

M322

WHEELED EXCAVATOR



Engine Power (ISO 14396:2002)	129 kW (174 hp)
Operating Weight Maximum	24 000 kg (52,911 lbs)

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



THE NEW CAT® M322

POWERFUL. COMFORTABLE. EFFICIENT.

Working hard has never been easier than with the Cat® M322 Wheeled Excavator. This machine is designed to help you take on a wide variety of challenges at a lower cost. The Cat M322 plays its part in optimizing the operator's efficiency to increase cash flow. Enjoy the versatility, precision, and efficiency offered by integrated solutions like Cat Grade and Payload technologies. Combined with simplified maintenance, the M322 keeps you working quickly and easily.



NEXT GENERATION WHEELED EXCAVATORS

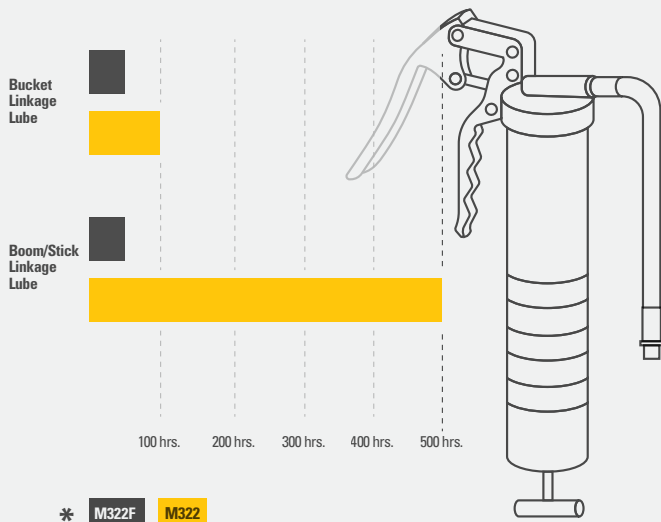
The new line of Cat excavators offers more choices than ever for your business.

- + 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.



DO MORE WORK WITH EXTENDED INTERVALS



MAXIMIZE OPERATOR PERFORMANCE BY 45%

Work faster with improved rotational movement and lower diesel exhaust fluid (DEF) and fuel consumption. Optional Grade with 2D automatically guides digging depth, slope, and horizontal distance to quickly and accurately reach desired grade.

UP TO 5% LOWER MAINTENANCE COSTS

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

ENHANCED CAB COMFORT

Operate comfortably with the ergonomic control layout and Premium cab. Technology like Cat Grade with 2D E-Fence keeps safety the number one priority and enhances operator accuracy on the jobsite.

BOOST YOUR PRODUCTIVITY BY UP TO 45%

WITH SIMPLE-TO-USE INTEGRATED CAT® TECHNOLOGY



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

The onboard weighing system increases loading efficiency with on-the-go weighing. Combine it with VisionLink® to manage your production targets remotely (available for download to USB).

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 onto the machine.

SAVE UP TO 5% IN

LOWER MAINTENANCE COSTS



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.

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.

