

# 120

## MOTOR GRADER



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**Engine Power**  
**Operating Weight**

104 kW (139 hp)  
15 906 kg (35,067 lb)

Cat® C7.1 Engine meets U.S. EPA Tier 4 Final and EU Stage V emission standards.



The new Next Generation **Cat® 120** motor grader is built to fit your needs. From cab to controls, the options are in your hands, along with better fuel economy and lower maintenance costs to reduce overall operating costs.

# THE NEW CAT® 120

## THE NEXT GENERATION



### GRADING THE ROAD AHEAD

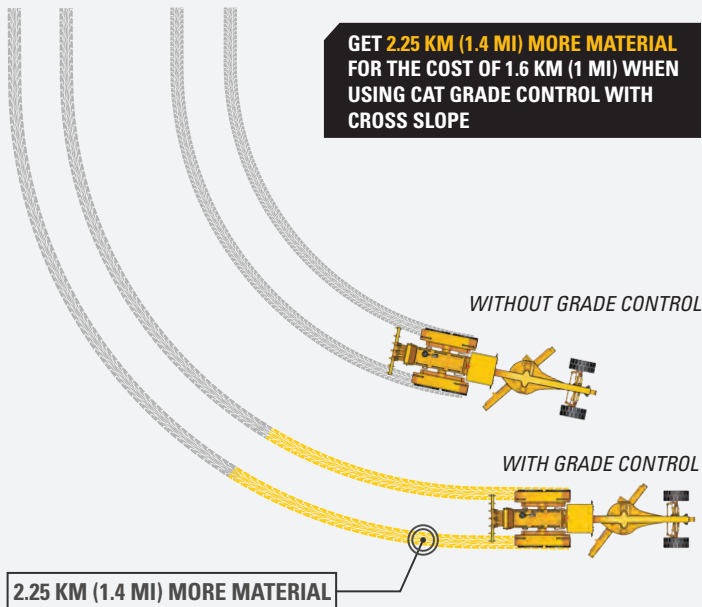
The new Cat 120 motor grader offers you total machine options including technology, controls, and cab to power through any job with the utmost performance.

- + UP TO 15 PERCENT INCREASED FUEL ECONOMY WITH THE C7.1 ENGINE
- + NEXT GENERATION CAB OPTIONS FOR MAXIMUM COMFORT
- + SPEND LESS TIME AND MONEY ON REGULAR MAINTENANCE



## SAVE MORE MATERIAL.

Use 40% less material with Cat Grade Control with Cross Slope.



### SCENARIO:

1559 M<sup>3</sup>/KM (2,039 YD<sup>3</sup>/MI) MOVED WITH NON-GRADE CONTROL – 924 M<sup>3</sup>/KM (1,208 YD<sup>3</sup>/MI) MOVED WITH GRADE CONTROL = 635 M<sup>3</sup>/KM (831 YD<sup>3</sup>/MI) MATERIAL SAVED

## UP TO 15% BETTER FUEL ECONOMY<sup>1</sup>

Use less fuel with the Cat C7.1 Engine and ECO mode.

## CAB DESIGNED FOR MAXIMUM COMFORT

The next generation cab gives you control and comfort options to promote productivity.

## UP TO 15% LOWER MAINTENANCE COSTS<sup>1</sup>

Extend your maintenance intervals using the new filtration technology. Filters are grouped together for easy access.

<sup>1</sup> Compared to 120K and 120M2

# TAKES THE GUESSWORK OUT OF MANAGING YOUR EQUIPMENT CAT TECHNOLOGY

Cat LINK telematics technology helps take the complexity out of managing your job sites – by gathering data generated by your equipment, materials, and people – and serving it up to you in customizable formats.



## CAT TECHNOLOGIES

Cat technologies give you the edge you need to improve machine and operator efficiency while working safer.

