



Cat[®] MH3022

Wheel Material Handler

Safe and Comfortable

- The cab riser can reach 5.7 m (18.7 ft) (cab roof) quickly and offers comfortable operation, in all positions.
- New ingress strategy – New grab handles and anti-skid steps.
- Smart embedded devices to help enhance safety: seat belt warning indicator, automatic swing lock, automatic brake and axle lock, safety lever, emergency shut off switch and battery switch disconnect, adjustable travel alarm, lowering check valves ...
- Smart lighting – LED lights for all working lights.
- Great visibility – Enlarged glass areas, standard rearview and sideview camera, with wide angle lenses; wide angle mirrors.
- Safe and quiet cab – All-new cab with limited vibrations and reduced sound levels.

More Power, Less Fuel

- Cat[®] C7.1 engine with ACERT[™] Technology produces up to 126 kW/169 hp (171 metric hp/PS).
- A high capacity cooling system featuring an axial on-demand fan keeps operating temperatures low, resulting in longer component life, higher efficiency and lower repair cost.
- The hydraulic system has been carefully redesigned to provide the work needed without wasting fuel, while providing increased precision and speed.
- The new engine and redesigned hydraulic systems combine to reduce fuel consumption by up to 10 percent, with no impact on your efficiency.
- A closed hydraulic circuit is dedicated to the swing only. Having two separate pumps, one for the swing and the other for the other functions allows faster and smoother combined movements.

Easy and Pleasant Operation

- Smart features – Refinements on the smallest details and features, to help make operation easy and efficient: try the SmartBoom[™], Cruise Control, Auto Brake and Axle Lock or Joystick Steering.
- Enjoy integrated technologies – They act transparently to further improve your daily experience.

Be Flexible to Win

- Undercarriages – Choose the MH undercarriage for stability, with optional front blade, or the narrow MH undercarriage if you work in limited space applications. The standard undercarriage allows for more flexibility, with stabilizers and blade either to the front or to the rear.
- Booms – MH boom for optimum reaching and lifting capabilities, either long or short (for indoor applications). Or combine the cab riser with an excavator front linkage.
- Sticks – MH 4900 mm (16'1") Drop Nose Stick for typical MH applications, 4200 mm (13'9") Straight Stick when additional work tool functionality is needed. For application which do not require an MH stick, you can choose between the 2500 mm (8'3"), 2800 mm (9'3") or 3300 mm (10'10") industrial stick*.
- Counterweights – Standard 3700 kg (8,157 lb) or optional 4200 kg (9,259 lb) counterweight.
- Dedicated Waste Handler Package*.
- Use the Tool Control System to pre-set the machine for up to ten different work tools.

Easy to Service

- Cat Product Link[™] remote monitoring helps you take the guesswork out of asset management.
- You can reach routine maintenance items like fuel and engine oil filters or fluid taps at ground level. Fuel and Diesel Exhaust Fluid tank with engine air filter are accessible from the safety of the slip-resistant new foldable service platform.
- Compartments feature wide composite service doors, which are more resistant to shocks.
- Components are grouped per system to facilitate maintenance. Radiators are gathered in the same compartment with a tilting device that requires no tool to unlock.
- Centralized test ports.
- An automatic lubrication system is a time-saving standard feature for greasing the whole uppercarriage.
- Add in the new electric lift pump removing the need to prime the system manually, the standard fuel and water separator and you get a machine that does the fastidious works for you.

*Available through 2015



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Engine

Engine Model	Cat C7.1 ACERT	
Emissions	U.S. EPA Tier 4 Final/EU Stage IV	
Net Power (ISO 9249)	126 kW	169 hp (171 PS)
Bore	105 mm	4.1 in
Stroke	135 mm	5.3 in
Fuel Capacity	330 L	87 gal
Displacement	7.01 L	427.8 in ³
Cylinders	6 in-line	
Maximum Torque @ 1,400 rpm	830 N·m	612.0 lbf·ft

Swing Mechanism

Swing Speed	8.2 rpm	
Swing Torque	48.0 kN·m	35,403 lbf·ft

Transmission

Maximum Travel Speed (2nd gear)	25 km/h	16 mph
Creeper Speed (2nd gear)	10 km/h	6.2 mph
Maximum Gradeability	48%	

Service Refill Capabilities

Fuel Tank	330 L	87 gal
Cooling System	46.9 L	12.3 gal
Diesel Exhaust Fluid Tank	34.5 L	9.1 gal

Undercarriage

Ground Clearance	360 mm	14.2 in
Oscillation Axle Angle	±5 degrees	

Hydraulic System

Tank Capacity	153 L	40.4 gal
System Capacity	253 L	66.8 gal

Hydraulic System: Maximum Pressure

Implement Circuit (Normal/Heavy Lift)	350/370 bar	5,076/5,366 psi
Travel Circuit	350 bar	5,076 psi
Auxiliary Circuit		
Medium Pressure	210 bar	3,046 psi
High Pressure	350 bar	5,076 psi
Swing Mechanism	310 bar	4,496 psi

Hydraulic System: Maximum Flow

Implement/Travel Circuit	288 L/min	76 gal/min
Auxiliary Circuit – High Pressure	250 L/min	66 gal/min
Auxiliary Circuit – Medium Pressure	49 L/min	13 gal/min
Swing Mechanism	108 L/min	28.5 gal/min

Weights

Operating Weights*	21 500-24 500 kg	47,399-54,013 lb
With MH Boom (6400 mm/20'1")		
MH Undercarriage and Straight Stick	23 670 kg	52,183 lb
MH Undercarriage and Drop Nose Stick	23 250 kg	51,257 lb
Standard Undercarriage and Straight Stick	22 730 kg	50,111 lb
Narrow Undercarriage and Drop Nose Stick	22 340 kg	49,251 lb
With Short MH Boom (5350 mm/17'6")		
Narrow Undercarriage and Straight Stick	22 540 kg	49,692 lb
With One-Piece Boom		
Standard Undercarriage and Industrial Stick	21 650 kg	47,730 lb
Counterweights		
Standard	3700 kg	8,157 lb
Optional	4200 kg	9,259 lb

*With solid tires, standard counterweight, MH undercarriage, full fuel tank, operator and work tool (1400 kg/30,865 lb). Weight varies depending on configuration.

Working Ranges

Boom Length	MH Boom				Short MH Boom			
	6.40 m (20'1")				5.35 m (17'6")			
Stick Length	4200 mm	13'9"	4900 mm	16'1"	4200 mm	13'9"	4900 mm	16'1"
Maximum Height	11 520 mm	37'9"	12 065 mm	39'0"	10 445 mm	34'3"	11 020 mm	36'2"
Maximum Reach	10 345 mm	33'11"	11 005 mm	36'1"	9325 mm	30'7"	9990 mm	32'9"
Maximum Depth	1485 mm	4'10"	2185 mm	7'2"	1655 mm	5'5"	2325 mm	7'7"

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