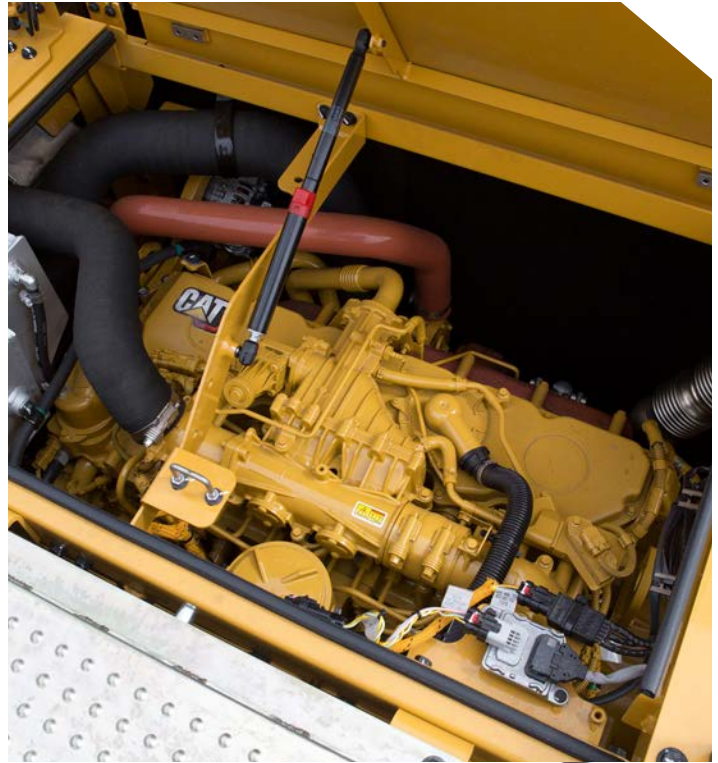
NEW LONGER-LASTING FILTERS

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 percent longer than previous filter designs.

EXPAND YOUR CAPABILITIES

OPTIMUM POWER. EVERY TIME.

An advanced hydraulic system provides the optimum balance of power and efficiency while giving you the control you need for precise digging requirements. The advanced control system works with the engine system to provide the hydraulic power you need while burning less fuel. The new electro-hydraulic main control valve eliminates the need for pilot lines and reduces fuel consumption by reducing pressure losses. With fewer hydraulic lines, less oil is required at oil changes, helping to lower your operating costs. The dedicated swing pump provides consistent power for better multitasking capabilities.



PREMIUM CAB DESIGN

MAKES HARD WORK EASY

Comfort and movement efficiency help keep you productive and alert all shift long. A tilt-up left console lets you get in and out of the cab easily. Enjoy the heated and ventilated seat with automatic adjustable suspension to fit your working conditions to your liking.

KEYLESS PUSH TO START

The M322 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 via an optional Bluetooth® key fob.

TOUCHSCREEN MONITOR

Most machine settings can be controlled through the high resolution 240 mm (10 in.) touchscreen monitor. It offers 42 languages and is easy to read from the seat.



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.

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 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.

RIDE CONTROL

The ride control system lets you travel faster over rough terrain with improved ride quality for the operator. Accumulators act as shock absorbers to reduce the front part motion.

JOYSTICK STEERING

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

SMARTBOOM™

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, more efficient cycle.



WORK MORE EFFICIENTLY
WITH LESS STRESS

SAFETY FEATURES

LOOK OUT FOR YOUR PEOPLE AND EQUIPMENT

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, and cooling system coolant level check.

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.

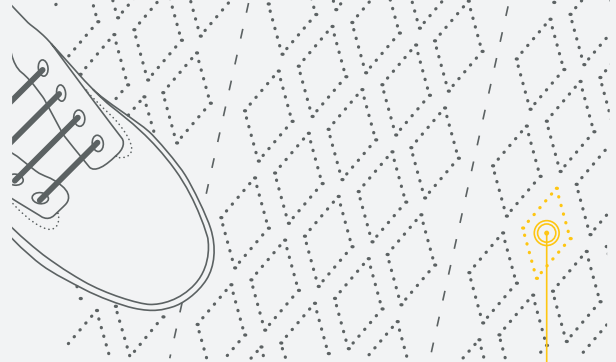
SEE THE JOBSITE AROUND YOU

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.

1,000 WAYS TO STAY SAFE.

FACT:

SLIPPING IS ONE OF THE BIGGEST CONTRIBUTORS TO WORKPLACE INJURIES.*



OUR ANTI-SKID PLATES FEATURE

1,000+ INDIVIDUAL PERFORATIONS FOR BETTER TRACTION

*SOURCE: [HTTPS://WWW.OSHA.GOV/DTE/GRANT_MATERIALS/FY07/SH-16625-07/SIPSTRIPSFALLS.PPT](https://www.osha.gov/dte/grant_materials/fy07/sh-16625-07/slipstripsfalls.ppt)

AUTO AXLE LOCK WITH AUTO BRAKE

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.

