



Cat[®] 160M/ 160M AWD

Motor Graders

The Cat[®] 160M/160M AWD Motor Grader is designed to help you get more work done in less time. Unprecedented operator comfort and ease of service help to maximize your return on investment.

Performance

- Programmable Autoshift option simplifies operation by allowing transmission to be programmed to shift at optimal points to match application.
- Power Shift Countershaft Transmission matches to engine, maximizing power to the ground.
- Electronic Throttle Control helps improve productivity by providing best match of horsepower and torque for application demands.

Efficiency

- Aggressive blade angle, optimized moldboard curvature and large throat clearance allow material to roll more freely along blade, increasing efficiency.
- Hydraulic demand fan automatically adjusts speed according to cooling requirements resulting in more power to the ground and improved fuel efficiency.
- Engine idle shutdown is available to shut down engine after a set period of time saving fuel and helping reduce emissions.

Ease of Operation

- Selectable blade lift modes – Fine, Normal, or Coarse – allow you to choose the blade lift modulation mode that best fits your application or operating style.
- Joystick controls with electronically adjustable control pods reduce hand and arm movement by 78%, helping reduce operator fatigue.
- Left joystick controls steering, articulation, return-to-center, wheel lean, gear selection, left moldboard lift cylinder and float.
- Right joystick controls drawbar, circle and moldboard functions as well as electronic throttle control and manual differential lock/unlock.
- Articulation Return-to-Center automatically returns machine to a straight frame position from any angle with the touch of a button.

Safety

- Angled cab doors, tapered engine enclosure and sloped rear window increase visibility.
- Optional rear vision camera enhances sight to rear of machine.

Serviceability

- Sacrificial brass wear strips between blade mounting group and moldboard can be easily adjusted and replaced.
- Shimless Moldboard Retention System uses vertical and horizontal adjusting screws to keep moldboard wear strips aligned for reduced blade chatter and precise blade control.

Comfort

- Control pods can be adjusted electronically, making it easy to set to ideal operating position.
- Standard Cat Comfort Series suspension seat is fully adjustable.
- High capacity Heating, Ventilation, and Air Conditioning (HVAC) system dehumidifies and pressurizes cab, sealing out dust, and helps keep windows clear.

Technology

- Shuttle Shift allows smooth, fast direction shifts without requiring you to manipulate the throttle or inching pedal.
- Cat Product Link[™] aids your equipment management with remote monitoring capabilities.
- Optional Stable Blade improves grading precision by decreasing engine speed at 15 percent intervals when machine bounce is detected then increases engine rpm systematically when grader stabilizes.
- Optional Auto Articulation allows you to articulate automatically while steering in tight spaces or around curves, obstacles, and turnarounds.
- Optional Cat GRADE with Cross Slope helps maintain desired cross slope by automatically controlling one side of the blade.
- Optional Cat AccuGrade uses positioning and guidance technologies, machine sensors, and automatic blade control to help get to grade faster, easier and more efficiently.
- Optional Cat Advanced Control Joysticks allow you to control automated grading solutions efficiently and safely without removing your hands from the joysticks.



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Engine

Engine Model	Cat C9 ACERT™	
Emissions	Brazil MAR-1	
Base Power (1st gear) – Net	159 kW	213 hp
Base Power (1st gear) – Net (Metric)	216 hp	
VHP Plus Range – Net	159-185 kW	213-248 hp
VHP Plus Range – Net (Metric)	216-251 hp	
Displacement	8.8 L	537 in ³
Bore	112 mm	4.4 in
Stroke	149 mm	5.9 in
Torque Rise (VHP Plus)	40%	
Maximum Torque (VHP Plus-Net)	1237 N·m	912 lbf·ft
Maximum Torque (AWD On)	1344 N·m	991 lbf·ft
Speed @ Rated Power	2,000 rpm	
Number of Cylinders	6	
Derating Altitude	3048 m	10,000 ft
Standard – Maximum Fan Speed	1,450 rpm	
Standard – Minimum Fan Speed	600 rpm	
High Ambient – Maximum Fan Speed	1,650 rpm	
High Ambient – Minimum Fan Speed	600 rpm	
High Ambient Capability	50° C	122° F

- Maximum torque (VHP Plus) measured at 1,000 rpm.
- Net power is tested per ISO 9249, SAE J1349, and EEC 80/1269 Standards in effect at the time of manufacture.
- Net power advertised is the power available at rated speed of 2,000 rpm, measured at the flywheel when engine is equipped with fan running at minimum speed, air cleaner, muffler and alternator.
- Power as declared per ISO 14396
Rated Speed = 2,000 rpm
VHP Plus = 186 kW (249 hp)
- No engine derating required up to 3048 m (10,000 ft).

Frame

Circle Diameter	1553 mm	61.1 in
Drawbar – Height	152 mm	6.0 in
Drawbar – Width	76.2 mm	3 in
Front Frame Structure – Height	305 mm	12 in
Front Frame Structure – Width	305 mm	12 in
Front Axle – Wheel Lean, Left/Right	18°	
Front Axle – Total Oscillation per Side	32°	

Weights

Gross Vehicle Weight, Base			
Total	16 820 kg	37,082 lb	
Front Axle	4475 kg	9,867 lb	
Rear Axle	12 345 kg	27,215 lb	
Gross Vehicle Weight, Maximum			
Total	23 947 kg	52,794 lb	
Front Axle	7663 kg	16,894 lb	
Rear Axle	16 284 kg	35,900 lb	
Gross Vehicle Weight, Typically Equipped			
Total	19 715 kg	43,465 lb	
Front Axle	5626 kg	12,404 lb	
Rear Axle	14 089 kg	31,061 lb	

- Base operating weight on standard machine configuration is calculated with full fuel tank, coolant, lubricants, operator and 14.00-24 tires with multi-piece (MP) rims.

Moldboard

Moldboard – Width	3.7 m	12 ft
Moldboard – Height	610 mm	24.0 in
Arc Radius	413 mm	16.3 in
Throat Clearance	95 mm	3.7 in

Blade Range

Circle Centershift – Right	728 mm	28.7 in
Circle Centershift – Left	695 mm	27.4 in
Moldboard Sideshift – Right	950 mm	37.4 in
Moldboard Sideshift – Left	820 mm	32.3 in
Blade Tip Range – Forward	40°	
Blade Tip Range – Backward	5°	
Maximum Shoulder Reach Outside of Tires – Right	2278 mm	89.7 in
Maximum Shoulder Reach Outside of Tires – Left	2090 mm	82.3 in
Maximum Lift Above Ground	452 mm	17.8 in
Maximum Depth of Cut	750 mm	29.5 in



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