

M314

WHEELED EXCAVATOR



Engine Power – ISO 14396	100 kW (134 hp)
Operating Weight Maximum	18 000 kg (39,683 lb)
Maximum Travel Speed	37 km/h (23 mile/h)

CAT[®]

M314

WHEELED EXCAVATOR

The Cat® M314 Wheeled Excavator offers easy-to-use controls, tiltrotator integration, a comfortable cab, and increased fuel economy. Save up to 10 percent in maintenance parts and 100 percent daily ground level maintenance to save you time and money.



MAXIMIZE PERFORMANCE

Work faster with up to 15% more swing torque with lower fuel and Diesel Exhaust Fluid (DEF) consumption along with more versatility with the tiltrotator integration.

ENHANCED COMFORT

Operate with ease in cab comfort options of your choice and better visibility with 360° machine view.

UP TO 10% MAINTENANCE PARTS SAVINGS

Fewer maintenance costs combined with 100 percent daily ground level maintenance, and shareable work tools increase uptime and keep costs down.

LATEST FEATURES



- Cab Monitor Improvements
 1. Continuously improved user interface allows for intuitive navigation, minimizing performance interruption with the easy-to-use touchscreen menu.
 2. Identify apps quickly with a grid list view, abbreviated app names, and categorized menu options.
 3. A new notification center keeps important information visible to the operator, and displays messages without shrinking the camera view.
 4. Color coded notifications set critical messages apart from the rest.
 5. Use the in-monitor QR code to learn about machine and technology features through a full suite of “how-to” videos.
- Enhance visibility to make service work easier and safer with optional inspection lighting.
- Standard integrated vehicle health management system alerts the operator with service guidance and parts needed to enhance uptime.

Not all features are available in all regions. Please check with your local Cat dealer for specific offering availability in your area. Build Number: 07D

HIGH PERFORMANCE WITH LOWER FUEL CONSUMPTION

- Get the same productivity and results using up to 5 percent less fuel and work longer with a larger fuel tank over the M314F.
- The Cat engine matches your performance and production needs.
- The engine meets U.S. EPA Tier 4 Final, EU Stage V, and South Korea 2014 (Tier 4 Final) emission standards.
- Travel between sites is easier with travel speeds up to 37 km/h (22 mph).
- From dirt to asphalt, the excavator matches your needs to get the job done in a timely, efficient manner.
- The advanced hydraulic system provides the optimum balance of power and efficiency while giving you the control you need for precise working requirements.
- With up to 15 percent more swing torque, you can get the job done faster to move on to the next one.
- Auxiliary hydraulic options give you the versatility to use a wide range of Cat attachments.
- Don't let the temperature stop you from working. The excavator has a standard high-ambient temperature capability of 52° C (125° F) and cold start capability of 18° C (0° F).



LOWER MAINTENANCE COSTS



- Quickly check and service your machine with daily maintenance points accessible from ground level.
- Check the engine oil level quickly and safely from the ground.
- Save up to 10 percent in maintenance parts with the new, longer lasting filters.
- Track your machine's filter life and maintenance intervals on the in-cab monitor.
- Two levels of fuel filtration protect the engine from dirty diesel.
- The new hydraulic oil filter provides improved filtration performance and longer life with a 3,000-hour replacement interval – 50 percent longer than previous filter designs.
- Scheduled Oil Sampling (S-O-SSM) ports are located at ground level, simplifying maintenance and allowing for quick, easy extraction of fluid samples for analysis.

WORK IN COMFORT



- Choose between Deluxe and Premium cab options.
- The Deluxe seat is heated and air adjustable while the Premium seat is heated, cooled and adjusts automatically.
- Get in and out of the cab easier using the tip-up left console.
- Feel more comfortable in the cab while you work with reduced cab vibrations from advanced viscous mounts.
- Control the excavator comfortably with easy-to-reach controls.
- Stow your gear with plenty of in-cab storage beneath and behind the seat, overhead, and in the consoles. A cup holder, bottle holder, and coat hook are also provided.

