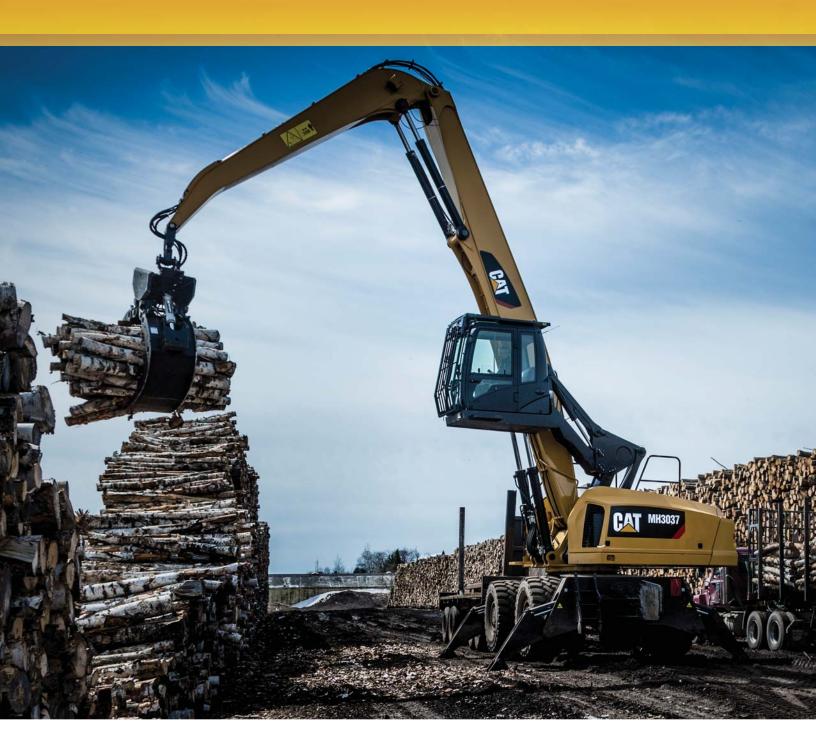
# **MH3037**



## Wheel Material Handler – Millyard Arrangement



Engine			Working Ranges		
Engine Model	Cat® C7 AC	ERT™	Millyard Arrangement		
Net Power (ISO 9249)	168 kW	225 hp	Maximum Reach	14.4 m	47'4"
Weights			Maximum Height	16.4 m	53'4"
Operating Weight	37 600 kg	82,900 lb	Maximum Depth	3.6 m	11'9"

#### Introduction

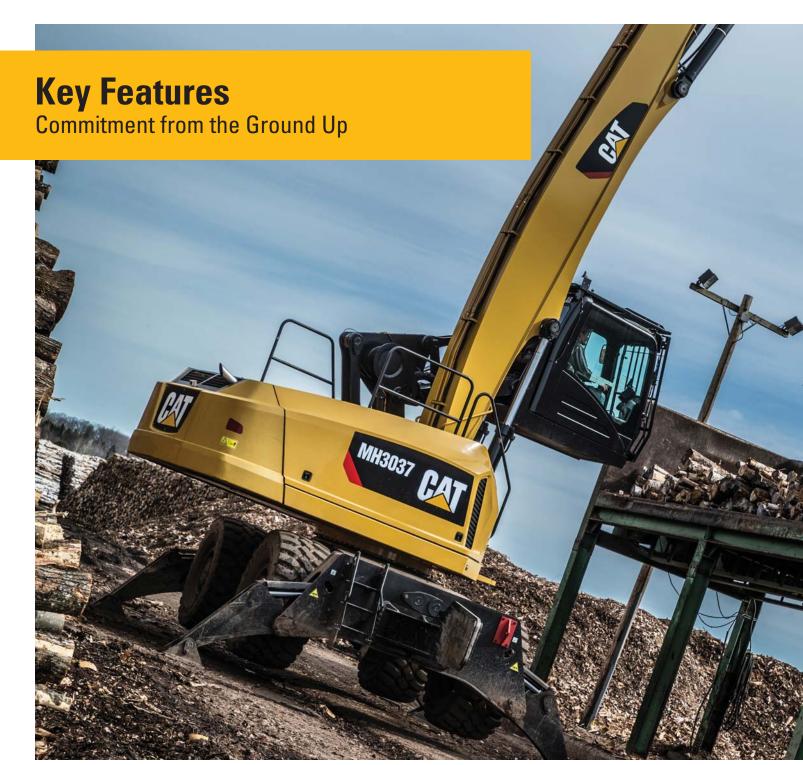
We know that when it comes to material handling equipment, your success depends on high productivity and dependable performance.
The new Cat MH3037 Material Handler is designed where harsh environments and severe duty applications of millyard, industrial, scrap recycling, and bulk handling operations call for safe, quality and reliable products. The MH3037 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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#### **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 MH3037 brings to improve the safety and comfort of your operations.





