



Cat[®] 120

Motor Grader

The Next Generation Cat[®] 120 Motor Grader offers the options of joystick or steering wheel and lever controls with the all-wheel drive option. Save up to 15 percent in fuel consumption. Cab and comfort options help improve performance. Factory integrated technology, such as Cat GRADE with Cross Slope and Stable Blade options ensure grade for any project. Not all features are available in all regions. Consult your Cat dealer for specific configurations available in your region.

High Performance with Lower Fuel Consumption

- Get to work with balanced weight and power in the Cat C7.1 engine.
- Increase your fuel economy up to 15 percent with the standard ECO mode.
- Cat GRADE technology helps you get to the target grade in fewer passes by using up to 40 percent less material.
- The powershift transmission works hard with machine balance to ensure drawbar power to the ground.
- Power train components are specifically made to be rebuilt.
- The all-wheel drive (AWD) option assists with traction and maneuvering the machine. The increased power with all-wheel drive handles the extra traction for slopes and loose material.

New Cab Keeps You Comfortable All Day Long

- Choose your comfort level in the cab with standard, comfort plus, and premium plus options.
- With one 203 mm (8 in) color touchscreen, view your machine information from fuel levels to GRADE technology options and machine alerts. The anti-glare screen makes it easy to read no matter how bright it gets.
- Connect your phone with Bluetooth[®] or auxiliary cord option to listen to music and podcasts throughout your work day.
- Decrease clutter with more storage areas in the cab.
- The high capacity Heating, Ventilation and Air Conditioning (HVAC) system dehumidifies and pressurizes the cab, circulates fresh air, seals out dust and keeps windows clear from fogging.
 - With the auto-controlled climate option, you can set your ideal temperature.
- Easily add a radio to the cab using the built-in mounting location.
- Keep your phone charged with the optional USB charging port along with a spot designed to hold your phone.

Enhance Efficiency and Productivity with Integrated Cat Technology

- The next generation motor grader offers updated GRADE technology displayed on the 203 mm (8 in) color touchscreen option.
- Use the Digital Blade Slope Meter to get to grade without relying on manual grade checkers.
- Cat GRADE with Cross Slope Indicate option provides a real-time readout of cross slope and can be scaled to Cat GRADE with Cross Slope for automatic blade movement.
- Cat GRADE Attachment Ready Option (ARO) gives you the connections that you need to add grade control technologies.
- Stable Blade senses blade bounce before you to reduce manual throttle use and site rework.
- Product Link[™] provides location, machine hours, fuel usage, productivity, idle time, diagnostic codes, and other machine data on demand through the VisionLink[®] online interface, which helps you improve job site efficiency with lower operating costs.
- Update machine software with Remote Services without taking the machine out of service.



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Safety

- View your surroundings with the rear camera option to ensure the safety of you and those around you. The dedicated display can be always on to ensure a safe work environment.
 - The heated lens keeps the rearview camera clear.
- In the event of an engine stall, count on the secondary steering system to help stop the machine safely.
- Ensure three points of contact when entering and exiting the machine with strategically placed walk ways and grab rails.
- Ground level engine shut-off switch stops all fuel to the engine when activated and shuts down the machine.
- See the rear of your machine with connecting windows.
- Work past sundown using the LED light option for increased night time visibility.
- Keep your work site safer with Cat GRADE technology, which reduces the need for manual grade checking with working machines.
- Refueling from the ground keeps you from climbing onto the machine for a safer work environment.

Maintenance

- Filters, such as fuel, engine air, and oil filters, are grouped together for easy access and preventative maintenance.
- Be more environmentally friendly with the next generation filters to get up to 15 percent in reduced filtration costs.
- Maintain roads with the standard drawbar circle moldboard with hardened circle teeth for increased durability.
- For tight finish grading, consider the top adjust drawbar option for applications that require maximum accuracy. It offers up to 20 percent reduction in maintenance cost over the standard.
- Hydraulic brakes are well oiled to keep them maintenance free.
- Lower costly repairs to your circle and pinion with the Circle Saver.

Versatility

- Improve the balance of your machine with the counterweight or push block for increased performance and efficiency.
- Ripper and scarifier options are available to assist with grading hardened ground.
- The front lift group option is ready for attachments like the straight or front blade.
- For more road coverage, add a moldboard extension to add 605 mm (24 in).