SIMPLE TO OPERATE

- Start the engine with the push button, a Bluetooth® key fob, or the unique Operator ID function.
- Program your power mode and joystick preferences using Operator ID; the excavator remembers your settings each time you go to work.
- Navigate quickly on the standard high-resolution 254 mm (10 in) touchscreen monitor or with the aid of the jog dial control.
- The Cat PL161 Attachment Locator is a Bluetooth device that makes finding your attachments and other gear quick and easy.
- The excavator's onboard Bluetooth reader or Cat App on your phone will locate the device automatically.
- Save time and energy with work tool recognition. A simple shake of the attached tool confirms its identity ensuring all attachment settings are correct, so you can get to work quickly and efficiently.
- Not sure how a function works or how to maintain the excavator? Simply access the operator's manual on the touchscreen monitor.
- The auto axle lock presses the pedal for you to reduce your overall number of actions. The machine automatically detects when the service brake and axle need to be lock or unlocked. It releases automatically when you press the travel pedal.
- Tiltrotator attachments – ours or other brands – work seamlessly with Cat 2D Grade, Assist, Payload, and E-Fence. With no additional hardware required, all you have to do is simply select "Third Party Tiltrotator System Installation" in the monitor, do the calibration, and get to work.
- Cat continues to improve user interface functionality for operators of all skill levels. The touchscreen monitor is an easy-to-use operating tool that presents the jobsite dashboard with an intuitive format. Productivity applications are displayed in grid-view to read on-the-go, and touchscreen navigation is programmed to make sure job performance continues without any hold ups.



SAFETY

- Access daily maintenance points from ground level.
- Keep your excavator secure with Operator ID. Use your PIN code on the monitor to enable the push button starting feature.
- The standard Rollover Protective Structure (ROPS) cab meets ISO 12117-2:2008 requirements.
- Enjoy better visibility into trenches, in each swing direction, and behind you with the help of smaller cab pillars, larger windows, and a flat engine hood design. Rearview and sideview cameras are standard.
- The service platform design provides easy, safe, and quick access to upper service platform; the service platform steps use anti-skid punch plate to prevent slipping.
- The standard hydraulic lockout lever isolates all hydraulic and travel functions in the lowered position.
- Ground-level shut-off switch stops all fuel to the engine when activated and shuts down the machine.



BOOST EFFICIENCY AND PRODUCTIVITY WITH INTEGRATED CAT TECHNOLOGIES

- Boost productivity versus traditional grading with optional Cat Grade with 2D system.
- Optional 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.
- Combine Payload with VisionLink® and remotely manage your production targets or take payload data with you.
- Upgrade to our dual antenna Global navigation satellite system (GNSS) for maximum grading efficiency. The system lets you create and edit designs on the touchscreen monitor while you're on the job, or you can have the plan design sent to the excavator to make your work easier. Plus, you get added benefits of avoidance zones, cut and fill mapping, lane guidance, and augmented reality along with advanced positioning capability.
- Optional Grade Assist helps you stay on grade – simply and effortlessly – with single-lever digging. Set your desired bucket angle and let Bucket Assist automatically maintain the angle in sloping, leveling, fine grading, and trenching applications.
- Optional 2D E-fence is integrated right out of the factory to prevent the excavator from moving outside operator defined set points.
- All Cat Grade systems are compatible with radios and base stations from Trimble, Topcon, and Leica. Already invested in a grade infrastructure? You can install grade systems from Trimble, Topcon, and Leica onto the machine.



