

W345B MH

Series II Wheeled Material Handler



The W345B II Wheeled Material Handler combines the Caterpillar® 345B II MH base machine upper components with Caterpillar's innovative six wheeled lower to provide the scrap and material handling customer with a mobile machine, while maximizing stability for production applications.

Cat 3176 ATAAC Diesel Engine	239 kW	321 hp
Operating Weight	66 040 kg	145,288 lbs
Travel Speed	8.4 km/h	5.2 mph
Cat Special Material Handling Linkage Arrangements		
Two-Piece	16.5 m	54'0"
Cat Cab Riser	1.9 m	6'5"

The Caterpillar W345B II Wheeled Material Handler

Tough, dependable, and loaded with performance-improving features.

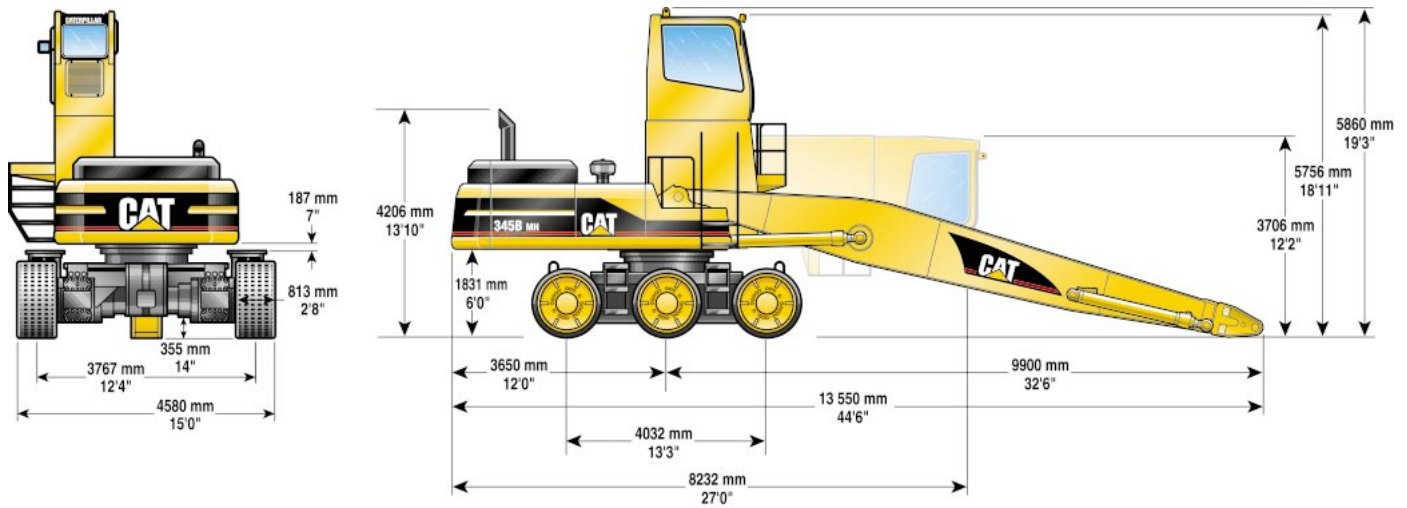


The W345B II MH arrangement features the following:

- **W345B II MH two-piece front by Caterpillar** offers a maximum horizontal reach of 16.5 m (54'0") from swing center and a maximum vertical pin height of 16.7 m (54'8"). Booms and sticks are built for performance and long service life. Welded box-section structures feature thick, multi-plate fabrications in high stress areas allowing structures to flex, dissipating stresses and maximizing strength. Booms and sticks are stress relieved to maximize strength and minimize structure weight.
- **Cat designed and built, 1.9 m (6'5") cab riser** gets your operator to an operating height with excellent visibility for loading or unloading your processing equipment, trucks and rail cars. Access to the cab is provided by a platform which extends around the riser to allow windshield cleaning. The cab riser can also be tilted forward 90° for shipping and provides ready access to service the generator system.
- **Cat Material Handler hydraulic systems** are specifically designed to meet your hydraulic attachment requirements. The rotate circuit provides a separate 38.0 lpm (10.0 gpm) gear pump and fully adjustable control valve, allowing configuration to meet various grapple manufacturer's flow requirements. A separate fixed displacement gear pump is used to provide the hydraulic power to run a 25 kW (33.5 hp) generator system.
- **The upper frame** is specifically designed for the scrap and material handling market. It is built of higher strength material and thicker steel sections to handle the increased swing loads developed with the longer fronts and heavier counterweights used in material handling.
- **Special Counterweight.** The W345B II MH is equipped with a counterweight which is 38% heavier than the standard counterweight.
- **25 kW (33.5 hp) hydraulically driven generator set** can power magnets up to 1.8 m (72 inches) in diameter. A Caterpillar state-of-the-art electronic magnet controller and generator are linked to provide trouble-free service. The new controller virtually eliminates traditional contactor maintenance and it is supported and warranted through your Cat dealer.
- **The Caterpillar six wheeled carrier** has an auto shift feature and steers just like a tracked machine. There is no steering wheel in the cab. This carrier has one two speed radial piston hydraulic motor, a parking brake and gear box connected to the drive sprocket on each side. The drive sprocket is connected to both the center and rear sprocket via roller chains. The chains run in an oil bath in the bottom of each rigid side frame. Each sprocket shaft is supported by grease lubricated anti-friction bearings. Since the three wheels per side are mechanically linked, the power can be distributed to all wheels or any single wheel depending on ground condition.

