

# M319

## WHEELED EXCAVATOR



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<b>Engine Power (ISO 14396:2002)</b>	129.4 kW (174 hp)
<b>Maximum Operating Weight</b>	21 050 kg (46,407 lb)

Meets U.S. EPA Tier 4 Final and EU Stage V emission standards.





# THE NEW CAT<sup>®</sup> M319

POWERFUL. VERSATILE. COMPACT.

The Cat<sup>®</sup> M319 Wheeled Excavator provides top performance to get the job done faster. Save time and money with low maintenance costs, longer service intervals, and 100% daily ground level maintenance. The compact radius design allows you to work in space-restricted areas and provides the additional versatility you need to perform tasks that may not otherwise be possible.



## NEXT GENERATION WHEELED EXCAVATORS

The new line of Cat wheeled excavators offers more choices than ever for your business.

- + LOWER OPERATING AND MAINTENANCE COSTS
- + INCREASED OPERATOR EFFICIENCY AND VISIBILITY
- + MORE IN-CAB COMFORT

Ready to help you make your business stronger, Cat next generation wheeled excavators give you new ways to get the most work done at a cost that fits your business.



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## MAXIMIZE PERFORMANCE

Work faster with more swing torque with lower fuel and diesel exhaust fluid (DEF) consumption. Tiltrotator integration gives you more versatility to complete more tasks faster with one machine.

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## LOW OWNING AND OPERATING COSTS

Fewer maintenance costs, combined with 100% daily ground-level maintenance and extended service intervals, increase uptime and keep overall costs down.

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## ENHANCED CAB COMFORT

Operate comfortably with the ergonomic control layout and cab options. Get better visibility with rear- and side-view cameras and an optional 360° machine view system.





# NEW CAB DESIGN

## MAKES HARD WORK EASY

Comfort and movement efficiency help keep you productive and alert all shift long. A tip-up left console lets you get in and out of the cab easily, and the standard seat is wide and adjustable for operators of virtually any size.

### POWER MODES

Set and store your power mode preference using operator ID. Owners can lock in the mode they want their operators to use to help manage fuel consumption.

### CUSTOMIZABLE JOYSTICKS

Joystick function can be customized through the monitor. Joystick pattern as well as control response can be set to match operator preference. All preferences are saved with the operator ID and restored at login. Make operating easier with the touch of a joystick button. Additional auxiliary relays allow you to power on or turn off a CB radio, beacon light, and even a dust suppression watering system without taking your hands off the joysticks.

### KEYLESS PUSH TO START

The M319 uses a keyless push-button engine start. This adds security for the machine by using operator ID codes to limit and track machine access. Codes can be entered manually or via an optional Bluetooth® key fob.

### TOUCHSCREEN MONITOR

Most machine settings can be controlled through the high resolution 254 mm (10-inch) touchscreen monitor. It offers 42 languages and is easy to read from the seat.

### REDUCE OPERATOR FATIGUE

#### ERGONOMIC LAYOUT

Controls are easy to reach, allowing you to operate comfortably with minimal twists and turns.

#### REDUCED CAB VIBRATIONS

Work more comfortably with reduced cab vibrations from advanced viscous mounts. The standard rollover protective structure (ROPS) cab meets ISO 12117-2:2008 requirements and helps block outside noise.

#### BLUETOOTH CONNECTION

Bluetooth-integrated radio allows for seamless mobile phone connection to listen to music, podcasts, and for hands-free calling.



# BOOST YOUR PRODUCTIVITY BY UP TO 45%

WITH SIMPLE-TO-USE INTEGRATED CAT® TECHNOLOGY



## OPTIONAL TECHNOLOGIES INCLUDE:



### CAT GRADE WITH 2D

Cat Grade with 2D helps operators reach grade faster. Onboard processors and sensors provide real-time guidance on distance to grade without guesswork. Work safer with fewer ground personnel needed to check the work area for obstacles or grade. All Cat Grade systems are compatible with radios and base stations from Trimble.



### CAT PAYLOAD

Cat Payload helps you achieve precise load targets to improve your operating efficiency. Pick up a load of material – with a bucket and thumb combination or grapple and clamshell attachments – and get a real-time weight estimate without swinging.