SUSTAINABILITY

- The Cat® C3.6 engine meets U.S. EPA Tier 4 Final, EU Stage V, and Korea Stage V emission standards.
- The M314 emits up to 5% less CO₂ than the M314F.*
- Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels*** up to: 20% biodiesel FAME (fatty acid methyl ester)** or 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels. Refer to guidelines for successful application. Please consult your Cat dealer or “Caterpillar Machine Fluids Recommendations”(SEBU6250) for details.
- Cat Grade technologies combine advanced guidance with optional automated machine control helping you reach grading targets while reducing fuel burn and greenhouse gas emissions by improving efficiency, jobsite productivity, and accuracy.
- Auto Engine Speed Control reduces unnecessary fuel burn and greenhouse gas emissions by allowing the engine to automatically go into idle mode when the machine is not working.
- Cat® Payload for excavators provides on-the-go material weighing which helps reduce fuel burn by improving loading efficiency, jobsite productivity, and eliminating trips to the scale.
- Extended maintenance intervals not only reduce downtime but decrease the amount of fluid and filters that are replaced over the life of the machine.
- Cat S-O-S Services helps reveal excessive wear, contaminated fluids or other “unseen” issues that can shorten component life. In many cases, you can extend oil and coolant change intervals by using fluid monitoring. Consult your Cat dealer or the machine’s operation and maintenance manual for more information.
- Don’t waste fuel idling. Cat VisionLink® online fleet monitoring helps you manage idle time and reduce fuel burn and greenhouse gas emissions. VisionLink displays the CO₂ emissions for monitored assets, calculated by fuel type for the Runtime Fuel Burned each day in a selected date range.
- Remote Flash minimizes downtime and maintenance time while keeping your asset running with maximum efficiency. Alerts for machine updates are sent virtually from your Cat dealer and updates can be deployed without a dealer technician needing to be onsite. Remote Troubleshoot decreases maintenance time and keeps your machine running with maximum efficiency by allowing your Cat dealer to virtually test the machine while working. Once a problem is identified, a technician can fix it the first time, saving time and money.

***All comparisons to M314F. Productivity, fuel and CO₂ emissions vary by application. CO₂ emissions calculations based on a reference work cycle using 2.2 U.S. gallons per hour of #2 U.S. diesel fuel based. Applies IPCC2006 methodology using U.S. EPA Emissions Hub emission factors. Includes DEF (diesel exhaust fluid) related CO₂. Fuel measurements are at 15°C. Estimated average fuel consumption improvements are based on tests or Product Link™ data where available. Productivity improvements are based on test data.**

****Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel (for use of blends higher than 20% biodiesel, consult your Cat dealer).**

*****Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.**



MORE THAN MACHINES

BUILT AROUND YOUR SUCCESS

When you buy Cat equipment, you get so much more than the machine. You also get the support of a best-in-class dealer network, backed by a range of flexible solutions, technology, tools, and more.



CUSTOMER VALUE AGREEMENTS

A Customer Value Agreement (CVA) from your Cat dealer helps you do more and worry less. A CVA simplifies machine ownership and maintenance, adds the security of expert dealer support, and gives you the peace of mind from effective equipment health management.

GENUINE CAT PARTS

Genuine Cat parts deliver the highest level of reliability and productivity. Order direct from your Cat dealer or shop online at parts.cat.com.

REPAIR OPTIONS

A broad range of repair options gives you choices that work with your needs, budget, and timeline. Every repair is performed by expert Cat technicians. You'll receive smart repair advice, a timely, accurate quote, and service that gets your machine back into action quickly.

FINANCIAL SERVICES

Count on Cat Financial to provide the best finance and extended protection solutions for your business. For more than 30 years, we have helped our customers succeed through financial service excellence.



DOZERS



SKID STEERS



MATERIAL HANDLERS



EXCAVATORS



WHEEL LOADERS



TRACK LOADERS

INCREASE PRODUCTIVITY AND VERSATILITY

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. Lower your costs by sharing the same attachments as the 313 Cat excavator.

BUCKETS



GRAPPLES



HYDRAULIC HAMMERS



QUICK COUPLER



SHEARS



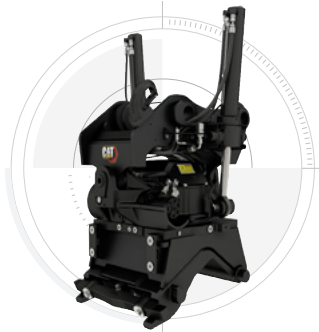
VIBRATORY PLATE COMPACTORS



MULCHERS



TILTROTATOR*



PIN GRABBER COUPLER



*Not all features are available in all regions. Consult your Cat dealer for specific configurations available in your region.