## PRODUCT LINK™

Product Link™ collects data automatically and accurately from your assets – any type and any brand. Information such as location, hours, fuel usage, productivity, idle time, maintenance alerts, diagnostic codes, and machine health can be viewed online through web and mobile applications.

## VISIONLINK®

Access information anytime, anywhere with VisionLink® – and use it to make informed decisions that boost productivity, lower costs, simplify maintenance, and improve safety and security on your job site. With different subscription level options, your Cat dealer can help you configure exactly what you need to connect your fleet and manage your business, without paying for extras you don't want. Subscriptions are available with cellular or satellite reporting or both.

## OPTIONAL CAT GRADE TECHNOLOGY



### CROSS SLOPE

Cat GRADE with Cross Slope saves you up to 40 percent in material. Cross Slope is an integrated system that enables you to achieve grade faster and more accurately by automating the cross slope of the blade and keeps your slope consistent.



### CROSS SLOPE INDICATE

Cat GRADE with Cross Slope Indicate shows cross slope information on the integrated machine display. Cross Slope Indicate improves grading efficiency by providing real-time cross slope to you without the added expense of equipment to automate blade functions.



### DIGITAL BLADE SLOPE METER

View blade slope on the integrated machine display with the Digital Blade Slope Meter. Reduce the need for manual grade checking to keep you and your worksite safer.



### ADDITIONAL OPTIONS

Cat GRADE with Attachment Ready Option (ARO) gives your machine the connections to add on future Cat GRADE or other grade control systems to help you get the most out of your motor grader. Stable Blade helps improve your finished surface quality by reducing machine bounce.

# REFINE YOUR GRADE

WITH CAT GRADE TECHNOLOGY



LOWER MAINTENANCE COSTS  
**UP TO 15%**



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## NEXT GENERATION FILTERS

New filtration system makes changing filters a breeze. The filters inside the cartridge are replaced instead of the entire canister to save you up to 15 percent in costs.

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## LONGER SERVICE INTERVALS

Reduce your typical operating expenses with extended engine oil, hydraulic, and transmission filter change cycles. The new filters last longer to keep your motor grader active on the job site.

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## GROUPED LOCATION

Service your machine faster with the filters in a central location. Filters are grouped together for easy access so you can do preventative maintenance quickly and move on to the next task.

## GET THE CONTROL POWER THAT YOU NEED WITH THE ALL-WHEEL DRIVE OPTION

Providing maximum power up to 141 kW (189 hp) and full power turns, the all-wheel drive option helps keep your tires moving, even if it's muddy.



# MAXIMUM TRACTION WITH ALL-WHEEL DRIVE

The all-wheel drive (AWD) option assists with traction and maneuvering in loose material. The increased power with all-wheel drive handles rough terrain with extra traction for better productivity.

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## CONTROL OPTIONS

Get the job done with a choice of joysticks or traditional steering wheel and lever controls. Integrated technology options put more productivity at your fingertips.

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## IMPROVED VENTILATION

The ISO-certified ROPS cab is pressurized to lock out noise. The heating and cooling system keeps you at your ideal temperature throughout the day.

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## MULTIPLE CAB OPTIONS

Your cab is like your office. Choose the options that you want to work comfortably, like adjustable seats. Heated/cooled seat options are available.

GROUND-UP REDESIGN

# NEXT GENERATION COMFORT







## CONVENIENT SETTINGS

Get all the settings information that you need, including integrated technology options, on the information display screen.



## EXTRAORDINARY VISIBILITY

View your job site through connecting glass windows, rear and side view mirrors. Rearview camera option offers a wide view of the back of the machine for better visibility.



## STOP SAFELY

If the engine should unexpectedly stall, you can count on the secondary steering system to stop safely. If the main pump pressure should drop, the secondary steering system will turn on automatically to steer safely to a stop.



## EASY ON AND OFF

Work safely using three points of contact when entering and exiting the machine with strategically placed walkways and grab rails.

