



M318 MH

Material Handler



Cat® 3116 DIT Engine	104.4 kW/140 hp
Operating Weight	19 500 kg
Maximum Travel Speed	20 km/h
Maximum Reach (stick pin)	10.5 m
Maximum Height (stick pin)	12.1 m

Engine

Caterpillar four-stroke-cycle, six cylinder 3116 DIT direct injection turbocharged diesel engine.

Ratings at 2000 rpm	kW	hp
Gross power	104.4	140
Net power		
Caterpillar	98	131
ISO 9249	98	131
DIN 70020	100	134
EEC 80/1269	98	131

Measured Emission Values*	g/kWh
Hydrocarbons (HC)	0.38
Carbon Monoxide (CO)	1.32
Nitrous Oxide (NO _x)	6.20

* Values as per ISO 8178

Noise levels

$$L_{PA} = 71 \text{ dB(A)}$$

$$L_{WA} = 99 \text{ dB(A)}$$

Measured according to the static test procedures and conditions specified in ISO 6294 or 86/662/EEC.

Maestro Mobile Electronic Control System

The microcontroller monitors and controls a whole set of engine and hydraulic parameters.

Tires, Brakes

Dual pneumatic 11.00-20 16PR tires are standard. Maintenance free wet-disk brakes on front axle and drum-brakes on rear axle are standard.

Ground clearance to axle (with 11.00-20 tires)	360 mm
Tires	
11.00-20, 16PR standard	
Optional tires	
10.00-20, 16PR	
10.00-20 (solid rubber)	

Hydraulic System

Closed center, variable flow, load-sensing hydraulic system. Load-sensing axial-piston pump powers boom, stick, grapple, outriggers/dozer, and travel circuit.

Main Hydraulic System

Maximum flow	260 l/min
Maximum pressure	
Implements	330 bar
Travel	330 bar

Steering

Fully hydraulic, powered by a separate gear pump mounted on the engine.

Steering angle	35 °
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Transmission

2-gear power-shift transmission. Permanent all wheel drive.

Speeds

1st gear, forward/reverse (work)	5 km/h
2nd gear, forward (travel)	20 km/h
2nd gear, reverse	20 km/h
Creeper speed	2.8 km/h
Drawbar pull	105 kN
Gradeability	61%

Swing Mechanism

Dedicated variable displacement axial-piston pump and fixed-displacement axial-piston motor powers the swing mechanism.

Swing system

Maximum flow	112 l/min
Maximum pressure	315 bar
Swing torque	46.4 kNm
Max. swing speed	9.4 rpm

Axles

Planetary axles with planetary gear reduction final drives located in the axle hubs.

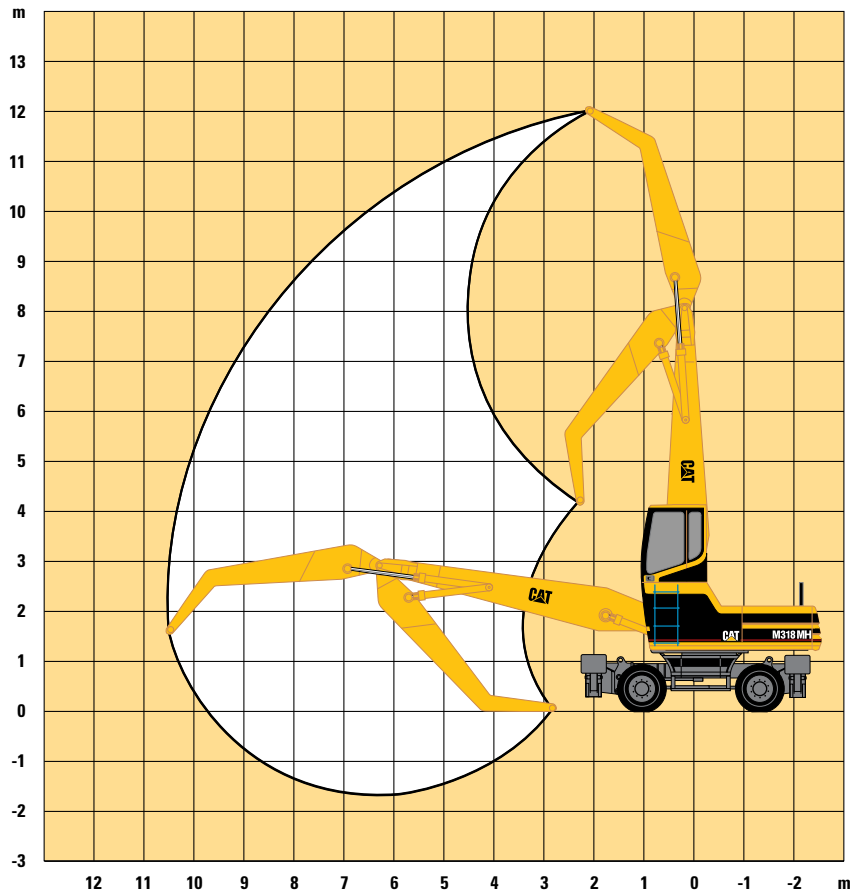
Axle static load capacity	40 000 kg
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Service Refill Capacities

	Liters
Fuel Tank	320
Cooling	35
Lubrication	
Engine	21
Rear axle housing, differential	12
Front steering axle, differential	11
Final drives, front (each)	2
Final drives, rear (each)	1.5
Powershift transmission	3
Hydraulic system (including tank)	220
Hydraulic tank	135

Working Ranges














With Straight Boom 6200 mm and Material Handling Stick 4500 mm



Lift Capacities

with Straight Boom 6.2 m and Material Handling Stick 4.5 m, front and rear stabilizers and standard tires.