Standard and Optional Equipment

Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional		Standard	Optional
CAB			POWER TRAIN		
Vinyl Seat	✓		Cat C7.1	✓	
Cloth or Leather Seat		✓	ECO Mode	✓	
Steering Wheel/Lever Controls		✓	All-Wheel Drive (AWD)		✓
Joystick Controls		✓	Hydraulic Demand Fan	✓	
ROPS/FOPS, Standard Sound Suppression	✓		Reversing Fan		✓
Heating/Cooling Cab System	✓		DRAWBAR CIRCLE MOLDBOARD		
Rear Wiper		✓	Standard	✓	
Base Cab	✓		Top Adjust		✓
Comfort Plus		✓	Circle Drive Slip Clutch	✓	
Premium Plus		✓	Circle Saver		✓
Seat Belt Indicator		✓	SAFETY		
203 mm (8 in) Touchscreen Monitor		✓*	Parking Brake	✓	
254 mm (10 in) Hybrid Information Display	✓		Signaling/Warning Horn	✓	
Heated/Cooled Seat		✓	Rearview Mirror	✓	
Bluetooth/Auxiliary Radio		✓	Rearview Camera		✓
Halogen Lighting	✓		Hydraulic Brakes	✓	
LED Lighting		✓	Secondary Steering System	✓	
Rear Window Screen		✓	Side View Mirrors	✓	
CAT CONNECT TECHNOLOGY			Walkways and Grab Rails	✓	
Cat GRADE with Digital Blade Slope Meter		✓	100% Ground Level Daily Maintenance	✓	
Cat GRADE with Cross Slope Indicate		✓	VERSATILITY		
Cat GRADE with Cross Slope		✓	Counterweight		✓
Cat GRADE Attachment Ready Option (ARO)		✓	Push Block		✓
Stable Blade		✓	Ripper		✓
Product Link	✓		Scarifier		✓
Remote Services		✓	Front Lift Group		✓
			Front Blade		✓

*Standard on joystick U.S. EPA Tier 4 machines.

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Technical Specifications

Power Train

Engine Model	Cat 7.1	
Emissions	U.S. EPA Tier 4 Final/EU Stage V/ Japan 2014 (Tier 4 Final)	
Net Power Range	104 kW-123 kW	139 hp-165 hp
All-Wheel Drive Net Power Range	108 kW-141 kW	145 hp-189 hp
Engine RPM	2,000 rpm	
Displacement	7.01 L	427.8 in ³
Bore	105 mm	4.1 in
Stroke	135 mm	5.3 in
Torque Rise ISO 9249	42%	
Maximum Torque ISO 9249	822 N·m	606 lbf·ft
Maximum Torque (AWD on)	828 N·m	611 lbf·ft
Number of Cylinders	6	
Derating Altitude	3000 m	9,842.5 ft
Derating Altitude (AWD)	1676 m	5,499 ft
Standard Capability	50° C	122° F
<ul style="list-style-type: none"> • 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, air cleaner, muffler and alternator. • Power as declared per ISO 14396. 		

Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.6 kg of refrigerant which has a CO₂ equivalent of 2.288 metric tonnes.

Service Refill Capacities

Fuel Tank	246 L	65 gal
Circle Drive	7 L	1.8 gal
Engine Crankcase	18 L	4.8 gal
Cooling System	52.5 L	14 gal
Hydraulic System	75 L	19.8 gal
Diesel Exhaust Fluid Tank	15 L	5 gal
Transmission and Differential	60 L	15.9 gal

Machine Weight

Lever/Steering Wheel*	15 906 kg	35,067 lb
Joystick*	16 038 kg	35,358 lb
Lever/Steering Wheel All-Wheel Drive (AWD)*	16 661 kg	36,731 lb
Joystick All-Wheel Drive (AWD)*	16 713 kg	36,846 lb

*Typically equipped includes 4267 mm (14 ft) plus blade, tires, push plate, ripper, bottom guard, operator, and full fluids.

Dimensions

Length of Machine*	9838 mm	387 in
Maximum Height	3832 mm	151 in
Width	2592 mm	102 in
Width All-Wheel Drive (AWD)	2551 mm	100.4 in

*Typically equipped with push block and ripper.

Moldboard

Blade Width	3.7 m	12 ft
Blade Height	610 mm	24 in
Arc Radius	413 mm	16.3 in
Throat Clearance	105 mm	4.1 in
End Bit Width	152 mm	6 in
Cutting Edge Width	152 mm	6 in

Blade Range

Circle Center Shift – Right	656 mm	26 in
Circle Center Shift – Left	656 mm	26 in
Moldboard Side Shift – Right	663 mm	26.1 in
Moldboard Side Shift – Left	512 mm	20.1 in
Blade Tip Range – Forward	40°	
Blade Tip Range – Backward	5°	
Maximum Shoulder Reach – Right	1928 mm	76 in
Maximum Shoulder Reach – Left	1764 mm	69.4 in
Maximum Lift Above Ground	410 mm	16.1 in
Maximum Depth of Cut	775 mm	30.5 in

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