# WORK MORE... FUEL LESS

Get up to 15% Fuel Savings with the Next Generation Cat® 120 Motor Grader



## SCENARIO:

UP TO 15% SAVINGS COMPARISON IS BASED ON 120M AND 120K CAT MOTOR GRADERS.

## UP TO 15% BETTER FUEL ECONOMY

Grade longer while using the same amount of fuel. The Cat C7.1 engine uses up to 10 percent less fuel. Couple this with ECO mode to save an additional 5 percent. ECO mode is an easy selection in your information display screen. Less stopping means more production. Ground level fuel fill keeps you from climbing onto the machine to get you back to work faster.





LESS TIME  
**LOWER COST**

Keep your circle moldboard tight for precise grading throughout the motor grader's life. Durable structures with drawbar circle moldboard adjustments save you service time using replaceable wear inserts.

**TOP ADJUST CIRCLE**

- + EASY ACCESS
- + MAXIMUM TIGHTNESS
- + REMOVABLE ACCESS PLATES



UP TO **20%** MAINTENANCE SAVINGS  
WITH TOP ADJUST

# SEE YOUR INVESTMENT GO FURTHER DESIGNED TO LAST

## MAXIMIZE COMPONENT LIFE

Reduce daily greasing requirements and costly repairs to your circle and pinion with the Circle Saver option. The grease fitting is easy to access and maintain.

## PRESERVE YOUR MACHINE

The circle drive slip clutch protects your pinion drive and circle teeth from potential damage.

## REDUCE DAMAGE

Keep your machine running smoothly in demanding applications with optional guarding. Guards defend against potential damage to your transmission, filter, front axles, and hydraulic pumps.





MOVE MORE  
**WITH CAT ATTACHMENTS**



**LIFT GROUP**



**MID MOUNT SCARIFIER**



**RIPPER**



**STRAIGHT BLADE**



**V-PLOW**

**ENHANCE YOUR PRODUCTIVITY**

From rippers to blades, expand the versatility of your machine by utilizing a variety of Cat Attachments. Each one is designed to fit your needs for improved performance, safety, and stability.

# TECHNICAL SPECIFICATIONS

See cat.com for complete specifications.

POWER TRAIN		
Engine Model	Cat C7.1	
Engine Power ISO 9249/SAE J1349 EEC 80/1269	104 kW-123 kW	139 hp-165 hp
All Wheel Drive Range – Engine Power	108 kW-141 kW	145 hp-189 hp
Bore	105 mm	4.1 in
Displacement	7.01 L	427.8 in <sup>3</sup>
Stroke	135 mm	5.3 in
Engine RPM	2,000 rpm	
Maximum Torque – ISO 9294	822 N-m	606 lbf-ft
Top Forward Speed	48.3 km/h	30.1 mph
Top Reverse Speed	38.1 km/h	23.7 mph
Turning Radius, Outside Front Tires	7.4 m	291.3 in
<ul style="list-style-type: none"> <li>• Net Power is tested per ISO 9249, SAE J1349, and EEC 80/1269 Standards in effect at the time of manufacture.</li> <li>• 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 CO<sub>2</sub> equivalent of 2.288 metric tonnes.</li> </ul>		
WEIGHT		
Typically Equipped Machine Weight*		
Lever/Steering Wheel Weight	15 906 kg	35,067 lb
Joystick Weight	16 038 kg	35,358 lb
Lever/Steering Wheel All-Wheel Drive (AWD) Weight	16 661 kg	36,731 lb
Joystick All-Wheel Drive (AWD) Weight	16 713 kg	36,846 lb
*Typically equipped operating weight is calculated with full fuel tank, coolant, lubricants, operator, push block, transmission guard, rear ripper/scarifier, 14.0R24 tires on multi-piece rims, and other equipment.		

