object Guarding System consists of two parts that are bolted on top of the cab and on front of the windshield.



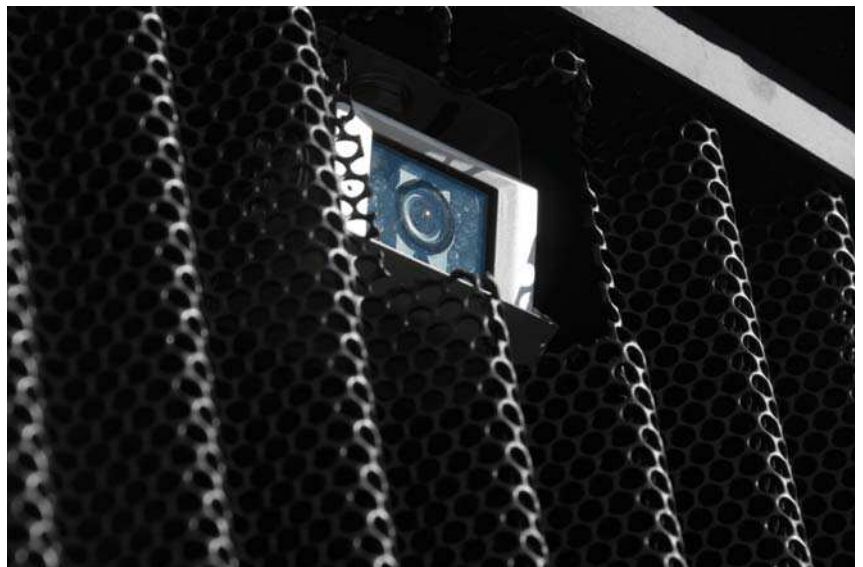
### **High Operator Visibility**

The ability to see your work area is critical to a safe working environment. The cab is purposefully designed to provide high visibility and ensure that the operator can view his work area. The cab includes a polycarbonate skylight, removable window panes and a rear window that serves as an emergency exit. Joystick controls in lieu of a steering wheel provide a less obstructed front view. In addition, a cab mounted windshield wiper improves operator visibility in wet weather conditions.



### **Rearview Camera**

Having line of sight to what is happening behind the machine is vital in maintaining a safe work environment, which is why a rearview camera is mounted on the counterweight. The live audio and video transmission is fed through the HD color monitor in the cab.



### **Safer Operations**

Maintain safe working distances with the stick limiter, which prevents the work tool from coming into close proximity to the operator station. Function override controls allow for up close work.

Operators will be warned through the cab monitor when the machine is nearing or exceeding lift capacity. If lift capacity is exceeded, boom and stick functions are limited as an added assurance to protect your investment from preventable accidents.

# Complete Customer Care

Commitment to Your Uptime



## Product Support

You can maximize your machine's uptime with the Cat worldwide dealer network. You can also decrease your repair costs by utilizing Cat remanufactured components.

## Machine Selection

What are your job requirements and machine attachments? What production do you need? Your Cat dealer can provide recommendations to help you make the right machine configuration decisions.

## Operation

You can boost your profits by improving your operator's techniques. Your Cat dealer has videos, literature and other ideas to help increase productivity. Caterpillar offers simulators and certified operator training to help maximize the return on your investment.

## Purchase

You can ensure lower owning and operating costs by utilizing unique Cat dealer services and financing options.

## Replacement

Repair, rebuild, or replace? Your Cat dealer can help evaluate the cost involved so you can make the best choice for your business.





## Sustainability

Built for a Better Tomorrow

### Low Emissions

MH3049, powered by the Cat C9 ACERT engine, meets U.S. EPA Tier 3 and EU Stage IIIA emission standards.

### Rebuild

Major structures and components of the MH3049 are designed to be rebuilt, to extend the life of your machinery. The remanufactured and reused parts help to reduce waste, operating cost and impact to the environment.

### Efficiency

The combination of an efficiently designed hydraulic system and a market proven efficient engine work together on the MH3049 to provide excellent fuel economy and still deliver the power you need.

# Work Tool Attachments

Work Tools That Matter



## Optional Cat Generator

If your work tool or application needs additional power for operation, the MH3049 can come equipped with an optional 25 kW solid state generator. The genset is capable of producing enough power to operate a 1727 mm (68 in) diameter magnet. The optional solid state genset would be housed in the engine compartment for ease of maintenance without obstructing other machine components.