Cat technology gives you the edge. Operators of all experience levels will dig, load, and grade with more confidence, speed, and accuracy to save time and money.

# CAT TECHNOLOGY MORE WORK, LESS TIME



## GET JOBS DONE FASTER WITH LESS REWORK

Cat Grade with Advanced 2D lets you create and edit grade designs with ease on a second high-resolution 240 mm (10 in) touchscreen monitor. Cat Grade with 3D adds real-time, pinpoint positioning using GPS and GLONASS. Already invested in a grade infrastructure? You can install grade systems from Trimble.



# COMPACT RADIUS

## SIZED RIGHT FOR CONFINED SPACES

The M319's compact radius design makes it the right machine for working in space-restricted areas. Work confidently in road construction jobs with lane closures and next to buildings and other structures.

The M319 gives you maximum upper frame turning radius, while providing solid lifting performance.





## SMARTBOOM™

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SmartBoom™ lets the boom freely travel up and down without using any pump flow, so operators can focus on attachment control and have a smoother cycle.

## AUTO AXLE LOCK WITH AUTO BRAKE

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The axle locks at zero speed and unlocks when the travel pedal is activated. The axle can also be manually locked with a button on the right-hand console. Auto axle brake lock automatically activates the service brake and locks axle oscillation. It is activated when the travel pedal is in neutral and the machine speed is near zero.

## RIDE CONTROL

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The ride control system lets you travel faster over rough terrain with improved ride quality. Accumulators act as shock absorbers to help make your journey smoother.

## JOYSTICK STEERING

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Keep both hands on the joysticks while simultaneously moving the boom and stick and repositioning the machine with the slider switch on the right joystick.





# EXPAND YOUR JOBSITE CAPABILITIES

## WITH MORE SWING TORQUE AND FUEL EFFICIENCY

An increase in swing torque makes traveling, swinging, and working on slopes easy. Backfill trenches and move around your jobsite faster than before – allowing you to be more productive and finish jobs quickly. An advanced hydraulic system provides the optimum balance of power and efficiency while giving you the control you need for precise digging requirements.







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## DO MORE. PAY LESS.

With extended and more synchronized maintenance intervals, you get more done at a lower cost. Consolidated filter locations make service faster.

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## INFORMATION AT YOUR FINGERTIPS

View operating information such as fuel levels and critical service alerts on the in-cab touchscreen monitor. Your machine's filter life and maintenance intervals are also trackable on the in-cab monitor.

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## NEW LONGER-LASTING FILTERS

The new hydraulic oil filter provides improved filtration performance, anti-drain valves to keep oil clean when the filter is replaced, and lasts up to 50% longer than previous filter designs.



# SAFETY FEATURES

LOOK OUT FOR YOUR PEOPLE  
AND EQUIPMENT



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## GROUND-LEVEL DAILY MAINTENANCE

All daily maintenance checks can be performed from ground level, making maintenance faster, easier, and safer. Checkpoints include the engine oil dipstick, fuel water separator, fuel tank water and sediment drains, hydraulic fluid level check, and cooling system coolant level check.

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## UPPER PLATFORM ACCESS

The service platform design provides easy, safe, and quick access to the upper platform. The steps use anti-skid punch plate to prevent slipping.

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## 2D E-FENCE

Optional 2D E-Fence is integrated right out of the factory to prevent the excavator from moving outside operator defined setpoints.

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## INSPECTION LIGHTING

Make service work easier and safer with optional inspection lighting. With the flip of a switch, lights will illuminate the engine, pump, battery, and radiator compartments to enhance visibility.

## SEE THE JOBSITE AROUND YOU

Enlarged windows and improved machine layout increase visibility from the seat of the cab. Standard rearview and right-side-view cameras always keep operators aware of their surroundings. An optional 360° visibility feature is also available. Powerful, long-lasting LED lights consume minimal power, keeping you safe while working in the dark.

# CAT EQUIPMENT MANAGEMENT TECHNOLOGY

## TAKES THE GUESSWORK OUT OF MANAGING YOUR EQUIPMENT

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Cat Equipment Management 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.



### **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®. Use it to make informed decisions that boost productivity, lower costs, simplify maintenance, and improve safety and security on your jobsite. 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).