Dimensions

All dimensions are approximate.



Shipping Dimensions

	mm	ft
Shipping Height – cab tipped*	3706	12'2"
Operating Height – to top of cab	5860	19'3"
Shipping Width*	3647	12'0"
Shipping Length – rear of carrier to tipped cab*	8232	27'0"
Ground Clearance	284	11"
Carrier Dimensions		
Wheel Base	4032	13'3"
Operating Width (outside of tires)	4580	15'0"
Tire Size	1448 x 813	32" x 57"

*Shipping the W345B II MH requires removal of the boom and stick, counterweight, wheels, carrier walkways and ladders as well as upper walkways and ladders. The cab must be manually tipped forward 90 degrees.

Engine

Caterpillar four-cycle 3176C ATAAC diesel engine.

Ratings at 2000 rpm*	kW	hp	PS
Net power	239	321	325
The following ratings apply at 2000 rpm when tested under the specified standard conditions for the specified standard:			
Net power	kW	hp	PS
Caterpillar	239	321	325
ISO 9249	239	321	325
SAE J1349	239	321	325
EEC 80/1269	239	321	325

Dimensions

Bore	125 mm	4.92 in
Stroke	140 mm	5.51 in
Displacement	10.3 liters	630 in ³

*Power rating conditions

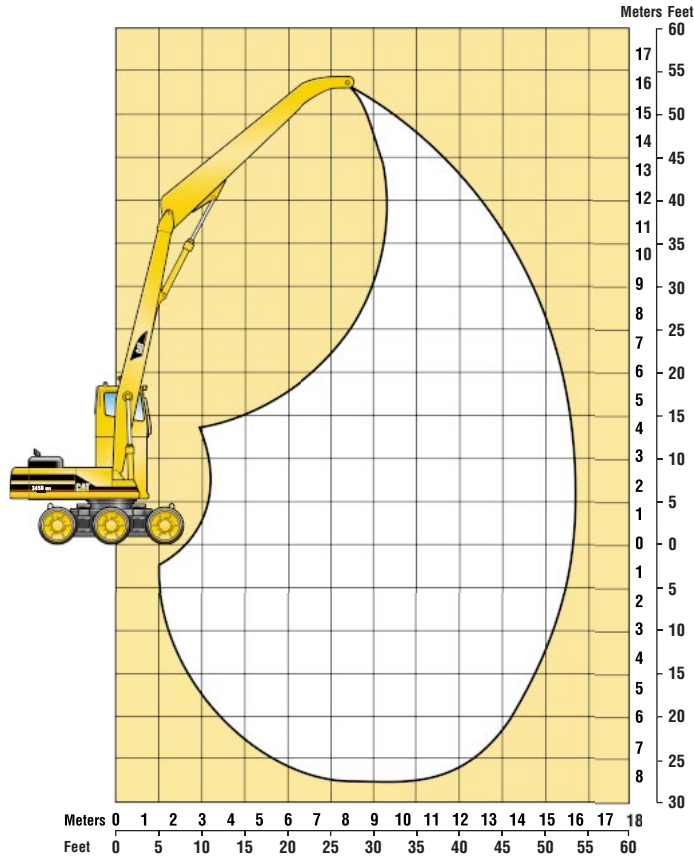
- net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler, and alternator
- no engine derating needed up to 2300 m (7,500 ft)

Working Range/Lift Chart – Two-Piece Front

Machine equipped with 16.5 m (54'0") Cat two-piece MH front.
Lift is hydraulically limited through 360° rotation.

Maximum horizontal reach	16.5 m	54'0"
Maximum height at 9.75 m (32'0")	16.7 m	54'8"

Lift capacities are all hydraulic limited and are stated at 87% of actual per SAE standard J1097.



