Cat® 140

Motor Grader

The Cat® 140 Motor Grader is designed to help you get more work done in less time with a 4.2 m (14 ft) moldboard. 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 make it easy to see moldboard and tires, as well as behind the machine.
- 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 manipulating throttle or inching pedal.
- Cat Product Link™ aids 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 factory-installed 3D mastless Cat Grade enables operators to improve grading efficiency, accuracy, and productivity in both rough grading and finish grading applications. When mastless Grade is installed at factory, e-fence is not included.
- Optional Auto Articulation allows articulation 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 Grade 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 allows control of automated grading solutions efficiently and safely without removing hands from the joysticks.

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Engine		
Engine Model	Cat C7	
Emissions	Brazil MAR-1 equivalent to U.S. EPA Tier 3/ EU Stage IIIA	
Base Power (1st gear) – Net	136 kW	183 hp
Base Power (1st gear) – Net (Metric)		186 hp
VHP Plus Range – Net	136-159 kW	183-213 hp
VHP Plus Range – Net (Metric)		186-216 hp
Displacement	7.2 L	439 in^3
Bore	110 mm	4.3 in
Stroke	127 mm	5 in
Torque Rise	39%	
Maximum Torque	1052 N·m	776 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 = 160 kW (214 hp)
- No engine derating required up to 3048 m (10,000 ft).

Frame		
Circle Diameter	1530 mm	60.2 in
Drawbar Height	152 mm	6 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 Frame Structure – Thickness	16 mm	0.6 in
Front Axle – Wheel Lean, Left/Right	18°	
Front Axle – Total Oscillation per Side	32°	

Weights		
Gross Vehicle Weight, Base with 4.2 m × 610 mm × 22 mm (14 ft × 24 in × 7/8 in) blade		
Total	16 331 kg	36,003 lb
Front Axle	4278 kg	9,431 lb
Rear Axle	12 053 kg	26,572 lb
Gross Vehicle Weight, Maximum		
Total	22 045 kg	48,601 lb
Front Axle	6839 kg	15,077 lb
Rear Axle	15 206 kg	33,523 lb
Operating Weight, Typically Equipped		
Total	18 400 kg	40,565 lb
Front Axle	5090 kg	11,221 lb
Rear Axle	13 310 kg	29,343 lb

Moldboard		
Moldboard – Width	**4.2 m**	**14 ft**
Moldboard – Height	610 mm	24 in
Arc Radius	413 mm	16.3 in
Throat Clearance	166 mm	6.5 in

Blade Range		
Circle Centershift – Right	728 mm	28.7 in
Circle Centershift – Left	695 mm	27.4 in
Moldboard Sideshift – Right	660 mm	26 in
Moldboard Sideshift – Left	510 mm	20.1 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

IBAMA PROCONVE HOMOLOGADO

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

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

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Replaces AEXQ2230-01
Build Number: 14A
(Brazil MAR-1, equivalent to U.S. Tier 3 and EU Stage IIIA)

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