#### **Efficiency**

Recognizing that fuel efficiency is directly affected by hydraulic performance, the hydraulic system in the MH3037 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 MH3037 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 MH3037 features Cat Product Link™ in conjunction with 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. 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 MH3037'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 C7 ACERT features electronic controls that govern mechanically actuated unit fuel injection system. With a carefully designed combustion cycle, the C7 lowers emissions produced and improves fuel economy.

#### **Powerful Engine Cooling System**

The MH3037's engine cooling system adjusts to demands of work applications. Rated for a 168 kW (225 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 four wheel drive with limited slip differentials front and rear provide excellent maneuvering performance even on unimproved terrain. Power is provided by a variable displacement hydraulic motor through a 2-speed transmission which drives the two axles. Oscillating rear housing with lock-out feature and pneumatic tires provide machine stability and traction.

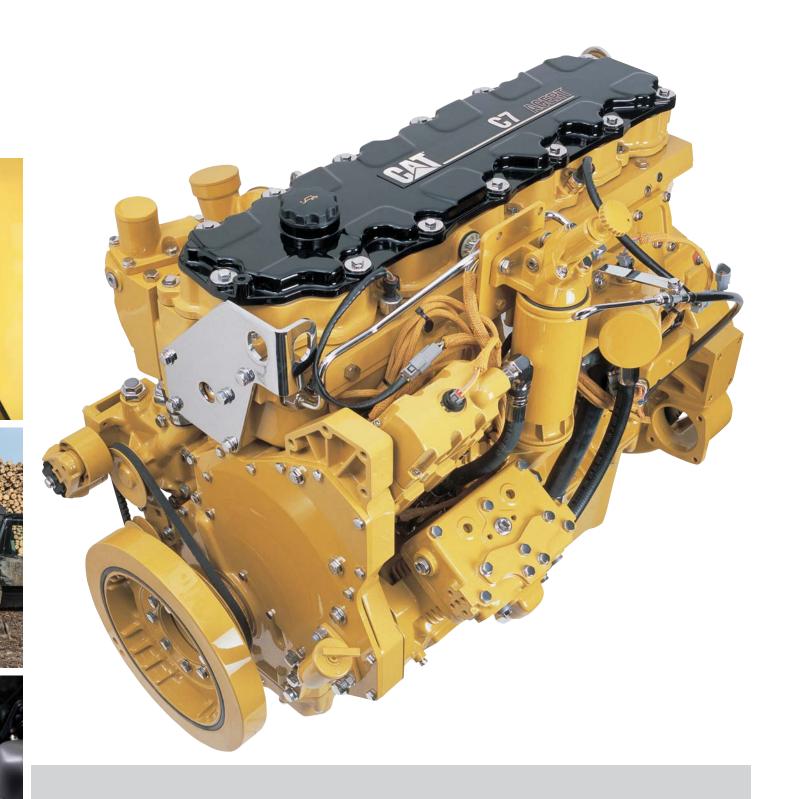
#### **Convenient Travel**

Machine movement is regulated through a two mode shift on the fly travel system that includes a creeper mode up to 5.3 km/h (3.3 mph) and a standard mode up to 20 km/h (12.4 mph). Steering and speed are controlled through the joystick controls while forward and reverse direction is controlled through a right foot pedal.