Hydraulic System

The W345B II MH hydraulic system provides efficient, dependable power when and where it is needed.

Ratings

Maximum Flow	2 x 360 liters per min	2 x 95.1 gpm
Maximum Pressure:		
Implements	34 340 kPa	4980 psi
Travel	34 340 kPa	4980 psi
Swing	28 440 kPa	4130 psi
Pilot System:		
Maximum Flow	41 liters per min	10.8 gpm
Maximum Pressure	4655 kPa	675 psi
Rotate Circuit for Grapple:		
Maximum Flow	38 liters per min	10 gpm
Maximum Pressure	20 690 kPa	3000 psi
Generator Auxiliary Pump:		
Maximum Flow	155 liters per min	41 gpm
Maximum Pressure	19 300 kPa	2800 psi

Weights

	kg	lb
Operating Weight	66 040	145,288
Upper	25 030	55,066
Counterweight	11 023	24,251
Lower	32 540	71,588
Two-Piece Front (with cylinders)	8470	18,634

Performance*

	km/h	mph
Low Range		
Travel Speed	0-2.7	0-1.7
High Range		
Travel Speed	0-8.3	0-5.2
	kg	lb
Drawbar Pull	39 800	87,670

*Values at maximum pump displacement

Steering

Two rocker pedals with detachable hand levers control steering and travel functions.

Controls

- controls are pilot-operated for reduced efforts
- left pedal and lever control left tires; right pedal and lever control right tires
- rocking both pedals or pulling both levers backward moves the material handler straight back
- moving one pedal or lever more than the other, either forward or backward, results in a gradual turn
- moving one pedal or lever forward and the other pedal or lever backward counterrotates the tires for spot turns

Lift Capacities

W345B II MH with Cat two-piece, 16.5 m (54'0") front



Load Point Height



Load at Maximum Reach



Load Radius Over Front



Load Radius Over Side

Load Point Height	3.0 m / 10.0 ft		4.5 m / 15.0 ft		6.0 m / 20.0 ft		7.5 m / 25.0 ft		9.0 m / 30.0 ft		10.5 m / 35.0 ft		12.0 m / 40.0 ft		13.5 m / 45.0 ft		15.0 m / 50.0 ft		Load at Maximum Reach	m ft		
	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb	kg lb				
15.0 m / 50.0 ft																				*5600	10.4	
13.5 m / 45.0 ft																					*12,600	33.0
12.0 m / 40.0 ft																					*5200	12.0
10.5 m / 35.0 ft																					*11,700	38.7
9.0 m / 30.0 ft																					*8200	13.3
7.5 m / 25.0 ft																					*18,000	43.0
6.0 m / 20.0 ft																					*4900	14.3
4.5 m / 15.0 ft																					*18,000	46.4
3.0 m / 10.0 ft																					*8400	15.0
1.5 m / 5.0 ft																					*7700	15.0
0.0 m / 0.0 ft																					*18,300	49.1
-1.5 m / -5.0 ft																					*9500	15.6
-3.0 m / -10.0 ft																					*20,800	51.1
-4.5 m / -15.0 ft																					*8900	16.0
-6.0 m / -20.0 ft																					*19,400	52.6
-7.5 m / -20.0 ft																					*8000	16.3
																					*17,900	53.5
																					*8200	16.3
																					*17,900	53.5
																					*8400	16.5
																					*18,200	54.0
																					*8400	16.4
																					*18,400	54.0
																					*7400	16.3
																					*16,100	53.5
																					*6300	16.5
																					*13,700	54.0
																					*5500	16.3
																					*12,100	53.5
																					*5600	16.0
																					*19,400	52.5
																					*8600	15.6
																					*33,600	51.1
																					*14,600	16.0
																					*19,400	52.5
																					*8800	16.3
																					*30,200	53.5
																					*13,000	16.0
																					*29,500	51.0
																					*9200	15.0
																					*20,800	49.0
																					*5900	14.2
																					*12,600	46.4
																					*4800	13.2
																					*10,100	
																					*9000	
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																					*17,000	
																					*14,600	
																					*12,100	
																					*9400	

* Indicates that the load is limited by hydraulic capacity rather than tipping capacity. Lift capacity ratings are based on SAE standard J1097. Rated loads do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity.

Standard Equipment

Note: Standard equipment may vary. Consult your Caterpillar Dealer for specifics.

