

# MH3022/MH3024

MATERIAL HANDLERS



**CAT**<sup>®</sup>

# THE NEW CAT<sup>®</sup> MH3022/MH3024 MAXIMIZE YOUR PERFORMANCE

When it comes to material handling equipment, your success depends on productivity and low operating costs. The Cat<sup>®</sup> MH3022 and MH3024 are purpose-built material handlers that feature simple-to-use technologies, a redesigned cab, and more options to match your work. Combine these features with up to 10% lower operating costs, and you have a safe, quality, and reliable product that will provide you with the performance you need for your toughest material handling applications.



Ready to help you make your business stronger, Cat next generation material handlers give you new ways to get the most work done at a cost that fits your business.

## MH3022

- + FOUR BOOM OPTIONS
- + SIX STICK OPTIONS
- + 3700 KG (8,160 LB) COUNTERWEIGHT
- + 10 420 MM (34'2") MAXIMUM REACH

## MH3024

- + FOUR BOOM AND FOUR STICK OPTIONS
- + THREE UNDERCARRIAGE OPTIONS
- + 4200 KG (9,260 LB) OR 4700 KG (10,350 LB) COUNTERWEIGHT
- + 12 010 MM (39'5") MAXIMUM REACH



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## SUPERIOR PERFORMANCE

Featuring faster cycle times and wider machine footprints, the MH3022 and MH3024 provide optimal performance and stability for your day-to-day operations.

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## UP TO 10% LOWER OPERATING COSTS

Extended and synchronized service internals and an electrically driven fan with an auto reverse function lower maintenance costs. The advanced electro-hydraulic system balances power and efficiency, reducing fuel consumption.

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## ENHANCED CAB COMFORT

Operate comfortably with the ergonomic control layout and multiple cab options. Get better visibility with rear- and side-view cameras and an optional 360° machine view system.

## UP TO 10% LOWER OPERATING COSTS



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**LESS MAINTENANCE,  
MORE PROFITABILITY**

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NOTE: COMPARISON IS BASED ON THE PREVIOUS MODEL.

# STRONG. PRODUCTIVE. EFFICIENT. BUILT TO LAST

## FUEL SAVING PERFORMANCE

Use up to 10% less fuel than the previous models. The MH3022 and MH3024 feature a high-efficiency, electrically driven cooling fan that runs only when you need it. An advanced hydraulic system provides the optimum balance of power and efficiency while providing the control you need.

## STRENGTH WHERE IT MATTERS

Count on your machine to withstand wear throughout the years. Boom, sticks, and other high-stress areas are reinforced with thick multi-plate fabrications to ensure quality and reliability. The upper frame uses specially designed mountings to support the heavy-duty cab, and the lower frame is reinforced to enhance component durability.

## RELIABLE IN ANY ENVIRONMENT

The MH3022 and MH3024 have a standard high-ambient temperature capability of 52°C (125°F) and a cold start capability of -18°C (0°F). Both machines can work up to 3000 m (9,840 ft) above sea level without derating. A standard auto reversing fan and optional vibrating grill allow you to work in dusty, indoor environments.



LOWER OPERATING COSTS  
**UP TO 10%**



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## DO MORE. PAY LESS.

With extended and more synchronized maintenance intervals, you get more done at a lower cost. Consolidated filter locations make service faster.

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## INFORMATION AT YOUR FINGERTIPS

View operating information such as fuel levels and critical service alerts on the in-cab touchscreen monitor. Your machine's filter life and maintenance intervals are also trackable on the in-cab monitor.

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## NEW LONGER-LASTING FILTERS

The new hydraulic oil filter provides improved filtration performance, anti-drain valves to keep oil clean when the filter is replaced and lasts up to 50% longer than previous filter designs.

# NEW CAB DESIGN

## MAKES HARD WORK EASY

Comfort and movement efficiency help keep you productive and alert all shift long. A tip-up left console lets you get in and out of the cab easily, and the seat is wide and adjustable for operators of virtually any size.



### OPTIONS TO FIT YOUR NEEDS

Choose between a deluxe or premium cab. Both options feature a 254 mm (10") LED touchscreen monitor. The deluxe cab features an air suspension, heated seat. The premium cab features an automatic suspension, heated, and ventilated seat.

### CUSTOMIZABLE JOYSTICKS

Joystick functions can be customized through the monitor. Joystick pattern as well as control response can be set to match operator preference. All preferences are saved with the operator ID. 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.