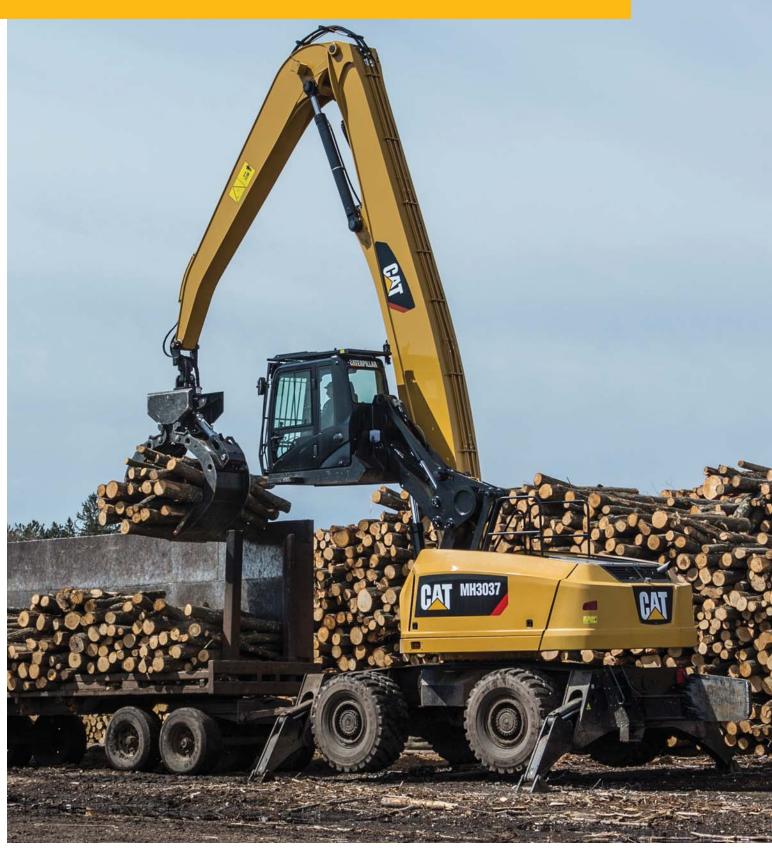






More power when you need it, the Cat C7 ACERT large displacement engine optimizes machine performance and enhances fuel efficiency while meeting Tier 3/Stage IIIA emission regulations. The C7 is a 7.2 L (442 in³), in-line 6 cylinder engine rated at 168 kW (225 hp). This market proven Cat engine produces enough power to run simultaneous machine operations.

**Hydraulic System**Effective Hydraulics – Improve Your Machine's Performance



Machine productivity depends on hydraulic performance. The MH3037's hydraulic system is designed to provide power without compromising efficiency, and protect component life to keep your machine running.

#### **Hydraulic Performance**

Proper power distribution on the MH3037 allows you to run simultaneous operations without compromising performance or efficiency. The main pump system produces hydraulic power for the implements, work tools, travel and cab riser systems. A dedicated closed loop swing system provides swing priority at all times, providing improved power management and performance.

#### **Low Operating Temperatures**

Running at lower operating temperatures protects component life. The MH3037's hydraulic system is cooled through its own cooler mounted side-by-side with the engine radiator and air-to-air aftercooler (ATAAC). Mounting these cores side-by-side improves cooling efficiency and allows for easier cleaning of the cores in dirty environments. The variable pitch auto-reversing fan assists in keeping the cores operating at peak efficiency and minimizing downtime for cleaning.

