

# 120

## MOTOR GRADER



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

**U.S. EPA Tier 3/EU Stage IIIA Equivalent**

97-116 kW (130-156 hp)

15 803 kg (34,839 lb)

**India CEV Stage V**

104-123 kW (140-164 hp)

16 271 kg (35,871 lb)

Cat® C7.1 engine meets China Nonroad Stage III, equivalent to U.S. EPA Tier 3/EU Stage IIIA, and meets India CEV Stage V emission standards.



The Next Generation **Cat 120** Motor Grader has a new cab with steering wheel and lever controls along with comfort options to help improve performance. Factory options, such as Stable Blade, help to ensure finish surface quality while maximizing productivity and reducing rework.

# THE NEW CAT<sup>®</sup> 120

THE NEXT GENERATION



## GRADING THE ROAD AHEAD

The new Cat 120 motor grader offers you machine options to power through any job with the utmost performance.

- + UP TO 5% FUEL ECONOMY IMPROVEMENT USING ECO MODE
- + NEXT GENERATION CAB OPTIONS FOR MAXIMUM COMFORT
- + SPEND LESS TIME AND MONEY ON REGULAR MAINTENANCE



# WORK MORE... FUEL LESS

Get up to 5% fuel savings using Eco mode



## SCENARIO:

COMPARED TO NOT USING ECO MODE

## UP TO 5% BETTER FUEL ECONOMY<sup>1</sup>

Use less fuel with Eco mode.

## CAB DESIGNED FOR MAXIMUM COMFORT

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

## SPEND LESS TIME AND MONEY ON REGULAR MAINTENANCE<sup>1</sup>

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

<sup>1</sup> Compared to previous model; not including India CEV Stage V aftertreatment related maintenance.

# TAKES THE GUESSWORK OUT OF MANAGING YOUR EQUIPMENT CAT TECHNOLOGY

Cat Link telematics technology helps take the complexity out of managing your jobsites 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.

# LOWER REGULAR MAINTENANCE COSTS



## NEXT GENERATION FILTERS

New filtration system makes changing filters a breeze. The filters inside the cartridge are replaced instead of the entire canister.

## 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.

## 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.

## CONTROLS

Get the job done with the steering wheel and lever controls. Easily operate the machine with the adjustable control console.

## IMPROVED VENTILATION

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

## 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 machine alerts, 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 option 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.

# 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.

## 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.

## NEXT GENERATION FUEL SYSTEMS

Cat injection timing regulates the fuel injection process through a series of timed microbursts, providing more control of combustion for the cleanest, most efficient fuel burn.

## 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.

## PRESERVE YOUR MACHINE

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

## PROVEN AFTERTREATMENT TECHNOLOGIES

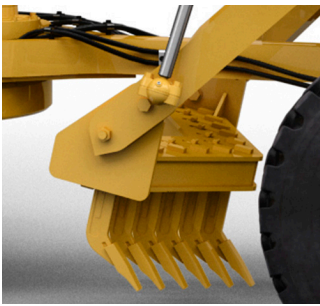
Aftertreatment systems apply proven technologies to strategically meet your high expectations for productivity, reliability, and service life (India CEV Stage V emission standards only).







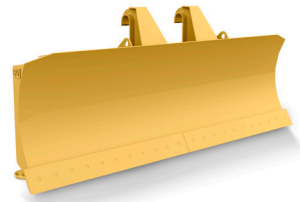
MOVE MORE  
**WITH CAT ATTACHMENTS**



**MID MOUNT SCARIFIER**



**RIPPER**



**STRAIGHT BLADE**

**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](http://cat.com) for complete specifications.

POWER TRAIN		
Engine Model	Cat C7.1	
Emissions	Meets China Nonroad Stage III emission standards, equivalent to Tier 3/Stage IIIA, and India CEV Stage V emission standards	
Engine Power (ISO 9249/SAE J1349) – Tier 3/ Stage IIIA Equivalent	97-116 kW	130-156 hp
Engine Power (ISO 9249/SAE J1349 EEC 80/1269) – India CEV Stage V	104-123 kW	140-164 hp
Engine RPM	2,000 rpm	
Displacement	7.01 L	427.8 in <sup>3</sup>
Bore	105 mm	4.1 in
Stroke	135 mm	5.3 in
Maximum Torque (ISO 9249)	822 N·m	606 lb·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>• 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.</li> <li>• The air conditioning system on this machine contains the fluorinated greenhouse gas efrigerant R134a (Global Warming Potential = 1430). The system contains 1.6 kg of efrigerant which has a CO<sub>2</sub> equivalent of 2.288 metric tonnes.</li> <li>• Biodiesel blends up to B30 (30% blend by volume) are acceptable when blended with 500 ppm (mg/kg) sulfur or less ULSD. B30 should meet ASTM D7467 specification (biodiesel blend should meet Cat biodiesel spec, ASTM D6751 or EN 14214). Cat DEO-ULS™ or oils that meet the Cat ECF-3, API CJ-4, and ACEA E9 specification are required. Consult your OMM for further machine-specific fuel recommendations.</li> </ul>		
WEIGHT		
Typically Equipped Machine Weight* – Tier 3/Stage IIIA Equivalent	15 803 kg	34,839 lb
Typically Equipped Machine Weight* – India CEV Stage V	16 271 kg	35,871 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, 3.7 m (12 ft) blade, 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
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	3440 mm	135.4 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	•	
50°C (122°F) Ambient Capacity	•	
Engine Idle Shutdown Timer	•	
Differential Lock	•	
Hydraulic Demand Fan	•	
CAB	STANDARD	OPTIONAL
ROPS/FOPS		•
Mechanical Suspension Seat	•	
Air Suspension Adjustable Seat		•
Canopy Cab		•
Touchscreen Display		•
Standard Information Display	•	
Adjustable Control Console (Levers)	•	
Entertainment Radio Ready	•	
Halogen Lighting	•	
LED Lighting		•
USB/Auxiliary Radio		•
CAT TECHNOLOGY	STANDARD	OPTIONAL
Product Link		•
Remote Services		•

DRAWBAR CIRCLE MOLDBOARD	STANDARD	OPTIONAL
Standard Drawbar Circle Moldboard	•	
Circle Drive Slip Clutch	•	
Circle Saver		•
Top Adjust Drawbar Circle Moldboard		•
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
Grouped Location for Engine Oil and Fuel Filters	•	
Extended Life Coolant	•	
Ground-Level Fuel Fill		•
Reversing Fan		•
ATTACHMENTS	STANDARD	OPTIONAL
Push Block		•
Front Lift Group		•
Ripper		•
Scarifier		•
Mid Mount Scarifier		•
Front Blade		•

For more complete information on Cat products, dealer services and industry solutions, visit us on the web at [www.cat.com](http://www.cat.com).

AEXQ2727-03  
Build Number: 14B

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