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	97 L	25.6 gal
Diesel Exhaust Fluid Tank	15 L	4 gal
Transmission and Differential	60 L	15.8 gal

BLADE RANGE		
Circle Center Shift		
Right	656 mm	26 in
Left	656 mm	26 in
Moldboard Side Shift		
Right	510 mm	20.1 in
Left	660 mm	26 in
Blade Tip Range		
Forward	40°	
Backward	5°	
Maximum Shoulder Reach		
Right	1905 mm	75 in
Left	1742 mm	68.6 in
Maximum Lift Above Ground	410 mm	16.1 in
Maximum Depth of Cut	775 mm	30.5 in

MOLDBOARD		
Width	3.7 m	12 ft
Height	610 mm	24 in
End Bit	152 mm	6 in
Cutting Edge	152 mm	6 in
Arc Radius	413 mm	16.3 in
Throat Clearance	120 mm	4.7 in

DIMENSIONS		
Length of Machine*	9838 mm	387 in
Maximum Height	3465 mm	136.4 in
Width	2495 mm	98.2 in
*Typically equipped with push block and ripper.		

## CAB FEATURES

FEATURE	DESCRIPTION	BASE	COMFORT PLUS	PREMIUM PLUS
ROPS/FOPS	Sound Suppression	●	●	●
	Canopy	○	X	X
Seat	Mechanical Suspension	●	○	○
	Air Suspension	X	●	●
	Heated/Cooled	X	X	●
HVAC	Lumbar Support	X	●	●
	Heating, Ventilation, and Air Conditioning	●	●	●
	Defrost Fans	X	●	●
Information Display	Touchscreen	○	○	○
	Standard Display	○	○	○
Lighting	Halogen Bulbs	●	●	●
	LED Bulbs	○	○	○

● – standard ○ – optional X – not available

# STANDARD & OPTIONAL EQUIPMENT

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

POWER TRAIN	STANDARD	OPTIONAL
Cat C7.1 Engine	•	
ECO Mode	•	
All-Wheel Drive (AWD)		•
50° C (122° F) Ambient Capacity	•	
Engine Idle Shutdown Timer	•	
Differential Lock	•	
Hydraulic Demand Fan	•	
Reversing Fan		•
CAB	STANDARD	OPTIONAL
ROPS/FOPS	•	
Mechanical Suspension Seat	•	
Air Suspension Adjustable Seat		•
Canopy		•
Touchscreen Display*	•	
Standard Information Display	•	
Adjustable Control Console (Levers)	•	
Entertainment Radio Ready	•	
Halogen Lighting	•	
LED Lighting		•
USB/Auxiliary Radio		•
*Standard touchscreen on the joystick machine.		
CAT TECHNOLOGY	STANDARD	OPTIONAL
Product Link*	•	
Cat GRADE with Digital Blade Slope Meter		•
Cat GRADE with Cross Slope Indicate		•
Cat GRADE with Cross Slope		•
Cat GRADE with Attachment Ready Option (ARO)		•
Stable Blade		•
Remote Services		•
*Optional on Lever machines.		

DRAWBAR CIRCLE MOLDBOARD	STANDARD	OPTIONAL
Standard Drawbar Circle Moldboard	•	
Top Adjust Drawbar Circle Moldboard		•
Circle Drive Slip Clutch	•	
Circle Saver		•
SAFETY AND SECURITY	STANDARD	OPTIONAL
Rearview Mirror	•	
Side View Mirror	•	
Signaling/Warning Horn	•	
Secondary Steering System	•	
Rearview Camera		•
Hydraulic Brakes	•	
SERVICE AND MAINTENANCE	STANDARD	OPTIONAL
Ground Level DEF and Fuel Fill	•	
Grouped Location for Engine Oil and Fuel Filters	•	
Extended Life Coolant	•	
ATTACHMENTS	STANDARD	OPTIONAL
Push Block		•
Front Lift Group		•
Ripper		•
Scarifier		•
Mid Mount Scarifier		•
Front Blade		•

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