#### **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.

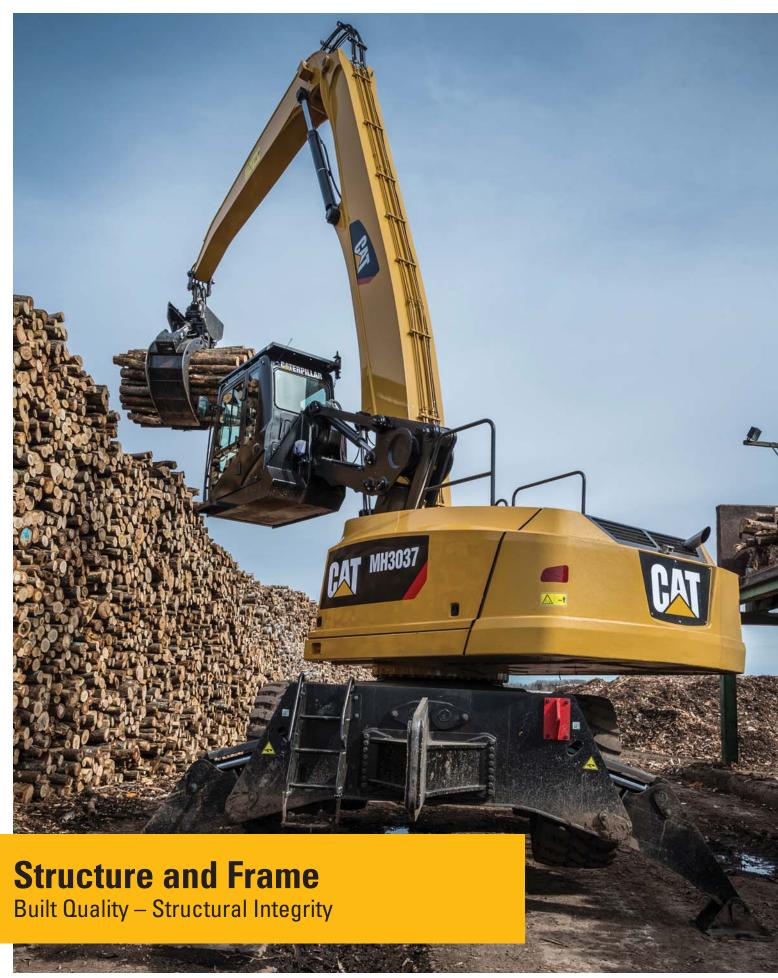






#### Flow Management

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



Your operators face harsh working environments that can affect the durability of your equipment. With this in mind, the MH3037 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, and in critical areas, high grade structural steel is used.

Built to last, the MH3037 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 MH3037'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 upper frame attaches to the lower frame through the MH3037's rotating axis. 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.

The hydraulic cab riser linkage is integrated into the left front corner of the upper frame for rigid support providing the operator with a stable work platform. Less maintenance is required with greaseless bearings in the cab riser linkage.







The MH3037 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 well as its front linkage is able to handle the job. The MH3037's boom and stick are purpose built for the loads encountered in log handling applications.

Careful and detailed handling of stresses ensures that the MH3037 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 8.84 m (29'0") boom and the drop nose stick 5.8 m (19'0") provides a horizontal reach of 14.4 m (47'4") and a large working envelope, minimizing machine travel and reducing down operation costs.



## **Integrated Technology**

**Efficiently Operate and Manage Your Machine** 



#### **Manage Assets with Cat Product Link**

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 if 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. Standard and eco modes optimize operator comfort and efficiency.

#### **Machine Communication**

No need to look up what codes mean, the MH3037 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 MH3037 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 MH3037 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 MH3037 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. Operators will feel less fatigued after a day of work in the air-ride suspension seat with adjustable arm rests.

#### **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 5.5 m (18'0") (eye level) in approximately 8 seconds, and come back to the ground in approximately 10 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



Primary service points are easily accessible through convenient panels and platforms on the sides and top of the machine.

Components can be easily located with the engine and cooling system's longitudinal layout. 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**

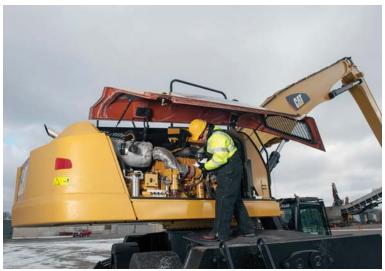
The guesswork has been taken out of identifying key hydraulic hoses and electrical wiring with name labels to ease maintenance.

#### **Automatic Lubrication**

Machine life is improved and operating costs are lowered by having the machine in charge of timely lubrication intervals. Upper auto-lube sends grease based on duration runtime. The machine is factory set to run grease point lubrication every 10 minutes of use. The lower is manually lubricated from a central grease point located behind the lower control valve on the carbody frame.



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.







#### **Ground Access Cab**

You are safer from the risk of slips and falls with the MH3037'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 and at ground level allows for the cab to be lowered, enabling the operator to safely exit the machine.

MAINTAIN A CLEAN WORK STATION, SAFELY, CONVENIENTLY



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

Falling and flying debris is one of the hazards of the workplace. To protect your operator, the MH3037 can come equipped with the impact-absorbing cab guard that conforms to ISO 10262 safety standards. The Falling Object Guarding System consists of both a top and front guard.