All weights are in metric tons

Height**	Undercarriage configuration	3.0 m		4.5 m		6.0 m		7.5 m		9.0 m				m
														
7.5 m	All stabilizers up All stabilizers down					5.4 6.3*	3.8 6.3*	3.8 5.1*	2.6 4.8			2.1* 2.1*	1.9 2.1*	8.9
6.0 m	All stabilizers up All stabilizers down			7.8* 7.8*	5.8 7.8*	5.3 6.5*	3.7 6.5*	3.7 5.5*	2.6 4.7	2.7 4.1*	1.9 3.5	2.1* 2.1*	1.6 2.1*	9.7
4.5 m	All stabilizers up All stabilizers down	10.4* 10.4*	10.4* 10.4*	8.2 8.6*	5.5 8.6*	5.1 6.8*	3.5 6.6	3.6 5.7*	2.5 4.6	2.7 4.8*	1.8 3.5	2.0* 2.0*	1.4 2.0*	10.2
3.0 m	All stabilizers up All stabilizers down			7.6 9.5*	5.0 9.5*	4.9 7.2*	3.3 6.3	3.5 5.8*	2.3 4.5	2.6 4.8*	1.8 3.4	2.0 2.1*	1.3 2.1*	10.5
1.5 m	All stabilizers up All stabilizers down			7.0 10.0*	4.4 9.4	4.6 7.4*	3.0 6.0	3.3 5.8*	2.2 4.3	2.5 4.7*	1.7 3.3			
0.0 m	All stabilizers up All stabilizers down	3.7* 3.7*	3.7* 3.7*	6.6 9.6*	4.1 9.0	4.4 7.2*	2.8 5.8	3.2 5.6*	2.1 4.2	2.5 4.3*	1.6 3.2			
-1.5 m	All stabilizers up All stabilizers down					4.2 6.3*	2.7 5.6							



Load Radius Over Front



Load Radius Over Side



Load at Maximum Reach

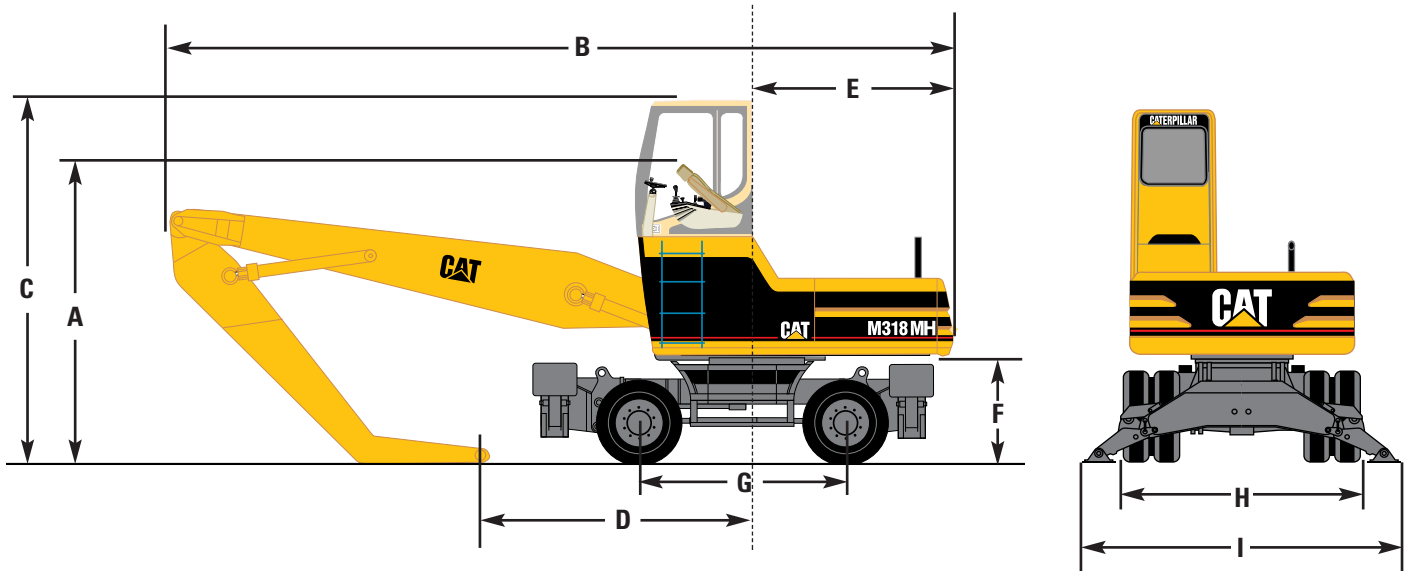
* Limited by hydraulic rather than tipping load

** Height of stick pin

The above loads are in compliance with hydraulic excavator lift capacity ratings standard ISO 10567, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity. Weight of all lifting accessories must be deducted from the above lift capacities

Shipping Dimensions

All dimensions are approximate – measured in mm



A Shipping height	*3600 mm	F Counterweight clearance	1310 mm
B Shipping length	8890 mm	G Wheel Base	2750 mm
C Cab Height with 1.2 m cab riser	**4350 mm	H Undercarriage width	2690 mm
D Support Point Distance	3000 mm	I Stabilizer width on ground	3900 mm
E Tail Swing Radius	2450 mm		

* Cab removed, back rest tilted forward
 ** Fixed 1.2 m cab riser standard

Materials and specifications are subject to change without notice.
 Featured machines in photos may include additional equipment.
 See your Caterpillar dealer for available options.

HEHX2186 (0497) db

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