## ***Cat Orange Peel Grapples***

A Cat Orange Peel Grapple is the perfect solution for material handlers in scrap yards, recycling plants and transfer stations. A 360° rotation system and 4-tine or 5-tine configuration efficiently and safely handles shredded scrap, waste, long structural beams, car bodies and many other materials.

### **Achieve Maximum Penetration**

Tine angle and tip shape of the Cat grapple work together like daggers, punching deep into the scrap pile. The grapple's high contoured center profile further enhances penetration for a full load every time.

### **Stack Higher**

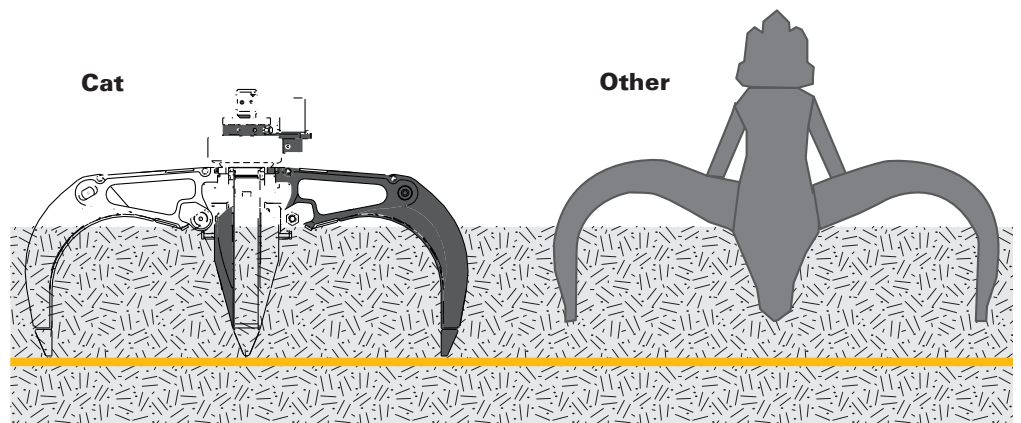
Cat Orange Peel Grapples have a low profile and short overall height, allowing the operator to reach and stack higher.

### **Models to Fit Your Application**

Cat Orange Peel Grapples come with a 4-tine or 5-tine configuration and range in capacities from 0.76 to 1.15 m<sup>3</sup> (1.00 to 1.50 yd<sup>3</sup>), or a 5-tine configuration capacity of 0.76 to 0.96 m<sup>3</sup> (1.00 or 1.25 yd<sup>3</sup>).

### **Reduced Damage and Downtime**

Cat cylinders and hoses are located inside the grapple, protected against cutting and scoring from scrap impact. Four exposed connector lines to the machine are guarded – protecting them from damage.



# MH3049 Wheel Material Handler Specifications

## Engine

Engine Model	Cat C9 ACERT	
Emissions	U.S. Stage IIIA/Tier 3	
Net Power (ISO 9249)	224 kW	300 hp
Bore	112 mm	4.41"
Stroke	149 mm	5.87"
Fuel Capacity	416 L	110 gal
Displacement	8.8 L	537 in <sup>3</sup>
Cylinders	6 in-line	
Maximum Torque @ 1,400 rpm	1.37 kN·m	1,011 lbf·ft

## Weights

Operating Weight	50 349 kg	111,000 lb
Boom Weight (with cylinders)	4717 kg	10,400 lb
Upper Weight	24 630 kg	54,300 lb
Stick Weight (with cylinders)	3130 kg	6,900 lb
MH Undercarriage, 4 Welded Outriggers	17 872 kg	39,400 lb
Counterweight	9980 kg	22,000 lb

## Hydraulic System

Controls	Electro/hydraulic pilot controls	
Tank Capacity	492 L	130 gal
System Capacity	738 L	195 gal