### KEYLESS PUSH TO START

The MH3022 and MH3024 use a keyless push-button engine start. This adds security for the machine by using operator ID codes to limit and track machine access. Codes can be entered manually or via an optional Bluetooth® key fob.

### TOUCHSCREEN MONITOR

Most machine settings can be controlled through the high-resolution 254 mm (10") touchscreen monitor. It offers 42 languages and is easy to read from the seat.

## REDUCE OPERATOR FATIGUE

### ERGONOMIC LAYOUT

Controls are easy to reach, allowing you to operate comfortably with minimal twists and turns. Joystick steering is standard, allowing you to move the machine with minimal movement.

### REDUCED CAB VIBRATIONS

Work more comfortably with reduced cab vibrations from advanced viscous mounts.

### BLUETOOTH CONNECTION

Bluetooth-integrated radio allows for seamless mobile phone connection to listen to music and podcasts and for hands-free calling.

# DO MORE

VERSATILITY KEEPS YOU  
PRODUCTIVE AND PROFITABLE

Cat material handlers are designed and built for your demanding industry. These aggressive machines deliver fast, mobile, and efficient performance.



## POWER WHEN YOU NEED IT

Equip your machine with an optional 15 kW generator for magnet operation.

## CAT PAYLOAD

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.

## CUSTOMIZABLE DESIGN

Match your machine to the job. The MH3022 offers eleven boom and stick combinations, while the MH3024 offers eight. The boom and stick options as well as multiple undercarriage configurations allow you to customize your machine to meet the demands of your application.



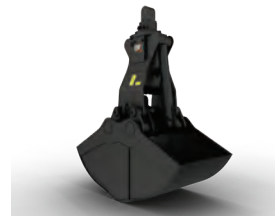
**GSH – ORANGE PEEL  
GRAPPLES**



**GSV – ORANGE PEEL  
GRAPPLES**



**DEMO AND SORTING  
GRAPPLES**



**CLAMSHELL GRAPPLES**



**MULTI-PROCESSORS**

## 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.

# SAFETY FEATURES

LOOK OUT FOR YOUR PEOPLE AND EQUIPMENT



## STANDARD 2D E-FENCE

Standard 2D E-fence automatically stops machine motion using boundaries you set through the monitor for the entire working envelope – above, below, sides, and front. E-fence protects equipment from damage. Automatic boundaries even help prevent operator fatigue by reducing overswinging.

## SECURE START

Use your PIN code on the monitor or the optional Bluetooth key fob to enable the push-button start feature.

## CAB AVOIDANCE

Like an invisible barrier around the tip over protective structure (TOPS)-certified cab, standard cab avoidance helps prevent your attachment from coming into contact with the cab. This helps protect you from harm and reduces the risk of equipment damage.

## UPPER PLATFORM ACCESS

The service platform design provides easy, safe, and quick access to the upper platform. The steps use anti-skid punch plate to prevent slipping. The cab features a working-at-height tie-off provision for increased safety.

## SEE THE JOBSITE AROUND YOU

Enlarged windows and improved machine layout increase visibility from the seat of the cab. Standard rearview and right-side-view cameras always keep operators aware of their surroundings. An optional 360° visibility feature is also available. Powerful, long-lasting LED lights consume minimal power, keeping you safe while working in the dark. Choose between a fixed, one-piece, laminated P5A or P8B glass windshield to protect you from debris falling toward the cab. The standard cab helps block outside noise.



# CAT EQUIPMENT MANAGEMENT TECHNOLOGY TAKES THE GUESSWORK OUT OF MANAGING YOUR EQUIPMENT

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Cat Equipment Management telematics technology helps take the complexity out of managing your jobsites by gathering data generated by your equipment, materials, and people and serving it up to you in customizable formats.



## **PRODUCT LINK™**

Product Link™ collects data automatically and accurately from your assets – any type and any brand. Information such as location, hours, fuel usage, productivity, idle time, maintenance alerts, diagnostic codes, and machine health can be viewed online through web and mobile applications.



## **VISIONLINK®**

Access information anytime, anywhere with VisionLink®. Use it to make informed decisions that boost productivity, lower costs, simplify maintenance, and improve safety and security on your jobsite. With different subscription level options, your Cat dealer can help you configure exactly what you need to connect your fleet and manage your business without paying for extras you don't want. Subscriptions are available with cellular or satellite reporting (or both).



## **REMOTE SERVICES**

Remote Services is a suite of technologies that improve your jobsite efficiency.