#### **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**

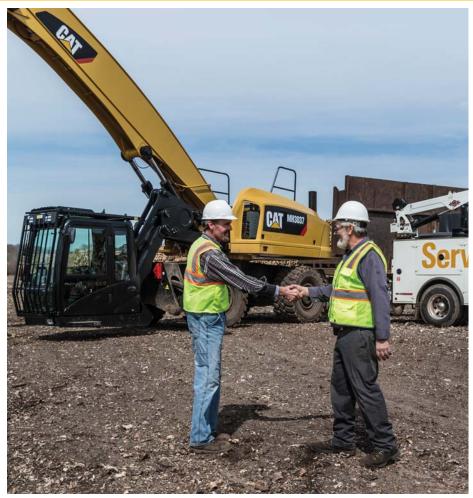
Maintain safe working distances with the stick limiter, which prevents the work tool from coming into close proximity to the operator station. Function override controls allow for up close work.





## **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.







#### **Low Emissions**

MH3037, powered by the Cat C7 ACERT engine, meets U.S. EPA Tier 3 and EU Stage IIIA emission standards.

#### Rebuild

Major structures and components of the MH3037 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 MH3037 to provide excellent fuel economy and still deliver the power you need.

Engine	G + GT + GF	DT	
Engine Model		Cat C7 ACERT	
Emissions		Tier 3/EU Stage IIIA	
Net Power (ISO 9249)	168 kW	225 hp	
Bore	110 mm	4.33"	
Stroke	127 mm	5.0"	
Fuel Capacity	416 L	110 gal	
Displacement	7.2 L	442 in <sup>3</sup>	
Cylinders	6 in-line		
Maximum Torque @ 1,400 rpm	1.03 kN·m	758.2 lbf-ft	
Weights			
Operating Weight	37 600 kg	82,900 lb	
Boom	3665 kg	8,080 lb	
Stick (long)	2484 kg	5,464 lb	
Stick (short)	2253 kg	4,956 lb	
Counterweight	6441 kg	14,200 lb	
Hydraulic System			
Controls		Electro/hydraulic pilot controls	
Tank Capacity	378.5 L	100 gal	
System Capacity	606 L	160 gal	
Hydraulic System: Maximur	n Pressure		
Implement Circuit	31 716 kPa	4,600 psi	
Travel Circuit	33 095 kPa	4,800 psi	
Auxiliary Circuit			
Medium Pressure			
Medium Pressure	15 168 kPa	2,200 psi	
Medium Pressure Factory Setting Maximum Allowable	15 168 kPa 17 237 kPa	2,200 psi 2,500 psi	
Medium Pressure Factory Setting			
Medium Pressure Factory Setting Maximum Allowable Relief Setting	17 237 kPa 37 921 kPa	2,500 psi	
Medium Pressure Factory Setting Maximum Allowable Relief Setting Swing Circuit  Hydraulic System: Maximur	17 237 kPa 37 921 kPa	2,500 psi 5,500 psi	
Medium Pressure Factory Setting Maximum Allowable Relief Setting Swing Circuit  Hydraulic System: Maximum Implement Circuit	17 237 kPa 37 921 kPa <b>n Flow</b>	2,500 psi 5,500 psi	
Medium Pressure Factory Setting Maximum Allowable Relief Setting Swing Circuit  Hydraulic System: Maximum Implement Circuit	17 237 kPa 37 921 kPa <b>n Flow</b>	2,500 psi 5,500 psi	
Medium Pressure Factory Setting Maximum Allowable Relief Setting Swing Circuit  Hydraulic System: Maximur Implement Circuit Auxiliary Circuit	17 237 kPa 37 921 kPa <b>m Flow</b> 519 L/min	2,500 psi 5,500 psi 137 gal/min	

Swing Mechanism			
Swing Speed	8.2 rpm		
Swing Torque	84 kN·m	62,000 lbf-ft	
Swing System	Closed loop hydrostatic		
	system with		
	proportiona		
Maximum Swing Pump Flow	140 L/min	37 gal/min	
Performance			
Maximum Drawbar Pull	145 kN	32,588 lb	
Trailer Towing			
Maximum Weight of the	50 000 kg	110,250 lb	
Trailer and Payload			
Transmission			
Maximum Travel Speed	20 km/h	12.4 mph	
Creeper Speed	5.3 km/h	3.3 mph	
Maximum Gradeability	35%		
Service Refill Capabilities			
Fuel Tank	416 L	110 gal	
Cooling System	36 L	9.5 gal	
Engine Crankcase with Filter	28 L	7.4 gal	
Final Drive (each)	6.0 L	1.6 gal	
Hydraulic Tank	379 L	100 gal	
Hydraulic System (including tank)	606 L	160 gal	
<b>Outriggers (Pneumatic Tires)</b>			
Ground Penetration	203 mm	8"	
Undercarriage (Pneumatic Ti	res)		
Ground Clearance at Lowest Point	391 mm	15.4"	
0 11 1 1 1	10.6.1		