## Hydraulic System: Maximum Pressure

Implement Circuit	33 095 kPa	4,800 psi
Travel Circuit	33 095 kPa	4,800 psi
Auxiliary Circuit		
High Pressure		
Factory Setting	22 750 kPa/ 15 168 kPa	3,300 psi/ 2,200 psi
Maximum Allowable Relief Setting	33 095 kPa	4,800 psi
Medium Pressure		
Factory Setting	15 168 kPa	2,200 psi
Maximum Allowable Relief Setting	17 237 kPa	2,500 psi
Swing Circuit	35 163 kPa	5,100 psi

## Hydraulic System: Maximum Flow

Implement Circuit	568 L/min	150 gal/min
Auxiliary Circuit		
High Pressure	208 L/min	55 gal/min
Medium Pressure	76 L/min	20 gal/min
Operating Temperature	60-73° C	140-164° F

## Swing Mechanism

Swing Speed	7.0 rpm	
Swing Torque	107 kN·m	79,000 lbf·ft
Swing System	Closed loop hydrostatic system with electro-proportional controls	
Maximum Swing Pump Flow	155 L/min	41 gal/min

## Transmission

Maximum Travel Speed	12.0 km/h	7.5 mph
Creeper Speed	5.0 km/h	3.1 mph
Maximum Gradeability	35%	

## Service Refill Capabilities

Fuel Tank	416 L	110 gal
Cooling System	36 L	9.5 gal
Engine Crankcase with Filter	33 L	8.7 gal
Final Drive (each)	6.0 L	1.6 gal
Hydraulic Tank	492 L	130 gal
Hydraulic System (including tank)	738 L	195 gal
Pump Drive	3.5 L	0.925 gal

## Outriggers

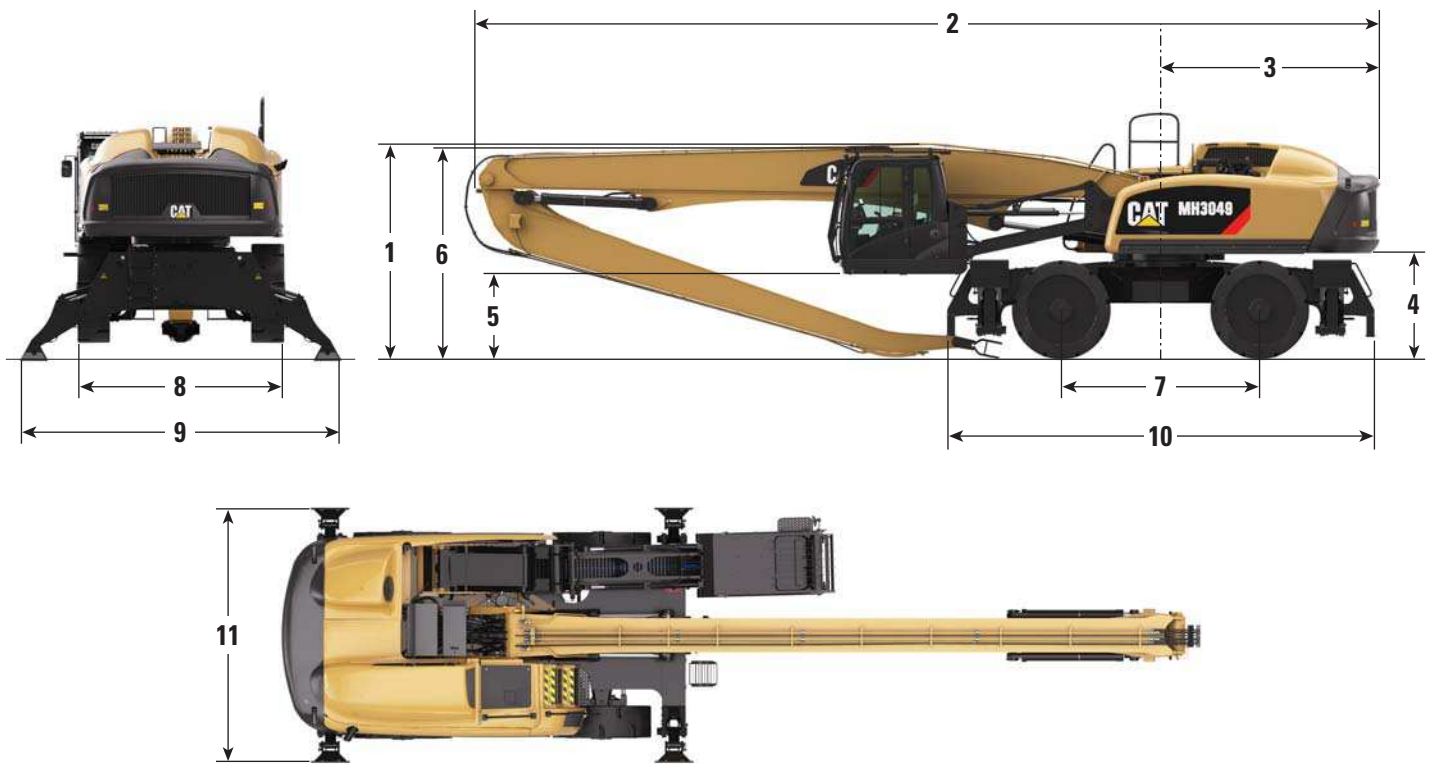
Ground Penetration	140 mm	5.5"
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## Undercarriage