**Remote Services** is a suite of technologies that improve your jobsite efficiency.

**Remote troubleshoot** allows your Cat dealer to perform diagnostic testing on your connected machine remotely, pinpointing potential issues while the machine is in operation. Remote troubleshoot helps ensure the technician arrives with the correct parts and tools the first time, eliminating additional trips to save you time and money.

**Remote flash** updates onboard software to potentially reduce update time by as much as 50%.

The **Cat app** helps you manage your assets – at any time – right from your smartphone. You can see your fleet location, hours, and other information. You will get critical alerts for required maintenance, and you can even request service from your local Cat dealer.



# INCREASE YOUR PRODUCTIVITY AND PROFIT WITH CAT ATTACHMENTS

You can easily expand the performance of your machine by utilizing any of the variety of Cat attachments. Each Cat attachment is designed to fit the weight and horsepower of Cat wheeled excavators for improved performance, safety, and stability.

**BUCKETS**



**GRAPPLES**



**HYDRAULIC HAMMERS**



**SHEARS**



**MULCHERS**



**TILTROTATORS**



**COMPACTORS**



**COUPLERS**





# TECHNICAL SPECIFICATIONS

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

ENGINE		
Engine Model	Cat® C4.4	
Engine Power – ISO 14396:2002	129.4 kW	174 hp
Net Power – ISO 9249:2007	128 kW	171 hp
Bore	105 mm	4 in
Stroke	127 mm	5 in
Displacement	4.4 L	268.5 in³

- Meets U.S. EPA Tier 4 Final and EU Stage V emission standards.
- Net power advertised is the power available at the flywheel when engine is equipped with fan, air cleaner, CEM exhaust gas aftertreatment, alternator, and cooling fan running at intermediate speed.
- Rated speed 2,200 rpm.

HYDRAULIC SYSTEM		
Main System – Maximum Flow	254 L/min	67 gal/min
Maximum Pressure – Equipment	37 000 kPa	5,366 psi
Maximum Pressure – Travel	35 000 kPa	5,076 psi
Maximum Pressure – Swing	35 000 kPa	5,076 psi

SWING MECHANISM		
Swing Speed	9.4 rpm	
Maximum Swing Torque	47.1 kN-m	34,739 lbf-ft

WEIGHTS		
Operating Weight Minimum	19 000 kg	41,888 lb
Operating Weight Maximum	21 050 kg	46,407 lb

- Operating weight includes full fuel tank, operator, bucket 700 kg (1,543 lb) and dual pneumatic tires. Weight varies depending on configuration.
- Typical configurations include 2500 mm (8'2") stick, bucket and 220 kg (485 lb) quick coupler.

SERVICE REFILL CAPACITIES		
Fuel Tank	290 L	76.6 gal
Diesel Exhaust Fluid (DEF) Tank	20 L	5.3 gal
Cooling System	35 L	9.2 gal
Engine Oil	13 L	3.4 gal
Hydraulic Tank	120 L	31.7 gal
Hydraulic System (including tank)	280 L	74.0 gal

TRANSMISSION		
Forward/Reverse		
1st Gear	10 km/h	6.2 mph
2nd Gear	35 km/h	21.7 mph
Creep Speed		
1st Gear	5.5 km/h	3.4 mph
2nd Gear	15 km/h	9.3 mph
Drawbar Pull	104 kN	23,380 Lbf
Maximum Gradeability at 19 000 kg (41,850 lb)	65%	

DIMENSIONS		
Boom	VA 5.2 m (17'1")	
Stick	2.5 m (8'2")	
Bucket	GD 0.91 m³ (1.19 yd³)	
Shipping Height (top of cab)	3260 mm	10'8"
Support Point	3520 mm	11'7"
Shipping Length	8110 mm	26'7"
Tail Swing Radius	1900 mm	6'3"
Counterweight Clearance	1300 mm	4'3"
Ground Clearance	420 mm	1'5"
Undercarriage Length (with blade and outrigger)	5050 mm	16'7"
Wheel Base	2700 mm	8'10"

WORKING RANGES		
Boom	VA 5.2 m (17'1")	
Stick	2.5 m (8'2")	
Bucket	GD 0.91 m³ (1.19 yd³)	
Maximum Loading Height	7790 mm	25'7"
Maximum Cutting Height	10 740 mm	35'3"
Maximum Digging Depth	5750 mm	18'10"
Maximum Reach at Ground Level	9210 mm	30'3"
Maximum Vertical Wall Digging Depth	4450 mm	14'7"

AIR CONDITIONING SYSTEM	
The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 1.0 kg of refrigerant which has a CO <sub>2</sub> equivalent of 1.43 metric tonnes.	