Air conditioner	Cold weather start
Alarm, travel	Comprehensive self-diagnostics
Alternator (75-amp)	Cooling, easy clean slide out
Automatic engine control	Counterweight, Material Handling
Automatic swing brake	Electronic Memory System
Boom lowering check valves	Engine, Cat 3176 ATAAC
Cab, sound suppressed, includes:	Ether starting aid
Ash tray	Generator hydraulics
Cigar lighter	Grapple hydraulics
Coat hook	Hydraulic system pressure taps
Compartments:	Lights, working:
Literature	Boom, left side (1)
Storage, lunch box	Cab-mounted (2)
Drink holder	Frame-mounted (1)
Floor mat	Locks, door and cap, one-key system
Heater with defroster	Material Handling front, Cat two-piece
Horn, signaling/warning	Mirrors:
Hydraulic/starting systems lock lever	Cab, left
Instrument panel	Frame, right
Joysticks, pilot-operated, adjustable	Power Mode Selector
Lights, interior	Rotate hydraulics
Radio mount	Stick lowering check valves
Seat, adjustable suspension	Straight travel circuit
Seat belt, retractable	Tires:
Skylight, opening	57" diameter
Travel controls,	32" width
pedals with removable levers	5" solid rubber
Windshield wipers and washers	Travel, two-speed
Cab riser, 1.9 m (6'5")	Ventilation, positive filtered
	Windshield, two-piece retractable

Optional Equipment

Note: Optional equipment may vary. Consult your Caterpillar Dealer for specifics.

Cab Guard System
Operator protection top and front
Cat 25 kW generator
Grapples, four tine, manufactured by Young Corporation
Rain protector, front window

Implement Controls

Two joystick hand levers and switches actuate boom, stick, grapple or generator and swing (ASME/ANSI B30.25 pattern).

Right Joystick Controls

- move forward and backward to lower and raise boom
- top buttons control grapple rotate clock-wise and AEC switch (Automatic Engine Control)
- button on front of control lever closes grapple or turns magnet on

Left Joystick Controls

- move forward and backward to move stick in and out
- move left and right to control direction of swing
- top buttons control grapple rotate counterclock-wise and horn
- button on front of control lever opens grapple or turns magnet off

Other Features

- oblique movement of either lever with switch combinations operate multiple functions simultaneously
- manually applied lever on left console cuts off pilot pressure for joysticks and travel controls and electrical power for engine starting circuit
- toggle switch in cab switches between magnet operation and grapple operation

Serviceability

Simplified service and maintenance features save you time and money.

Faster, easier maintenance means improved uptime and a better value.

Improved filters and filter locations makes maintenance easier.

- Two hydraulic capsule filters are mounted outside hydraulic tank. New design avoids spills and contamination during replacement. Indicator in cab signals when the filter needs to be replaced, extending filter service life.
- Radial seal air cleaner has double layered filter core for better filtration. No tools required to change. Operator is alerted to clogs.

- Engine oil filter is located in the pump compartment for easy access. Filter opening faces up to avoid spills during changes.
- Pilot hydraulic system filter keeps contaminants away from the pilot system. This system includes a Scheduled Oil Sampling port to simplify sampling.
- Swing and travel motor case drain filter removes contaminants, keeping them from returning to the tank.

Water separator removes water from fuel even when under pressure and is located in the radiator compartment for easy access.

Remote greasing block on the boom and stick and two grease points for the swing bearing deliver grease to hard to reach locations.

Electronic Power Unit Control has diagnostic capabilities for Cat Dealer's use.

- Dealer service technicians can quickly and easily diagnose and adjust machine components, maximizing uptime.

Complete Customer Support

Cat Dealer services help you operate longer with lower costs.

Cat Dealers offer a wide range of services under a customer support agreement when equipment is purchased. The dealer will help choose a plan that can cover everything from machine and attachment selection to replacement for the best return on your investment.

Selection. Make detailed comparisons of the machine being considered before a purchase. How long do components last? What is the cost of preventative maintenance? What is the true cost of lost production? Your Cat Dealer can give precise answers to these questions.

Purchase. Look past initial price. Consider the financing options available as well as day-to-day operating costs. This is also the time to look at dealer services that can be included in the cost of the machine to yield lower equipment owning and operating costs over the long run.

Maintenance. Choose from a wide range of maintenance services at the time you purchase a machine. Repair option programs guarantee the cost of repairs up front. Diagnostic programs such as Scheduled Oil Sampling and Technical Analysis help you avoid unscheduled repairs.

Replacement. Repair, rebuild or replace? Your Cat Dealer can help you evaluate the cost involved so you can make the right choice.

Product support. Cat Dealers utilize a world-wide computer network to find in-stock parts to minimize machine down time. Save money with remanufactured parts. Receive the same warranty and reliability as new products at cost savings of 40 to 70 percent.

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Materials and specifications subject to change without notice.

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