- + **Remote troubleshoot** allows your Cat dealer to perform diagnostic testing on your connected machine remotely, pinpointing potential issues while the machine is in operation. Remote troubleshoot helps ensure the technician arrives with the correct parts and tools the first time, eliminating additional trips to save you time and money.
- + **Remote flash** updates onboard software without a technician being present, potentially reducing update time by as much as 50 percent.
- + The **Cat app** helps you manage your assets – at any time – right from your smartphone. You can see your fleet location, hours, and other information. You will get critical alerts for required maintenance, and you can even request service from your local Cat dealer.

# TECHNICAL SPECIFICATIONS

See cat.com for complete specifications.

ENGINE				
	MH3022		MH3024	
Engine Model	C4.4		C4.4	
Engine Power (ISO 14396:2002)	110 kW	148 hp	129 kW	174 hp
Net Power (ISO 9249:2007)	108 kW	145 hp	128 kW	171 hp
Bore	105 mm	4.1 in	105 mm	4.1 in
Stroke	127 mm	5 in	127 mm	5 in
Displacement	4.4 L	269 in <sup>3</sup>	4.4 L	269 in <sup>3</sup>

- Cat® C4.4 engine meets U.S. EPA Tier 4 Final and EU Stage V emission standards.
- The net power advertised is the power available at the flywheel when the engine is equipped with alternator, air cleaner, aftertreatment, and fan at minimum speed.

WEIGHTS				
	MH3022		MH3024	
Minimum Operating Weight	21 200 kg	46,750 lb	22 700 kg	50,050 lb
Maximum Operating Weight	24 500 kg	54,000 lb	26 800 kg	59,100 lb

- Operating weight includes full fuel tank, operator, 1400 kg (3,086 lb) work tool. Weight varies depending on configuration.

TRANSMISSION			
Maximum Travel Speed (with steering wheel)	20 km/h	12.4 mph	
Maximum Travel Speed (with joysticks)	15 km/h	9.3 mph	
Drawbar Pull	127 kN	28,550 lbf	
Maximum Gradeability	65%		

HYDRAULIC SYSTEM			
Main System – Maximum Flow – Implements	306 L/min	81 gal/min	
Maximum Pressure – Implements	37 000 kPa	5,366 psi	
Maximum Pressure – Travel	35 000 kPa	5,075 psi	
Maximum Pressure – Swing	35 000 kPa	5,075 psi	

SERVICE REFILL CAPACITIES		
Fuel Tank	350 L	92.5 gal
Diesel Exhaust Fluid (DEF) Tank	30 L	7.9 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 (differential)	14 L	3.7 gal
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

SWING MECHANISM				
	MH3022		MH3024	
Swing Speed	8.2 rpm			
Maximum Swing Torque	54 kN•m	39,533 lb-ft	58 kN•m	42,631 lb-ft

DIMENSIONS				
	MH3022		MH3024	
Boom (MH)	6.4 m	21'0"	7.45 m	24'5"
Stick	4.3 m	14'1"	5.0 m	16'5"
Shipping Height with Falling Objects Guards (FOGS)	3350 mm	11'0"	3350 mm	11'0"
Shipping Length	9400 mm	30'10"	10 670 mm	35'0"
Shipping Length (with push blade)	9460 mm	30'10"	11 130 mm	36'6"
Machine Length	4950 mm	16'3"	5290 mm	17'4"
Machine Length (with push blade)	5390 mm	17'8"	5740 mm	18'10"
Tail Swing Radius	2600 mm	8'6"	2600 mm	8'6"
Counterweight Clearance	1300 mm	4'3"	1300 mm	4'3"
Cab Height – Lowered	3350 mm	11'0"	3350 mm	11'0"
Cab Height – Lowered with FOGS	3350 mm	11'0"	3350 mm	11'0"
Cab Height – Raised	5750 mm	18'10"	5750 mm	18'10"
Cab Height – Raised with FOGS	5750 mm	18'10"	5750 mm	18'10"
Wheel Base	2600 mm	8'6"	2750 mm	9'0"
Shipping Width	2540 mm	8'4"	2990 mm	9'10"
Ground Clearance	330 mm	1'1"	320 mm	1'1"
Undercarriage Length	4900 mm	16'1"	5300 mm	17'5"
Undercarriage Length (with push blade)	5365 mm	17'7"	5740 mm	18'10"
Upper Frame Width (including handrails)	2540 mm	8'4"	2540 mm	8'4"

WORKING RANGES				
	MH3022		MH3024	
Boom (MH)	6.4 m	21'0"	7.45 m	24'5"
Stick	4.3 m	14'1"	5.0 m	16'5"
Maximum Height	11 710 mm	38'5"	13 030 mm	42'9"
Minimum Dump Height	4290 mm	14'1"	4520 mm	14'10"
Maximum Reach	10 280 mm	33'9"	12 010 mm	39'5"
Maximum Reach at Ground Level	9800 mm	32'2"	11 870 mm	38'11"
Maximum Depth	1500 mm	4'11"	3010 mm	9'11"
Boom Pin Height	8200 mm	26'11"	9260 mm	30'5"

AIR CONDITIONING SYSTEM
The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.0 kg of refrigerant which has a CO <sub>2</sub> equivalent 1.43 metric tonnes (1.57 tons).

