

Cat[®] MH3022

Wheel Material Handler

2018



We know that when it comes to material handling equipment, your success depends on productivity and low operating costs. The MH3022 is a purpose-built material handler, designed for industrial and recycling applications that call for safe, quality and reliable products. It is the agile solution for all space-restricted areas, while offering good reach. And a perfect fit for all indoor sorting and waste applications.

Performance

- **Powerful and efficient** – Cat[®] C7.1 ACERT™ engine meets U.S. EPA Tier 4 Final/EU Stage IV emission standards. Emissions technology is transparent – no action required from the operator and no stopping for regeneration.
- **Dedicated swing pump** allows faster and smoother combined movements.
- **Efficient hydraulic system** provides precision and speed, while preserving fuel consumption.

Efficiency

- **Fuel consumption** reduced up to 10%*, with no impact on your productivity to lower operating costs.
- **Built-in fuel savers** eliminate waste thanks to Auto Engine Speed Control, Engine Idle Shutdown and enhanced Eco Mode.
- **High cooling efficiency** axial fan keeps operating temperatures and costs low.

Safety

- **Blue Angel certified** with low vibrations and sound levels.
- **Options for specific applications** – Thicker high impact and impact resistant windshields fulfill respectively the EN356 P8B and P5A standards. The Advanced Cab Filtration system almost completely eliminates dust entry and air contamination.
- **Great visibility** – Large glass areas, LED lights for all working lights and cameras, with both displays split on the same screen.
- **Direct access to the cab** is possible with the upperframe swung thanks to new steps on the front and rear of the undercarriage.

Ease of Operation

- **Enjoy integrated technologies** – They act transparently. Features like the Auto Brake and Axle Lock or Automatic Travel lock remove some of the tasks you had to do.
- **Smart technologies** – They help boost your productivity while making operation easier; try the optional SmartBoom™ or Joystick steering.
- **Our cabs are unique** – It's a cab just for you where everything can be adjusted, from the seat to the work tools controls assignment on joysticks and pedal.

Maintenance

- **Ground level access** for routine maintenance items like fuel and engine oil filters or fluid taps.
- **Reduced maintenance** – Automatic features like electric lift pump and lubrication system along with long greasing intervals.

Versatility

- **Various configurations** – A wide choice of front linkage lengths including digging, straight and drop nose sticks. The new 4.5 m (14'9") drop nose stick is a perfect addition for indoor applications while allowing transportation without stick removal.
- **Increase your efficiency with the front push blade** to clear the ground from materials commonly encountered in industrial applications.
- **Various Waste Handling (WH) Packages options** – The "fine mesh" package protects the cooling hood from dust and includes an engine air precleaner. The adjustable reversing fan and vibrating grill of the WH package add more protection.
- **Various attachments** to tackle all kinds of jobs, from various grapple types to the 15 kW Cat Generator.

Cat Connect Technology

- **Product Link™** connects owners to their equipment, providing access to machine data such as location, hours, fuel consumption, idle time and events, and diagnostic codes.

*Versus previous D MH Series.

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Engine

Engine Model	Cat C7.1 ACERT	
Emissions	Tier 4 Final/Stage IV	
Maximum Gross (ISO 14396)	129.4 kW	174 hp (176 hp/PS*)
Maximum Net (ISO 9249/SAE J1349)	126 kW	169 hp (171 hp/PS*)
Bore	105 mm	4.1 in
Stroke	135 mm	5.3 in
Displacement	7.01 L	427.8 in ³
Cylinders	6 in-line	
Maximum Torque @ 1,400 rpm	830 N·m	612.0 lbf·ft

*Metric values.

Swing Mechanism

Swing Speed	8.5 rpm	
Maximum Swing Torque	54 kN·m	39,828 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 (23 500 kg/51,810 lb)	65%	

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

Undercarriage

Axle Clearance (MH 2.55 m/8'4" undercarriage)	325 mm	12.8 in
Oscillation Axle Angle	±5 degrees	

Maximum Dimensions (approximate)

Maximum Shipping Height	3620 mm	11'11"
Maximum Shipping Width	2550 mm	8'4"

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

Hydraulic System: Maximum Pressure

Implement Circuit (Normal/Heavy Lift)	35 000/	5,076/
	37 000 kPa	5,366 psi
Travel Circuit	35 000 kPa	5,076 psi
Auxiliary Circuit		
Medium Pressure	21 000 kPa	3,046 psi
High Pressure	35 000 kPa	5,076 psi
Swing Mechanism	31 000 kPa	4,496 psi

Weights

Operating Weights*	21 815- 22 930 kg	48,094- 50,552 lb
With MH Boom (6400 mm/20'1")		
MH Undercarriage and Straight Stick	22 930 kg	50,552 lb
MH Undercarriage and 4900 mm/16'1" Drop Nose Stick	22 550 kg	49,714 lb
With Short MH Boom (5350 mm/17'6")		
MH Undercarriage and Straight Stick	22 670 kg	49,979 lb
MH Undercarriage and 4500 mm/14'9" Drop Nose Stick	22 240 kg	49,031 lb
With One-Piece Boom		
MH Undercarriage and Industrial Stick	21 815 kg	48,094 lb
With VA Boom		
MH Undercarriage and 2800 mm/9'2" Digging Stick	22 685 kg	50,012 lb
Counterweights		
Standard	3700 kg	8,157 lb
Optional	4200 kg	9,259 lb

*With solid tires, standard counterweight, MH 2.55 m/8'4" undercarriage, full fuel tank, operator and work tool (1400 kg/3,086 lb). Weight varies depending on configuration.

Working Ranges – without Work Tool

Boom Length	MH Boom		Short MH Boom					
	6.40 m (20'1")		5.35 m (17'6")					
	mm	ft/in	mm	ft/in	mm	ft/in		
Stick Length	4200	13'9"	4900	16'1"	4200	13'9"	4500	14'9"
Maximum Height	11 520	37'9"	12 065	39'0"	10 445	34'3"	10 680	35'0"
Maximum Reach	10 345	33'11"	11 005	36'1"	9325	30'7"	9610	31'6"
Maximum Depth	1485	4'10"	2185	7'2"	1655	5'5"	1955	6'5"

• Working Ranges with VA and One-Piece Booms can be found in the M320F brochure. 4500 mm/14'9" Drop Nose Stick also available with the 6400 mm/20'1" MH Boom.

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

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