SECURE START

Use your PIN code on the monitor or the optional Bluetooth key fob to enable the push-button start feature.

2D E-FENCE TECHNOLOGY

SMARTER. SAFER. EASIER.

2D E-Fence automatically stops excavator motion using boundaries you set through the monitor for the entire working envelope – above, below, sides, and front. E-fence protects equipment from damage and reduces fines related to zoning or underground utility damage.



CAB AVOIDANCE

Cab Avoidance helps you avoid contact between your attachment and the cab.

E-CEILING

E-Ceiling helps you avoid overhead obstacles such as power lines, bridges, and overhead structures.

E-SWING

E-Swing helps you avoid swinging into obstacles to the side of the machine such as live traffic and structures.

E-WALL

E-Wall forward helps you avoid structures in front of the machine.

E-FLOOR

E-Floor helps you avoid underground obstacles such as fiber optic cable and underground utilities.



CAB AVOIDANCE



E-WALL



E-CEILING



E-FLOOR



E-SWING

CAT EQUIPMENT MANAGEMENT

TAKES THE GUESSWORK OUT OF MANAGING YOUR EQUIPMENT

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 on-board software to potentially reduce update time by as much as 50 percent. You can initiate the update when convenient, increasing your overall operating efficiency.

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



DEMOLITION AND SORTING GRAPPLES



ORANGE PEEL GRAPPLES



HYDRAULIC HAMMERS



MULTI-PROCESSORS



SHEARS



MULCHERS



TILTROTATORS



COMPACTORS



COUPLERS



PULVERIZERS



HYDRAULIC TRANSFER GRABS



TECHNICAL SPECIFICATIONS

See cat.com for complete specifications.

ENGINE		
Engine Model	Cat® C7.1	
Engine Power (ISO 14396:2002)	129 kW	174 hp/175 PS
Net Power (ISO 9249:2014)	128 kW	171 hp/174 PS
Bore	105 mm	4.1 in
Stroke	135 mm	5.3 in
Displacement	7 L	427.8 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.
- Recommended for use up to 3000 m (9,840 ft) altitude with engine power derate above 3000 m (9,840 ft).
- Rated speed 2,200 rpm.

HYDRAULIC SYSTEM		
Main System – Maximum Flow – Implement	360 L/min	95 gal/min
Maximum Pressure – Heavy Lift	37 000 kPa	5,366 psi
Maximum Pressure – Travel	35 000 kPa	5,076 psi
Maximum Pressure – Normal	35 000 kPa	5,076 psi

SWING MECHANISM		
Swing Speed	8.6 rpm	
Standard Swing Torque	60 kN-m	44,250 lb-ft

MACHINE WEIGHT		
Operating Weight Minimum	20 300 kg	44,750 lb
Operating Weight Maximum	24 000 kg	52,911 lb

- Operating weight includes full fuel tank, operator, GD bucket, and dual pneumatic tires. Weight varies depending on configuration.
- Typical configurations include 2.5 m (8'2") stick and 3500 kg (7,716 lb) counterweight.