TECHNICAL SPECIFICATIONS

Engine

Engine Power – ISO 14396	100 kW	134 hp
Engine Power – ISO 14396 (DIN)	136 hp (metric)	
Engine Model	Cat C3.6	
Net Power – ISO 9249	100 kW	134 hp
Net Power – ISO 9249 (DIN)	129 hp (metric)	
Bore	98 mm	3.9 in
Displacement	3.6 L	221 in ³
Stroke	120 mm	5 in
Biodiesel Capability	Up to B20 ¹	
Emissions	Meets U.S. EPA Tier 4 Final, EU Stage V, Japan 2014 emission standards.	

Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, CEM exhaust gas aftertreatment, alternator, and cooling fan with engine speed at 2,000 rpm. Advertised power is tested per the specified standard in effect at the time of manufacture.

¹Cat diesel engines are required to use ULSD (ultra-low sulfur diesel fuel with 15 ppm of sulfur or less) or ULSD blended with the following lower-carbon intensity fuels** up to: 20% biodiesel FAME (fatty acid methyl ester)* or 100% renewable diesel, HVO (hydrotreated vegetable oil) and GTL (gas-to-liquid) fuels. Refer to guidelines for successful application. Please consult your Cat dealer or "Caterpillar Machine Fluids Recommendations" (SEBU6250) for details.

*Engines with no aftertreatment devices can use higher blends, up to 100% biodiesel (for use of blends higher than 20% biodiesel, consult your Cat dealer).

**Tailpipe greenhouse gas emissions from lower-carbon intensity fuels are essentially the same as traditional fuels.

Hydraulic System

Main System – Maximum Flow – Implement	270 L/min	71 gal/min
Maximum Pressure – Equipment	35 000 kPa	5,076 psi
Maximum Pressure – Swing	35 500 kPa	5,149 psi
Maximum Pressure – Travel	35 000 kPa	5,076 psi

Swing Mechanism

Maximum Swing Torque	39 kN-m	28,860 ft-lbf
Swing Speed	9.1 r/min	

Machine Weight

Operating Weight Maximum	18 000 kg	39,683 lb
Operating Weight Minimum	15 000 kg	33,069 lb

Typical configurations include medium stick, 2600 kg (5,732 lb) counterweight, full fuel tank, operator, quick coupler (210 kg/463 lb), bucket (500 kg/1,102 lb) and dual pneumatic tires.

Service Refill Capacities

Cooling System	24 L	6.3 gal
Diesel Exhaust Fluid (DEF)	20 L	5.3 gal
Final Drive	2.4 L	0.6 gal
Fuel Tank	295 L	77.9 gal
Hydraulic System – Including Tank	220 L	58.1 gal
Hydraulic Tank	90 L	23.8 gal

Dimensions

Boom	5 m (16'6")	
Bucket	0.76 m ³ (.78 yd ³)	
Stick	2.2m (7'3")	
Counterweight Clearance	1260 mm	4.1 ft
Ground Clearance	325 mm	1.1 ft
Shipping Height – Top of Cab	10.9 mm	3,315 ft
Shipping Length	8210 mm	26.9 ft
Tail Swing Radius	2150 mm	7.1 ft
Undercarriage Length	4920 mm	16.1 ft
Wheel Base	2500 mm	8.2 ft

Working Ranges and Forces

Boom Type	VA Boom	
Bucket	0.76 m ³ (.78 yd ³)	
Stick	R2.2CB (7'3")	
Digging Height	5290 mm	17.4 ft
Dump Height	7010 mm	23 ft
Reach at Ground Level	8650 mm	28.4 ft
Vertical Wall Digging Depth	4250 mm	13.9 ft

Range values are calculated with a tip radius of 1387 mm (4' 6"). CW-type bucket (358-8665, GD, 1000 mm/3' 3", 0.6 m³/0.78 yd³, with Advansys 70 tips) and CW-20S-D.4.N quick coupler. Breakout force values are calculated with a tip radius of 1224 mm (4') and heavy lift on. Pin-On Bucket (358-8619, GD, 1100 mm/3' 7", 0.68 m³/0.89 yd³ with Advansys 70 tips) with no quick coupler.