Ground Clearance at Lowest Point	324 mm	12.75"
Oscillation Axle Angle	±4 degrees	
Minimum Turning Radius (inside)	6.4 m	21'0"

## Dimensions

All dimensions are approximate.

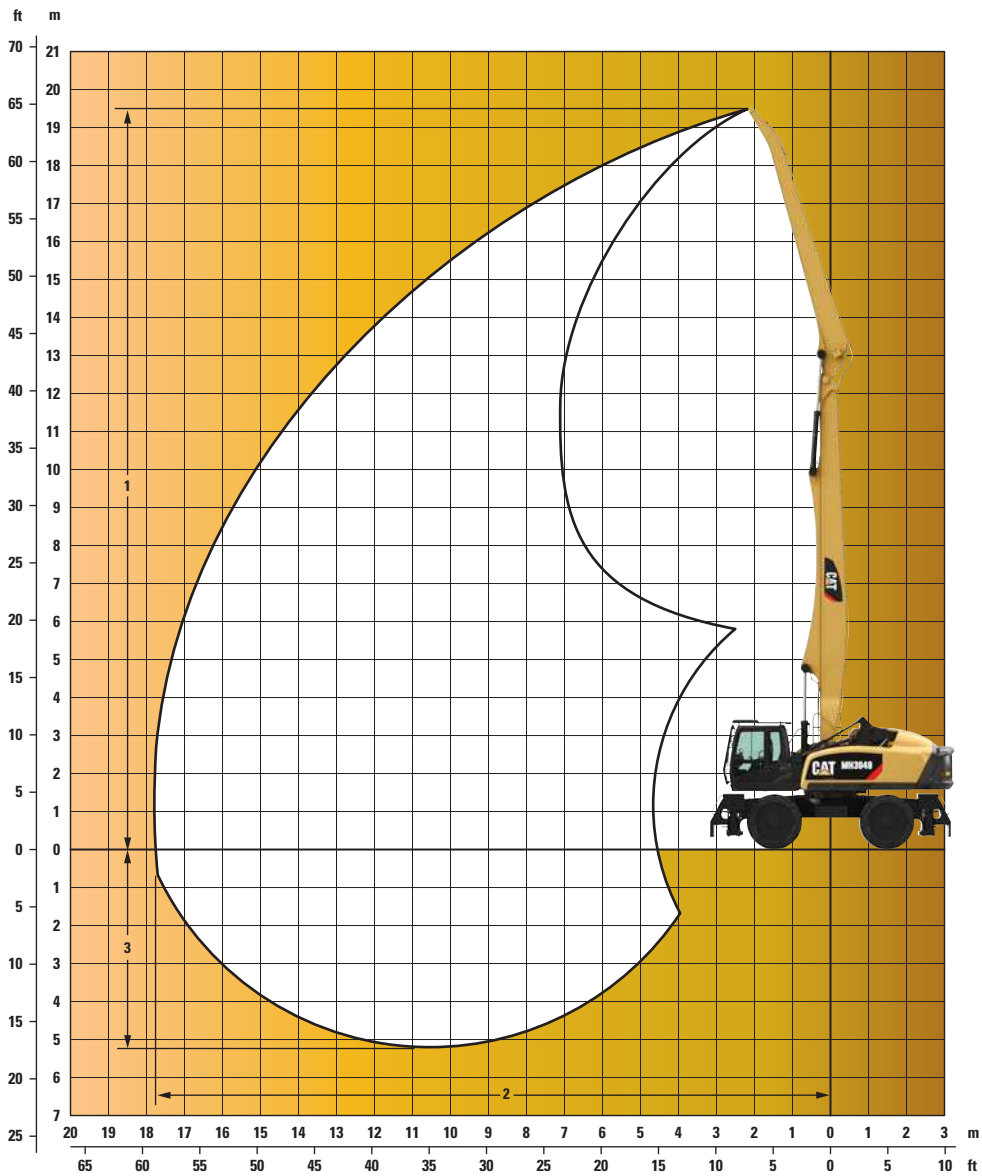


	<b>MH3049</b>	
<b>1</b> Shipping Height	3537 mm	11'7"
<b>2</b> Shipping Length	14.4 m	47'3"
<b>3</b> Tail Swing Radius	3289 mm	10'10"
<b>4</b> Counterweight Clearance	1695 mm	5'7"
<b>5</b> Cab Clearance – Lowered to Ground*	241 mm	9.5"
<b>6</b> Cab Height		
Transportation	3314 mm	10'10"
Raised to Top of FOGS Guard	6086 mm	20'0"
<b>7</b> Wheel Base	3200 mm	10'6"
<b>8</b> Undercarriage Width	3321 mm	10'11"
<b>9</b> Stabilizer Width on Ground	5232 mm	17'2"
<b>10</b> Undercarriage Length	6858 mm	22'6"
<b>11</b> Shipping Width	3404 mm	11'2"

\*Factory set at 241 mm (9.5") – adjustable through the operating system to be lower or higher.

# MH3049 Wheel Material Handler Specifications

## Working Ranges



	MH3049	
<b>Boom Length</b>	<b>10.67 m</b>	<b>35'0"</b>
<b>Stick Length</b>	<b>8.0 m</b>	<b>26'3"</b>
<b>1 Maximum Height</b>	19.5 m	64'0"
<b>2 Maximum Reach</b>	17.8 m	58'5"
<b>3 Maximum Depth</b>	5.3 m	17'4"



## MH3049 Lift Capabilities

Pin Heights			Horizontal Reach										
			4.5 m (15 ft)	6.0 m (20 ft)	7.5 m (25 ft)	9.0 m (30 ft)	10.5 m (35 ft)	12.0 m (40 ft)	13.5 m (45 ft)	15.0 m (50 ft)	16.5 m (55 ft)		
18.0 m (60.0 ft)	2 sets stabilizers lowered	kg lb			6400 14,110								
16.5 m (55.0 ft)	2 sets stabilizers lowered	kg lb				6480 14,290	5100 11,250						
15.0 m (50.0 ft)	2 sets stabilizers lowered	kg lb				7300 16,090	6420 14,160	11,110					
13.5 m (45.0 ft)	2 sets stabilizers lowered	kg lb				7800 17,190	7000 15,440	6250 13,780	4660 10,280				