 $\pm 2.6$  degrees

33'3"

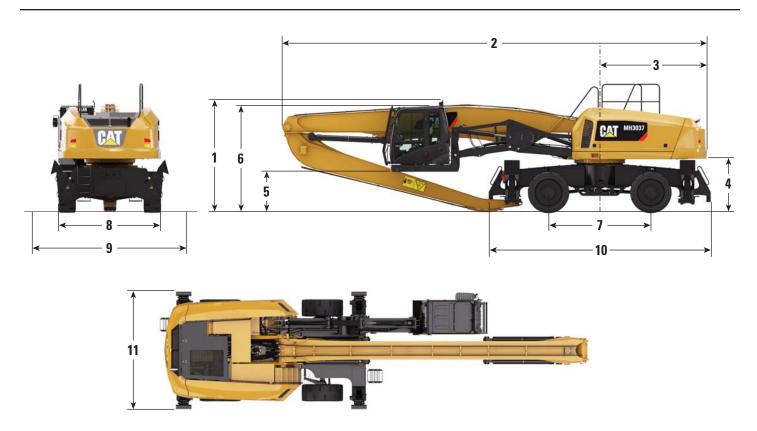
10.1 m

Oscillation Axle Angle

Minimum Turning Radius (inside)

#### **Dimensions**

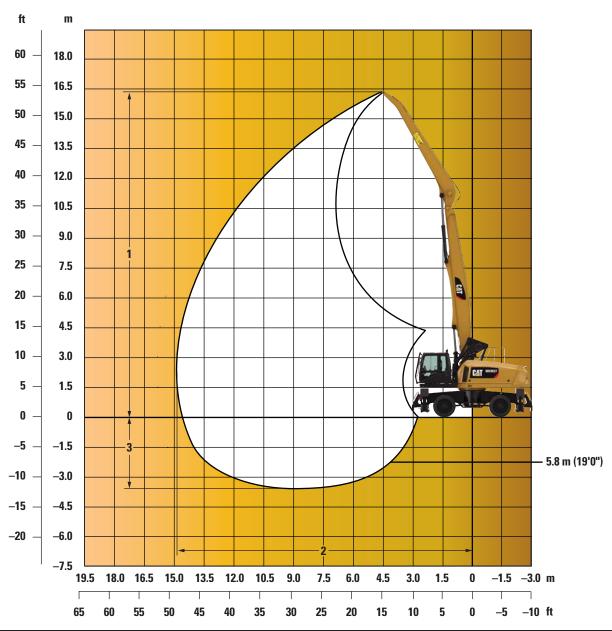
All dimensions are approximate.



МНЗ	037
3334 mm	10'11"
12.6 m	41'2"
3147 mm	10'4"
1578 mm	5'2"
242 mm	9.5"
3314 mm	10'10"
5883 mm	19'2"
2998 mm	9'10"
3124 mm	10'3"
4928 mm	16'2"
6510 mm	21'4"
3378 mm	11'1"
	12.6 m 3147 mm 1578 mm 242 mm  3314 mm 5883 mm 2998 mm 3124 mm 4928 mm 6510 mm

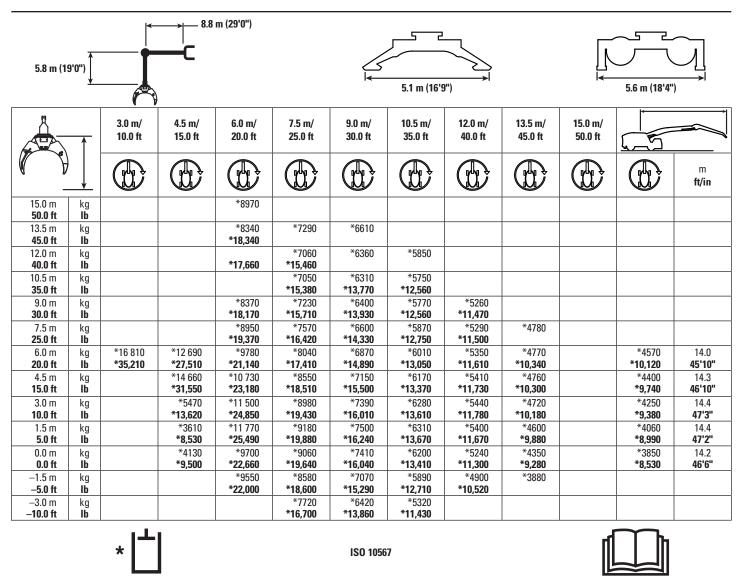
<sup>\*</sup>Factory set at 242 mm (9.5") — adjustable through the operating system to be lower or higher.