Air Conditioning System

The air conditioning system on this machine contains the fluorinated greenhouse gas refrigerant R134a (Global Warming Potential = 1430). The system contains 0.85 kg of refrigerant which has a CO₂ equivalent of 1.216 metric tonnes.

Drive

Maximum Travel Speed	37 km/h	23 mile/h
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Sustainability

Recyclability	91%	
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STANDARD & OPTIONAL EQUIPMENT

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

	Standard	Optional		Standard	Optional
UNDERCARRIAGE AND STRUCTURES			SERVICE AND MAINTENANCE		
All wheel drive	✓		S-O-S ports	✓	
Automatic brake/axle lock	✓		Ground-level and platform-level engine oil dipsticks	✓	
3300 kg (7,275 lb) counterweight	✓		Automatic lubrication system for implement and swing system		✓
9.00-20 16 PR, dual tires		✓	HYDRAULIC SYSTEM		
10.00-20 16 PR, dual tires		✓	Boom, stick, and bucket drift reduction valves	✓	
10.00-20, dual, solid rubber tires		✓	Auto hydraulic warm up	✓	
300-80-22.5 dual pneumatic, spacerless tire		✓	Heavy lift mode	✓	
BOOMS AND STICKS			Boom and stick lowering check valves		✓
4650 mm (15'3") One-Piece Boom		✓	One-slider joysticks		✓
4400 mm (14'5") One-Piece Boom		✓	Two-slider joysticks		✓
5028 mm (16'6") Variable Adjustable boom		✓	Joystick Steering		✓
2200 mm (7'3") stick		✓	Cat Tilt Rotator (TRS) support		✓
2500 mm (8'2") stick		✓	TECHNOLOGY		
2900 mm (9'6") drop nose stick without bucket linkage		✓	VisionLink	✓	
CAB			Remote Flash	✓	
ROPS, Sound Suppression	✓		Remote Troubleshoot	✓	
Keyless Push-to-Start engine control	✓		Cat Grade Connectivity		✓
Openable two-piece front window	✓		Cat Grade 2D		✓
Height-adjustable console, infinite with no tool	✓		Cat Grade with Attachment Ready Option (ARO)		✓
High-Resolution 254 mm (10 in) LCD touchscreen monitor	✓		Cat Grade 3D dual GNSS		✓
Deluxe Cab		✓	Laser catcher		✓
Premium Cab		✓	Grade Assist		✓
ENGINE			Cat Payload		✓
Cat C3.6 single turbo diesel engine	✓		Cat TRS Integration		✓
Power Mode Selector	✓		SAFETY AND SECURITY		
One-touch low idle with auto engine speed control	✓		Rear and right-side-view cameras	✓	
Auto engine idle shutdown	✓		Signal/warning horn	✓	
52° C (125° F) high-ambient cooling capacity	✓		Lockable disconnect switch	✓	
Cold start capability -18° C (0° F)	✓		Wide angle mirrors	✓	
Double element air filter with integrated pre-cleaner	✓		Anti-skid plate and countersunk bolts on service platform	✓	
ELECTRICAL SYSTEM			360° visibility		✓
LED lights on boom and cab	✓		Travel alarm		✓
Programmable time-delay LED working lights	✓		Cat Asset tracker		✓
Roading and indicator lights, front and rear	✓		Inspection lighting		✓
Maintenance free batteries	✓		2D E-Fence		✓
Centralized electrical disconnect switch	✓				
LED lights on chassis (left-hand, right-hand) and counterweight		✓			
Electrical refueling pump		✓			

For more complete information on Cat products, dealer services and industry solutions, visit us on the web at 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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AEXQ3135-03
Replaces: AEXQ3135-02
Build Number: 07D
(Aus-NZ, Europe,
S Korea, N Am)