SERVICE REFILL CAPACITIES		
Fuel Tank	470 L	124.2 gal
Diesel Exhaust Fluid (DEF)	30 L	7.9 gal
Cooling System	40 L	10.6 gal
Engine Oil	13 L	3.4 gal
Hydraulic Tank	200 L	52.8 gal
Hydraulic System (including tank)	270 L	71.3 gal

TRANSMISSION		
Forward/Reverse		
1st Gear	9 km/h	5.6 mph
2nd Gear	30 km/h	18.6 mph
Creep Speed		
1st Gear	5.5 km/h	3.4 mph
2nd Gear	15 km/h	9.3 mph
Drawbar Pull	127 kN	28,551 lbf
Maximum Gradeability at (24,000 kg/52,911 lb)	70%	

DIMENSIONS		
Boom	VA 5.4 m (17'10")	
Stick	2.9 m (9'2")	
Shipping Height with Falling Object Guard (highest point between boom and cab)	3350 mm	11'0"
Shipping Height without Falling Object Guard	3350 mm	11'0"
Support Point	3430 mm	11'3"
Shipping Length	9485 mm	31'1"
Tail Swing Radius	2800 mm	9'2"
Counterweight Clearance	1330 mm	4'4"
Ground Clearance	320 mm	1'3"
Wheel Base	2750 mm	9'0"

WORKING RANGES AND FORCES		
Boom Type	VA 5.4 m (17'10")	
Stick	2.9 m (9'6")	
Bucket Capacity	GD 1.19 m³ (1.56 yd³)	
Maximum Loading Height	7520 mm	24'8"
Maximum Cutting Height	10900 mm	35'9"
Maximum Digging Depth	6650 mm	21'10"
Maximum Reach at Ground Level	10190 mm	33'5"
Maximum Vertical Wall Digging Depth	5290 mm	17'4"
Maximum Depth Cut for 2440 mm (8 ft) Level Bottom	6560 mm	21'6"
Bucket Digging Forces (ISO)	151 kN	33,946 lbf
Stick Forces (ISO)	105 kN	23,605 lbf

AIR CONDITIONING SYSTEM		
<ul style="list-style-type: none"> • 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 CO₂ 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
5.4 m (17'10") variable adjustable boom		•
2.5 m (8'2") stick ¹		•
2.9 m (9'6") stick		•
CAB	STANDARD	OPTIONAL
ROPS, advanced sound suppression	•	
Premium cab with auto-adjustable seat and air ventilation	•	
High-resolution 254 mm (10 in) LCD touchscreen monitor	•	
CAT TECHNOLOGY	STANDARD	OPTIONAL
Cat Product Link™	•	
Cat Grade with 2D		•
Cat Grade with Advanced 2D		•
Cat Grade with 3D		•
Laser catcher		•
Cat Payload includes payload information, static weigh, and auto calibration		•
2D E-Fence		•
Remote Flash/Troubleshoot capability	•	
ELECTRICAL SYSTEM	STANDARD	OPTIONAL
LED lights on chassis (left-hand, right-hand) and counterweight	•	
Programmable time-delay LED working lights	•	
Rooding 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	•	
Electric fuel priming pump	•	
On-demand electric cooling fans	•	
Biodiesel capability up to B20	•	

HYDRAULIC SYSTEM	STANDARD	OPTIONAL
Automatic swing brake	•	
Auto hydraulic oil warm up	•	
Electronic main control valve	•	
Boom, stick, and bucket drift reduction valves	•	
1-slider joystick	•	
2-slider joystick		•
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 tiltrotator support		•
Joystick steering		•
Separate dedicated swing pump	•	
Boom/stick lowering check valves		•
SAFETY AND SECURITY	STANDARD	OPTIONAL
Rear- and right-side-view cameras	•	
360° visibility		•
Cat asset tracker		•
Wide angle mirrors		•
Ground-level engine shutoff switch	•	
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 SM)	•	
Automatic lubrication system for implement and swing system		•
UNDERCARRIAGE AND STRUCTURES	STANDARD	OPTIONAL
11.00-20 16 PR, dual tires	•	
3500 kg (7,716 lb) counterweight ¹		•
4700 kg (10,362 lb) counterweight		•
Automatic brake/axle lock	•	
Creeper speed	•	
All wheel drive	•	

¹ 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 M322 available at 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.

VisionLink is a trademark of Trimble Navigation Limited, registered in the United States and in other countries.

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 www.caterpillar.com

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