#### **Working Ranges**



	МНЗ	037	
	Millyard Arrangement		
Boom Length	8.84 m	29'0"	
Stick Length	5.8 m	19'0"	
1 Maximum Height	16.4 m	53'4"	
2 Maximum Reach	14.4 m	47'4"	
3 Maximum Depth	3.6 m	11'9"	

#### MH3037 Lift Capabilities - Millyard



Capacities marked with an asterisk (\*) are limited by hydraulic capacity. Lift capacities are in compliance with SAE J2518 "Lift Capacity Calculation Method – Scrap and Material Handlers." Lifting capacities shown do not exceed 75% of minimum tipping loads or 87% of hydraulic capacity. Least stable position is over the side. Lifting capacities shown should not be exceeded. Weight of the grapple, magnet and all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm uniform level supporting surface with the outrigger legs down. User must make allowances for job condition such as soft or uneven ground. Capacities apply only to the machine as originally manufactured and normally equipped by the manufacturer. Total weight of the machine is 37 420 kg (82,500 lb) equipped with a 14.4 m (47'3") boom/stick. Weight does not include the grapple, magnet, or attaching hardware.

Operator should be fully acquainted with the Operators Manual and the Operating Safety Manual furnished by the manufacturer before operating the machine.

### **MH3037 Standard Equipment**

#### **Standard Equipment**

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

#### **ELECTRICAL**

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

#### **OPERATOR ENVIRONMENT**

- · Ground access cab
- · Tempered glass windows
- · Laminated glass front windshield
- · Removable lower windshield
- Sliding upper door window
- Air 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
- LCD monitor
- -Full graphic color display with language display capability
- Filter and fluid change notifications
- Working hour information
- Machine condition monitoring
- -Cat Product Link

#### **POWER TRAIN**

- 168 kW (225 hp) Cat C7 ACERT diesel engine meets Tier 3 and EU Stage IIIA emission requirements
- Variable pitch auto reversing fan
- Precleaner plus two-stage air filter

#### **UNDERCARRIAGE**

- Four wheel drive with two speed transfer case and limited slip differential on both front and rear axles
- · Oscillating rear axle
- Two mode shift on the fly
  - -Standard and creeper speeds
- Four wheel dynamic friction hydraulic braking plus park brake
- One button operation for all outriggers plus individual controls
- Guarded outrigger cylinders with load holding valves

#### OTHER STANDARD EQUIPMENT

- Upper auto-lube and manual centralized lower lubrication
- · Grease-less cab riser linkage bearings
- Operating system
- · Rearview camera
- · Various tire options
- Cat Product Link (PL522)
- 8.8 m (29'0") material handling boom

#### **HYDRAULIC SYSTEMS**

- Load sensing variable displacement hydraulics with proportional electrohydraulic controlled, pre-compensated valves and flow sharing
- 519 L/min (137 gal/min) main pump
- Dedicated closed loop hydrostatic swing system with electro-proportional controls
- 140 L/min (37 gal/min) swing pump at 37 921 kPa (5,500 psi) with large capacity swing motor and swing drive gearbox
- 1321 mm (52") ring gear
- Induction hardened Chrome Plated cylinder rods with electronic cushioning
- Boom, stick and cab lift cylinders; snubbing cushions
- -Outrigger cylinders
- 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
- Hydraulic warm-up valve integrated into the lower control valve

### **MH3037 Optional Equipment**

#### **FACTORY INSTALLED OPTIONAL EQUIPMENT**

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

• 20 kW solid state generator • LED stick lights

• Hydraulic tank heater • LED cab lights

Transfer case guard
Bolt-on FOGS
Tow hitch
Bio hydraulic oil

• 5.8 m (19'0") material handling drop nose stick

#### 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

• Impact resistant windshield

• Right-side camera

### Notes

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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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