12.0 m (40.0 ft)	2 sets stabilizers lowered	kg lb				7810 17,230	7130 15,720	6410 14,130	5800 12,790				
10.5 m (35.0 ft)	2 sets stabilizers lowered	kg lb				8090 17,840	7790 17,170	7160 15,780	6150 13,570	5180 11,430			
9.0 m (30.0 ft)	2 sets stabilizers lowered	kg lb			9370 20,670	8880 19,590	8140 17,950	7340 16,180	6530 14,390	5550 12,230			
7.5 m (25.0 ft)	2 sets stabilizers lowered	kg lb		10 360 22,840	10 070 22,200	9500 20,950	8370 18,460	7480 16,490	6590 14,520	5770 12,730	4780 10,530		
6.0 m (20.0 ft)	2 sets stabilizers lowered	kg lb	12 350 27,240	12 780 28,180	11 700 25,790	9930 21,900	8640 19,050	7640 16,850	6650 14,660	5790 12,770	5060 11,150		
4.5 m (15.0 ft)	2 sets stabilizers lowered	kg lb	20 940 46,180	15 540 34,260	12 410 27,370	10 360 22,840	8900 19,620	7790 17,180	6700 14,770	5800 12,780	5170 11,400		
3.0 m (10.0 ft)	2 sets stabilizers lowered	kg lb	5020 11,070	16 540 36,460	12 990 28,650	10 710 23,610	9100 20,070	7900 17,420	6710 14,800	5760 12,700	5090 11,220		
1.5 m (5.0 ft)	2 sets stabilizers lowered	kg lb	2580 5,690	8500 18,740	13 280 29,280	10 880 24,000	9190 20,270	7920 17,470	6670 14,700	5670 12,510	4950 10,910		
Ground Line	2 sets stabilizers lowered	kg lb	2540 5,600	5960 13,150	13 170 29,030	10 820 23,860	9120 20,110	7820 17,250	6530 14,400	5500 12,120	4710 10,390		
-1.5 m (-5.0 ft)	2 sets stabilizers lowered	kg lb	3030 6,690	5550 12,230	10 950 24,150	10 470 23,090	8840 19,500	7570 16,680	6050 13,330	5200 11,470	4340 9,570		
-3.0 m (-10.0 ft)	2 sets stabilizers lowered	kg lb		5760 12,710	10 010 22,070	9800 21,610	8320 18,350	7100 15,660	5620 12,390	4740 10,460			
-4.5 m (-15.0 ft)	2 sets stabilizers lowered	kg lb				8790 19,370	7500 16,540	6380 14,070					