# STANDARD & OPTIONAL EQUIPMENT

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

BOOMS AND STICKS	STANDARD	OPTIONAL
6.4 m (21') Straight MH boom		●
7.45 m (24'5") Straight MH boom		● <sup>1</sup>
5.35 m (17'7") Straight MH boom		● <sup>2</sup>
5.26 m (17'3") Variable Angle boom		●
5.65 m (18'6") One-piece boom		●
4.0 m (13'1") Drop Nose MH stick		● <sup>2</sup>
4.5 m (14'9") Drop Nose MH stick		● <sup>2</sup>
5.0 m (16'5") Drop Nose MH stick		●
4.3 m (14'1") Straight MH stick		●
2.9 m (9'6") Straight stick		●
2.5 m (8'2") Straight stick		●
No stick configuration		●
CAB	STANDARD	OPTIONAL
Advanced sound-suppressed tip over protective structure (TOPS) cab	●	
Deluxe cab: air suspension heated seat, 10" touchscreen monitor		●
Premium cab: air suspension heated seat, 10" touchscreen monitor		●
Keyless push-to-start engine control	●	
Auxiliary relay		●
Tilt-up left-side console	●	
Fixed one-piece laminated windshield and roof window (P5A glass)		●
Windshield and roof window (P8B glass)		●
LED dome lights	●	
Falling objects guards (FOGS) with skylight wiper		●
CAT TECHNOLOGY	STANDARD	OPTIONAL
Cat Product Link™	●	
Cat Payload	●	
E-Fence and cab avoidance	●	
Remote flash and services capability	●	
ELECTRICAL SYSTEM	STANDARD	OPTIONAL
Roading and indicator lights at front and rear	●	
Maintenance-free batteries	●	
LED chassis light, left-hand/right-hand boom and stick lights, cab lights – 1800 lumens	●	
Centralized electrical disconnect switch	●	
Programmable time delay LED working lights	●	
Electrical refueling pumps		●
SERVICE AND MAINTENANCE	STANDARD	OPTIONAL
Automatic lubrication system for implement and swing system	●	
S•O•S <sup>SM</sup> sampling ports	●	

ENGINE	STANDARD	OPTIONAL
C4.4 Stage V, Tier 4 Final diesel 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 precleaner	●	
On-demand electric cooling fans with auto-reverse function	●	
HYDRAULIC SYSTEM	STANDARD	OPTIONAL
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	●	
Joystick steering	●	
Steering wheel		●
SmartBoom™	●	
Smart stick	●	
Heavy lift mode	●	
SAFETY AND SECURITY	STANDARD	OPTIONAL
Rear- and right-side-view cameras	●	
360° visibility		●
Travel alarm		●
Secondary engine shutoff switch	●	
UNDERCARRIAGE AND STRUCTURES	STANDARD	OPTIONAL
2550 mm (8'4") wide undercarriage	● <sup>2</sup>	
2750 mm (9'0") wide undercarriage		● <sup>1</sup>
3000 mm (9'10") wide undercarriage		● <sup>1</sup>
3700 kg (8,150 lb) counterweight	● <sup>2</sup>	
4200 kg (9,250 lb) counterweight		● <sup>1</sup>
4700 kg (10,350 lb) counterweight		● <sup>1</sup>
Push blade		●
10.00-20 dual solid rubber tires		●
10.00-20 16 PR dual tires		●
All-wheel drive	●	

<sup>1</sup> MH3024 only

<sup>2</sup> MH3022 only

**Not all features are available in all regions. Please check with your local Cat dealer for specific offering availability in your area.**

For additional information, refer to the Technical Specifications brochures available at [www.cat.com](http://www.cat.com) or your Cat dealer.

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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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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AEXQ3237-02  
Replaces AEXQ3237-01  
Build Number: 07C  
(Aus-NZ, Europe, N Am, Turkey)