# STANDARD & OPTIONAL EQUIPMENT

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

BOOM AND STICKS	STANDARD	OPTIONAL
5.2 m (17'1") Variable Adjustable boom		•
2.2 m (7'3") stick <sup>1</sup>		•
2.5 m (8'2") stick		•
2.9 m (9'6") stick		•
CAB	STANDARD	OPTIONAL
Rollover protective structure (ROPS), advanced sound suppression (ISO 12117-2:2008)	•	
Deluxe cab		•
Premium cab		•
Auxiliary relay		•
High-resolution 254 mm (10 in) LCD touchscreen monitor	•	
CAT TECHNOLOGY	STANDARD	OPTIONAL
Product Link™	•	
Remote flash/troubleshoot capability	•	
Cat® Grade with 2D		•
Cat Grade with Advanced 2D		•
Cat Grade with 3D		•
Cat Payload		•
2D E-Fence		•
Laser catcher		•
ELECTRICAL SYSTEM	STANDARD	OPTIONAL
LED lights on chassis (left-hand, right-hand) and counterweight	•	
Programmable time-delay LED working lights	•	
Roading and indicator lights, front and rear	•	
Maintenance-free batteries	•	
Centralized electrical disconnect switch	•	
Electrical refueling pump		•
ENGINE	STANDARD	OPTIONAL
Power mode selector	•	
One-touch low idle with auto engine speed control	•	
Auto engine idle shutdown	•	
52°C (125°F) high-ambient cooling capacity	•	
-18°C (0°F) cold start capability	•	
Double element air filter with integrated precleaner	•	
On-demand electric cooling fans	•	
Electric fuel priming pump	•	

HYDRAULIC SYSTEM	STANDARD	OPTIONAL
Automatic swing brake	•	
Auto hydraulic oil warm up	•	
Electronic main control valve	•	
Boom and stick drift reduction valves	•	
1-slider joysticks	•	
2-slider joysticks		•
Second high-pressure auxiliary circuit (one/two way high-pressure flow)		•
Medium pressure auxiliary circuit (one/two way medium-pressure flow)		•
Heavy lift mode	•	
Quick coupler circuit	•	
SmartBoom™		•
Ride control		•
Cat tilt-rotator support		•
Joystick steering		•
Separate dedicated swing pump	•	
SAFETY AND SECURITY	STANDARD	OPTIONAL
Rear- and right-side-view cameras	•	
360° visibility		•
Cat Asset Tracker		•
Wide angle mirrors	•	
Ground-level engine shutoff switch	•	
Inspection lighting		•
Anti-skid plate and countersunk bolts on service platform	•	
Signaling/warning horn		•
SERVICE AND MAINTENANCE	STANDARD	OPTIONAL
Sampling ports for Scheduled Oil Sampling (S-O-S <sup>SM</sup> )	•	
Automatic lubrication system for implement and swing system		•
UNDERCARRIAGE AND STRUCTURES	STANDARD	OPTIONAL
10.00-20 16 PR, dual tires		•
11.00-20 16 PR, dual tires		•
315/70R22.5, no gap dual tires		•
445/70R 19.5, single tires		•
Automatic brake/axle lock	•	
5000 kg (11,020 lb) counterweight	•	
All wheel drive	•	

<sup>1</sup>Europe only.

**Not all features are available in all regions. Please check with your local Cat dealer for specific offering availability in your area.**  
For additional information, refer to the Technical Specifications brochures for the M319 available at [www.cat.com](http://www.cat.com) or your Cat dealer.



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).

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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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[www.cat.com](http://www.cat.com) [www.caterpillar.com](http://www.caterpillar.com)

AEXQ3231-03  
Replaces: AEXQ3231-02  
Build Number: 07C  
(Europe, N Am)