**Note:** We would not recommend using these machines to lift with the stabilizers raised.

## Standard Equipment

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

### ELECTRICAL

- 24V DC
- Two 12V batteries
- Halogen cab and boom lights
- Engine and hydraulic compartments service lights
- Sealed wiring enclosures

### OPERATOR ENVIRONMENT

- Ground access cab
- Bolt-on FOGS
- Tempered glass windows
- Laminated glass front windshield
- Removable lower windshield
- Sliding upper door window
- Suspension seat with adjustable arm rest
- Retractable 76 mm (3") seat belt (cloth)
- Skylight with sun shade
- Upper windshield wiper and washers
- Positive filtered ventilation
- Bi-level air conditioner, heater and defroster
- Instrument panel and gauges
- Interior lighting
- Coat hook
- Audible rearview camera monitor
- LCD monitor
  - Full graphic color display with language display capability
  - Filter and fluid change notifications
  - Working hour information
  - Machine condition monitoring

### POWER TRAIN

- 224 kW (300 hp) Cat C9 ACERT diesel engine
- Variable pitch auto reversing fan
- Precleaner plus two-stage air filter

### UNDERCARRIAGE

- Four independent wheel drives with planetary gear boxes
- Oscillating rear axle with lock-out feature
- Two mode shift
  - Standard and creeper speeds
- Four wheel independent hydraulic braking plus park brake
- One button operation for all outriggers plus individual controls
- Guarded outrigger cylinders

### OTHER STANDARD EQUIPMENT

- Upper and lower auto-lube (excluding cab linkage and outriggers)
- Operating system
- Rearview camera
- Various tire options

### HYDRAULIC SYSTEMS

- Load sensing variable displacement hydraulics with proportional electro-hydraulic controlled, pre-compensated valves and flow sharing
- Two 284 L/min (75 gal/min) main pumps
- Dedicated closed loop hydrostatic swing system with electro-proportional controls
- 155 L/min (41 gal/min) swing pump at 35 163 kPa (5,100 psi) with large capacity direct drive swing motor
- 1321 mm (52") ring gear
- 23 L/min (6 gal/min) pump for hydraulic cooling fan
- Induction hardened cylinders with electronic cushions
- Load holding valves on cylinders for main and secondary booms
- Load holding valves on cylinders for outriggers
- Load holding valves on cylinders for cab riser

## FACTORY INSTALLED OPTIONAL EQUIPMENT

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

- 25 kW solid state generator
- Hydraulic warm-up valve
- Hydraulic tank heater
- High intensity boom lights
- Heavy rear vent guard

## FIELD INSTALLED OPTIONAL EQUIPMENT

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

- Cab reflective film
- Auxiliary keypad
- Software and decals for joystick control reconfiguration
- Cat Product Link

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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(North America)

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